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HYDROGEN SULFIDE PROVISIONAL THERMOPHYSICAL PROPERTIES FROM 188 TO 700 K AT PRESSURES TO 75 MPa

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Thermophysical properties of hydrogen sulfide are derived from physical properties data by using our nonanalytic equation of state, and are tabulated along isobars at integral temperatures. Results include vapor pressures, orthobaric densities, the second virial coefficient, the equation of state, the ideal gas state functions, compressibility factors, densities, derivatives of the $P(\rho,T)$ surface, heats of vaporization, internal energies, enthalpies, entropies, specific heats, fugacity coefficients, speeds of sound, and the Joule-Thomson inversion. Thermofunctions by another author are compared with present results.

Key words: densities; enthalpies; entropies; equation of state; fugacities; heats of vaporization; hydrogen sulfide; isobars; isochores; isotherms; Joule-Thomson inversion; orthobaric densities; specific heats; speeds of sound; vapor pressures; virial equation.

1. Introduction

Hydrogen sulfide (H_2S) is a component of most fossil fuels. For thermodynamic properties computations, the present report uses the highly-constrained, nonanalytic equation of state to obtain a smooth and consistent $P(\rho,T)$ surface using the P-ρ-T data of Reamer, et al. [38], Lewis and Fredericks [31], Rau and Mathia [36], and two preliminary isotherms communicated by Straty [43]. Ideal gas state functions are from Baehr, et al. [1].

Earlier compilations have been presented by West [48], and by Starling [42]. The work of Clarke and Glew [8] is especially valuable. A bibliography of references appears in the book by Howarth [26a].

For orientation, figure 1 presents an outline of the density-temperature phase diagram for H_2S. Present fixed-point values are in Appendix A. Symbols and units are in Appendix B. Appendices C, D, E and G give some experimental data not used in the present report. The computer programs are in Appendix F.

2. Physical Properties

2.1 Fixed-Point Values

The values selected for the present work are listed in Appendix A.

(a) The Triple Point. Our T_t = 187.66 K is based on the 1936 value of Giauque and Blue [17] which was 187.61 K based on (0°C = 273.10 K). In 1937, Kruis and Clusius [30] reported T_t = 187.60 K. Our vapor pressure, and orthobaric densities at the triple point are from eqs (2), (3), and (4) below.

(b) The Boiling Point. The temperature is from vapor pressure eq (2) at a pressure, 1 atm = 0.101325 MPa. Giauque and Blue observed T_b = 212.77 K on

their T-scale, whereas the value from our formulation is T_b = 212.874 K. Liquid and vapor densities are from eqs (3) and (4) below.

(c) The Critical Point. Cardoso purified his H_2S sample with great care [4]. Cardoso and Arni [5] quote the critical temperature from earlier authors as T_c = 373.55 ± 0.1 K, and give their observations as t_c = 100.40 ± 0.1°C (or, they say, 373.4 K). We have adopted T_c = 373.4 K. In this same paper [5] the critical pressure was 89.05 ± 0.1 atm (90.23 bar), but in a report on vapor pressures Cardoso [6] gives P_c = 88.90 ± 0.1 atm, i.e., 90.08 bar. Our vapor pressure eq (2) uses data of Reamer, et al. [38] and yields 89.629 bar at T_c = 373.40 K. Our critical density, 10.20 mol/L, was selected tediously by inspecting the rectilinear diameter from orthobaric densities data of Reamer, et al. [38], and the behavior of fitting functions, eqs (3) and (4).

2.2 Melting Line and Vapor Pressures

(a) The Melting Line. No measurements have been found for the solid-liquid $P_m(T)$ relation of H_2S. In present work this is used only to establish a low-temperature limit for the isobar tabulations in table 14. Hence, we have used the reduced Simon equation.

$$P_m = P_t + P_o [(T/T_t)^n - 1] \qquad (1)$$

with parameters for propane, n = 1.283, P_o = 718 MPa.

(b) The Vapor Pressures. Table 1 presents a comparison of selected data with the fitting function eq (2) below. Authors are identified by their ID's given at the top of the table. Excluded data appear at the bottom of this table. Our vapor-pressure equation is

$$\ell n[P_\sigma \cdot 10] = a/x + b + c \cdot x + d \cdot x^2 + e \cdot x^3 + f \cdot (1 - x)^p \qquad (2)$$

where $x \equiv T/T_c$ is the reduced temperature, pressure P_σ is in units of MPa, the exponent is p = 1.70, and

a =	- 8.023 473 844	d =	9.690 908 499
b =	16.731 062 287	e =	-3.577 167 041
c =	-10.325 650 140	f =	3.174 310 817

The rms relative deviation for 54 selected data is 0.08 percent. The experimental residual in the last column of table 1 is $\ell n(P/P_t)/\ell n(P_c/P_t) - (1 - T_t/T)/(1 - T_t/T_c)$. DPS/DT is the slope, in units of MPa/K.

2.3 The Orthobaric Densities

(a) Saturated Liquid Densities. Table 2 presents the comparisons of data with eq (3) below. Author ID's appear at the top of this table. Our liquid densities equation is

$$\rho_\ell/\rho_c - 1 = a \cdot u^\beta + b \cdot u + c \cdot u^2 + d \cdot u^3 \qquad (3)$$

where $u \equiv (1 - T/T_c)$, exponent β = 0.35, and

$a = 1.9063\ 9527$ $\qquad$ $c = -0.5709\ 1447$

$b = 0.8356\ 0589$ $\qquad$ $d = 0.7234\ 7653$

The rms relative deviation for 45 data is 0.033 percent. In table 2, DDS/DT is the slope, in units of (mol/L)/K.

(b) Saturated Vapor Densities. Table 3 compares data with eq (4) below. Among author identifications at the top of this table, data at ID = 9 are from our virial eq (5) below. Data at ID = 10 we derived from heats of vaporization: see section 2.4 below. Data at ID = 95 are computed via a selected rectilinear diameter [coefficient b in eq (3)] with liquid data from eq (3). Divergent data of Reamer, et al. [38] have been omitted (Appendix D). The fitting function is designed to yield $Z_\sigma(T) \longrightarrow 1$ as $\rho \longrightarrow 0$. Let $A_0 \equiv (Z_c - 1)$ and define the arguments

$$\pi(T) \equiv P_\sigma(T)/P_c \quad , \qquad x(T) \equiv T/T_c \quad , \qquad u(T) \equiv (1 - x) \quad .$$

The reduced vapor densities, $\rho_g \equiv P_\sigma/[Z_\sigma \cdot R^* \cdot T]$, then are given by

$$Z_\sigma(T) = 1 + A_0 \cdot \pi \cdot x^{-2} \cdot f(x) \quad ,$$

$$f(x) = 1 + [A_1 \cdot u^\beta + A_2 \cdot u^a + A_3 \cdot u + A_4 \cdot u^2 + A_5 \cdot u^3] \cdot XP \quad , \qquad (4)$$

$$XP \equiv \exp[b \cdot (x - 1)^3/x]$$

where $\beta = 0.35$, $a = 0.70$, $b = 2.0$, and $R^* \equiv R \cdot d_c$, MPa/K

$A_1 = -0.7525\ 7980$ $\qquad$ $A_4 = 2.1729\ 6301$

$A_2 = -0.8654\ 8117$ $\qquad$ $A_5 = -5.7660\ 7859$

$A_3 = 1.9754\ 3043$

The first coefficient in eq (4) is constrained (for symmetry) in terms of the first coefficient, a, for the liquid in eq (3), $A_1 = a \cdot Z_c/(Z_c - 1)$, by inspecting eq (4) at T very close to T_c. The rms relative deviation for 48 weighted data is 0.12 percent. In table 3, DDS/DT is the slope, in units of (mol/L)/K. Column F(Z) gives the experimental residual,

$$F(Z) \equiv [(Z_{expt} - 1)/(Z_c - 1)] \cdot x^2/\pi \quad .$$

2.4 The Second Virial Coefficient

Data at higher temperatures are available in the book by Dymond and Smith [13]. At and below the boiling point we derived values for the second virial coefficient, B(T), with heats of vaporization at the b.p. of Giauque and Blue [17] and of Frank and Clusius [15] at 188.7 K, via the Clapeyron equation. Using $V_c = 1.0/10.2$ L/mol, a plot of all data yields

$$B(T)/V_c = 1.75 - 3.0 \cdot (373/T) \quad , \qquad (5)$$

where B(T) is in units of L/mol. This was used to obtain some saturated vapor densities at low temperatures by way of the truncated virial equation of state,

$$Z(\rho,T) = 1 + B(T)\cdot d + \ldots \qquad (5a)$$

where d is the density in mol/L.

2.5 The Equation of State

The present equation of state (EOS) is valuable for use with inaccurate P-ρ-T data because it is constrained to the coexistence boundary; it yields a maximum in $C_v(\rho,T)$ at the critical point; and it has only three least-squares coefficients. A general description was given by Goodwin [19]. The present form of the EOS is the same as was used recently for isobutane [22].

Figures 2 and 3 show the P-T regions covered by P-ρ-T data of Reamer, et al. [38], Lewis and Fredericks [31], and by Rao [36]. Two preliminary, high-temperature isotherms communicated by Straty [43] were used with Reamer's data for adjusting the EOS. The other data (including Reamer's near the C.P.) were ignored, but comparisons with the EOS also are presented in table 6. In this table, some calculated densities fall in the opposite liquid-vapor phase from the data, and so these deviations should be ignored.

Equation (6) is the outline of our EOS. For any density (isochore) the coexistence temperature, $T_\sigma(\rho)$, is obtained by iteration from eqs (3) or (4) for the orthobaric densities; hence the vapor pressure, $P_\sigma[T_\sigma(\rho)]$, is a function of density,

$$P - P_\sigma(\rho) = \rho R^*\cdot[T - T_\sigma(\rho)] + \rho^2 R^* T_c\cdot F(\rho,T) \quad , \qquad (6)$$

$$F(\rho,T) \equiv B(\rho)\cdot \phi(\rho,T) + C(\rho)\cdot \Psi(\rho,T) \quad ,$$

where ρ is the reduced density.

The temperature-dependent functions in eq (6) are defined as follows, where $x \equiv T/T_c$ is the reduced temperature and $x_\sigma \equiv T_\sigma(\rho)/T_c$ is the reduced coexistence temperature.

$$\phi(\rho,T) \equiv x^\varepsilon\cdot\exp[b\cdot(1 - T_\sigma(\rho)/T)] - x_\sigma^\varepsilon \quad , \qquad (6a)$$

where $\varepsilon = 3/4$, $b \equiv (1 - \varepsilon) + (1 - \varepsilon)^{1/2} = 3/4$, and

$$\Psi(\rho,T) \equiv \psi(\rho,T)/\psi_\sigma(\rho) - 1 \quad , \qquad (6b)$$

where $\psi_\sigma(\rho)$ is obtained from $\psi(\rho,T)$ merely by replacing T with $T_\sigma(\rho)$, and, for $\psi(\rho,T)$ we use the argument,

$$\omega(\rho,T) \equiv [1 - \theta(\rho)/T] \quad , \qquad (6c)$$

where $\theta(\rho)$ is a locus of temperatures inside the coexistence envelope,

$$\theta(\rho) \equiv T_\sigma(\rho)\cdot\exp[-\alpha\cdot f(\rho)] \quad ,$$

$$f(\rho) \equiv |\rho - 1|^3/(\rho_t - 1)^3 \quad , \qquad (6d)$$

in which ρ_t is the reduced density of liquid at the triple point. Then,

$$\psi(\rho,T) \equiv 1 - (\omega - \omega^\eta/\eta)/(1 - 1/\eta) \quad . \qquad (6e)$$

Equations (6b, 6e) dictate behavior of the $P(\rho,T)$ surface about the critical point (C.P.). We selected exponent value $\eta = 1.10$ because it cannot be established by fitting P-ρ-T data. Experimental data become inaccurate near the C.P., just where they are needed most to establish exponent η for the EOS.

The density-dependent coefficients in eq (6) are,

$$B(\rho) \equiv B_1 + B_2 \cdot \rho^2 \quad , \tag{6f}$$

$$C(\rho) = C_1 \cdot (\rho - 1) \cdot (\rho - 2) \cdot \exp[-\gamma \cdot \rho^2] \quad . \tag{6g}$$

We selected $\gamma = 1/2$ for an inflection in $\rho^2 \cdot C(\rho)$ at $\rho = 1$, see eq (6), to obtain symmetry about the C.P.

Parameters and coefficients of eq (6) for H_2S thus are,

$\alpha = 1$, $\beta = 0.35$, $\gamma = 1/2$, $\varepsilon = 3/4$, $\eta = 1.1$

$B_1 = 0.3982\ 5678\ 673$ $\qquad$ $C_1 = -0.3107\ 0871\ 113$

$B_2 = 0.1329\ 0189\ 038$

In fitting eq (6) to P-ρ-T data by least squares, we constrained the slope of the critical isochore at the C.P. to equal the slope of vapor-pressure eq (2) at the C.P., $\partial P/\partial T = dP_\sigma/dT = 0.152\ 378$ MPa/K. Table 4 gives behavior of the coefficients, and table 5 shows behavior of the calculated critical isotherm. PVT data deviations are in table 6.

Specific heats on the critical isotherm can be derived from our EOS at reduced densities near $\rho = 1$ via

$$\Delta C_v = -T \cdot \int (\partial^2 P/\partial T^2) \cdot d\rho/\rho^2 \quad .$$

Isochore curvatures, $\partial^2 P/\partial T^2$, depend on $C(\rho) \cdot \psi(\rho,T)$,

$$\Psi(\rho,T) \equiv \psi(\rho,T)/\psi_\sigma(\rho) - 1 \quad , \tag{aa}$$

$$\psi(\rho,T) \equiv 1 - (\omega - \omega^\eta/\eta)/(1 - 1/\eta) \quad .$$

Differentiating $\psi(\rho,T)$ twice vs. T via $\omega(\rho,T)$, dropping insensitive terms and factors, $\partial\omega/\partial T$, $\partial^2\omega/\partial T^2$, gives

$$\partial^2 P/\partial T^2 \sim (\rho - 1) \cdot \omega^{\eta-2} \quad . \tag{a}$$

However,

$$\omega(\rho,T_c) \equiv 1 - \theta(\rho)/T_c \quad , \tag{b}$$

$$\theta(\rho) \equiv T_\sigma(\rho) \cdot \exp[-\alpha \cdot |\rho - 1|^3] \quad . \tag{c}$$

Now, let $T_\sigma(\rho)$ be obtained from the usual formulation of orthobaric densities very near T_c,

$$\rho_\sigma = 1 \pm a \cdot [1 - T_\sigma(\rho)/T_c]^{1/3} \quad , \tag{d}$$

$$T_\sigma(\rho)/T_c = 1 - b\cdot|\rho - 1|^3 \quad . \tag{e}$$

Also at ρ near 1,

$$\exp\left[-\alpha\cdot|\rho - 1|^3\right] = 1 - \alpha\cdot|\rho - 1|^3 \quad . \tag{f}$$

Thus from (b), (c), (e) and (f),

$$\theta(\rho)/T_c = 1 - c\cdot|\rho - 1|^3 \tag{g}$$

$$\omega(\rho,T_c) \sim |\rho - 1|^3 \tag{h}$$

and, via (a),

$$(\partial^2 P/\partial T^2) \sim (\rho - 1)\cdot|\rho - 1|^{3\cdot\eta-6} \tag{i}$$

along the critical isotherm near $\rho = 1$.

To obtain $C_v(\rho,T_c)$ by integrating (i) vs. ρ, we have assumed that $1/\psi_\sigma(\rho)$ in (aa) will have negligible effect. It has the approximate form near $\rho = 1$,

$$1/\psi_\sigma(\rho) \sim 1 + \text{const.}\cdot|\rho - 1|^3 \quad .$$

We find two limiting values for exponent η. If $(3\cdot\eta - 6) = -2$, i.e., $\eta = 4/3$, then,

$$C_v(\rho,T_c) \sim -\ln|\rho - 1| \quad , \tag{j}$$

and if $\eta > 4/3$, the behavior of C_v is wrong. Then, if $(3\cdot\eta - 6) \longrightarrow -3$, i.e., $\eta \longrightarrow 1.0^+$ ($\eta = 1$ excluded), we would obtain for $\eta = 1$,

$$C_v(\rho,T_c) \sim |\rho - 1|^{-1} \quad . \tag{k}$$

Hence the exponent is restricted to $1 < \eta \leq 4/3$, and, for our value $\eta = 1.10$,

$$C_v(\rho,T_c) \sim |\rho - 1|^{-0.7} \quad , \tag{l}$$

along the critical isotherm, and near $\rho = 1$.

In early work we used a logarithmic form

$$\psi(\rho,T) \sim 1 - \omega + \omega\cdot\ln(\omega) \tag{m}$$

to obtain nonanalytic behavior of the EOS. By methods analogous to the above, always along the critical isotherm, we find that (m) gives a logarithmically infinite rate of change of isochore slopes $(\partial P/\partial T)$ vs. ρ at $\rho = 1$. This is capable of producing an irregular critical isotherm, $P(\rho)_{T_c}$. The present formulation of $\psi(\rho,T)$ with an exponent, $\eta = 1.1$, yields a linear dependence of isochore slopes vs. ρ along the critical isotherm at $\rho = 1$,

$$(\partial P/\partial T)_{T_c} \sim a - b\cdot(\rho - 1) \quad , \tag{n}$$

by disregarding integral powers of ρ in the EOS.

2.6 The Ideal Gas Functions

Spectroscopic specific heats and ideal gas state thermofunctions have been tabulated by Baehr, et al. [1], Stull and Prophet [44], and by Edmister [14]. We used data of Baehr and of Stull before receiving the Edmister report. Table 7 gives deviations from our fitting eq (7) below. Table headings for $H^o - H^o_o$, etc. are given by H2-H22, etc. Upon discovering differences between data of Baehr, ID = 1, and of Stull, ID = 2, we gave zero weights to the ID = 2 data when fitting eq (7), by using $x \equiv T/100$,

$$C^o_p/R - 4 = \exp(-\varepsilon/x) \cdot \sum_{i=1}^{6} A_i \cdot x^{2-i} \qquad (7)$$

where $\varepsilon = 10.37$, $R = 8.3145$ (J/mol)/K, and

$A_1 = -0.1952\ 556$ $\quad$ $A_4 = 330.650\ 146$

$A_2 = 11.0377\ 525$ $\quad$ $A_5 = -655.671\ 639$

$A_3 = -74.8072\ 768$ $\quad$ $A_6 = 475.053\ 933$

Table 8 gives interpolated values at integral temperatures. After present work was completed, Dr. L. Haar kindly noted that he and coworkers computed ideal gas state functions [23a], and that the entropies differ significantly from those used here. For convenience in future work, these data are duplicated in Appendix C.

We have fit the Harmens' [25] version of Wilhoit's $C^o_p(T)$ formula to the highly precise H_2S data of Baehr, et al. [1]; see table 7. By fitting to the $C^o_p(T)$ data, the deviations were strongly systematic, to above 0.5 percent, with an rms relative deviation of 0.34 percent [as compared with 0.012 percent via our eq (7)]. By fitting to the $(H^o - H^o_o)$ data, the systematic deviations exceed 0.08 percent, rms = 0.055 percent [as compared with less than 0.01 percent via our eq (7)].

2.7 The Heats of Vaporization

We have used the Clapeyron equation to compute heats of vaporization, Q_{vap}, in J/mol,

$$Q_{vap} = 100 \cdot T \cdot (dP_\sigma/dT) \cdot (v_g - v_\ell) \qquad (8)$$

where dP_σ/dT from eq (2) is in units of bar/K, and $v_g \equiv 1/d_g$, $v_\ell \equiv 1/d_\ell$, in units of L/mol, are from eqs (3) and (4). Results are given in table 13.

2.8 Saturated Liquid Enthalpies and Entropies

These formulations save computer time when calculating compressed liquid thermofunctions at $T < T_c$. We computed 24 data along the saturated liquid boundary from T_t through T_c by using the ideal gas functions, the EOS, and the heats of vaporization. Each of the following fitting equations is constrained to the end-point values. We define the normalized argument, $u(T) \equiv (T_c - T)/(T_c - T_t)$, when these enthalpies H_o in J/mol are given by

$$(H_\sigma - H_c)/(H_t - H_c) = u + (u^\beta - u)\cdot[A_1 + A_2\cdot u^a + sum] \quad , \tag{9}$$

$$sum \equiv \sum_{i=3}^{7} A_i\cdot u^{i-2} \quad ,$$

where $\beta = 0.35$, $a = 0.70$, $H_t = 0.797$ J/mol, $H_c = 17073.874$ J/mol, and

$A_1 = 0.456\ 446\ 719$ $\quad$ $A_5 = 3.744\ 016\ 417$
$A_2 = 0.017\ 191\ 502$ $\quad$ $A_6 = -2.788\ 695\ 456$
$A_3 = 0.207\ 055\ 552$ $\quad$ $A_7 = 0.699\ 929\ 755$
$A_4 = -1.906\ 453\ 736$

For the 22 data at $T_t < T < T_c$, the rms relative deviation is 0.021 percent. The greatest absolute differences are about 2 J/mol at T = 370.0 and T = 372.0 K. These enthalpies appear in table 13 under heading H.

The entropies, S_σ in (J/mol)/K, have been formulated with a minimum of constants because the formula is used to obtain specific heats along the liquid boundary, $C_\sigma(T) = T\cdot dS_\sigma/dT$. The arguments are $x(T) \equiv T/T_c$, $u(T) \equiv (T_c - T)/(T_c - T_t)$, and we use the constant $k \equiv \ln(T_t/T_c)$, when,

$$(S_\sigma - S_c)/(S_t - S_c) = u^\beta + A_1\cdot[\ln(x)/k - u^\beta] + A_2\cdot[u^2 - u^\beta] \quad , \tag{10}$$

where $\beta = 0.35$, $S_t = 109.28667$, $S_c = 167.26532$ (J/mol)/K, and

$A_1 = 0.412\ 265\ 764$ $\quad$ $A_2 = 0.212\ 761\ 017$

For the 22 entropies, obtained as described above at $T_t < T < T_c$, the rms relative deviation is 0.072 percent. The greatest absolute deviations are about 0.1 (J/mol)/K.

The saturated liquid specific heats, $C_\sigma(T)$ in (J/mol)/K, obtained from eq (10), use $S_n \equiv S_t - S_c$, $A_3 \equiv 1 - A_1 - A_2$, and

$$sum = 2\cdot A_2\cdot u + A_3\cdot\beta\cdot u^{\beta-1} \quad , \tag{11}$$

when,

$$C_\sigma(T) = S_n\cdot[A_1/k + x\cdot sum\cdot(du/dx)] \quad , \tag{12}$$

where $(du/dx) \equiv -T_c/(T_c - T_t)$. Results for $S_\sigma(T)$ are given in table 13 under heading S, and for $C_\sigma(T)$ under heading CS.

3. Computational Methods

The numerical values for E and H in this report are based on the assigned value, E = 0 at the liquid triple-point, obtained by use of the arbitrary value, $E_o^o = 13400.138$ J/mol. Specific heats of Giauque and Blue [17] could be integrated to give the solid at T = 0 as reference state.

3.1 The Homogeneous Domain

The homogeneous domain of figure 1 includes all regions which can be attained along isotherms starting at zero density without crossing the

vapor-liquid "dome," and without passing very close to the critical point at $T > T_c$.

Computations start with ideal gas thermodynamic functions at zero density, and then continue by integrating numerically along isotherms by using the equation of state in the following relations,

$$\Delta E = \int [P - T\cdot(\partial P/\partial T)]\cdot d\rho/\rho^2 \quad , \tag{13}$$

$$\Delta C_v = -T\cdot\int (\partial^2 P/\partial T^2)\cdot d\rho/\rho^2 \quad , \tag{14}$$

$$\Delta S = R\,\ln[P^o/(\rho RT)] + \int_o^\rho [R - (\partial P/\partial T)/\rho]\cdot d\rho/\rho \quad . \tag{15}$$

Equation (15) is for use with initial entropies in hypothetical ideal gas states at P^o = 1 atm (0.101325 MPa). For all other initial states,

$$\Delta S = -\int (\partial P/\partial T)\cdot d\rho/\rho^2 \quad . \tag{15a}$$

In each (ρ,T) state, reached by above integrations, the following are computed,

$$H = E + P\cdot v \quad , \tag{16}$$

$$C_p = C_v + T\cdot(\partial P/\partial T)^2/[(\partial P/\partial T)\cdot\rho^2] \quad , \tag{17}$$

$$W^2 = C_p\cdot(\partial P/\partial\rho)/C_v \quad . \tag{18}$$

3.2 The Saturated Liquid

At temperatures from the triple point to the critical point, thermofunctions for the saturated vapor are obtained via eqs (13) through (16). Then eq (8) for the heat of vaporization, Q_{vap}, is used to compute

$$\Delta H = -Q \quad , \quad \Delta S = \Delta H/T \quad , \tag{19}$$

such that the free energy of vaporization, $\Delta G \equiv \Delta H - T\cdot\Delta S$, is zero. See section 2.8 for consistency of the formulations. Having obtained H and S for the saturated liquid, $E = H - P\cdot v$ is computed.

The single-phase specific heat, $C_v(\rho,T)$, at the saturated liquid boundary, is obtained from eq (10) using $C_o(T) = T\cdot dS_o/dT$ and the thermodynamic relation,

$$C_v(\rho,T) = C_o(T) + T\cdot(\partial P/\partial T)\cdot(d\rho_\ell/dT)/\rho_\ell^2 \quad , \tag{20}$$

where ρ_ℓ is density of the saturated liquid. Values for $C_p(\rho,T)$ and $W(\rho,T)$ on this boundary follow from eqs (17) and (18). For liquid H_2S at the normal boiling point, the following values have been obtained,

T_b = 212.874 K, H_b = 1694.3 J/mol,
E_b = 1690.3 J/mol, S_b = 117.871 (J/mol)/K.

3.3 The Compressed Liquid

Starting with above values for E, S, and C_v on the saturated liquid boundary, eqs (13), (14), and (15a) are used to integrate along isotherms, and then H, C_p, and W are obtained via eqs (16), (17), and (18).

3.4 Fugacity Coefficients

The fugacity coefficients in table 14 were computed along isotherms relative to properties in hypothetical ideal gas states at a pressure, P^o = 1 atm (0.101325 MPa),

$$(f/P) = (P^o/P)\cdot\exp[\Delta G/RT] \quad . \tag{21}$$

For any (P,T) point, the isothermal free energy change is

$$\Delta G = (H - E_o^o) - H^o - T\cdot(S - S^o) \quad , \tag{22}$$

in which the arbitrary value of E_o^o was added to tabulated values of H(P,T) such that E(P,T) = 0 for liquid at the triple point.

4. Tests and Conclusions

Vapor pressures of H_2S at T > 325 K here are based only on data of Reamer, et al. [38], with no independent data for comparison. Saturated liquid densities of Reamer, et al. at T > 325 K become smaller than our fitting function by up to 2 percent. (Similarly, their vapor densities (not used here) are greater than from our fitting function by several percent.) The liquid densities of Baxter, et al. [2] we concluded to be wrong, and then found that Clarke and Glew [8] had reached this same conclusion. The critical density of H_2S is not known accurately. Data for vapor pressures and orthobaric densities measured by Kay and Rambosek [27] were discovered after the present work was completed. Their critical constants were T_c = 373.07 ± .06 K, P_c = 8.9432 MPa, d_c = 10.167 mol/L. In Appendix C the data are compared with our results from eqs (2), (3), and (4). Their vapor pressures are slightly higher than ours (based on Reamer, et al.). Their orthobaric densities, however, diverge from ours at higher temperatures in the same sense as those of Reamer, et al.: liquid densities are lower, and vapor densities are higher. The critical temperature in [27] is lower than ours (373.40 K). Small changes in the assigned critical temperature have an enormous effect on the "fit" of orthobaric densities data near T_c. The above experimental orthobaric densities deviations suggest that T_c should be lower than used here. This simplistic conclusion, however, is not necessarily correct, in view of gravitational effects in the experiments, because the compressibility, $\partial\rho/\partial P$, becomes infinite approaching the C.P. This problem has been addressed by Weinberger, et al. [47a], Wlybin, et al. [46a], and by Moldover, et al. [32a], in no case reaching a definitive method to adjust the experimental observations.

Some vapor and liquid densities of Reamer, et al. [38], not used here, are given in Appendix D.

The obscure "apparent molecular weights," M, of Wright and Maass [49] we finally deduced yield densities ρ, in mol/L, via

$$\rho = (M/M_o)\cdot P/(R\cdot T)$$

where M_o = 34.08 is the correct m.w., and we used their gas constant, R = 0.08206 (L·atm/mol)/K. Results are tabulated in Appendix E. It is improbable that these data would significantly affect the EOS developed here.

Compressibility data in table 6 apparently are not of the accuracy and precision usually needed to establish a valid EOS. Also, no data have been found from the triple-point, 188 K, up to 278 K. With the present type of EOS, however, our greatest problem for H_2S has been to derive credible specific heats on the liquid boundary (see below).

Our derived heat of vaporization at the normal boiling point (nbp) is 18.679 kJ/mol as compared with 18.673 ± 0.02 kJ/mol measured by Giauque and Blue (G/B) [17]. Our derived saturated liquid specific heat, $C_\sigma(T)$, at the nbp is 68.77 (J/mol)/K as compared with 68.3 (J/mol)/K observed by G/B.

A comparison with thermofunctions derived by Starling [42] is presented in table 9 along seven isotherms from 255 through 478 K at pressures through 20 MPa. The nearly constant enthalpy differences arise because we believe that Starling adjusted his ideal gas state enthalpies by the heat of formation of H_2S from the elements at standard conditions. The nearly constant entropy differences may be due to different ideal gas state values used. Thus we conclude that our results are consistent with those of Starling.

The single-phase specific heats at the liquid boundary, $C_v(\rho,T)_\sigma$, are derived here for H_2S via eq (20), which is a difference of two terms because $(d\rho_\sigma/dT)$ is negative. Values for $C_v(\rho,T)_\sigma$ under heading CV in table 14 diminish uniformly from the triple point temperature up to 350 K, above which they increase sharply, as needed for consistency with an infinity in $C_v(\rho,T)$ approaching the C.P. Our extensive efforts to modify this behavior have been fruitless.

For ethane [20], nitrogen trifluoride [23], and for ethylene [47], $C_v(\rho,T)_\sigma$ at first decreases vs. T, and then increases, in each case with a minimum near $(T_t + T_c)/2$. For carbon monoxide [21], however, we encountered the same general behavior as found here for H_2S.

Values for $C_p(\rho,T)$ in the compressed liquid depend directly on the derived $C_v(T)_\sigma$ along the liquid boundary, due to the method of computation. A consistency check along isobars can be made via $C_p = (\partial H/\partial T)_p$. For isobar P = 8.0 MPa in table 14, from T = 340 to 350 K, $\Delta H/\Delta T$ = 91.31 (J/mol)/K, and the average specific heat is C_p = 91.73 (J/mol)/K, in good agreement. Also in this interval, ΔH = 913 J/mol, and T·ΔS = 908 J/mol, which agreement is good considering the large (10 K) interval at T not far below T_c.

Dr. L. Haar has suggested a closed loop consistency test. On figure 1, compute along the 330 K isotherm from ρ = 0 up to the liquid coexistence boundary at ρ near 20.34 mol/L. Then compute along this isochore up to 415 K (60 MPa). Then compute along the 415 K isotherm down to ρ = 0. Finally, at ρ = 0, compute from 415 K down to the starting point at T = 330 K. The only computation not already done is along the isochore at 20.34 mol/L from 330 to 415 K, and this

involves derived specific heats $C_v(T)$ along this path, which data are well known to be difficult to derive with good accuracy.

Figure 4 is a plot of these isochoric specific heats, estimated from our table 14. As this curve is not easily represented by a polynomial, we have summed the trapezoidal areas between adjacent points to compute ΔE and ΔS from 330 to 415 K, and then have compared these results with changes obtained from table 14:

	ΔE, J/mol	ΔS, J/mol/K
Integration of $C_v(T)$	3141	8.40
Estimated from table 14	3246	8.63

The differences of only about three percent probably are within uncertainty of the numerical integration, and thus confirm the thermodynamic consistency of the present work.

Experimental determinations of specific heats $C_\sigma(T)$ for the saturated liquid, and of $C_v(\rho,T)$ for the compressed liquid are needed to obtain any higher accuracy, because the computation of these specific heats from only a $P(\rho,T)$ surface is notoriously difficult, involving first and second derivatives and differences; and the need for very accurate saturated vapor densities (which usually are not available).

5. Tables of Physical and Thermodynamic Properties

5.1 Calculated P-ρ-T Isochores and Isotherms

Tables 10 and 11 give a selection of isochores and isotherms computed by equation of state (6). These are essential to examine behavior of the $P(\rho,T)$ surface. They are a useful supplement to the isobars of table 14 for interpolating P-ρ-T values and their derivatives.

The tables of isochores show that the isochore curvatures are qualitatively consistent with a maximum in the specific heat $C_v(\rho,T)$ at the critical point. The isotherm tables show that $\partial P/\partial\rho$ is nonnegative and that pressure increases monotonically with density along isotherms.

5.2 The Joule-Thomson Inversion Locus

Table 12 gives the P-ρ-T locus of the JT inversion, $(\partial T/\partial P)_H = 0$, obtained from equation of state (6) under the condition, $T\cdot(\partial P/\partial T) = \rho\cdot(\partial P/\partial\rho)$. This table has been computed to temperatures well above those of P-ρ-T data, to show approach to a maximum in P-T coordinates.

5.3 Properties of the Saturated Liquid

Table 13 gives physical and thermodynamic properties of the saturated liquid computed by methods of section 3. (Properties of the saturated vapor can be obtained from Table 14 from values given at the coexistence boundary for each isobar.)

5.4 Properties Along Selected Isobars

Table 14 gives physical and thermodynamic properties on isobars, computed by methods of section 3. These tables include values beyond the range of the data used for adjusting the equation of state. Small discontinuities may be detected

at T_c = 373.40 K along isobars at $P > P_c$ = 8.965 MPa due to a change in the paths of computation (section 3).

The first line of each table refers to freezing liquid on the P(T) melting line. Each table at $P < P_c$ contains a blank line for the transition from saturated liquid to vapor, as seen by the abrupt decrease of density.

6. Acknowledgments

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Appendix A. Fixed-Point Values for Hydrogen Sulfide

	Triple Point	Boiling Point	Critical Point
Temperature, K	187.66	212.874	373.40
Pressure, MPa	0.02320	0.101325	8.96291
Density, mol/L			
Vapor	0.01496	0.05643	10.2
Liquid	29.136	27.845	10.2

Appendix B. Symbols and Units

Subscripts c and t refer to critical and liquid triple points

Subscripts g and ℓ refer to saturated vapor and liquid

Subscript o refers to liquid-vapor coexistence

Superscript o refers to ideal gas states

$\alpha,\beta,\gamma,\varepsilon,\eta,p$	exponents in various equations
$B(T)$	second virial coefficient, L/mol
$B(\rho)$, $C(\rho)$	coefficients in the EOS
$C_v(\rho,T)$	isochoric specific heat, J/mol/K
$C_p(\rho,T)$	isobaric specific heat, J/mol/K
$C_\sigma(T)$	saturated liquid specific heat, J/mol/K
d	density, mol/L
$E(\rho,T)$	internal energy, J/mol
$E_o^o \equiv H_o^o$	13 400.138 J/mol (arbitrary)
f/P	fugacity/pressure ratio
$F(\rho,T)$	defined function for the EOS
$G(\rho,T)$	Gibbs free energy, J/mol
$H(\rho,T)$	enthalpy, J/mol
H_o^o	enthalpy for ideal gas state at T = 0
J	joule, 1 N•m
L	liter, 10^{-3} m^3
mol	34.08 grams of H_2S
P	pressure in MPa (1 MPa = 10^6 N/m^2), (1 bar = 10^5 N/m^2), 1 atm = 0.101325 MPa = 1.01325 bar
$P_m(T)$	melting pressure, MPa
$P_\sigma(T)$	vapor pressure, MPa
$P_\sigma(\rho)$	$P_\sigma[T_\sigma(\rho)]$, vapor pressure as function of density, MPa
$\Pi(T)$	$P_\sigma(T)/P_c$, reduced vapor pressure
$\Phi(\rho,T)$	function in the EOS
$\Psi(\rho,T)$	function in the EOS
Q_{vap}	ΔH_{vap}, heat of vaporization, J/mol
R	gas constant, 8.3145 (J/mol)/K, 0.0083145 (MPa•L/mol)/K
R^*	(0.0083145) d_c, MPa/K
ρ	d/d_c, reduced density
$S(\rho,T)$	entropy, (J/mol)/K
T	temperature, K
$T_\sigma(\rho)$	liquid-vapor coexistence temperature, K
$\theta(\rho)$	defined locus of temperatures, K
$u(T)$	defined in various equations
v	1/d, molal volume, L/mol
$\omega(\rho,T)$	$[1 - \theta(\rho)/T]$, for the EOS
$w(\rho,T)$	speed of sound, m/s
$x(T)$	T/T_c, reduced temperature
$x_\sigma(\rho)$	$T_\sigma(\rho)/T_c$, reduced coexistence temperature
$Z(P,\rho,T)$	the "compressibility factor"

Appendix C. Coexistence Data of Kay and Rambosek

HYDROGEN SULFIDE COEXISTENCE DATA OF KAY/RAMBOSEK, VS. RDG (CALC)

T	PRESSURE, MPA			LIQDEN, MOL/L			GASDEN, MOL/L		
K	DATA	CALC	PCNT	DATA	CALC	PCNT	DATA	CALC	PCNT
272.039	1.0032	.9991	.41	24.977	24.552	1.73	0.0000	0.0000	0.00
277.594	1.1728	1.1735	-.06	24.573	24.207	1.51	0.0000	0.0000	0.00
283.150	1.3707	1.3693	.10	24.159	23.853	1.28	0.0000	0.0000	0.00
288.706	1.5865	1.5879	-.09	23.727	23.489	1.01	0.0000	0.0000	0.00
294.261	1.8285	1.8308	-.13	23.290	23.113	.77	0.0000	0.0000	0.00
299.817	2.0974	2.0995	-.10	22.843	22.723	.53	0.0000	0.0000	0.00
305.372	2.3945	2.3956	-.04	22.383	22.319	.28	0.0000	0.0000	0.00
310.928	2.7207	2.7206	.00	21.927	21.898	.13	1.3631	1.3582	.36
316.483	3.0785	3.0762	.08	21.443	21.457	-.07	1.5605	1.5461	.93
322.039	3.4661	3.4640	.12	20.963	20.993	-.14	1.7720	1.7570	.85
327.594	3.8928	3.8858	.18	20.441	20.501	-.29	2.0305	1.9948	1.79
333.150	4.3547	4.3434	.26	19.891	19.977	-.43	2.3078	2.2645	1.91
338.706	4.8504	4.8389	.24	19.295	19.413	-.61	2.6321	2.5737	2.27
344.261	5.3889	5.3743	.27	18.660	18.797	-.73	3.0082	2.9331	2.56
349.817	5.9681	5.9521	.27	17.955	18.112	-.87	3.4594	3.3602	2.95
355.372	6.5941	6.5752	.29	17.179	17.331	-.87	4.0328	3.8846	3.82
360.928	7.2712	7.2470	.33	16.258	16.396	-.84	4.7473	4.5647	4.00
366.483	8.0013	7.9723	.36	15.041	15.170	-.85	5.7484	5.5460	3.65
372.039	8.7901	8.7588	.36	12.526	12.956	-3.32	7.9904	7.5394	5.98
373.094	8.9432	8.9166	.30	10.120	11.823	-14.40	10.1666	8.6225	17.91

Appendix D. Vapor Densities of Reamer, et al. [38]
(Not used in table 3)

Temperature, K	Density, mol/L
282.706	0.6922
298.150	1.0355
311.539	1.3941
323.150	1.7739
331.483	2.1824
338.761	2.6260
345.428	3.1225
352.039	3.6909
358.094	4.3766
363.539	5.2177
368.706	6.4254
373.150	9.5633
373.539	10.2354

Liquid densities not in table 2

368.706	14.201
373.150	10.566
373.539	10.235

Appendix E. P-ρ-T Data of Wright and Maass.

T,K	P,MPA	MOL/L
320.15	.424898	.153928
320.15	.363170	.139592
320.15	.325573	.124782
320.15	.246646	.094070
320.15	.245713	.093687
320.15	.153054	.058121
320.15	.122923	.046530
320.25	.098099	.037078
320.25	.095805	.036212
320.25	.050009	.018852
320.25	.050503	.019022
298.15	.424632	.177019
298.15	.375836	.156143
298.15	.309441	.127936
298.15	.257045	.105757
298.15	.233581	.095909
298.15	.189051	.077334
298.15	.140788	.057375
298.55	.100058	.040639
298.25	.099085	.040308
298.55	.099099	.040226
298.25	.098699	.040115
298.55	.065701	.026599
298.55	.066954	.027138
298.65	.035157	.014204
298.65	.034717	.014022
273.25	.375302	.171875
273.25	.375169	.171668
273.25	.317307	.144291
273.15	.275577	.124755
273.15	.221448	.099736
273.15	.172253	.077178
273.15	.165320	.074093
273.15	.095232	.042794
273.15	.099285	.044126
273.15	.099072	.044070
273.15	.098779	.043926
273.15	.096819	.043055
273.15	.096599	.043014
273.15	.050929	.022549
252.95	.402767	.201953
252.95	.338239	.168040
252.95	.305175	.150847
252.95	.232248	.113665
252.95	.212516	.103653
252.95	.160520	.077822
252.95	.099938	.048103
252.95	.096979	.046665
237.95	.271311	.143085
237.95	.205983	.107472
237.95	.163720	.084814
237.95	.148788	.076924
237.95	.100152	.051378
237.95	.084220	.043142

Appendix F. Computer Programs.

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      PROGRAM H2STHRM (OUTPUT,TAPE20,INPUT=TAPE20)
C     HYDROGEN SULFIDE THERMOFUNCTIONS, APRIL 15, 1983 START.
C     P-PSAT = S*GK*(T-TSAT) + S*S*GK*TCRT*F(S,T),  WHERE -
C     F(S,T) # B(S)*XBF(S,T) + C(S)*XCF(S,T) + E(S)*XEF(S,T),
C     XBF # (X - XS),  X # T/TC,  XS # TS/TC,
C     XCF # (X**EP)*EXP(A*(1-TS/T)) - XS**EP,  A # (1-EP)+SQRT(1-EP),
C     XEF # H(R,T)/HS(R) - 1.0,  W # (1-TH/T),  WE # W**E,
C     H(R,T) # 1.0 - (W-WE/E)/(1-1/E),   E = ET.
C     B(S) # B1 + B2*S + B3*S2,   C(S) # C1 + C2*S + C3*S2,
C     E(S) # E1*(S-1)*(S-EP)*EXP(-GA*S**IX).
C     GA # (2*ER-3)/(EP-1)/IX  FOR INFLECTION AT S = 1.
C     WHERE, R # DEN/DTRP,  S # DEN/DCRT,
C
      COMMON IX,EP,GK,GKK, A1,A2,A3, B1,B2,B3, C1,C2,C3, E1,E2,E3
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTPP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDP,DTHDP,DDSDT
      COMMON/4/XB1,XB2, XC1,XC2, XE1,XE2, DXBDR,DXCDR,DXEDR
      COMMON/6/ TSAT, THETA, PSAT
      COMMON/8/IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
      COMMON/12/ZCRT,ZCALC,DZDT, ZSAT,DZSDT,ZEX, ERT,DERTDT
      COMMON/19/ DNG,EG,HG,SG, CVG,CPG,WG, DPGDT,DPGDD
      COMMON/21/ TPS(70)
      COMMON/95/ PIS, DIS, DPTIS, DPDIS
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DIMENSION HZA(100), SZA(100), PP(99)
      DATA(WM=34.08),(PA=1.01325),(GJ=8.3145)
    1 FORMAT(I5, 2F10.0)
    2 FORMAT(I5, 3F10.0)
    3 FORMAT(8I10)
    5 FORMAT(1X)
    9 FORMAT(8F10.0)
   14 FORMAT(1H1 21X *  HYDROGEN SULFIDE ISOBAR AT P =* F9.5, 4H MPA/)
   16 FORMAT(14X 1HT 9X3HDEN 8X1HZ 5X5HDP/DT 5X5HDP/DD
     2 8X1HS 8X1HH 8X1HS 6X2HCV 6X2HCP 8X3HF/P 5X1HW /
     3 14X 1HK 7X5HMOL/L 9X 5X5HMPA/K 1X9HMPA-L/MOL
     4 4X5HJ/MOL 4X5HJ/MOL 2X7HJ/MOL/K 1X7HJ/MOL/K 1X7HJ/MOL/K
     5 11X 1X5HM/SEC )
   17 FORMAT(6X F9.3, E12.6, F9.5, F10.6, F10.4,
     1 2F9.1, F9.3, 2F8.2, E11.4, I6)
   20 FORMAT(1H11HX*TEST IDEAL FNCTNS*/17X 3HT,K 7X3HHZA 7X3HSZA )
   21 FORMAT(10X F10.2, F10.1, F10.3)
   25 CALL PVTDATA
C    NOTE ,RETURN, IN COEXIST AT 164 FOR USE ONLY WITH SSATFIT.
      CALL PEEK  $  CALL ISOTHRM
      CALL JTLOCUS
      CALL TABLIO
C    SAVE HZA(100), SZA(100) FROM 190 THRU 700 K.
   85 DO 86 J=19,70  $  TI = 10*J  $  CALL IDEAL  $  HZA(J) = HZ
   86 SZA(J) = SZ
   84 GO TO 90
   87 PRINT 20  $  DO 88 J=19,70  $  T = 10*J
   88 PRINT 21, T, HZA(J), SZA(J)
C
C    COMPUTE THERMOFUNCTIONS ON ISOBARS. START ON THE MELTING LINE.
C    NOTE, ISOBAR P=PCRT OK, BUT ISOTHERM T=TCRT IS EXCLUDED.
C    ISOBARS AT P UNDER PCRT TRAVERSE THE DOME.
C    NOTE USE OF OVAP ,DATA, TO CROSS THE ,DOME,.
C    NOTE USE OF CSAT ,DATA, FOR SPECIFIC HEATS IN COMPRESSED LIQUID.
```

```
C     NOTE TPS(IK) USED BY COMPRESS AT T.LE.TCRT.
C     GET FUGACITIES, F/P, VIA H,S, HZ(T),SZ(T).  (J.F.ELY).
   90 IN = 1  $  NI = 56 $  READ 9, (PP(I),I=1,NI)
   91 DO 300 I=IN,NI  $  IK = I  $  LS = 0
   92 P = PP(I)  $  IF(I.EQ.32)  P = PCRT
   93 PK = P/10  $  PRINT 14, PK  $  PRINT 16
  100 T = FINDTMF(P)  $  CALL COMPRLQ  $  V=1/DEN  $  IW=W
  101 Z = P/DEN/GKK/T
  102 TI = T  $  CALL IDEAL  $  GIB = H-EZZ-HZ - T*(S-SZ)
  103 XP = EXP(GIB/GJ/T)  $  FOP = XP*PA/P  $  CALL CON
  104 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  105 IT = T/10  $  IF(P.LT.PCRT) 110,180
C     CASES FOR P LESS THAN PCRT.
  110 TPS(IK) = TS = FINDTSF(P)  $  K = L = 0
  111 DO 150 J=1,99  $  T = JT = 10*(IT+J)
  112 IF(T.LT.TS) 113,118
  113 CALL COMPRES  $  IW = W  $  Z = P/DEN/GKK/T
  114 M =JT/10  $  GIB = H-EZZ-HZA(M) - T*(S-SZA(M))
  115 XP = EXP(GIB/GJ/T)  $  FOP = XP*PA/P  $  CALL CON
  116 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  117 GO TO 150
  118 LS = LS + 1  $  IF(LS.EQ.1) 120,130
C     CASE FOR SATURATED LIQUID AND VAPOR.
  120 T = TS  $  CALL COEXIST  $  IW = W  $  IWG = WG
  121 Z = P/DEN/GKK/T  $  ZG = P/DNG/GKK/T
  123 GIB = H-EZZ-HZ - T*(S-SZ)
  124 FOP = EXP(GIB/GJ/T)*PA/P  $  CALL CON
  125 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  126 PRINT 5 $ DIS=DNG*WM $ DPTIS=DPGDT/10 $ DPDIS = DPGDD/10
  127 PRINT 17, T,DNG,    ZG,DPTIS,DPDIS,EG,HG,SG,CVG,CPG,FOP,IWG
  128 T = JT
C     CASES FOR THE HOMOGENEOUS DOMAIN.
  130 IF(JT.GT.500) 133,135
  133 K = K+1  $  T = JT = JT + 10*K
  134 IF(JT.GT.700) 300,135
  135 CALL GENIUS  $  IW = W  $  Z = P/DEN/GKK/T
  136 M =JT/10  $  GIB = H-EZZ-HZA(M) - T*(S-SZA(M))
  137 XP = EXP(GIB/GJ/T)  $  FOP = XP*PA/P  $  CALL CON
  141 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  150 CONTINUE
C     FOR P.GE.PCRT, CASES FOR T.LT.OR.T.GT.TCRT.
  180 TPS(IK) = TCRT  $  K = L = 0
  181 DO 250 J=1,99  $  T = JT = 10*(IT+J)
  182 IF(T.LT.TCRT) 190,210
C     CASE A FOR T LESS THAN TCRT.
  190 CALL COMPRES  $  IW = W  $  Z = P/DEN/GKK/T
  192 M =JT/10  $  GIB = H-EZZ-HZA(M) - T*(S-SZA(M))
  193 XP = EXP(GIB/GJ/T)  $  FOP = XP*PA/P  $  CALL CON
  194 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  195 GO TO 250
C     CASE FOR T ABOVE TCRT, HOMOGENEOUS DOMAIN.
  210 IF(JT.GT.500) 213,220
  213 K = K+1  $  T = JT = JT + 10*K
  214 IF(JT.GT.700) 300,220
  220 CALL GENIUS  $  IW = W  $  Z = P/DEN/GKK/T
  224 M =JT/10  $  GIB = H-EZZ-HZA(M) - T*(S-SZA(M))
  225 XP = EXP(GIB/GJ/T)  $  FOP = XP*PA/P  $  CALL CON
  226 PRINT 17, T,DEN,    Z, DPTIS,DPDIS, E,H,S,CV,CP, FOP,IW
  250 CONTINUE
  300 CONTINUE
  999 STOP
      END
```

```
      SUBROUTINE COEXIST
C     GIVEN T AT COEXISTENCE, GET BOTH VAPOR AND LIQUID FUNCTIONS.
C     FOR VAPOR, GET  DNG,EG,HG,SG, CVG,CPG,WG, DPGDT,DPGDD,  -
C     FOR LIQUID, GET  DEN,E,H,S, CV,CP,CSAT,W, DPDT,DPDD.
C     COEXIST CALLED BY COMPRLO. P NOT USED, MUST NOT CHANGE.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDP,DTSDP,DTHDP,DDSDT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
      COMMON/19/ DNG,EG,HG,SG, CVG,CPG,WG, DPGDT,DPGDD
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DATA (Q=1.D1325),(G=0.083145),(WM=34.08D)
    1 FORMAT(1HO 9X *T EXCEEDS TCRT IN COEXIST. * / )
      WK = 100000/WM
    2 IF(T.GT.TCRT) 3,4
    3 PRINT 1   $   STOP
    4 PS = PSATF(T)  $  DNG = DB = DENGASF(T)
    5 TI = T  $  CALL IDEAL  $  M = 15  $  DA = L = 0
    6 EG = EZZ + EZ + EDELF(L,M,T,DA,DB)  $  HG = EG + 100*PS/DB
    7 SG = SZ + DELS - 100*G*ALOG(G*T*DB/Q)  $  GE = EG
    8 IF(T.EQ.TCRT) 9,11
    9 PX = PVTF(T,DB,1)  $  DPGDT = DPDT  $  DPGDD = DPDD
   10 CPG = CVG = WG = 0  $  GO TO 15
   11 CVG = CVZ + DELCV  $  PX = PVTF(T,DB,1)
   12 CPG = CVG + 100*T/DPDD*(DPDT/DB)**2  $  WG = SQRT(WK*CPG*DPDD/CVG)
   13 DPGDT = DPDT  $  DPGDD = DPDD
C     NOW TRAVERSE THE ,DOME, USING QVAP ,DATA,.
   15 DEN = DL = DENLIQF(T)  $  DDLDT = DDSDT  $  QV = QVAPXF(T)
   16 H = HG - QV  $  S = SG - QV/T  $  E = H - 100*PS/DL
C     THIS RETURN AT 16+ USED ONLY  WHEN CALLING SSATFIT, HSATFIT.
   17 IF(T.EQ.TCRT) 18,19
   18 PX = PVTF(T,DL,1)  $  CP=CV=CSAT=W=0  $  RETURN
   19 CSAT = CSATXF(T)  $  PX = PVTF(T,DL,1)
   22 CV = CSAT + 100*T*DPDT*DDLDT/DL/DL
   23 CP = CV + 100*T/DPDD*(DPDT/DL)**2
   30 W = SQRT(WK*CP*DPDD/CV)  $  RETURN
      END
```

```
      SUBROUTINE COMPRES
C     SAVES COMPUTER TIME INTEGRATING COMPRLIQ AT T.LT.TCRT.
C     FOR T = INTEGER MULTIPLES OF 10 K. FIRST ISOBAR USES COMPRLQ.
C     FOR SUCCEEDING ISOBARS, START ON PREVIOUS ISOBAR, EXCEPT -
C     AT TEMPS OF TPS(IK-1) ON PREVIOUS ISOBAR, MUST USE COMPRLQ.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
      COMMON/21/ TPS(70)
      DIMENSION DK(40),EK(40),SK(40),CK(40)
    1 FORMAT(1HO 9X *T G.E. TCRT IN COMPRES. * / )
    2 IF(T.GE.TCRT) 3,4
    3 PRINT 1   $   STOP
    4 J = T/10  $  IF(T - 10*J) 5,6
    5 CALL COMPRLQ   $   RETURN
    6 IF(IK.EQ.IN) 7,9
    7 CALL COMPRLQ
    8 DK(J)=DEN $ EK(J)=E $ SK(J)=S $ CK(J)=CV  $  RETURN
C     INTEGRATE FROM OLD DEN TO NEW DEN ON GIVEN ISOTHERM -
C     EXCEPT IF T EXCEEDS OLD TMAX, USE COMPRLQ.
    9 IF(T.GE.TPS(IK-1))  GO TO 7
   10 DA=DK(J) $ DK(J) = DEN = DB = FINDENF(T,P)  $  N = 13
   11 EK(J) = E = EK(J) + EDELF(1,N,T,DA,DB)  $  H = E + 100*P/DB
   12 SK(J) = S = SK(J) + DELS  $  CK(J) = CV = CK(J) + DELCV
C     GET NEW DP/DT, DP/DD, CP, W.
   15 PX = PVTF(T,DB,1)  $  CP = CV + 100*T/DPDD*(DPDT/DB)**2
   30 W = SQRT(WK*CP*DPDD/CV)   $   RETURN
      END



      SUBROUTINE COMPRLQ
C     GIVEN P,T FOR COMPR.LIQ. AT T.LT.TC, GET DEN AND FUNCTIONS.
C     REVISED TO USE HSATF, SSATF, CSATXF, BUT NOT COEXIST. TIMESAVER.
C     INTEGRATE ALONG ISOTHERM T FROM SATLIQ UP TO POINT (P,T).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
C$    FUNCS
C$    CALLS
    1 FORMAT(1HO 9X *T NOT UNDER TCRT IN COMPRLQ.*/)
    2 IF(T.GE.TCRT) 3,4
    3 PRINT 1   $   STOP
C     GET PSAT, DENLIQ, AND SATLIQ FUNCTIONS FOR START.
    4 PS = PSATF(T)  $  DL = DENLIQF(T)  $  DDLDT = DDSDT
    5 HS = HSATF(T)  $  ES = HS - 100*PS/DL  $  SS = SSATF(T)
    9 PX=PVTF(T,DL,0)  $  CVS = CSATXF(T) + 100*T*DPDT*DDLDT/DL/DL
C   9 CVS = CVSATF(T)
C     INTEGRATE UP TO POINT (P,T).
   10 DB = FINDENF(T,P)  $  DX = DB - DL  $  IF(DX.GT.0) 11,20
   11 M = 14  $  E = ES + EDELF(1,M,T,DL,DB)
   12 H = E + 100*P/DB  $  S = SS + DELS  $  CV = CVS + DELCV
   13 PX = PVTF(T,DB,1)  $  CP = CV + 100*T/DPDD*(DPDT/DB)**2
   14 W = SQRT(WK*CP*DPDD/CV)  $  DEN = DB   $   RETURN
   20 DEN=DL $ E=ES $ H=HS $ S=SS $ CV=CVS  $  PX = PVTF(T,DL,1)
   21 CP = CV + 100*T/DPDD*(DPDT/DL)**2  $  W = SQRT(WK*CP*DPDD/CV)
   30 RETURN
      END
```

```
      SUBROUTINE CON
C     CONVERT TO SI UNITS FOR P, DEN, DP/DT, DP/DD,
      COMMON/3/DPDT,D2PDT2, DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/8/IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/95/ PIS, DIS, DPTIS, DPDIS
      DATA (WM = 34.08)
    1 PIS = P/10  $  DIS = DEN*WM
    2 DPTIS = DPDT/10  $  DPDIS = DPDD/10
    9 RETURN
      END
```

```
      FUNCTION CSATXE(T)
C     HYDROGEN SULFIDE SATLTD ENTROPY, J/MOL/K., RDG/NBS, 4/15/83.
C     YS = (S-SC)/(ST-SC), X = T/TC, ALT = LN(TT/TC), U = (TC-T)/(TC-TT),
C     CONSTRAINED AT TRIPLE AND CRITICAL POINTS.
C     YS = UE + A1*(LN(X)/ALT - UE) + A2*(U2 - UE).
      DATA (TTRP=187.66),(TCRT=373.40)
      DATA (ES=0.35),(SE=0.65),(STRP=109.28667),(SCRT=157.26532)
      DATA (ALT = -0.68801842)
      DATA (A1=0.412265764),(A2=0.212761017)
    1 FORMAT(1H0 9X *CSATXE, T.GT.TCRT. * )
    2 IF(TCRT-T) 3,4,5
    3 PRINT 1   $   STOP
    4 CSATXE = 0   $   RETURN
    5 SN = STRP-SCRT  $  UN = TCRT-TTRP  $  X = T/TCRT
    6 U = (TCRT-T)/UN   $   DUDX = -TCRT/UN
    7 A3 = 1-A1-A2  $  SUM = 2*A2*U + A3*ES/U**SE
    8 CSATXE = SN*(A1/ALT + X*SUM*DUDX)   $   RETURN
      END
```

```
      FUNCTION DELTAE(T,D)
C     GET (T*DP/DT - D*DP/DD) FOR THE J-T INVERSION CURVE.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
    1 IF(T-TCRT) 2,4,4
    2 DL = DENLIQE(T)  $  IF(D-DL) 3,3,4
    3 DELTAE = 1.0E+100  $  RETURN
    4 P = PVTE(T,D,1)
    5 DELTAE = ABS (T*DPDT-D*DPDD)   $   RETURN
      END
```

```
      FUNCTION DENGASF(T)
C     H2S SATDVAPOR DENSITIES, RDG/NBS, APRIL 15, 1983.
C     DESIGNED FOR ZSAT = 1 AT LOW DENSITIES, 5/29/77.
C     (Z-1)/ZN = (P/PC)*(1/X2)*F(X),  X = T/TC,  U = (1-X),
C     F(X) = 1 + (A1*UE + A2*UAG + A3*U + A4*U2 + . . )*XP,
C     XP = EXP((BG/X)*(X-1)**3).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDP,DTHDR,DDSDT
      COMMON/12/ZCRT,ZCALC,DZDT, ZSAT,DZSDT,ZFX, FRT,DFRTDT
      DIMENSION AV(5)
      DATA (NFG=5),(FG=0.35),(AG=0.70),(BG=2.0),(GKK=0.083145)
      DATA(AV = -0.752579795, -0.865481171,
     1 1.975480424, 2.172963014, -5.766078592)
    1 FORMAT(1HO 9X *T EXCEEDS TC IN DENGASF. * / )
    2 IF(TCRT-T) 3,4,5
    3 PRINT 1   $   STOP
    4 DENGASF = DCRT  $  ZFX = 1  $  DDSDT = 1.0E+100  $  RETURN
    5 ZN = ZCRT-1  $  PC = PCRT  $  P = PSATF(T)
    6 PI = P/PC  $  PIT = DPSDT/PC  $  TC = TCRT
    7 X = T/TC  $  X2 = X*X  $  U = 1-X  $  UE = U**EG $ UE1 = -EG*UE/U
    8 UA = U**AG  $  UA1 = -AG*UA/U
    9 V = X-1  $  V2 = V*V  $  V3 = V*V2  $  XP = EXP(BG*V3/X)
   10 XP1 = (3*V2/X - V3/X2)*XP*BG
   11 Y = AV(1)*UE + AV(2)*UA  $  Y1 = AV(1)*UE1 + AV(2)*UA1
   12 DO 14 K=3,NFG  $  L = K - 2  $  UL = U**L
   13 Y = Y + AV(K)*UL  $  Y1 = Y1 - AV(K)*L*UL/U
   14 CONTINUE  $  ZFX = F = 1 + Y*XP  $  F1 = Y*XP1 + Y1*XP
   15 ZCALC = ZSAT = Z = 1 + ZN*PI*F/X2
   16 DZSDT = DZDT = (PI*(F1-2*F/X)/TC + F*PIT)*ZN/X2
   17 DENGASF = P/T/Z/GKK
   18 DDSDT = (DPSDT - P/T - P*DZDT/Z)/T/Z/GKK  $  RETURN
      END
```

```
      FUNCTION DENLIQF(T)
C     H2S SATLIQDEN, MDL/L, 3/21/83.
C     D/DC - 1 = A1*UE + A2*U,  U = (1 - T/TC).
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDP,DTHDR,DDSDT
      DIMENSION AW(4)
      DATA (NFL=4),(EL=0.35),(DCRT=10.20),(TCRT=373.40)
      DATA(AW = 1.906339527,0.933660589, -0.57091447,0.723476533)
    1 FORMAT(1HO 9X *DENLIQF = 0, T EXCEEDS TCRT. * / )
    2 IF(TCRT-T) 3,4,5
    3 PRINT 1   $   STOP
    4 DENLIQF = DCRT  $  DDSDT = -1.0E+10  $  RETURN
    5 U=1-T/TCRT $ U1T=-1/TCRT $ UE=U**EL $ UET=EL*UE/U*U1T
    6 Y = AW(1)*UE  $  Y1T = AW(1)*UET
    7 DO 9 K=2,NFL  $  L = K-1  $  UL = U**L
    8 Y = Y + AW(K)*UL  $  Y1T = Y1T + AW(K)*L*UL/U*U1T
    9 CONTINUE  $  DENLIQF = DCRT*(1+Y)
   10 DDSDT = DCRT*Y1T  $  RETURN
      END
```

Appendix F. Continued

```
      FUNCTION EDELF(L,M,T,DA,DB)
C     GET CHANGE OF E, S, CV WITH DENSITY ALONG ISOTHERMS.
C     GET EDELF, DELS, DELCV FROM DA TO DB ON ISOTHERM T.
C     ROMBERG NUMERICAL INTEGRATION VIA  -
C     CARNAHAN/LUTHER/WILKES, APPLIED NUMERICAL METHODS, P. 90,
C     JOHN WILEY AND SONS, INC., N.Y., 1969.
C     NOTE, NMAX = M, NK = FINAL, TOTAL SUBDIVISIONS OF INTERVAL DX.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,D3SDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/11/ DELS, DELCV
      COMMON/12/ZCRT,ZCALC,D7DT, ZSAT,D7SDT, ZFX, ERT,DERTDT
      DIMENSION E(20), S(20), C(20)
      DATA (LD=1),(DI=0.00001),(G=0.083145)
    1 FORMAT(1H0 9X*EDELF L =*I2,5H, N =I3,5H, T = F8.3,6H, DA =E10.4,
     1 6H, DB =E10.4, 6H, LD =I2//
     2 10X 1HN 7X5HEDELF 8X4HDELS 7X5HDELCV )
    2 FORMAT(1HO 9X 6HEDIF =F10.3, 8H, SDIF =F10.5, 9H, CVDIF =F10.3)
    3 FORMAT(6X I5, F12.3, F12.5, F12.3)
    4 FORMAT(1HO 9X *EDELF NG AT TCRT FOR CV AT DEN NEAR OR GT C.P.*/)
C     FOR DA=0 AND DB.LE.DI, IDEAL GAS, EDELF=DELS=DELCV=0.
C     FOR DA=0 AND DB.GT.DI, START ROMBERG WITH DA = DI,  -
C     TO AVOID INFINITIES IN ORDINATE FUNCTIONS AT DA = 0.
    5 NK = 1  $  DM = DCRT/2  $  DZ = 0.99*DCRT
    9 ZK = 1.0 - 1/ZCRT  $  RK = 100*G*TCRT/DCRT
   10 IF(L.EQ.0) 11,14
   11 IF(DB.LE.DI) 12,13
   12 EDELF = DELS = DELCV = 0   $   RETURN
   13 DA = DI
C     GET FIRST TRAPEZOID AREA, E(1) ETC., FROM DA TO DB.
   14 DX = DB - DA  $  P = PVTF(T,DA,0)  $  IF(DA.LT.DM) 15,17
   15 EA = RK*(ZK*ZSAT*ZFX + ERT - T*DERTDT)  $  GO TO 18
   17 EA = 100*(P-T*DPDT)/DA/DA
   18 IF(L.EQ.0) 19,20
   19 SA = -RK*DERTDT  $  GO TO 21
   20 SA = -100*DPDT/DA/DA
   21 CA = -100*T*D2PDT2/DA/DA
   22 P = PVTF(T,DB,0)  $  IF(DB.LT.DM) 23,24
   23 EB = RK*(ZK*ZSAT*ZFX + ERT - T*DERTDT)  $  GO TO 25
   24 EB = 100*(P-T*DPDT)/DB/DB
   25 IF(L.EQ.0) 26,27
   26 SB = -RK*DERTDT  $  GO TO 28
   27 SB = -100*DPDT/DB/DB
   28 CB = -100*T*D2PDT2/DB/DB
   29 E(1)=(EA+EB)*DX/2  $  S(1)=(SA+SB)*DX/2  $  C(1)=(CA+CB)*DX/2
C     INTERVAL HALVING, GET E(N+1), ETC.
   30 DO 50 N=1,M   $   K = N + 1
   31 JM = 2**N - 1  $  DXN = DX/2**N  $  E(K) = S(K) = C(K) = 0
   33 DO 45 J=1,JM,2  $  NK = NK+1  $  DN = DA + J*DXN
   34 P = PVTF(T,DN,0)  $  IF(DN.LT.DM) 35,36
   35 EB = RK*(ZK*ZSAT*ZFX + ERT - T*DERTDT)  $  GO TO 37
   36 EB = 100*(P-T*DPDT)/DN/DN
   37 IF(L.EQ.0) 38,39
   38 SB = -RK*DERTDT  $  GO TO 40
   39 SB = -100*DPDT/DN/DN
   40 CB = -100*T*D2PDT2/DN/DN
   41 E(K) = E(K) + EB  $  S(K) = S(K) + SB  $  C(K) = C(K) + CB
   45 CONTINUE   $   E(K) = E(K)/2 + E(K)*DXN
```

```
   45 S(K) = S(N)/2 + S(K)*DXN   $   C(K) = C(N)/2 + C(K)*DXN
C
C     TEST FOR CONVERGENCE.
   50 ED=ABS(E(K)-E(N))  $  SD=ABS(S(K)-S(N))  $  CD=ABS(C(K)-C(N))
   53 IF(ED.LT.0.2) 54,60
   54 IF(SD.LT.0.002) 55,60
   55 IF(T.EQ.TCRT.AND.DB.GT.DZ)  GO TO 57
   56 IF(CD.LT.0.04) 57,60
   57 EDELE = E(K)  $  DELS = S(K)  $  DELCV = C(K)  $  RETURN
   60 CONTINUE  $  N = M  $  NM = N-1  $  NP = N+1
   61 PRINT 1, L, N, T, DA, DB, LD
   62 PRINT 3, NM,E(NM),S(NM),C(NM)  $  PRINT 3, N,E(N),S(N),C(N)
   64 PRINT 3, NP,E(NP),S(NP),C(NP)   $   PRINT 2, ED, SD, CD
   99 STOP
      END



      FUNCTION FINDENE(T,P)
C     ON ISOTHERM T, FIND DEN, MOL/L, TO MINIMIZE (P-PC) VIA EQNSTATE.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DSAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      DATA (GKK = 0.083145)
   41 FORMAT(1HO 9X *FINDENE = 0,  FAILS TO CONVERGE. * / )
   42 FORMAT(1HO 9X *FINDENE = DCRT, DP/DP ZERO OR NEG. * / )
   43 FORMAT(1HO 9X *FINDENE = 0, DOUBLE-VALUED AT P = PSAT. * / )
      DM = 1.10*DTRP   $   IF(P.GT.0) 1,35
    1 IF(T-TCRT) 2,5,8
    2 PS = PSATF(T)  $  IF(P-PS) 3,32,4
    3 DG = DENGASF(T)  $  D = DG/2  $  GO TO 11
    4 DL = DENLIQF(T)  $  D = (DL+DTRP)/2  $  GO TO 11
    5 IF(P-PCRT) 6,33,7
    6 D = DCRT/2  $  GO TO 11
    7 D = 2*DCRT  $  GO TO 11
    8 PC = PVTF(T,DCRT,0)  $  IF(P-PC) 6,33,7
   11 DO 30 J=1,50 $ DP=P-PVTF(T,D,1) $ IF(ABS (DP/P)-1.0E-7) 31,31,12
   12 IF(DPDD.GT.C) 13,34
   13 DD = DP/DPDD  $  IF(ABS (DD/D)-1.0E-7) 31,31,14
   14 D = D + DD   $   IF(D.GT.0.C) 16,15
   15 D = P/GKK/T   $   GO TO 30
   16 IF(D.GT.DM) 17,18
   17 D = DM  $  GO TO 30
   18 IF(T-TCRT) 19,24,30
   19 IF(P.LT.PS) 20,22
   20 IF(D.GT.DG) 21,30
   21 D = DG  $  GO TO 30
   22 IF(D.LT.DL) 23,30
   23 D = DL  $  GO TO 30
   24 IF(P.LT.PCRT) 25,27
   25 IF(D.LT.DCRT) 30,26
   26 D = DCRT - 0.02  $  GO TO 30
   27 IF(D.GT.DCRT) 30,28
   28 D = DCRT + 0.02
   30 CONTINUE  $  PRINT 41  $  STOP
   31 FINDENE = D   $   RETURN
   32 PRINT 43  $  STOP
   33 FINDENE = DCRT  $  RETURN
   34 FINDENE = DCRT  $  PRINT 42  $  RETURN
   35 FINDENE=DPDT=D2PDT2=0  $  DPDD=GKK*T  $  DPDR=DPDD*DTRP
   36 RETURN
      END
```

```
      FUNCTION FINDTMF(P)
C     GIVEN P ON THE MELTING LINE, FIND T FOR PROPANE.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      DATA (E=1.283),(A=7180.0)
    1 X = (P-PTRP)/A + 1  $  FINDTMF = TTRP*X**(1.0/E)  $  RETURN
      END




      FUNCTION FINDTSF(P)
C     GIVEN VAPOR PRESSURE P, ITERATE T TO MINIMIZE (P-PC).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
    1 FORMAT(1HO 9X *FINDTSF = 0,  FAILS TO CONVERGE. * / )
    2 FORMAT(1HO 9X *FINDTSF = 0,  P EXCEEDS PCRT. * / )
    3 IF(P-PCRT) 4,11,12
    4 T = (TTRP+TCRT)/2
      DO 9 J=1,50  $  DP = P - PSATF(T)  $  ADP = ABS(DP)
    5 IF(ADP/P-1.0E-7) 10,6,6
    6 IF(ADP/DPSDT/T-1.0E-7) 10,7,7
    7 T = T + DP/DPSDT  $  IF(T-TCRT) 9,9,8
    8 T = TCRT
    9 CONTINUE  $  PRINT 1  $  STOP
   10 FINDTSF = T  $  RETURN
   11 FINDTSF = TCRT  $  RETURN
   12 PRINT 2  $  STOP
      END




      SUBROUTINE GENERUS
C     GIVEN P,T FOR THE HOMOGENEOUS DOMAIN -
C     GET DEN AND FUNCTIONS AT ANY TEMPERATURE.
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDP,DTSDR,DTHDR,DDSDT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DATA (Q=1.01325),(G=0.083145)
    3 TI = T  $  CALL IDEAL  $  IF(P.GT.0) 4,10
    4 DEN = DB = FINDENF(T,P)  $  M = 15  $  DA = L = 0
    5 E = EZZ + EZ + EDELF(L,M,T,DA,DB)  $  H = E + 100*P/DB
    6 S = SZ + DELS - 100*G*ALOG(G*T*DB/Q)
    7 CV = CVZ + DELCV  $  PX = PVTF(T,DB,1)
    8 CP = CV + 100*T/DPDD*(DPDT/DB)**2
    9 W = SQRT(WK*CP*DPDD/CV)  $  RETURN
   10 DEN=S=0  $  E = EZZ + EZ  $  H = E + 100*G*T  $  CV=CVZ $ CP=CPZ
   12 W = SQRT(WK*CP*G*T/CV)  $  RETURN
      END
```

```
      SUBROUTINE GENIUS
C     VALID ONLY FOR THE HOMOGENEOUS DOMAIN.
C     SAVES COMPUTER TIME WHEN TABULATING FUNCTIONS ALONG ISOBARS.
C     SAVES DEN,E,S,CV ALONG ISOBARS FOR USE IN INTEGRATING TO NEXT
C     HIGHER ISOBAR. VALID ONLY FOR MONOTONICALLY INCREASING ISOBAR
C     PRESSURES, AND AT TEMPS. T = INTEGER MULTIPLES OF 10 K.
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDP,DTHDP,DDSDT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/11/ DELS, DELCV
      DIMENSION DK(100),EK(100),SK(100),CK(100)
    1 FORMAT(1HO 9X *GENIUS T NOT INTEGRAL. * / )
    2 J = T/10   $   IF(T - 10*J) 3,4
    3 CALL GENEOUS   $   RETURN
    4 IF(IK.EQ.IN) 5,9
    5 CALL GENEOUS
    6 DK(J) = DEN  $  EK(J) = E  $  SK(J) = S  $  CK(J)=CV  $  RETURN
C     INTEGRATE FROM OLD DEN UP TO NEW DEN ON GIVEN ISOTHERM.
    9 DA = DK(J)  $  DK(J) = DEN = DB = FINDENF(T,P)  $  N = 14
   11 EK(J) = E = EK(J) + EDELF(1,N,T,DA,DB)  $  H = E + 100*P/DB
   13 SK(J) = S = SK(J) + DELS  $  CK(J) = CV = CK(J) + DELCV
C     NOW GET NEW DP/DT, DP/DD, CP, W.
   15 PX = PVTF(T,DB,1)  $  CP = CV + 100*T/DPDD*(DPDT/DB)**2
   30 W = SQRT(WK*CP*DPDD/CV)   $   RETURN
      END
```

```
      FUNCTION HSATF(T)
C     HYDROGEN SULFIDE SATLIQ ENTHALPY, J/MOL., RDG/NBS, 4/15/83.
C     DEFINE YH # (H-HC)/(HT-HC),  X # (TC-T)/(TC-TT),  WHEN -
C     YH = X + (XE-X)*(A1 + A2*XHF + A3*X + A4*X2 + . . ).
      DIMENSION AH(7)
      DATA (NFH=7),(FH=0.35),(HE=0.70)
      DATA (TTRP=187.66),(TCRT=373.40)
      DATA (HTRP=0.797),(HCRT=17073.874)
      DATA(AH = 0.456446719, 0.017191502, 0.207055552,
     1 -1.906453736, 3.744016417, -2.788695456, 0.699929755)
    1 FORMAT(1HO 9X 3HT =F10.5, * IN HSATF(T).*/)
    2 IF(T.GT.TCRT) 3,4
    3 PRINT 1, T  $  STOP
    4 X = (TCRT-T)/(TCRT-TTRP)  $  IF(X.LE.0) 5,6
    5 HSATF = HCRT   $   RETURN
    6 V = X**FH - X  $  XH = X**HF
    7 FX = X + V*(AH(1) + AH(2)*XH)  $  DO 8 K=3,NFH
    8 FX = FX + V*AH(K)*X**(K-2)
    9 HSATF = HCRT - (HCRT-HTRP)*FX  $  RETURN
      END
```

```
      SUBROUTINE IDEAL
C     H2S VIA BAEHR ET AL, 1968.
C     CPZ/R = 4.0 + (A1*X + A2 + A3/X + A4/X2 + . . )*EXP(-E/X), X*T/100.
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DIMENSION A(6)
      DATA (NK = 6),(E = 10.37)
      DATA (R=8.3145),(SI=26.146),(HI=4.0168)
      DATA(A = -0.19525562, 11.0377525, -74.8072768,
     1 330.650146, -655.671639, 475.053933)
    1 XI = TI/100  $  XP = EXP(-E/XI)
    2 CP = 4.0  $  DO 3 K=1,NK
    3 CP = CP + A(K)*XP*XI**(2-K)
C     NUMERICAL INTEGRATION FOR HZ/R, SZ/R  -
    5 H = S = 0  $  N = ABS(TI-300)/4 + 1   $   DX = (XI-3)/N
    6 DO 10 J=1,N  $  X = 3.0 + (J-0.5)*DX  $  XP = EXP(-E/X)
    7 CPX = 4.0  $  DO 8 K=1,NK
    8 CPX = CPX + A(K)*XP*X**(2-K)
    9 H = H + CPX*DX   $   S = S + CPX*DX/X
   10 CONTINUE  $  H = (HI*3 + H)/XI  $  S = SI + S  $  RT = R*TI
C     CONVERT TO JOULES, MOLES, KELVINS.
   11 HZ = RT*H  $  EZ = HZ - RT  $  SZ = R*S
   12 CPZ = R*CP  $  CVZ = CPZ - R   $   RETURN
      END
```

```
      SUBROUTINE ISOTHRM
C     PRINT H2S CRITICAL ISOTHERM.
C     USE P,MPA, AND DEN REDUCED BY DCRT, NOT DTPP.
      COMMON/1/AL,RE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTPP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/4/XB1,XB2, XC1,XC2, XE1,XE2, DXBDR,DXCDR,DXEDR
      COMMON/5/ TSAT, THETA, PSAT
    1 FORMAT(1H1 14X *HYDROGEN SULFIDE CRITICAL ISOTHERM * //
     1 15X4HTC =F8.3,* K* 6H, DC =F6.2,* MOL/L, PC =*F6.6, * MPA,* /
     2 15X *AT THE C.P.,, DPS/DT =*F8.6, *, DP/DT =*F8.6,* MPA/K.* //
     3 6X4HD/DC 8X5HTS/TC 7X6HDTS/DD 8X5HPS/PC 7X6HDPS/DD
     4 9X4HP/PC 8X5HDP/DD 8X5HDP/DT 6X7HD2P/DT2  /
     5 29X7HK-L/MOL 17X9HMPA-L/MOL 17X9HMPA-L/MOL 8X5HMPA/K 6X7HMPA/K/K)
    2 FORMAT(2X F8.3, 7F13.9, F13.5)
    3 PC = PVTF(TCRT,DCRT,0)  $  PCS = PCRT/10
    4 DPSSDT = DPSDT/10  $  DPXDT = DPDT/10
    5 PRINT 1, TCRT,DCRT, PCS, DPSSDT,DPXDT  $  DRDS = DCRT/DTRP
    6 DO 12 J=1,41  $  DR = 0.895 + 0.005*J  $  DN = DR*DCRT
    7 PR = PVTF(TCRT,DN,1)/PCRT  $  DPSDR = DPSDT*DTSDR
    8 TSN = TSAT/TCRT  $  PSN = PSAT/PCRT
    9 DPDD = DPDR*DRDS/10  $  DTSDD = DTSDR*DRDS $ DPSDD=DPSDR*DRDS/10
   10 DPDT = DPDT/10  $  D2PDT2 = D2PDT2/10
      IF(J.EQ.21)  D2PDT2 = 0
   12 PRINT 2, DR,TSN,DTSDD, PSN,DPSDD, PR,DPDD, DPDT,D2PDT2
   30 RETURN
      END
```

```
      SUBROUTINE JTLOCUS
C     THE JOULE-THOMSON INVERSION LOCUS FOR HYDROGEN SULFIDE.
C     DERIVE THE J-T INVERSION CURVE.  USE ROUTINE DELTAF(T,DI).
      COMMON/1/AL,BE,GA,DE,EP,ET,  DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      DIMENSION DK(60),DN(60),TT(60),PP(60)
      DATA (A=1.2275),(B=0.485),(WM=34.08)
    1 FORMAT(1H1 16X*JOULE-THOMSON INVERSION LOCUS FOR HYDROGEN SULFIDE*/
     1 17X *(DI IS INITIAL DENSITY FOR ITERATION) * //
     2 17X 3HT,K 8X2HDI 5X5HMOL/L 5X5HP,MPA
     3  7X 3HT,K 8X2HDI 5X5HMOL/L 5X5HP,MPA )
    2 FORMAT(10X I10, 2F10.3, F10.3,   I10, 2F10.3, F10.3)
    3 FORMAT(1H1 16X*JOULE-THOMSON INVERSION LOCUS FOR HYDROGEN SULFIDE*
     2 // 17X 3HT,K 5X5HMOL/L 5X5HP,MPA 7X3HT,K 5X5HMOL/L 5X5HP,MPA )
    4 FORMAT(10X I10, 2F10.3,  I10, 2F10.3)
C     SAVE INITIAL, TRIAL DENSITY, DK(I) = DI.
    5 NP = 56  $  TA = 270  $  PRINT 1
    6 DO 25 I=1,NP  $  DX = 0.64  $  T = TA + 10*I
    7 Y = T/TCRT  $  DK(I) = DI = DCRT*EXP(A-B*Y)
   10 IF(T-TCRT) 11,12,12
   11 DL = DENLIQF(T)  $  IF(DI.LT.DL) 23,12
   12 SS = DELTAF(T,DI)  $  DO 20 IT=1,16
   14 D=DI-DX $ SL=DELTAF(T,D)   $   D=DI+DX $ SP=DELTAF(T,D)
   15 IF(SS-SL) 18,16,16
   16 IF(SP-SL) 19,17,17
   17 SS = SL  $  DI = DI - DX  $  GO TO 20
   18 IF(SS-SP) 20,20,19
   19 SS = SP  $  DI = DI + DX
   20 DX = DX/2  $  TT(I) = T  $  DN(I) = DI  $  PP(I) = PVTF(T,DI,0)
   21 GO TO 25
   23 TT(I) = T  $  DK(I) = DN(I) = PP(I) = 0
   25 CONTINUE   $   N = NP/2
   26 DO 35 J=1,N   $   K = J + N
   27 IT = TT(J)  $  ITT = TT(K)
   28 DKJ = DK(J)  $  DNJ = DN(J)
   29 DKK = DK(K)  $  DNK = DN(K)
   30 PPJ = PP(J)/10  $  PPK = PP(K)/10
   35 PRINT 2, IT, DKJ,DNJ, PPJ,  ITT,DKK,DNK,PPK
   40 PRINT 3  $  DO 45 J=1,N  $  K = J + N
   41 IT = TT(J)  $  ITT = TT(K)  $  DNJ = DN(J)  $  PPJ = PP(J)/10
   42 DNK = DN(K)  $  PPK = PP(K)/10
   45 PRINT 4, IT, DNJ, PPJ,  ITT, DNK, PPK
   50 RETURN
      END
```

Appendix F. Continued

```
      SUBROUTINE KAY
C     COMPARE H2S SATN. DATA OF KAY/RAMBOSEK, 1953.
      DATA (WM=34.08),(ALB=453.5924),(CUF=28.31685)
    1 FORMAT(4F10.0)
    2 FORMAT(1H1 13X *HYDROGEN SULFIDE COEXISTENCE*
     1 * DATA OF KAY/RAMBOSEK, VS. ROG (CALC) * //
     2 14X 1HT 7X13HPRESSURE, MPA 9X13HLIQDEN, MOL/L 9X13HGASDEN, MOL/L/
     3 14X 1HK 3(4X4HDATA 4X4HCALC 2X4HPCNT) )
    3 FORMAT(5X F10.3, 2F8.4,F6.2, 2F8.3,F6.2, 2F8.4,F6.2)
    5 PK = 1.01325/14.696  $  DK = ALB/CUF/WM
   10 PRINT 2  $  DO 30 J=1,99
   11 READ 1, TF, PSI, DLB, DGB  $  IF(TF) 12,99
   12 T = (TF + 459.67)/1.8  $  PX = PK*PSI  $  DLX = DK*DLB
   13 PC = PSATF(T)  $  PPCT = 100*(PX-PC)/PC
   14 DLC = DENLIQF(T)  $  DLPCT = 100*(DLX-DLC)/DLC
   16 IF(DGB.EQ.0) 17,18
   17 DGX = DGC = DGPCT = 0  $  GO TO 20
   18 DGX = DK*DGB  $  DGC = DENGASF(T)  $  DGPCT = 100*(DGX-DGC)/DGC
   20 PX = PX/10   $   PC = PC/10
   30 PRINT 3, T, PX,PC,PPCT, DLX,DLC,DLPCT, DGX,DGC,DGPCT
   99 RETURN   $   END
```

```
      SUBROUTINE PEEK
C     EXAMINE BEHAVIOR OF THE EOS COEFFICIENTS.
C     B(S) = B1 + B2*S + B3*S2,    C(S) = C1 + C2*S + C3*S2,
C     E(S) = E1*(S-1)*(S-EP)*EXP(-GA*S**IX).
C     WHERE,    P = DEN/DTRP,   S = DEN/DCRT.
      COMMON IX,EP,GK,GKK, A1,A2,A3, B1,B2,B3, C1,C2,C3, E1,E2,E3
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/5/ TSAT, THETA, PSAT
    4 FORMAT(1H1 14X *EOSTATE COEFFS., HYDROGEN SULFIDE * //
     1 15X6HTTRP =E13.6, 8H, TBLP =E13.6, 8H, TCRT =E13.6, * K,* /
     2 15X6HPTRP =E13.6, 8H, PBLP =E13.6, 8H, PCRT =E13.6, * MPA,* /
     3 15X6HDGAT =E13.6, 8H, DGBP =E13.6, 8H, DCRT =E13.6,* MOL/L,* /
     4 15X6HDTRP =E13.6, 8H, DLBP =E13.6, 8H, DCRT =E13.6,* MOL/L,* /
     5 15X9HDPS/DTB =E12.5, * MPA/K, OVAPB, KJ/MOL =* F8.4//
     4 15X 4HIX =I2, 6H, ER =F6.3/
     5 15X 4HAL =F10.7, 6H, BE =F10.7, 6H, GA =F10.7/
     6 15X 4HDE =F10.7, 6H, EP =F10.7, 6H, ET =F10.7//
     7 15X 4HB1 =F14.11, 6H, B2 =F14.11, 6H, B3 =F14.11/
     8 15X 4HC1 =F14.11, 6H, C2 =F14.11, 6H, C3 =F14.11/ )
    5 FORMAT(15X 4HD/DC 5X5HMOL/L 6X4HTSAT 5X5HTHETA 6X4HPSAT
     1 9X1HB 9X1HC  )
    6 FORMAT(9X F10.2, F10.4, 2F10.3, F10.4, 2F10.5)
    7 TB=FINDTSF(1.01325)  $  DGB=DENGASF(TB)  $  DLB =DENLIQF(TB)
    8 QB = TB*DPSDT*(1/DGB - 1/DLB)/10.0
    9 PTR = PTRP/10  $  PBL=0.101325  $  PCR=PCRT/10 $ DPSDT=DPSDT/10
   10 PRINT 4, TTRP,TB,TCRT,PTP,PBL,PCR,DGAT,DGB,DCRT,
     1 DTRP,DLB,DCRT,DPSDT,QB, IX,ER, AL,BE,GA,DE,EP,ET,
     2 C1,C2,C3, E1,E2,E3
   11 PRINT 5  $  N = 10*DTRP/DCRT + 1
   12 DO 20 J=1,N   $   S = 0.1*J
   13 DN = S*DCRT  $  S2=S*S  $  SN=S-1  $  SX = S**IX
   14 SP = 1  $  IF(ER.GT.0)  SP = S - ER
   15 B = B1 + B2*S + B3*S2  $  C = C1 + C2*S + C3*S2
   17 E = E1*SN*SR*EXP(-GA*SX)
   19 TSAT=TS=TSATF(DN)  $  TH=THETAF(DN)  $  PS=PSATF(TS)/10
   20 PRINT 6, S,DN, TS,TH,PS, C,E      $   RETURN
      END
```

```
      FUNCTION PMELTF(T)
C     PROPANE MELTING LINE, BAR, VIA REEVES, SCOTT, AND BABB(JR),
C     J. CHEM. PHYS. 40(12), 3662 (1964).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      DATA (A = 7180.0),(E = 1.283)
    1 X = T/TTRP  $  XE = X**E  $  PMELTF = PTRP + A*(XE-1)
    2 DPMDT = A*E*XE/X/TTRP   $   RETURN
      END
```

```
      SUBROUTINE PVTDATA
C     H2S EOS CONSTANTS, RDG/NBS, APRIL 15, 1983.
      COMMON IX,EP,GK,GKK, A1,A2,A3, B1,B2,B3, C1,C2,C3, E1,E2,E3
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTPP,TTPP,PTPP
      COMMON/8/IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/12/ZCRT,ZCALC,DZDT, ZSAT,DZSDT,ZEX, ERT,DERTDT
      COMMON/99/ TI,E77, E7,SZ,CV7, HZ,CP7
   10 WM = 34.080  $  TTPP = 187.66  $  TCRT = 373.40
   12 DCRT = 10.20  $  DTPP = DENLIQF(TTPP)
   13 PTPP = PSATF(TTPP)  $  PCRT = PSATF(TCRT)
   19 GKK = 0.083145  $  GK = GKK*DCRT
   20 ZCRT = PCRT/DCRT/GKK/TCRT  $  DGAT = DENGASF(TTPP)
   21 IX = 2  $  AL = 1.0  $  BE = 0.75  $  GA = 1.0/IX
   22 DE = EP = 0  $  EP = 2.0  $  ET = 1.10
   23 A1=A2=A3=0 $ B1=B2=B3=0 $ C1=C2=C3=0 $ E1=E2=E3=0
   24 C1 = 0.3982567967?  $  C2 = 0.13290189038  $  E1 = -0.31070871113
   27 WK = 100000/WM  $  EZZ = 13400.138
   30 RETURN
      END



      FUNCTION PVTF(T,D,M)
C     HYDROGEN SULFIDE EQNSTATE, PVTF = P,BAR.
C     NOTE, M=0 RETURNS DP/DT, D2P/DT2.  M=1 RETURNS ALSO DP/DD.
C     P-PSAT = S*GK*(T-TSAT) + S*S*GK*TCRT*F(S,T),  WHERE -
C     F(S,T) = B(S)*XBF(S,T) + C(S)*XCF(S,T) + E(S)*XEF(S,T),
C     B(S) = B1 + B2*S + B3*S2,   C(S) = C1 + C2*S + C3*S2,
C     E(S) = E1*(S-1)*(S-ER)*EXP(-GA*S**IX).
C     WHERE,   R = DEN/DTPP,  S = DEN/DCRT.
      COMMON IX,ER,GK,GKK, A1,A2,A3, B1,B2,B3, C1,C2,C3, E1,E2,E3
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTPP,TTPP,PTPP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDP,DTSDR,DTHDR,DDSDT
      COMMON/4/XB1,XB2, XC1,XC2, XE1,XE2, DXBDR,DXCDR,DXEDR
      COMMON/6/ TSAT, THETA, PSAT
      COMMON/12/ZCRT,ZCALC,DZDT, ZSAT,DZSDT,ZEX, ERT,DERTDT
    1 S = D/DCRT  $  S2 = S*S  $  SN = S - 1  $  SN1 = 1
    3 SR = S - EP  $  SR1 = 1  $  SX = S**IX
    5 GK = DCRT*GKK  $  TC = TCRT  $  DSDR = DTPP/DCRT
    6 PG = S*GK  $  GKT = GK*TC
    7 TSAT=TS=TSATF(D)  $  PSAT=PS=PSATF(TS)  $  THETA=THETAF(D)
    8 XC = XCF(T,D)  $  XE = XEF(T,D)  $  C = (C1 + C3*S2)*S2
   10 XP = EXP(-GA*SX)  $  SE = E1*S2
   11 SM = SE*SN*SR  $  F = SM*XP
   12 F = C*XC + F*XE  $  F1 = C*XC1 + E*XE1  $  F2 = C*XC2 + E*XE2
   13 PVTF = PS + PG*(T-TS) + GKT*F  $  ERT=F/S2  $  DERTDT=F1/S2/TC
   14 DPDT = PG + GK*F1  $  D2PDT2 = GK*F2/TC  $  IF(M) 15,30
   15 XP1 = -IX*GA*SX/S  $  SE1 = 2*E1*S
   17 SM1 = SE*SN*SR1 + SE*SN1*SR + SE1*SN*SR
   18 ED = (SM*XP1 + SM1)*XP*DSDR
   19 CD = (2*C1 + 4*C3*S2)*S*DSDR
   20 F1 = C*DXCDR + CD*XC  +  E*DXEDR + ED*XE
   25 DPDR = (DPSDT-RG)*DTSDR + (T-TS)*GK*DSDR + GKT*F1
   27 DPDD = DPDR/DTPP
   30 RETURN
      END
```

```
      FUNCTION PSATF(T)
C     H2S VAPOR PRESSURE, BAR,  3/21/83.
C     LN(P) = P1/X + P2 + P3*X + P4*X2 + P5*X3 + P6*(1-X)**EPP.
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      DIMENSION PJ(6)
      DATA (EPP=1.70),(TCRT=373.40)
      DATA(PJ = -8.0234738844, 16.731062287, -10.325550140,
     1 9.6909088499, -3.577167041, 3.1743108171)
    1 FORMAT(1HO 9X *T ABOVE TCRT IN PSATF(T). * / )
    4 X = T/TCPT  $  V = 1.0 - X  $  IF(V) 7,8,9
    7 PRINT 1   $   STOP
    8 Z = Z1 = 0  $  GO TO 10
    9 Z = V**EPP  $  Z1 = -EPP*Z/V
   10 PL = PJ(6)*Z   $   PL1 = PJ(6)*Z1
   11 DO 13 K=1,5  $  L = K-2  $  XL = X**L
   12 PL = PL + PJ(K)*XL  $  PL1 = PL1 + PJ(K)*L*XL/X
   13 CONTINUE   $   PSATF = EXP(PL)
   15 DPSDT = PL1*PSATF/TCRT   $   RETURN
      END
```

```
      FUNCTION QVAPXF(T)
C     QVAP, J/MOL, VIA CLAPEYRON. DENGASF(T) CALLS PSATF(T).
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
    1 VL = 1.0/DENLIQF(T)  $  VG = 1.0/DENGASF(T)
    2 QVAPXF = 100*T*DPSDT*(VG-VL)
    9 RETURN
      END
```

```
      FUNCTION SSATF(T)
C     HYDROGEN SULFIDE SATLIQ ENTROPY, J/MOL/K., RDG/NPS, 4/15/83.
C     YS = (S-SC)/(ST-SC), X = T/TC, ALT = LN(TT/TC). U = (TC-T)/(TC-TT),
C     CONSTRAINED AT TRIPLE AND CRITICAL POINTS.
C     YS = UE + A1*(LN(X)/ALT - UE) + A2*(U2 - UE).
      DATA (TTRP=187.66),(TCPT=373.40)
      DATA (ES=0.35),(SE=0.65),(STRP=109.28667),(SCRT=167.26532)
      DATA (ALT = -0.68801842)
      DATA (A1=0.41226574),(A2=0.212761017)
    1 FORMAT(1HO 9X 3HT =F10.5, * IN SSATF(T). * / )
    2 IF(TCRT-T) 3,4,5
    3 PRINT 1, T   $   STOP
    4 SSATF = SCRT   $   RETURN
    5 SN = STRP - SCRT  $  UN = TCRT - TTRP  $  U = (TCRT-T)/UN
    7 Y = T/TCRT   $   UE = U**ES
    8 YS = UE + A1*(ALOG(X)/ALT - UE) + A2*(U*U - UE)
    9 SSATF = SCRT + SN*YS  $  RETURN
      END
```

Appendix F. Continued

```
      SUBROUTINE STARLNG
C     COMPARE STARLING H2S DEPARTURES WITH RDG.
C     HIS T,F, P,PSI, V,CUFT/LB, H,BTU/LB, S,BTU/LB/R.
C     T,KELVIN = (T,RANKINE)/1.8.
C     1 LB = 453.5924 GRAM, 1 CUFT = 28.31685 L, 1 BTU = 1055. JOULE.
C     ONE BTU = (453.5924)*(4.184)/(1.8) = 1054.350 JOULES.
C     TO CONV. LB TO MOL, MULT. BY (453.5924)/WM
C     TO CONV. CUFT/LB TO L/MOL, MULT. BY (28.31685)*WM/(453.5924).
C     TO CONV. BTU TO JOULE, MULT. BY 1055.0.
C     TO CONV. BTU/LB TO J/MOL, MULT. BY (1055.0)*WM/(453.5924).
C     TO CONV. BTU/LB/R TO J/MOL/K, MULT. BY 1.8*(1055.0)*WM/(453.5924).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DATA (R=8.3145),(O=1054.350)
      DATA (WM=34.08),(ALB=453.5924),(CUF=28.31685)
    1 FORMAT(I5, 4F10.0)
    2 FORMAT(1H1,13X*HYDROGEN SULFIDE PROPERTIES, STARLING(DATA) VS.*
     1 * RDG(CALC)* //
     2 14X1HT 8X1HP 8X14HDENSITY, MOL/L 10X15HENTHALPY, J/MOL
     3 12X 15HENTROPY, J/MOL/K  /
     4 14X1HK 6X3HMPA 5X4HDATA 5X4HCALC 2X4HPCNT
     5 2(5X4HDATA 5X4HCALC 5X4HDIFF)  )
    3 FORMAT(5X F10.3, 3F9.4, F6.2, 3F9.1, 3F9.3)
    5 PK = 1.01325/14.696  $  VK = ALB/WM/CUF
C   6 HK = O*WM/ALB  $  SK = 1.8*HK
    6 SK = 4.184*WM  $  HK = SK/1.8
   10 PRINT 2  $  DO 50 J=1,99
   11 READ 1, ITF, PSI, VB, HB, SB  $  IF(ITF.EQ.900) RETURN
   12 T = (ITF + 459.67)/1.8  $  P = PK*PSI  $  DX = VK/VB
   13 HX = HK*HB  $  SX = SK*SB  $  RT = R*T
C    FOR EACH (T,P) POINT, GET MY DEN, (H-EZZ), S.
C    AT T.LT.TCRT, EITHER GAS, OR LIQUID.
   20 IF(T.LT.TCRT) 21,30
   21 PS = PSATF(T)  $  IF(P.GT.PS) 23,30
   23 CALL COMPRLQ  $  H = H - EZZ  $  GO TO 40
   30 CALL GENEOUS  $  H = H - EZZ
   40 DDIF = DX - DEN  $  DPCT = 100*DDIF/DEN
   41 HDIF = HX - H  $  SDIF = SX - S  $  PIS = P/10
   50 PRINT 3, T, PIS, DX,DEN,DPCT, HX,H,HDIF, SX,S,SDIF
   99 RETURN  $  END
```

```
      SUBROUTINE SURFACE
C     PRINT H2S ISOCHORES, ISOTHERMS.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      DATA (R = 0.083145)
    1 FORMAT(I5, 2F10.0)
    2 FORMAT(I5, F10.0, I10)
    5 FORMAT(1X)
    6 FORMAT(1H1 18X *HYDROGEN SULFIDE ISOCHORE AT* F7.3, * MOL/L* //
     1 19X1HT 9X1HP 9X1HZ 6X5HDP/DD 7X5HDD/DT 5X5HDP/DT 5X7HD2P/DT2 /
     2 19X1HK 7X3HMPA 12X9HMPA-L/MOL 5X7HMOL/L/K 5X5HMPA/K 5X7HMPA/K/K)
    7 FORMAT(10X F10.3, F10.4, F10.5, F11.4, E12.4, F10.5, F12.7)
    8 FORMAT(1H1 16X *HYDROGEN SULFIDE ISOTHERM AT*F9.3, * K* //
     1 17X3HDEN 9X1HP 9X1HZ 6X5HDP/DD 7X5HDD/DT 5X5HDP/DT 5X7HD2P/DT2 /
     2 15X5HMOL/L 7X3HMPA 12X9HMPA-L/MOL 5X7HMOL/L/K 5X5HMPA/K
     3 5X 7HMPA/K/K )
C     PRINTOUT THE ISOCHORES.
   20 DO 60 I=1,99  $  READ 2, IDD, DN, IT  $  IF(IDD) 21,99
   21 IF(I.EQ.20)  DN = DTRP
   30 PRINT 6, DN  $  TS = TSATF(DN)  $  PS = PVTF(TS,DN,1)
   31 Z = PS/DN/R/TS  $  DDDT = -DPDT/DPDD
      PS=PS/10 $ DPDD=DPDD/10 $ DPDT=DPDT/10 $ D2PDT2=D2PDT2/10
   32 PRINT 7, TS,PS,Z, DPDD,DDDT,DPDT, D2PDT2
   50 DO 59 J=192,720,IT  $  TT = J  $  IF(TT.LE.TS) 59,52
   52 PP = PVTF(TT,DN,1)  $  IF(PP.GT.850) 60,55
   55 Z = PP/DN/R/TT  $  DDDT = -DPDT/DPDD
      PP=PP/10 $ DPDD=DPDD/10 $ DPDT=DPDT/10 $ D2PDT2=D2PDT2/10
   58 PRINT 7, TT,PP,Z, DPDD,DDDT,DPDT, D2PDT2
   59 CONTINUE
   60 CONTINUE
C    PRINTOUT THE ISOTHERMS.
   99 DO 130 I=1,99  $  READ 1, IDD, TT,DX  $  IF(IDD) 100,999
  100 IF(I.EQ.13)  TT = TCRT
  101 PRINT 8, TT  $  PM = PMELTF(TT)
  102 IF(TT-TCRT) 103,103,104
  103 DG = DENGASF(TT)  $  DL = DENLIQF(TT)
  104 L = 0  $  DS = DX
  105 DO 120 N=1,900  $  DN = N*DS  $  IF(TT.LT.TCRT) 106,117
  106 IF(DN.GE.DG.AND.DN.LE.DL) 107,117
  107 L = L+1  $  IF(L.EQ.1) 108,120
  108 PG = PVTF(TT,DG,1)  $  Z = PG/DG/R/TT  $  DDDT = -DPDT/DPDD
      PG=PG/10 $ DPDD=DPDD/10 $ DPDT=DPDT/10 $ D2PDT2=D2PDT2/10
  109 PRINT 7, DG,PG,Z, DPDD,DDDT,DPDT, D2PDT2
  110 PRINT 5
  111 PL = PVTF(TT,DL,1)  $  Z = PL/DL/R/TT  $  DDDT = -DPDT/DPDD
      PL=PL/10 $ DPDD=DPDD/10 $ DPDT=DPDT/10 $ D2PDT2=D2PDT2/10
  112 PRINT 7, DL,PL,Z, DPDD,DDDT,DPDT, D2PDT2
  116 GO TO 120
  117 PP = PVTF(TT,DN,1)  $  IF(PP.GT.PM.OR.PP.GT.850) 130,118
  118 Z = PP/DN/R/TT  $  DDDT = -DPDT/DPDD
      PP=PP/10 $ DPDD=DPDD/10 $ DPDT=DPDT/10 $ D2PDT2=D2PDT2/10
  119 PRINT 7, DN,PP,Z, DPDD,DDDT,DPDT, D2PDT2
  120 CONTINUE
  130 CONTINUE
  999 RETURN  $  END
```

```
      SUBROUTINE TABLIQ
C     TABULATE HYDROGEN SULFIDE SATD. LIQUID FUNCTIONS.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/6/ TSAT, THETA, PSAT
      COMMON/8/ IN,IK, P,T,DEN, E,H,S, CV,CP,CSAT, W,WK
      COMMON/12/ZCRT,ZCALC,DZDT, ZSAT,DZSDT,ZEX, ERT,DERTDT
      COMMON/19/ DNG,EG,HG,SG, CVG,CPG,WG, DPGDT,DPGDD
      COMMON/99/ TI,EZZ, EZ,SZ,CVZ, HZ,CPZ
      DIMENSION DSA(60),TSA(60),PSA(60),DLT(60),DPT(60),DPD(60)
      DATA (G=0.083145),(WM=34.08)
    4 FORMAT(1H1137*PROPERTIES OF SATURATED LIQUID HYDROGEN SULFIDE*//
     1 14X 1HT 11X1HP 3X5HDEN,L 7X5HDEN,G 3X5HZ,LIQ 3X5HZ,GAS
     2 5X6HDPS/DT 3X6HDDL/DT 3X5HDP/DT 6X5HDP/DD /
     3 14X 1HK 9X3HMPA 3X5HMOL/L 7X5HMOL/L 16X
     4 6X5HMPA/K 2X7HMOL/L/K 3X5HMPA/K 2X9HMPA-L/MOL )
    5 FORMAT(5XF10.3, F12.5, F8.3, F12.5, 2F9.5, F11.4,F9.5,F8.4,E11.4)
   11 FORMAT(1H1137*PROPERTIES OF SATURATED LIQUID HYDROGEN SULFIDE*//
     1 14X 1HT 4X5HQ,VAP 8X1HE 8X1HH 8X1HS
     2 5X2HCV 6X2HCS 6X2HCP 6X3HE/P 6X1HW /
     3 14X 1HK 4X5HJ/MOL 4X5HJ/MOL 4X5HJ/MOL 2X7HJ/MOL/K
     4 1X7HJ/MOL/K 1X7HJ/MOL/K 1X7HJ/MOL/K 11X 5HM/SEC )
   12 FORMAT(5X F10.3, 3F9.1, F9.3, 3F8.2, F9.5, I7)
C     FOR PAGE ONE OF TABLIQ.
C     INSERT BOILING POINT AT J = 7.
  100 NP = 40  $  PRINT 4  $  DO 150 J=1,NP  $  T = 180 + 5*J
  102 IF(J.EQ.1)  T = TTRP  $  IF(J.EQ.7) 104,105
  104 T = FINDTSE(1.01325)
  105 IF(J.GT.7)  T = T - 5.0
  125 IF(J.EQ.NP) 126,130
  126 T = TCRT  $  DSA(J)=DG=DL=DCRT  $  DLT(J) = DDLDT = 0
  127 VG = VL = 1.0/DCRT  $  ZG = ZCRT  $  GO TO 141
  130 DSA(J) = DL = DENLIQE(T)  $  DLT(J) = DDLDT = DDSDT
  140 DG = DENGASE(T)  $  ZG = ZSAT  $  VG = 1/DG  $  VL = 1/DL
  141 TSA(J) = T  $  PX = PVTE(T,DL,1)  $  DPT(J)=DPDT  $  DPD(J)=DPDD
  147 PSA(J) = PS = PSAT  $  Z = PS/DL/G/T
  148 PS=PS/10 $ DPSDT=DPSDT/10 $ DPDT=DPDT/10 $ DPDD=DPDD/10
  150 PRINT 5, T,PS, DL,DG, Z,ZG, DPSDT,DDLDT, DPDT,DPDD
C     PAGE 2, TABLIQ.  AVOID COEXIST, TIMESAVER.
C     GET FUGACITY COEF., (F/P), VIA HZ, SZ, HG, SG.
  160 PRINT 11  $  DO 180 J=1,NP  $  T=TSA(J) $ DL=DSA(J) $ PS=PSA(J)
  161 DDLDT=DLT(J)  $  DX=DVAPXE(T) $ S=SSATE(T) $ H=HSATE(T)
  162 E = H - 100*PS/DL  $  IF(J.EQ.NP) 163,164
  163 CV = CSAT = CP = IW = 0  $  GO TO 170
  164 PX = PVTE(T,DL,1)  $  CSAT = CSATXE(T)
  165 CV = CSAT + 100*T*DPDT*DDLDT/DL/DL
  166 CP = CV + 100*T/DPDD*(DPDT/DL)**2 $ IW=SQRT(WK*CP*DPDD/CV)
  170 TI = T  $  CALL IDEAL  $  GIB = H - EZZ - HZ - T*(S-SZ)
  171 GJ = 100*G  $  FOP = 1.01325/PS*EXP(GIB/GJ/T)
  180 PRINT 12, T,DX, E,H,S, CV,CSAT,CP, FOP, IW
  999 RETURN
      END
```

```
      FUNCTION THETAF(DEN)
C     THETA = TSAT*EXP(U(S)).
C     LET Q = (S-1)/(ST-1),  WHERE ST = DTRP/DCRT,  THEN -
C     IF S < 1, U = AL*Q**3,     IF S > 1,  U = -AL*Q**3,
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/6/ TSAT, THETA, PSAT
    1 S = DEN/DCRT  $  DSDR = DTRP/DCRT  $  C = DSDR-1
    2 Q = (S-1)/C  $  Q2 = Q*Q  $  U = AL*Q*Q2
    3 U1 = AL*3*Q2*DSDR/C  $  IF(Q) 5,9,4
    4 U = -U  $  U1 = -U1
    5 XP = EXP(U)  $  THETAF = TSAT*XP
    6 DTHDR = (TSAT*U1 + DTSDR)*XP  $  RETURN
    9 THETAF = TCRT  $  DTHDR = 0  $  RETURN
      END
```

```
      FUNCTION TSATF(DEN)
C     ITERATE T TO MINIMIZE (DEN-DCALC) VIA DENGASF(T), DENLIQF(T).
C     IF ITERATION FAILS, PRINTOUT ONCE ONLY AND STOP AT K = 2.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      DATA (Q=2.0),(EN=6.3890561)
C     NOTE,   EN = EXP(Q) - 1.0.
    1 FORMAT(1H1 14X *TSATF(DEN) FAILS AT DEN =* F15.7//
     1 15X 5HDCALC 13X2HDD 10X5HDDSDT 13X2HDT 12X3HT,K )
    2 FORMAT(5X 5E15.7)
    3 K = 0  $  D = DEN
    4 S = D/DCRT  $  YN = TCRT/TTRP-1  $  IF(D-DCRT) 5,30,6
    5 ST=DGAT/DCRT $ F=ALOG(S)/ALOG(ST)*((1-S)/(1-ST))**2 $ GO TO 7
    6 ST=DTRP/DCRT $ U=((S-1)/(ST-1))**3 $ F=(EXP(Q*U)-1)/EN
    7 T = TCRT/(YN*F+1)
    8 DO 20 J=1,50  $  IF(D-DCRT) 9,30,10
    9 DC = DENGASF(T)  $  GO TO 11
   10 DC = DENLIQF(T)
   11 DD = D - DC  $  IF(ABS(DD/D).LT.1.0E-7) 25,12
   12 DT = DD/DDSDT  $  IF(ABS(DT/T).LT.1.0E-7) 25,13
   13 T = T + DT  $  IF(T) 14,14,15
   14 T = TTRP  $  GO TO 18
   15 IF(T.LT.TCRT) 18,16
   16 T = TCRT - 0.00002
   18 IF(K.EQ.1)  PRINT 2, DC, DD, DDSDT, DT, T
   20 CONTINUE  $  K = K+1  $  IF(K.NE.1)  STOP
   21 PRINT 1, DEN  $  GO TO 4
   25 TSATF = T  $  DTSDR = DTRP/DDSDT  $  RETURN
   30 TSATF = TCRT  $  DTSDR = 0  $  RETURN
      END
```

```
      FUNCTION XCF(T,D)
C     XCF # (Y**BE)*EXP(A*(1-TS/T)) - XS**BE, WHERE -
C     X # T/TC, XS # TS/TC, A # (1-BE) + SQRT(1-BE).
C     XCF = U*EXP(A*V) - US,  U # Y**B,  US # XS**B,  V # (1-TS/T).
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/4/XB1,XB2, XC1,XC2, XE1,XE2, DXBDR,DXCDR,DXEDR
      COMMON/6/ TSAT, THETA, PSAT
    1 B = BE  $  BN = 1-B  $  A = BN + SQRT(BN)
    2 TC=TCRT $ TS=TSAT $ X=T/TC $ XS=TS/TC $ XS1=DTSDR/TC
    3 U = Y**B  $  U1 = B*U/X  $  U2 = -BN*U1/X
    4 US = XS**B  $  US1 = B*US*XS1/XS
    5 V = 1-TS/T  $  V1R = -DTSDR/T  $  V1X = TS/T/X  $  V2X = -2*V1X/X
    6 P = EXP(A*V)  $  P1 = A*P  $  P2 = A*P1
    7 P1R = P1*V1R  $  P1X = P1*V1X  $  P2X = P1*V2X + P2*V1X*V1X
    8 XCF = U*P - US  $  DXCDR = U*P1R - US1  $  XC1 = U*P1X + U1*P
    9 XC2 = U*P2X + 2*U1*P1X + U2*P  $  RETURN
      END



      FUNCTION XEF(T,D)
C     ULTRA REVISION, MARCH 29, 1981.
C     XEF # H(P,T)/HS(P) - 1.0,  W # (1-TH/T),  WE # W**E,
C     H(P,T) # 1.0 - (W-WE/E)/(1-1/E),  E = ET.
      COMMON/1/AL,BE,GA,DE,EP,ET, DCRT,TCRT,PCRT, DGAT,DTRP,TTRP,PTRP
      COMMON/3/DPDT,D2PDT2,DPSDT,DPMDT,DPDD,DPDR,DTSDR,DTHDR,DDSDT
      COMMON/4/ XB1,XB2, XC1,XC2, XE1,XE2, DXBDR,DXCDR,DXEDR
      COMMON/6/ TSAT, THETA, PSAT
    1 E = ET  $  EK = E/(E-1)  $  TC = TCRT
    2 TS = TSAT  $  TH = THETA  $  X = T/TC
    3 W = 1.0 - TH/T  $  IF(W) 30,30,5
    5 W1R = -DTHDR/T  $  W1X = TH/T/X  $  W2X = -2*W1X/X
    6 WE = W**E  $  WE1 = E*WE/W  $  WE1R = WE1*W1R
    7 WE1X = WE1*W1X  $  WE2X = WE1*W2X + (E-1)*WE1*W1X*W1X/W
    8 H = 1 - EK*(W-WE/E)  $  H1R = -EK*(W1R-WE1R/E)
    9 H1X = -EK*(W1X-WE1X/E)  $  H2X = -EK*(W2X-WE2X/E)
   10 WS = 1.0 - TH/TS  $  IF(WS) 11,11,12
   11 HS = 1  $  HS1 = 0  $  GO TO 16
   12 WS1 = (TH*DTSDR/TS - DTHDR)/TS
   13 WSE = WS**E  $  WSE1 = E*WSE*WS1/WS
   14 HS = 1 - EK*(WS-WSE/E)  $  HS1 = -EK*(WS1-WSE1/E)
   16 U = 1.0/HS  $  U1 = -U*HS1/HS
   20 XEF = H*U - 1.0  $  DXEDR = H*U1 + H1R*U
   21 XE1 = U*H1X  $  XE2 = U*H2X  $  RETURN
   30 XEF = XE1 = XE2 = DXEDR = 0  $  RETURN
      END
```

TABLE 3. *Ideal gas thermodynamic functions for* H_2S

°K	$\frac{C_p^\circ}{R}$		$\frac{(H^\circ-E_0^\circ)}{RT}$		$\frac{-(F^\circ-E_0^\circ)}{RT}$		$\frac{S^\circ}{R}$	
50	4.00286	2	3.95091	866	13.59988	72115	17.55080	72981
60	4.00288	13	3.95957	619	14.32103	61086	18.28061	61705
70	4.00301	20	3.96576	467	14.93189	52988	18.89766	53454
80	4.00321	24	3.97043	366	15.46177	46787	19.43220	47153
90	4.00345	28	3.97409	295	15.92964	41887	19.90373	42182
100	4.00373	31	3.97704	244	16.34851	37917	20.32555	38161
110	4.00404	39	3.97948	206	16.72768	34635	20.70716	34841
120	4.00443	51	3.98154	178	17.07403	31876	21.05557	32055
130	4.00494	72	3.98332	157	17.39279	29526	21.37612	29682
140	4.00566	103	3.98489	141	17.68805	27498	21.67294	27640
150	4.00669	148	3.98630	132	17.96303	25731	21.94934	25863
160	4.00817	204	3.98762	127	18.22034	24179	22.20797	24305
170	4.01021	272	3.98889	125	18.46213	22803	22.45102	22929
180	4.01293	353	3.99014	129	18.69016	21577	22.68031	21706
190	4.01646	443	3.99143	136	18.90593	20477	22.89737	20612
200	4.02089	540	3.99279	146	19.11070	19484	23.10349	19631
210	4.02629	640	3.99425	160	19.30554	18585	23.29980	18745
220	4.03269	743	3.99585	176	19.49139	17766	23.48725	17942
230	4.04012	844	3.99761	194	19.66905	17018	23.66667	17212
240	4.04856	944	3.99955	215	19.83923	16331	23.83879	16546
250	4.05800	1040	4.00170	236	20.00254	15700	24.00425	15936
260	4.06840	1130	4.00406	259	20.15954	15116	24.16361	15375
270	4.07970	1215	4.00665	283	20.31070	14576	24.31736	14858
280	4.09185	1293	4.00948	306	20.45646	14075	24.46594	14382
290	4.10478	1366	4.01254	330	20.59721	13609	24.60976	13938
300	4.11844	1432	4.01584	354	20.73330	13174	24.74914	13528
310	4.13276	1491	4.01938	377	20.86504	12767	24.88442	13144
320	4.14767	1546	4.02315	401	20.99271	12386	25.01586	12787
330	4.16313	1595	4.02716	423	21.11657	12028	25.14373	12452
340	4.17908	1640	4.03139	445	21.23685	11692	25.26825	12137
350	4.19548	1680	4.03584	467	21.35377	11376	25.38962	11843
360	4.21228	1717	4.04051	487	21.46753	11077	25.50805	11564
370	4.22945	1752	4.04538	508	21.57830	10795	25.62369	11303
380	4.24697	1782	4.05046	526	21.68625	10529	25.73672	11054
390	4.26479	1811	4.05572	546	21.79154	10275	25.84726	10821
400	4.28290	9429	4.06118	2982	21.89429	48002	25.95547	50984
450	4.37719	9955	4.09100	3355	22.37431	43273	26.46531	46629
500	4.47674	10382	4.12455	3671	22.80704	39481	26.93160	43152
550	4.58056	10705	4.16126	3939	23.20185	36375	27.36312	40313
600	4.68761	10909	4.20065	4164	23.56560	33786	27.76625	37951
650	4.79670	10981	4.24229	4352	23.90346	31597	28.14576	35949
700	4.90651	10923	4.28581	4503	24.21943	29722	28.50525	34225
750	5.01574	10751	4.33084	4618	24.51665	28098	28.84750	32715
800	5.12325	10481	4.37702	4699	24.79763	26676	29.17465	31376
850	5.22806	10139	4.42401	4751	25.06439	25421	29.48841	30171
900	5.32945	9744	4.47152	4773	25.31860	24304	29.79012	29078
950	5.42689	9314	4.51925	4773	25.56164	23303	30.08090	28075
1000	5.52003	8866	4.56698	4751	25.79467	22397	30.36165	27149
1050	5.60869	8410	4.61449	4712	26.01864	21576	30.63314	26287
1100	5.69279	7960	4.66161	4658	26.23440	20824	30.89601	25483
1150	5.77239	7518	4.70819	4593	26.44264	20136	31.15084	24728
1200	5.84757	13774	4.75412	8951	26.64400	38408	31.39812	47360
1300	5.98531	12224	4.84363	8600	27.02808	36213	31.87172	44812
1400	6.10755	10843	4.92963	8222	27.39021	34293	32.31984	42515
1500	6.21598	9632	5.01185	7832	27.73314	32598	32.74499	40431
1600	6.31230	8576	5.09017	7446	28.05912	31084	33.14930	38530
1700	6.39806	7661	5.16463	7069	28.36996	29723	33.53460	36792
1800	6.47467	6869	5.23532	6707	28.66719	28487	33.90252	35194
1900	6.54336	6182	5.30239	6362	28.95206	27361	34.25446	33723
2000	6.60518	5588	5.36601	6036	29.22567	26328	34.59169	32364
2100	6.66106	5070	5.42637	5730	29.48895	25377	34.91533	31106
2200	6.71176	4621	5.48367	5441	29.74272	24497	35.22639	29939
2300	6.75797	4227	5.53808	5172	29.98769	23680	35.52578	28852
2400	6.80024	3882	5.58980	4921	30.22449	22919	35.81430	27840
2500	6.83906	3580	5.63901	4685	30.45368	22209	36.09270	26894
2600	6.87486	3312	5.68586	4466	30.67577	21543	36.36164	26008
2700	6.90798	3076	5.73052	4261	30.89120	20918	36.62172	25179
2800	6.93874	2866	5.77313	4069	31.10038	20330	36.87351	24400
2900	6.96740	2678	5.81382	3891	31.30368	19776	37.11751	23666
3000	6.99418	4872	5.85273	7289	31.50144	38009	37.35417	45298
3200	7.04290	4331	5.92562	6702	31.88153	36128	37.80715	42830
3400	7.08621	3887	5.99264	6185	32.24281	34430	38.23545	40616
3600	7.12508	3520	6.05449	5729	32.58711	32890	38.64161	38619
3800	7.16028	3213	6.11178	5324	32.91601	31487	39.02780	36810
4000	7.19241	2954	6.16502	4964	33.23088	30201	39.39590	35165
4200	7.22195	2731	6.21466	4641	33.53289	29018	39.74755	33660
4400	7.24926	2538	6.26107	4352	33.82307	27929	40.08415	32281
4600	7.27464	2370	6.30459	4092	34.10236	26920	40.40696	31011
4800	7.29834	2222	6.34551	3856	34.37156	25982	40.71707	29839
5000	7.32056	----	6.38407	----	34.63138	-----	41.01546	-----

TABLE 4. *Ideal gas thermodynamic functions for* HDS

°K	$\frac{C_p^\circ}{R}$		$\frac{(H^\circ-E_0^\circ)}{RT}$		$\frac{-(F^\circ-E_0^\circ)}{RT}$		$\frac{S^\circ}{R}$	
50	4.00238	14	3.96864	563	14.84410	72410	18.81274	72974
60	4.00252	22	3.97427	405	15.56820	61295	19.54248	61700
70	4.00274	26	3.97832	307	16.18115	53145	20.15948	53451
80	4.00300	29	3.98139	242	16.71260	46908	20.69399	47150
90	4.00329	35	3.98381	196	17.18168	41984	21.16549	42181
100	4.00364	46	3.98577	165	17.60152	37997	21.58730	38161
110	4.00410	66	3.98742	141	17.98149	34701	21.96891	34843
120	4.00476	101	3.98883	126	18.32850	31933	22.31734	32059
130	4.00577	154	3.99009	118	18.64782	29574	22.63793	29691
140	4.00731	224	3.99127	114	18.94357	27541	22.93484	27655
150	4.00955	314	3.99241	116	19.21898	25770	23.21139	25886
160	4.01269	419	3.99357	124	19.47668	24214	23.47025	24339
170	4.01688	537	3.99481	137	19.71882	22838	23.71364	22975
180	4.02225	664	3.99618	154	19.94720	21610	23.94339	21764
190	4.02889	797	3.99772	175	20.16330	20510	24.16103	20685
200	4.03686	930	3.99947	200	20.36840	19519	24.36788	19718
210	4.04616	1063	4.00147	227	20.56359	18620	24.56506	18847
220	4.05679	1190	4.00374	256	20.74979	17802	24.75353	18059
230	4.06869	1313	4.00630	287	20.92781	17057	24.93412	17343
240	4.08182	1428	4.00917	319	21.09838	16373	25.10735	16692
250	4.09610	1535	4.01236	351	21.26211	15743	25.27447	16095
260	4.11145	1634	4.01587	384	21.41954	15163	25.43542	15547
270	4.12779	1726	4.01971	417	21.57117	14627	25.59089	15043
280	4.14505	1808	4.02388	448	21.71744	14128	25.74132	14576
290	4.16313	1884	4.02836	481	21.85872	13664	25.88708	14146
300	4.18197	1953	4.03317	511	21.99536	13233	26.02854	13744
310	4.20150	2015	4.03828	541	22.12769	12830	26.16598	13371
320	4.22165	2072	4.04369	571	22.25599	12452	26.29969	13022
330	4.24237	2123	4.04940	599	22.38051	12097	26.42991	12696
340	4.26360	2170	4.05539	625	22.50148	11765	26.55687	12391
350	4.28530	2212	4.06164	652	22.61913	11451	26.68078	12103
360	4.30742	2250	4.06816	677	22.73364	11155	26.80181	11832
370	4.32992	2286	4.07493	701	22.84519	10877	26.92013	11578
380	4.35278	2316	4.08194	724	22.95396	10612	27.03591	11336
390	4.37594	2345	4.08918	747	23.06008	10362	27.14927	11108
400	4.39939	12066	4.09665	4029	23.16370	48480	27.26035	52510
450	4.52005	12430	4.13694	4451	23.64850	43814	27.78545	48264
500	4.64435	12565	4.18145	4779	24.08664	40075	28.26809	44855
550	4.77000	12499	4.22924	5028	24.48739	37014	28.71664	42041
600	4.89499	12267	4.27952	5208	24.85753	34459	29.13705	39668
650	5.01766	11902	4.33160	5328	25.20212	32295	29.52373	37623
700	5.13668	11438	4.38488	5396	25.52507	30436	29.90996	35832
750	5.25106	10904	4.43884	5420	25.82943	28821	30.26828	34241
800	5.36010	10330	4.49304	5407	26.11764	27401	30.61069	32808
850	5.46340	9736	4.54711	5364	26.39165	26143	30.93877	31506
900	5.56076	9142	4.60075	5296	26.65308	25017	31.25383	30314
950	5.65218	8557	4.65371	5209	26.90325	24004	31.55697	29212
1000	5.73775	7993	4.70580	5106	27.14329	23083	31.84909	28190
1050	5.81768	7455	4.75686	4993	27.37412	22245	32.13099	27238
1100	5.89223	6945	4.80679	4873	27.59657	21475	32.40337	26347
1150	5.96168	6467	4.85552	4745	27.81132	20765	32.66684	25511
1200	6.02635	11624	4.90297	9099	28.01897	39608	32.92195	48706
1300	6.14259	10082	4.99396	8573	28.41505	37326	33.40901	45900
1400	6.24341	8761	5.07969	8057	28.78831	35324	33.86801	43381
1500	6.33102	7636	5.16026	7561	29.14155	33548	34.30182	41108
1600	6.40738	6680	5.23587	7092	29.47703	31957	34.71290	39050
1700	6.47418	5864	5.30679	6652	29.79660	30523	35.10340	37175
1800	6.53282	5168	5.37331	6242	30.10183	29221	35.47515	35462
1900	6.58450	4572	5.43573	5860	30.39404	28033	35.82977	33893
2000	6.63022	4059	5.49433	5508	30.67437	26941	36.16870	32449
2100	6.67081	3617	5.54941	5181	30.94378	25937	36.49319	31118
2200	6.70698	3233	5.60122	4879	31.20315	25007	36.80437	29886
2300	6.73931	2898	5.65001	4600	31.45322	24144	37.10323	28745
2400	6.76829	2605	5.69601	4342	31.69466	23341	37.39068	27683
2500	6.79434	2346	5.73943	4103	31.92807	22592	37.66751	26695
2600	6.81780	2119	5.78046	3882	32.15399	21889	37.93446	25771
2700	6.83899	1916	5.81928	3677	32.37288	21230	38.19217	24907
2800	6.85815	1735	5.85605	3486	32.58518	20611	38.44124	24097
2900	6.87550	1573	5.89091	3308	32.79129	20028	38.68221	23336
3000	6.89123	2720	5.92399	6133	32.99157	38431	38.91557	44564
3200	6.91843	2236	5.98532	5557	33.37588	36456	39.36121	42012
3400	6.94079	1830	6.04089	5052	33.74044	34674	39.78133	39726
3600	6.95909	1483	6.09141	4607	34.08718	33060	40.17859	37667
3800	6.97392	1180	6.13748	4213	34.41778	31589	40.55526	35803
4000	6.98572	913	6.17961	3862	34.73367	30246	40.91329	34107
4200	6.99485	673	6.21823	3546	35.03613	29010	41.25436	32556
4400	7.00158	454	6.25369	3262	35.32623	27872	41.57992	31134
4600	7.00612	250	6.28631	3005	35.60495	26818	41.89126	29824
4800	7.00862	60	6.31636	2771	35.87313	25842	42.18950	28613
5000	7.00922	----	6.34407	----	36.13155	-----	42.47563	-----

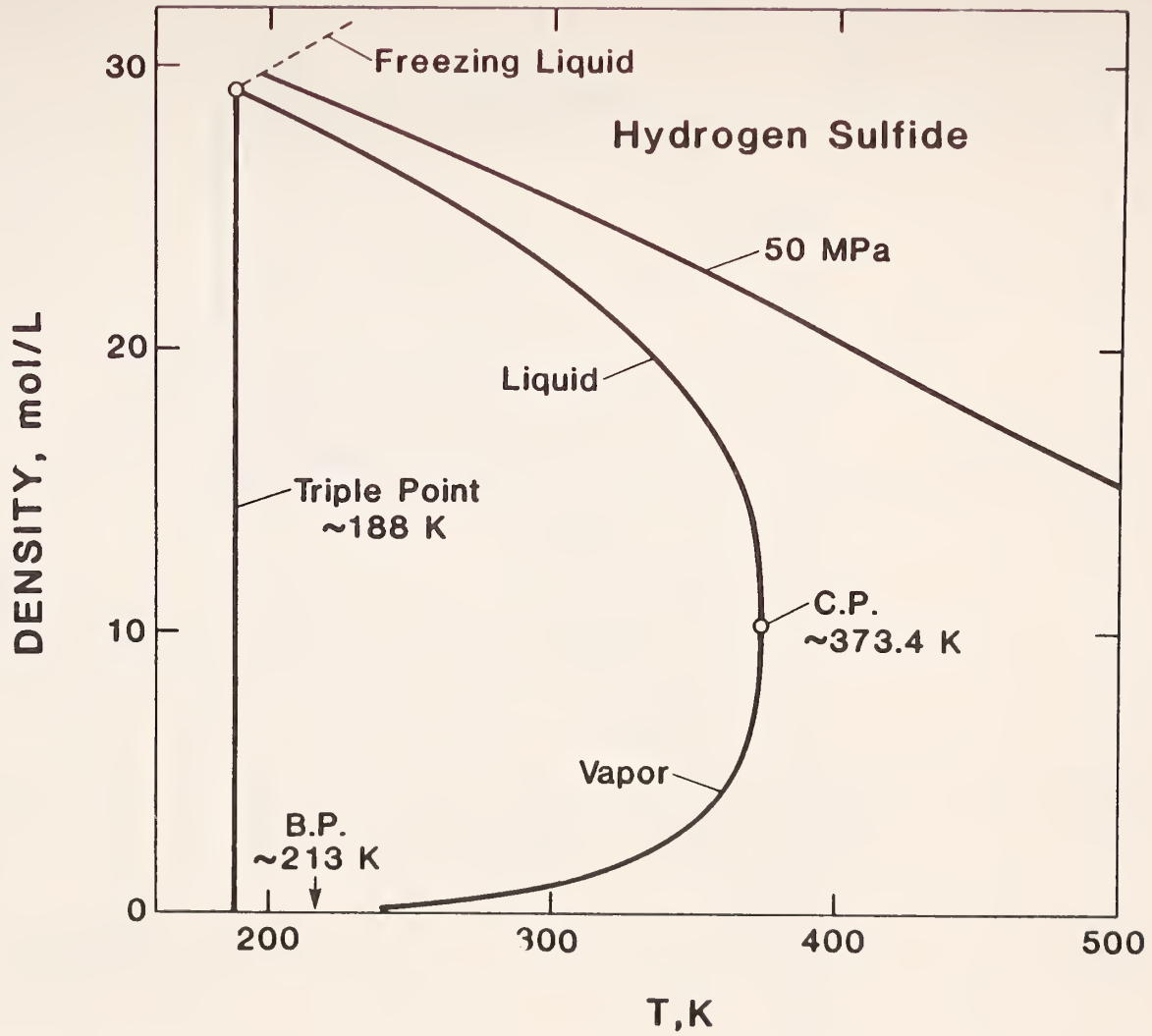

Figure 1. Density-temperature diagram of hydrogen sulfide.

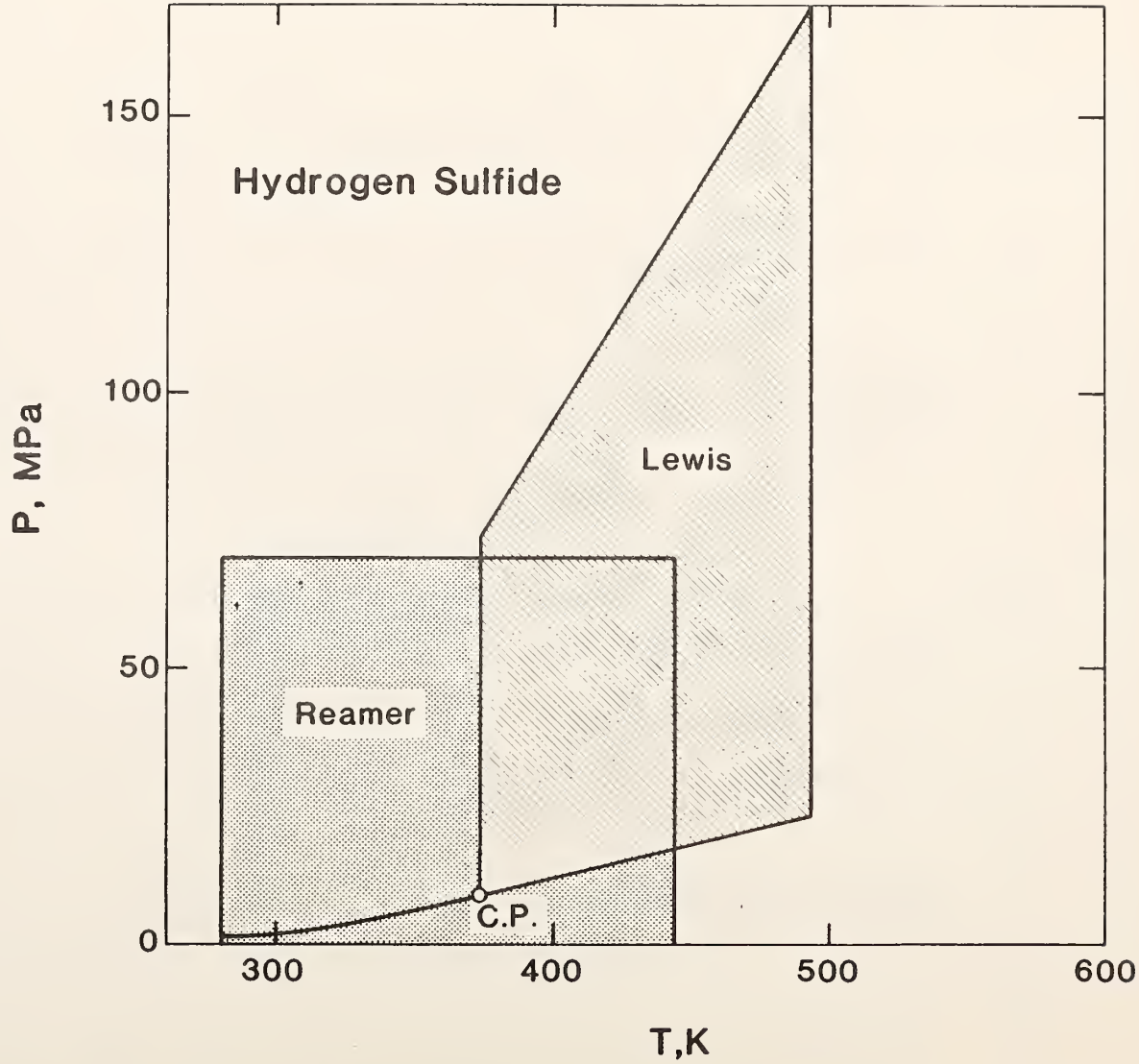

Figure 2. P-T locus of P-ρ-T data of Reamer and of Lewis.

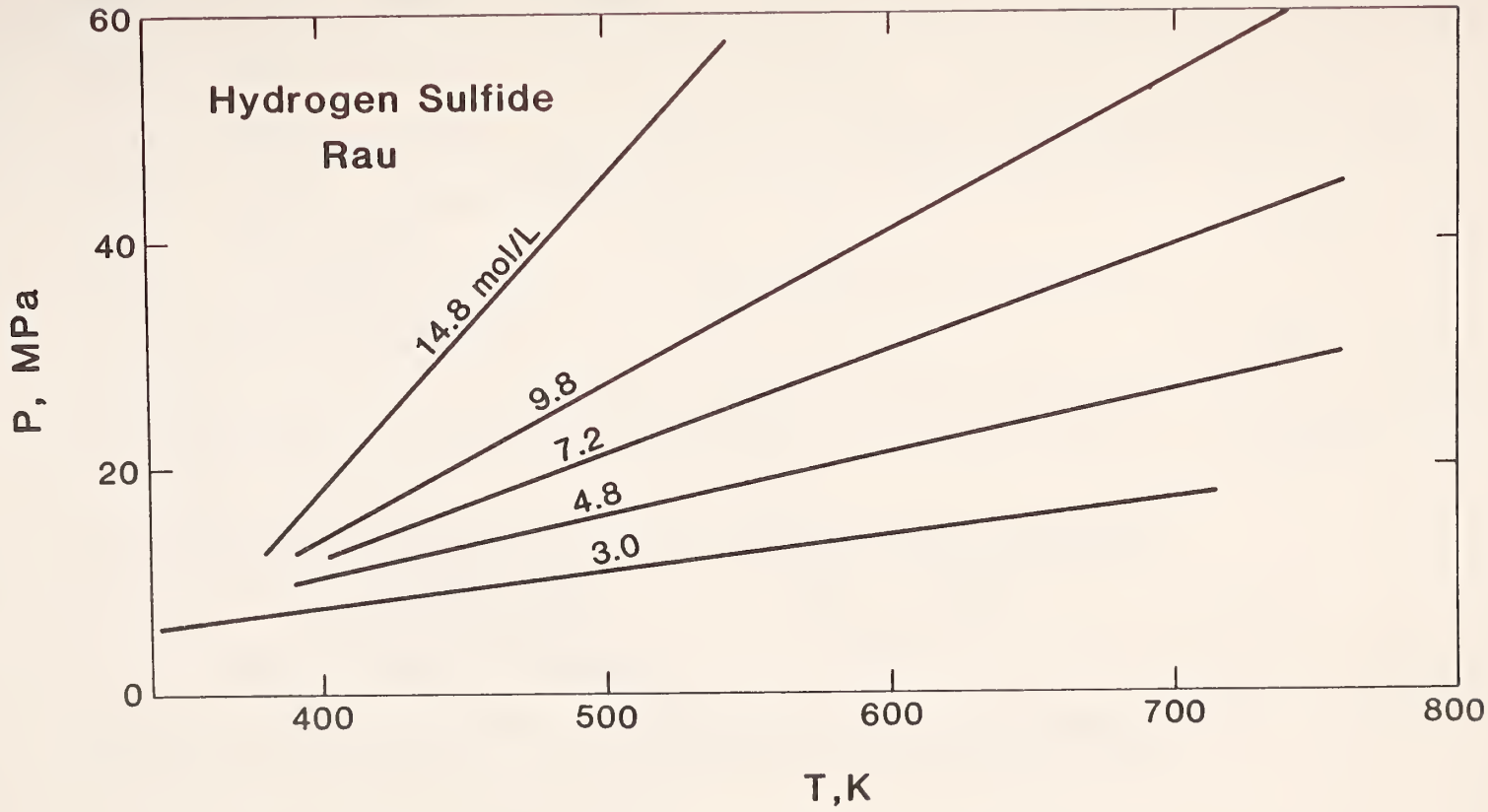

Figure 3. P-T locus of P-ρ-T data of Rau.

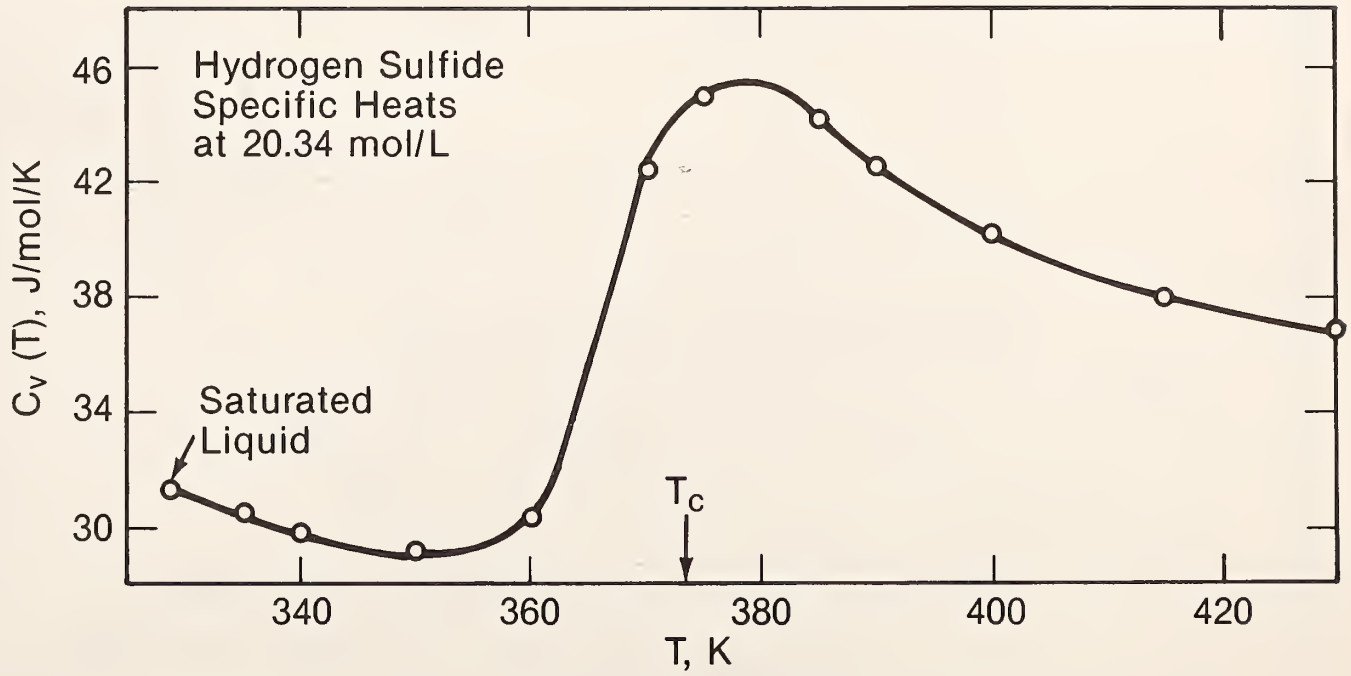

Figure 4. Specific heats, $C_v(T)$ at 20.34 mol/L.

Table 1. Comparisons of vapor pressure data for H_2S.

HYDROGEN SULFIDE VAPOR PRESSURE, MPA, EPP = 1.700

(1)REAMER, (2)GIAUQUE, (8)I.C.T., (15)WEST, (21)CARDOSO
(32)KLEMENC, (70)CLARKE

TTRP = 187.660, TBLP = 212.874, TCRT = 373.400
PTRP = .02320, PCRT = 8.96291, DPS/DTC = .15238

A = -8.023473844, B = 16.731062287, C =-10.325650140
D = 9.690908499, E = -3.577167041, F = 3.174310817

ID	WT	T,K	T/TC	P,MPA	CALCD	PCNT	DPS/DT	RESID
2	1.00	187.660	.50257	.02318	.02320	-.07	.00155	-.00012
2	1.00	188.400	.50455	.02438	.02438	.01	.00163	.00046
2	1.00	190.556	.51033	.02810	.02810	-.01	.00183	.00163
70	1.00	193.150	.51727	.03318	.03319	-.03	.00210	.00293
2	1.00	193.890	.51926	.03478	.03477	.02	.00218	.00336
2	1.00	197.030	.52766	.04219	.04217	.04	.00255	.00479
70	1.00	198.150	.53066	.04509	.04510	-.01	.00269	.00515
2	1.00	199.959	.53551	.05022	.05018	.09	.00293	.00601
70	1.00	203.150	.54405	.06025	.06026	-.01	.00339	.00694
2	.20	203.450	.54486	.06140	.06128	.20	.00344	.00738
2	.20	206.625	.55336	.07319	.07301	.23	.00396	.00835
70	1.00	208.150	.55745	.07925	.07925	-.00	.00423	.00834
2	.20	210.226	.56300	.08866	.08842	.27	.00461	.00928
70	1.00	212.875	.57010	.10133	.10133	-.00	.00514	.00936
70	1.00	212.974	.57036	.10183	.10184	-.01	.00516	.00938
70	1.00	213.150	.57084	.10274	.10275	-.01	.00520	.00941
2	.20	213.216	.57101	.10339	.10309	.28	.00521	.00991
70	1.00	218.150	.58423	.13144	.13145	-.01	.00631	.01019
70	1.00	223.150	.59762	.16608	.16610	-.01	.00758	.01072
70	1.00	228.150	.61101	.20747	.20751	-.02	.00901	.01102
70	1.00	233.150	.62440	.25645	.25650	-.02	.01062	.01114
70	1.00	238.150	.63779	.31389	.31395	-.02	.01240	.01110
70	1.00	243.150	.65118	.38070	.38078	-.02	.01436	.01092
70	1.00	248.150	.66457	.45781	.45790	-.02	.01652	.01062
70	1.00	253.150	.67796	.54617	.54629	-.02	.01887	.01022
70	1.00	258.150	.69135	.64680	.64692	-.02	.02142	.00974
70	1.00	263.150	.70474	.76067	.76079	-.02	.02417	.00920
70	1.00	268.150	.71813	.88882	.88892	-.01	.02712	.00861
21	1.00	273.150	.73152	1.03352	1.03235	.11	.03029	.00817
70	1.00	273.150	.73152	1.03230	1.03235	-.01	.03029	.00797
70	1.00	278.150	.74491	1.19219	1.19213	.01	.03366	.00732
70	1.00	283.150	.75830	1.36941	1.36930	.01	.03725	.00664
70	1.00	288.150	.77169	1.56527	1.56496	.02	.04105	.00596
1	.20	293.150	.78508	1.77471	1.78018	-.31	.04507	.00471
70	1.00	293.150	.78508	1.78069	1.78018	.03	.04507	.00527
70	1.00	298.150	.79847	2.01667	2.01607	.03	.04932	.00459
70	1.00	303.150	.81186	2.27495	2.27374	.05	.05379	.00395
70	1.00	308.150	.82525	2.55592	2.55435	.06	.05849	.00330
1	1.00	310.928	.83269	2.71653	2.72059	-.15	.06120	.00260
1	1.00	311.539	.83433	2.75790	2.75817	-.01	.06181	.00275
1	1.00	313.150	.83864	2.85443	2.85905	-.16	.06343	.00230
70	1.00	313.150	.83864	2.86111	2.85905	.07	.06343	.00269
70	1.00	318.150	.85204	3.19174	3.18904	.08	.06861	.00212
70	1.00	323.150	.86543	3.54881	3.54556	.09	.07404	.00157

Table 1. Continued.

HYDROGEN SULFIDE VAPOR PRESSURE, MPA, EPP = 1.700

ID	WT	T,K	T/TC	P,MPA	CALCD	PCNT	DPS/DT	RESID
1	1.00	333.150	.89221	4.33542	4.34341	-.18	.08571	.00014
1	.20	338.761	.90723	4.82633	4.84400	-.36	.09278	-.00061
1	1.00	344.261	.92196	5.37033	5.37426	-.07	.10011	-.00047
1	.20	345.428	.92509	5.51581	5.49203	.43	.10173	.00031
1	1.00	352.039	.94279	6.20528	6.19573	.15	.11129	-.00042
1	1.00	353.150	.94577	6.32180	6.32030	.02	.11297	-.00067
1	1.00	358.094	.95901	6.89476	6.89796	-.05	.12080	-.00065
1	1.00	360.928	.96660	7.24915	7.24701	.03	.12557	-.00071
1	1.00	363.539	.97359	7.58423	7.58087	.04	.13020	-.00063
1	1.00	368.706	.98743	8.27371	8.27894	-.06	.14026	-.00057
32	0.00	188.200	.50402	.02416	.02406	.42	.00161	.00103
32	0.00	193.200	.51741	.03393	.03329	1.91	.00210	.00618
32	0.00	198.200	.53080	.04666	.04523	3.16	.00269	.01041
32	0.00	203.200	.54419	.06229	.06043	3.08	.00340	.01206
32	0.00	208.200	.55758	.08158	.07947	2.66	.00424	.01277
32	0.00	210.200	.56294	.09049	.08830	2.47	.00461	.01292
32	0.00	213.200	.57097	.10510	.10301	2.03	.00521	.01280
1	0.00	277.594	.74342	1.16521	1.17352	-.71	.03327	.00620
15	0.00	277.594	.74342	1.15832	1.17352	-1.30	.03327	.00520
1	0.00	282.706	.75711	1.37895	1.35284	1.93	.03692	.00990
21	0.00	287.950	.77116	1.51177	1.55676	-2.89	.04089	.00103
1	0.00	298.150	.79847	2.06843	2.01607	2.60	.04932	.00884
21	0.00	301.000	.80611	2.11161	2.16020	-2.25	.05184	.00033
21	0.00	309.800	.82967	2.60709	2.65218	-1.70	.06009	.00011
15	0.00	310.928	.83269	2.73722	2.72059	.61	.06120	.00387
21	0.00	319.350	.85525	3.22315	3.27214	-1.50	.06989	-.00069
1	0.00	323.150	.86543	3.44738	3.54556	-2.77	.07404	-.00330
21	0.00	329.350	.88203	3.97599	4.02643	-1.25	.08115	-.00132
1	0.00	331.483	.88774	4.13685	4.20222	-1.56	.08369	-.00204
21	0.00	333.250	.89247	4.32962	4.35199	-.51	.08584	-.00042
21	0.00	337.800	.90466	4.71364	4.75543	-.88	.09154	-.00141
15	0.00	344.261	.92196	5.49512	5.37426	2.25	.10011	.00339
21	0.00	351.400	.94108	6.05214	6.12492	-1.19	.11033	-.00267
21	0.00	358.750	.96077	6.94380	6.97756	-.48	.12189	-.00159
21	0.00	360.900	.96652	7.19610	7.24350	-.65	.12552	-.00186
15	0.00	360.928	.96660	7.42565	7.24701	2.46	.12557	.00333
21	0.00	363.450	.97335	7.52541	7.56928	-.58	.13003	-.00169
21	0.00	363.650	.97389	7.56087	7.59533	-.45	.13040	-.00147
21	0.00	369.700	.99009	8.40592	8.41942	-.15	.14241	-.00066
21	0.00	370.000	.99089	8.50117	8.46224	.46	.14307	.00040

NP = 54, RMSPCT = .081

Table 2. Comparisons of saturated liquid density data for H_2S.

HYDROGEN SULFIDE SATLIQUID DENSITIES, EL = .350

(1)REAMER, (8)I.C.T., (32)KLEMENC, (34)BAXTER, (70)CLARKE
TTRP = 187.660, TBLP = 212.874, TCRT = 373.400
DTRP = 29.136, DLBP = 27.845, DCRT = 10.20
1.90639527 .83560599 -.57091447 .72347653

ID	WT	T,K	T/TC	KG/M3	MOL/L	CALCD	PCNT	DDS/DT
32	1.00	190.050	.50897	988.8	29.014	29.015	-.00	-.0507
32	1.00	192.050	.51433	985.4	28.914	28.913	.00	-.0508
32	1.00	194.050	.51968	981.5	28.800	28.812	-.04	-.0509
32	1.00	196.050	.52504	978.4	28.709	28.710	-.00	-.0510
32	1.00	198.050	.53040	974.8	28.603	28.608	-.02	-.0510
32	1.00	200.050	.53575	971.4	28.504	28.506	-.01	-.0511
32	1.00	202.050	.54111	968.0	28.404	28.403	.00	-.0512
32	1.00	204.050	.54646	964.4	28.298	28.301	-.01	-.0513
32	1.00	206.050	.55182	960.9	28.195	28.198	-.01	-.0515
32	1.00	208.050	.55718	957.4	28.093	28.095	-.01	-.0516
32	1.00	210.050	.56253	953.9	27.990	27.991	-.00	-.0517
32	1.00	212.050	.56789	950.4	27.887	27.888	-.00	-.0519
1	1.00	282.706	.75711	813.8	23.880	23.882	-.01	-.0645
1	1.00	298.150	.79847	778.8	22.851	22.842	.04	-.0706
1	1.00	311.539	.83433	745.1	21.862	21.850	.05	-.0779
1	1.00	323.150	.86543	711.6	20.879	20.897	-.08	-.0868
1	0.00	331.483	.88774	684.3	20.078	20.138	-.30	-.0956
1	0.00	338.761	.90723	657.8	19.302	19.407	-.54	-.1059
1	0.00	345.428	.92509	631.0	18.514	18.660	-.78	-.1191
1	0.00	352.039	.94279	600.9	17.632	17.814	-1.02	-.1383
1	0.00	358.094	.95901	568.7	16.688	16.897	-1.24	-.1670
1	0.00	363.539	.97359	532.6	15.628	15.872	-1.54	-.2155
1	0.00	368.706	.98743	484.0	14.201	14.510	-2.13	-.3359
70	1.00	193.150	.51727	983.5	28.860	28.857	.01	-.0508
70	1.00	198.150	.53066	974.8	28.604	28.603	.00	-.0510
70	1.00	203.150	.54405	966.3	28.353	28.347	.02	-.0513
70	1.00	208.150	.55745	957.3	28.090	28.090	.00	-.0516
70	1.00	212.875	.57010	949.0	27.847	27.845	.01	-.0519
70	1.00	212.974	.57036	949.0	27.847	27.840	.03	-.0519
70	1.00	213.150	.57084	948.5	27.832	27.831	.00	-.0519
70	1.00	218.150	.58423	939.9	27.579	27.570	.03	-.0524
70	1.00	223.150	.59762	930.9	27.315	27.307	.03	-.0528
70	1.00	228.150	.61101	921.8	27.049	27.042	.03	-.0533
70	1.00	233.150	.62440	912.7	26.781	26.774	.03	-.0539
70	1.00	238.150	.63779	903.3	26.504	26.502	.01	-.0546
70	1.00	243.150	.65118	893.8	26.226	26.228	-.01	-.0553
70	1.00	248.150	.66457	884.3	25.947	25.949	-.01	-.0561
70	1.00	253.150	.67796	874.5	25.661	25.667	-.02	-.0570
70	1.00	258.150	.69135	864.5	25.368	25.379	-.04	-.0580
70	1.00	263.150	.70474	854.6	25.075	25.087	-.05	-.0591
70	1.00	268.150	.71813	844.4	24.777	24.788	-.05	-.0603
70	1.00	273.150	.73152	834.1	24.474	24.484	-.04	-.0615
70	1.00	278.150	.74491	823.6	24.166	24.172	-.03	-.0630
70	1.00	283.150	.75830	812.8	23.849	23.853	-.02	-.0646
70	1.00	288.150	.77169	801.9	23.529	23.526	.01	-.0664
70	1.00	293.150	.78508	790.5	23.196	23.189	.03	-.0684
70	1.00	298.150	.79847	778.8	22.852	22.842	.05	-.0706
70	1.00	303.150	.81186	766.7	22.497	22.483	.06	-.0730
70	1.00	308.150	.82525	754.0	22.124	22.111	.06	-.0758
70	1.00	313.150	.83864	740.7	21.734	21.724	.05	-.0790
70	1.00	318.150	.85204	726.5	21.317	21.320	-.01	-.0826
70	1.00	323.150	.86543	711.5	20.877	20.897	-.09	-.0868

NP = 45, RMSPCT = .033

Table 3. Comparisons of saturated vapor density data for H_2S.

HYDROGEN SULFIOE SATVAPOR OENSITIES, AG = .70, BG = 2.00

(1)REAMER, (9)VIA B(T), (10)VIA QVAP, (70)CLARKE, (95)VIA R.D.
TTRP = 187.660, TBLP = 212.874, TCRT = 373.400
OGAT = .01496, DGBP = .05843, DCRT = 10.20, ZCRT = .28303
-.752579794 -.865481204 1.975480377 2.172963661 -5.766079643

ID	WT	T,K	T/TC	KG/M3	MOL/L	CALCD	PCNT	OOS/DT	F(Z)
70	.42	193.150	.51727	.710	.02084	.02083	.02	.00122	.8324
70	.46	198.150	.53066	.943	.02767	.02766	.03	.00152	.8333
70	.50	203.150	.54405	1.233	.03617	.03615	.04	.00188	.8368
70	.54	208.150	.55745	1.587	.04658	.04657	.02	.00229	.8241
70	.57	212.875	.57010	1.992	.05845	.05843	.02	.00274	.8202
70	.57	212.974	.57036	2.001	.05872	.05871	.02	.00275	.8224
70	.57	213.150	.57084	2.017	.05917	.05919	-.03	.00277	.8004
70	.61	218.150	.58423	2.534	.07435	.07433	.02	.00330	.8201
70	.65	223.150	.59762	3.147	.09234	.09231	.03	.00390	.8186
70	.68	228.150	.61101	3.868	.11349	.11348	.01	.00458	.8135
70	.71	233.150	.62440	4.711	.13824	.13819	.03	.00532	.8137
70	.74	238.150	.63779	5.689	.16695	.16685	.06	.00615	.8140
70	.77	243.150	.65118	6.817	.20004	.19986	.09	.00707	.8137
70	.80	248.150	.66457	8.105	.23781	.23765	.07	.00807	.8051
70	.82	253.150	.67796	9.570	.28082	.28070	.04	.00917	.7970
70	.84	258.150	.69135	11.233	.32960	.32948	.04	.01037	.7903
70	.86	263.150	.70474	13.108	.38462	.38453	.02	.01167	.7830
70	.88	268.150	.71813	15.221	.44663	.44641	.05	.01310	.7782
70	.90	273.150	.73152	17.585	.51600	.51570	.06	.01464	.7715
70	.91	278.150	.74491	20.226	.59347	.59307	.07	.01633	.7647
70	.93	283.150	.75830	23.168	.67981	.67921	.09	.01816	.7582
70	.94	288.150	.77169	26.439	.77580	.77489	.12	.02015	.7517
70	.95	293.150	.78508	30.053	.88183	.88097	.10	.02232	.7435
70	.96	298.150	.79847	34.080	1.00000	.99840	.16	.02469	.7382
70	.97	303.150	.81186	38.495	1.12956	1.12829	.11	.02731	.7298
70	.97	308.150	.82525	43.364	1.27243	1.27192	.04	.03020	.7216
70	.98	313.150	.83864	48.707	1.42918	1.43081	-.11	.03342	.7125
70	0.00	318.150	.85204	54.537	1.60026	1.60682	-.41	.03706	.7019
70	0.00	323.150	.86543	60.868	1.78603	1.80229	-.90	.04123	.6896
9	.39	190.000	.50894	.589	.01728	.01727	.02	.00105	.8374
9	.47	200.000	.53562	1.043	.03060	.03060	.01	.00165	.8225
9	.55	210.000	.56240	1.737	.05096	.05096	-.01	.00246	.8090
9	.62	220.000	.58918	2.747	.08059	.08064	-.05	.00352	.7970
9	.69	230.000	.61596	4.160	.12205	.12219	-.11	.00484	.7868
9	.75	240.000	.64274	6.074	.17822	.17853	-.18	.00648	.7796
9	.81	250.000	.66952	8.602	.25239	.25294	-.22	.00846	.7726
9	.85	260.000	.69630	11.873	.34839	.34909	-.20	.01084	.7691
9	.89	270.000	.72309	16.046	.47083	.47115	-.07	.01365	.7684
10	.38	188.750	.50549	.545	.01599	.01600	-.08	.00099	.7063
10	.57	212.870	.57009	1.992	.05844	.05842	.03	.00274	.8251
95	.99	325.000	.87038	63.902	1.87506	1.88012	-.27	.04293	.7013
95	.99	330.000	.88377	71.650	2.10240	2.10728	-.23	.04638	.7009
95	1.00	335.000	.89716	80.384	2.35869	2.36257	-.17	.05427	.7024
95	1.00	340.000	.91055	90.322	2.65029	2.65244	-.08	.06193	.7063
95	1.00	345.000	.92394	101.770	2.98621	2.98556	.02	.07175	.7128
95	1.00	350.000	.93733	115.187	3.37991	3.37571	.12	.08502	.7225
95	1.00	355.000	.95072	131.314	3.85312	3.84545	.20	.10417	.7363
95	1.00	360.000	.96411	151.490	4.44512	4.43605	.20	.13479	.7561
95	1.00	365.000	.97750	178.638	5.24172	5.23790	.07	.19347	.7858
95	1.00	370.000	.99089	222.319	6.52343	6.54170	-.28	.37047	.9389

NP = 48, RMSPCT = .123

Table 4. Coefficients of equation of state for hydrogen sulfide.

EQNSTATE COEFFS., HYDROGEN SULFIDE

TTRP = .187660E+03, TBLP = .212874E+03, TCRT = .373400E+03 K,
PTRP = .231991E-01, PBLP = .101325E+00, PCRT = .896291E+01 MPA,
DGAT = .149574E-01, DGBP = .584328E-01, DCRT = .102000E+02 MOL/L,
DTRP = .291360E+02, DLBP = .278450E+02, DCRT = .102000E+02 MOL/L,
DPS/DT8 = .51380E-02 MPA/K, QVAPB, KJ/MOL = 18.6786

IX = 2, ER = 2.000
AL = 1.0000000, BE = .7500000, GA = .5000000
DE = 0.0000000, EP = 0.0000000, ET = 1.1000000

B1 = .39825678673, B2 = 0.00000000000, B3 = .13290189038
C1 = -.31070871113, C2 = 0.00000000000, C3 = 0.00000000000

D/DC	MOL/L	TSAT	THETA	PSAT	B	C
.10	1.0200	299.017	266.817	2.0592	.39959	-.52866
.20	2.0400	328.577	303.309	3.9641	.40357	-.43856
.30	3.0600	346.021	327.959	5.5526	.41022	-.35347
.40	4.0800	357.141	345.285	6.7836	.41952	-.27535
.50	5.1000	364.264	357.217	7.6757	.43148	-.20565
.60	6.1200	368.723	365.054	8.2814	.44610	-.14533
.70	7.1400	371.369	369.805	8.6602	.46338	-.09485
.80	8.1600	372.762	372.297	8.8666	.48331	-.05415
.90	9.1800	373.313	373.254	8.9496	.50591	-.02280
1.00	10.2000	373.400	373.400	8.9629	.53116	0.00000
1.10	11.2200	373.318	373.260	8.9505	.55907	.01527
1.20	12.2400	372.816	372.350	8.8746	.58964	.02420
1.30	13.2600	371.577	370.013	8.6908	.62286	.02803
1.40	14.2800	369.360	365.683	8.3711	.65874	.02799
1.50	15.3000	365.984	358.903	7.9048	.69729	.02522
1.60	16.3200	361.328	349.333	7.2974	.73849	.02073
1.70	17.3400	355.310	336.764	6.5679	.78234	.01538
1.80	18.3600	347.892	321.129	5.7459	.82886	.00984
1.90	19.3800	339.016	302.508	4.8677	.87803	.00460
2.00	20.4000	328.699	281.139	3.9739	.92985	0.00000
2.10	21.4200	316.933	257.409	3.1063	.98435	-.00377
2.20	22.4400	303.734	231.848	2.3053	1.04150	-.00663
2.30	23.4600	289.139	205.107	1.6059	1.10131	-.00860
2.40	24.4800	273.212	177.928	1.0342	1.16377	-.00977
2.50	25.5000	256.058	151.096	.6033	1.22889	-.01024
2.60	26.5200	237.828	125.383	.3100	1.29667	-.01016
2.70	27.5400	218.722	101.488	.1351	1.36711	-.00966
2.80	28.5600	198.984	79.976	.0474	1.44021	-.00888
2.90	29.5800	178.882	61.235	.0124	1.51596	-.00793

Table 5. Calculated critical isotherm for hydrogen sulfide.

TC = 373.400 K, DC = 10.20 MOL/L, PC = 8.962907 MPA,
AT THE C.P., DPS/DT = .152378, DP/DT = .152378 MPA/K.

D/DC	TS/TC	DTS/DD K-L/MOL	PS/PC	DPS/DD MPA-L/MOL	P/PC	DP/DD MPA-L/MOL	DP/DT MPA/K	D2P/DT2 MPA/K/K
.900	.999756359	2.514227646	.998519546	.381865509	.999864086	.048053053	.137834340	-.00545
.905	.999798471	2.283710624	.998722771	.346977168	.999888991	.041345900	.138623794	-.00593
.910	.999827660	2.062570309	.998907561	.313481530	.999910385	.035263779	.139410261	-.00649
.915	.999853863	1.852451796	.999073500	.281632788	.999928509	.029808645	.140193078	-.00713
.920	.999877322	1.652730275	.999222101	.251340119	.999943754	.024935539	.140972244	-.00788
.925	.999898176	1.463545485	.999354241	.222628230	.999956435	.020614692	.141747496	-.00877
.930	.999916568	1.285040494	.999470809	.195522098	.999966852	.016815722	.142518533	-.00982
.935	.999932642	1.117351222	.999572706	.170046901	.999975288	.013507626	.143285009	-.01110
.940	.999946543	.960656060	.999660851	.146227964	.999982009	.010658775	.144046521	-.01266
.945	.999958420	.815075665	.999736175	.124090727	.999987260	.008236925	.144802596	-.01461
.950	.999968422	.680773017	.999799622	.103660757	.999991272	.006209213	.145552674	-.01709
.955	.999976703	.557903981	.999852154	.084963825	.999994255	.004542187	.146296084	-.02032
.960	.999983415	.446627937	.999894744	.068026077	.999996401	.003201824	.147032009	-.02465
.965	.999988716	.347110912	.999928381	.052874365	.999997882	.002153568	.147759436	-.03067
.970	.999992764	.259529379	.999954070	.039536831	.999998851	.001362365	.148477079	-.03947
.975	.999995720	.184072387	.999972832	.028043923	.999999443	.000792712	.149183258	-.05317
.980	.999997748	.120963239	.999985704	.018430195	.999999770	.000408710	.149875678	-.07650
.985	.999999107	.066088057	.999994333	.010069808	.999999933	.000161615	.150555344	-.12932
.990	.999999725	.030624306	.999998256	.004666352	.999999987	.000048114	.151206961	-.25224
.995	.999999981	.005386210	.999999879	.000820735	1.000000000	.000003746	.151832101	-1.10629
1.000	1.000000000	.000000000	1.000000000	.000000000	1.000000000	-.000000000	.152377578	0.00000
1.005	.999999994	-.002547851	.999999962	-.000388235	1.000000000	.000001659	.152924238	1.60160
1.010	.999999718	-.030952478	.999998209	-.004716355	1.000000014	.000050655	.153579327	.24834
1.015	.999999095	-.065999755	.999994257	-.010056348	1.000000070	.000170715	.154268860	.12835
1.020	.999997790	-.117941078	.999985970	-.017969758	1.000000239	.000427128	.155000025	.07734
1.025	.999995810	-.178477501	.999973458	-.027191502	1.000000582	.000836368	.155760180	.05388
1.030	.999992961	-.250351060	.999955319	-.038138930	1.000001210	.001451178	.156549145	.04009
1.035	.999989066	-.333250225	.999930604	-.050763394	1.000002248	.002316045	.157364637	.03122
1.040	.999983990	-.426913125	.999899389	-.065024044	1.000003848	.003476719	.158204984	.02514
1.045	.999977588	-.531112750	.999857772	-.080885075	1.000006190	.004980203	.159068910	.02076
1.050	.999969722	-.645647712	.999807869	-.098314416	1.000009477	.006874752	.159955413	.01749
1.055	.999960255	-.770336090	.999747813	-.117282786	1.000013941	.009209860	.160863687	.01498
1.060	.999949050	-.905011145	.999676754	-.137763041	1.000019843	.012036255	.161793070	.01300
1.065	.999935977	-1.049518221	.999593855	-.159729697	1.000027470	.015405886	.162743013	.01141
1.070	.999920904	-1.203712437	.999498294	-.183158576	1.000037140	.019371915	.163713053	.01011
1.075	.999903702	-1.367456931	.999389261	-.208026539	1.000049202	.023988706	.164702798	.00904
1.080	.999884244	-1.540621492	.999265961	-.234311271	1.000064034	.029311812	.165711909	.00813
1.085	.999862406	-1.723081476	.999127608	-.261991117	1.000082045	.035397966	.166740096	.00737
1.090	.999837952	-1.915565324	.998972727	-.291173681	1.000103750	.042327611	.167787387	.00671
1.095	.999810967	-2.116320033	.998801873	-.321589587	1.000129494	.050118032	.168853009	.00614
1.100	.999781235	-2.326020826	.998613678	-.353338372	1.000159842	.058848916	.169937040	.00565

Table 6. Comparisons for P-ρ-T data for hydrogen sulfide.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
1	1	1.000	277.594	.0444	.0443	.17	.1013	.1015	-.17
1	2	1.000	277.594	.0607	.0605	.22	.1379	.1382	-.22
1	3	1.000	277.594	.0917	.0914	.30	.2068	.2074	-.29
1	4	1.000	277.594	.1232	.1228	.36	.2758	.2768	-.35
1	5	1.000	277.594	.1552	.1546	.39	.3447	.3460	-.38
1	6	1.000	277.594	.1878	.1869	.45	.4137	.4155	-.43
1	7	0.000	277.594	.2547	.2532	.58	.5516	.5546	-.54
1	8	0.000	277.594	.3243	.3217	.79	.6895	.6945	-.72
1	9	0.000	277.594	.4150	.4109	.99	.8618	.8695	-.88
1	10	0.000	277.594	.5101	.5046	1.10	1.0342	1.0442	-.95
1	11	1.000	277.594	24.2300	24.2194	.04	1.3790	1.5600	-11.61
1	12	1.000	277.594	24.2704	24.2596	.04	2.0684	2.2564	-8.33
1	13	1.000	277.594	24.3109	24.2991	.05	2.7579	2.9651	-6.99
1	14	1.000	277.594	24.3590	24.3382	.09	3.4474	3.8188	-9.73
1	15	1.000	277.594	24.4072	24.3767	.13	4.1369	4.6904	-11.80
1	16	1.000	277.594	24.4856	24.4522	.14	5.5158	6.1368	-10.12
1	17	1.000	277.594	24.5644	24.5258	.16	6.8948	7.6321	-9.66
1	18	1.000	277.594	24.6514	24.6153	.15	8.6184	9.3275	-7.60
1	19	1.000	277.594	24.7428	24.7022	.16	10.3421	11.1632	-7.36
1	20	1.000	277.594	24.8271	24.7867	.16	12.0658	12.9077	-6.52
1	21	1.000	277.594	24.9121	24.8689	.17	13.7895	14.7130	-6.28
1	22	1.000	277.594	24.9937	24.9490	.18	15.5132	16.4949	-5.95
1	23	1.000	277.594	25.0719	25.0271	.18	17.2369	18.2468	-5.53
1	24	1.000	277.594	25.1546	25.1033	.20	18.9606	20.1456	-5.88
1	25	1.000	277.594	25.2339	25.1777	.22	20.6843	22.0121	-6.03
1	26	1.000	277.594	25.3899	25.3216	.27	24.1317	25.8215	-6.54
1	27	1.000	277.594	25.5356	25.4594	.30	27.5790	29.5460	-6.66
1	28	1.000	277.594	25.6583	25.5918	.26	31.0264	32.8103	-5.44
1	29	1.000	277.594	25.7822	25.7191	.25	34.4738	36.2274	-4.84
1	30	1.000	277.594	26.0845	25.9606	.48	41.3685	45.0927	-8.26
1	31	1.000	277.594	26.3245	26.1866	.53	48.2633	52.6873	-8.40
1	32	1.000	277.594	26.5338	26.3993	.51	55.1581	59.7268	-7.65
1	33	1.000	277.594	26.7019	26.6005	.38	62.0528	65.6711	-5.51
1	34	1.000	277.594	26.8091	26.7915	.07	68.9476	69.6035	-.94
1	35	1.000	310.928	.0395	.0395	.06	.1013	.1014	-.06
1	36	1.000	310.928	.0539	.0538	.04	.1379	.1380	-.04
1	37	1.000	310.928	.0812	.0812	.03	.2068	.2069	-.03
1	38	1.000	310.928	.1088	.1088	.05	.2758	.2759	-.05
1	39	1.000	310.928	.1367	.1367	.01	.3447	.3448	-.01
1	40	1.000	310.928	.1650	.1649	.07	.4137	.4140	-.07
1	41	1.000	310.928	.2222	.2222	.01	.5516	.5516	-.01
1	42	1.000	310.928	.2805	.2807	-.06	.6895	.6891	.05
1	43	1.000	310.928	.3552	.3558	-.17	.8618	.8605	.15
1	44	1.000	310.928	.4329	.4330	-.02	1.0342	1.0340	.02
1	45	1.000	310.928	.5937	.5947	-.17	1.3790	1.3768	.15
1	46	1.000	310.928	.9523	.9539	-.16	2.0684	2.0657	.13
1	47	1.000	310.928	21.9071	21.9016	.02	2.7579	2.9107	-1.88
1	48	1.000	310.928	21.9702	21.9720	-.01	3.4474	3.4295	.52
1	49	1.000	310.928	22.0336	22.0404	-.03	4.1369	4.0682	1.69
1	50	1.000	310.928	22.1555	22.1717	-.07	5.5158	5.3419	3.26
1	51	1.000	310.928	22.2757	22.2966	-.09	6.8948	6.6591	3.54
1	52	1.000	310.928	22.4191	22.4447	-.11	8.6184	8.3140	3.66
1	53	1.000	310.928	22.5644	22.5849	-.09	10.3421	10.0847	2.55
1	54	1.000	310.928	22.6987	22.7181	-.09	12.0658	11.8089	2.18
1	55	1.000	310.928	22.8248	22.8453	-.09	13.7895	13.5072	2.09
1	56	1.000	310.928	22.9491	22.9668	-.08	15.5132	15.2569	1.68
1	57	1.000	310.928	23.0647	23.0835	-.08	17.2369	16.9553	1.65

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
1	58	1.000	310.928	23.1816	23.1956	-.06	18.9606	18.7415	1.17
1	59	1.000	310.928	23.2894	23.3036	-.06	20.6843	20.4549	1.12
1	60	1.000	310.928	23.5082	23.5085	-.00	24.1317	24.1256	.02
1	61	1.000	310.928	23.7100	23.7006	.04	27.5790	27.7535	-.63
1	62	1.000	310.928	23.8975	23.8815	.07	31.0264	31.3396	-1.00
1	63	1.000	310.928	24.0771	24.0528	.10	34.4738	34.9779	-1.44
1	64	1.000	310.928	24.3924	24.3705	.09	41.3685	41.8675	-1.19
1	65	1.000	310.928	24.6704	24.6608	.04	48.2633	48.4995	-.49
1	66	1.000	310.928	24.9315	24.9287	.01	55.1581	55.2308	-.13
1	67	1.000	310.928	25.1467	25.1779	-.12	62.0528	61.1537	1.45
1	68	1.000	310.928	25.3457	25.4112	-.26	68.9476	66.9676	2.96
1	69	1.000	344.261	.0356	.0356	.01	.1013	.1013	-.01
1	70	1.000	344.261	.0485	.0485	-.00	.1379	.1379	.00
1	71	1.000	344.261	.0730	.0730	-.04	.2068	.2068	.04
1	72	1.000	344.261	.0977	.0978	-.02	.2758	.2757	.02
1	73	1.000	344.261	.1226	.1227	-.08	.3447	.3445	.08
1	74	1.000	344.261	.1476	.1477	-.07	.4137	.4134	.07
1	75	1.000	344.261	.1982	.1985	-.13	.5516	.5509	.13
1	76	1.000	344.261	.2495	.2501	-.22	.6895	.6880	.21
1	77	1.000	344.261	.3147	.3156	-.29	.8618	.8595	.28
1	78	1.000	344.261	.3814	.3825	-.28	1.0342	1.0315	.26
1	79	1.000	344.261	.5184	.5201	-.33	1.3790	1.3747	.31
1	80	1.000	344.261	.8107	.8132	-.31	2.0684	2.0627	.28
1	81	1.000	344.261	1.1328	1.1346	-.15	2.7579	2.7544	.13
1	82	1.000	344.261	1.4971	1.4936	.23	3.4474	3.4536	-.18
1	83	1.000	344.261	1.9230	1.9072	.83	4.1369	4.1610	-.58
1	84	1.000	344.261	18.7044	18.8354	-.70	5.5158	5.0461	9.31
1	85	1.000	344.261	19.0153	19.1740	-.83	6.8948	6.2178	10.89
1	86	1.000	344.261	19.3787	19.5296	-.77	8.6184	7.8508	9.78
1	87	1.000	344.261	19.6811	19.8343	-.77	10.3421	9.4459	9.49
1	88	1.000	344.261	19.9806	20.1029	-.61	12.0658	11.2565	7.19
1	89	1.000	344.261	20.2535	20.3441	-.45	13.7895	13.1218	5.09
1	90	1.000	344.261	20.4552	20.5638	-.53	15.5132	14.6423	5.95
1	91	1.000	344.261	20.6530	20.7661	-.54	17.2369	16.2566	6.03
1	92	1.000	344.261	20.8357	20.9539	-.56	18.9606	17.8612	6.16
1	93	1.000	344.261	21.0051	21.1295	-.59	20.6843	19.4513	6.34
1	94	1.000	344.261	21.3153	21.4505	-.63	24.1317	22.6322	6.63
1	95	1.000	344.261	21.5999	21.7391	-.64	27.5790	25.8739	6.59
1	96	1.000	344.261	21.8921	22.0020	-.50	31.0264	29.5490	5.00
1	97	1.000	344.261	22.1311	22.2441	-.51	34.4738	32.8304	5.01
1	98	1.000	344.261	22.5612	22.6788	-.52	41.3685	39.4111	4.97
1	99	1.000	344.261	22.9327	23.0623	-.56	48.2633	45.8442	5.28
1	100	1.000	344.261	23.2996	23.4067	-.46	55.1581	52.9399	4.19
1	101	1.000	344.261	23.6261	23.7201	-.40	62.0528	59.9189	3.55
1	102	1.000	344.261	23.9690	24.0084	-.16	68.9476	67.9722	1.44
1	103	1.000	377.594	.0324	.0324	-.02	.1013	.1013	.02
1	104	1.000	377.594	.0441	.0442	-.04	.1379	.1378	.04
1	105	1.000	377.594	.0664	.0664	-.06	.2068	.2067	.05
1	106	1.000	377.594	.0887	.0888	-.09	.2758	.2756	.09
1	107	1.000	377.594	.1112	.1113	-.10	.3447	.3444	.10
1	108	1.000	377.594	.1338	.1340	-.14	.4137	.4131	.13
1	109	1.000	377.594	.1794	.1797	-.18	.5516	.5506	.18
1	110	1.000	377.594	.2253	.2259	-.28	.6895	.6876	.27
1	111	1.000	377.594	.2835	.2844	-.33	.8618	.8591	.32
1	112	1.000	377.594	.3430	.3438	-.22	1.0342	1.0320	.21
1	113	1.000	377.594	.4630	.4649	-.42	1.3790	1.3734	.40
1	114	0.000	377.594	.7461	.7176	3.97	2.0684	2.1438	-3.51
1	115	1.000	377.594	.9833	.9854	-.21	2.7579	2.7528	.19

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
1	116	1.000	377.594	1.2713	1.2707	.05	3.4474	3.4488	-.04
1	117	1.000	377.594	1.5829	1.5772	.36	4.1369	4.1491	-.29
1	118	1.000	377.594	2.3015	2.2781	1.03	5.5158	5.5571	-.74
1	119	1.000	377.594	3.2361	3.1773	1.85	6.8948	6.9704	-1.09
1	120	1.000	377.594	5.2008	5.1026	1.92	8.6184	8.6718	-.61
1	121	1.000	377.594	13.9899	13.9092	.58	10.3421	10.3861	-.42
1	122	1.000	377.594	15.6798	15.6889	-.06	12.0658	12.0518	.12
1	123	1.000	377.594	16.5463	16.5687	-.14	13.7895	13.7356	.39
1	124	1.000	377.594	17.1522	17.1845	-.19	15.5132	15.4104	.67
1	125	1.000	377.594	17.6434	17.6675	-.14	17.2369	17.1424	.55
1	126	1.000	377.594	18.0185	18.0689	-.28	18.9606	18.7284	1.24
1	127	1.000	377.594	18.3551	18.4148	-.32	20.6843	20.3699	1.54
1	128	1.000	377.594	18.9165	18.9938	-.41	24.1317	23.6275	2.13
1	129	1.000	377.594	19.3811	19.4718	-.47	27.5790	26.8792	2.60
1	130	1.000	377.594	19.7881	19.8817	-.47	31.0264	30.1961	2.75
1	131	1.000	377.594	20.1617	20.2422	-.40	34.4738	33.6679	2.39
1	132	1.000	377.594	20.7493	20.8580	-.52	41.3685	40.0529	3.28
1	133	1.000	377.594	21.2531	21.3753	-.57	48.2633	46.5363	3.71
1	134	1.000	377.594	21.7199	21.8239	-.48	55.1581	53.4794	3.14
1	135	1.000	377.594	22.1402	22.2214	-.37	62.0528	60.5816	2.43
1	136	1.000	377.594	22.5676	22.5793	-.05	68.9476	68.7109	.34
1	137	1.000	410.928	.0297	.0297	-.04	.1013	.1013	.04
1	138	1.000	410.928	.0405	.0405	-.04	.1379	.1378	.04
1	139	1.000	410.928	.0609	.0609	-.08	.2068	.2067	.08
1	140	1.000	410.928	.0814	.0814	-.08	.2758	.2756	.08
1	141	1.000	410.928	.1019	.1020	-.11	.3447	.3444	.10
1	142	1.000	410.928	.1225	.1227	-.18	.4137	.4130	.17
1	143	1.000	410.928	.1640	.1643	-.21	.5516	.5504	.21
1	144	1.000	410.928	.2059	.2063	-.20	.6895	.6882	.19
1	145	1.000	410.928	.2584	.2593	-.36	.8618	.8588	.35
1	146	1.000	410.928	.3116	.3128	-.38	1.0342	1.0304	.37
1	147	1.000	410.928	.4193	.4216	-.54	1.3790	1.3719	.52
1	148	0.000	410.928	.6955	.6457	7.71	2.0684	2.2180	-6.74
1	149	1.000	410.928	.8763	.8791	-.32	2.7579	2.7499	.29
1	150	1.000	410.928	1.1202	1.1223	-.19	3.4474	3.4415	.17
1	151	1.000	410.928	1.3773	1.3765	.06	4.1369	4.1391	-.05
1	152	1.000	410.928	1.9369	1.9249	.63	5.5158	5.5445	-.52
1	153	1.000	410.928	2.5753	2.5439	1.23	6.8948	6.9597	-.93
1	154	1.000	410.928	3.5361	3.4704	1.89	8.6184	8.7260	-1.23
1	155	1.000	410.928	4.7533	4.6886	1.38	10.3421	10.4191	-.74
1	156	1.000	410.928	6.4202	6.4575	-.58	12.0658	12.0360	.25
1	157	1.000	410.928	8.6821	8.9455	-2.94	13.7895	13.6149	1.28
1	158	1.000	410.928	11.0472	11.2058	-1.42	15.5132	15.3723	.92
1	159	1.000	410.928	12.7739	12.8059	-.25	17.2369	17.1954	.24
1	160	1.000	410.928	13.8929	13.9282	-.25	18.9606	18.8969	.34
1	161	1.000	410.928	14.7093	14.7606	-.35	20.6843	20.5643	.58
1	162	1.000	410.928	15.9229	15.9526	-.19	24.1317	24.0283	.43
1	163	1.000	410.928	16.7820	16.8063	-.14	27.5790	27.4674	.41
1	164	1.000	410.928	17.4493	17.4743	-.14	31.0264	30.8840	.46
1	165	1.000	410.928	17.9983	18.0255	-.15	34.4738	34.2895	.54
1	166	1.000	410.928	18.8741	18.9086	-.18	41.3685	41.0640	.74
1	167	1.000	410.928	19.5419	19.6078	-.34	48.2633	47.5518	1.50
1	168	1.000	410.928	20.1363	20.1903	-.27	55.1581	54.4709	1.26
1	169	1.000	410.928	20.6823	20.6917	-.05	62.0528	61.9157	.22
1	170	1.000	410.928	21.1884	21.1331	.26	68.9476	69.8704	-1.32
1	171	1.000	444.261	.0275	.0275	-.03	.1013	.1013	.03
1	172	1.000	444.261	.0374	.0375	-.03	.1379	.1378	.03
1	173	1.000	444.261	.0562	.0563	-.07	.2068	.2067	.07

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
1	174	1.000	444.261	.0751	.0752	-.11	.2758	.2755	.11
1	175	1.000	444.261	.0940	.0941	-.15	.3447	.3442	.14
1	176	1.000	444.261	.1130	.1132	-.18	.4137	.4129	.18
1	177	1.000	444.261	.1511	.1514	-.21	.5516	.5505	.20
1	178	1.000	444.261	.1893	.1899	-.32	.6895	.6873	.31
1	179	1.000	444.261	.2377	.2385	-.33	.8618	.8590	.33
1	180	1.000	444.261	.2866	.2874	-.28	1.0342	1.0314	.27
1	181	1.000	444.261	.3851	.3863	-.33	1.3790	1.3746	.32
1	182	1.000	444.261	.5859	.5888	-.49	2.0684	2.0588	.47
1	183	1.000	444.261	.7938	.7972	-.43	2.7579	2.7468	.40
1	184	1.000	444.261	1.0087	1.0117	-.30	3.4474	3.4379	.28
1	185	1.000	444.261	1.2312	1.2328	-.13	4.1369	4.1320	.12
1	186	1.000	444.261	1.7005	1.6971	.20	5.5158	5.5256	-.18
1	187	1.000	444.261	2.2094	2.1967	.58	6.8948	6.9286	-.49
1	188	1.000	444.261	2.9124	2.8863	.91	8.6184	8.6798	-.71
1	189	1.000	444.261	3.7080	3.6742	.92	10.3421	10.4105	-.66
1	190	1.000	444.261	4.6296	4.5970	.71	12.0658	12.1216	-.46
1	191	1.000	444.261	5.6823	5.6941	-.21	13.7895	13.7724	.12
1	192	1.000	444.261	6.8484	6.9751	-1.82	15.5132	15.3514	1.05
1	193	1.000	444.261	8.1271	8.3537	-2.71	17.2369	16.9530	1.67
1	194	1.000	444.261	9.3730	9.6591	-2.96	18.9606	18.5645	2.13
1	195	1.000	444.261	10.5454	10.7938	-2.30	20.6843	20.2832	1.98
1	196	1.000	444.261	12.4754	12.5852	-.87	24.1317	23.9853	1.03
1	197	1.000	444.261	13.8329	13.8939	-.44	27.5790	27.3939	.68
1	198	1.000	444.261	14.8319	14.8886	-.38	31.0264	30.8058	.72
1	199	1.000	444.261	15.6430	15.6802	-.24	34.4738	34.2956	.52
1	200	1.000	444.261	16.8793	16.8915	-.07	41.3685	41.2873	.20
1	201	1.000	444.261	17.8003	17.8060	-.03	48.2633	48.2148	.10
1	202	1.000	444.261	18.5185	18.5422	-.13	55.1581	54.9140	.44
1	203	1.000	444.261	19.1379	19.1601	-.12	62.0528	61.7864	.43
1	204	1.000	444.261	19.7272	19.6936	.17	68.9476	69.4132	-.67

NP = 204, DNRMSPCT = .598, DNTRNDPCT = -.119, PMEANPCT = 2.023

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
4	205	1.000	493.000	.0540	.0541	-.06	.2208	.2207	.06
4	206	1.000	493.000	.0869	.0870	-.11	.3541	.3538	.11
4	207	1.000	493.000	.1395	.1398	-.18	.5670	.5660	.17
4	208	1.000	493.000	.1529	.1532	-.19	.6207	.6195	.19
4	209	1.000	493.000	.1804	.1808	-.22	.7310	.7294	.22
4	210	1.000	493.000	.2242	.2248	-.26	.9064	.9040	.25
4	211	1.000	493.000	.2456	.2463	-.28	.9914	.9887	.27
4	212	1.000	493.000	.2898	.2907	-.30	1.1665	1.1630	.30
4	213	1.000	493.000	.3603	.3615	-.33	1.4438	1.4392	.32
4	214	1.000	493.000	.3946	.3959	-.33	1.5781	1.5729	.33
4	215	1.000	493.000	.4656	.4671	-.33	1.8536	1.8476	.32
4	216	1.000	493.000	.5788	.5806	-.30	2.2881	2.2815	.29
4	217	1.000	493.000	.6340	.6358	-.28	2.4978	2.4912	.27
4	218	1.000	493.000	.7481	.7496	-.20	2.9263	2.9207	.19
4	219	1.000	493.000	.9301	.9305	-.04	3.5975	3.5960	.04
4	220	1.000	493.000	1.0187	1.0182	.05	3.9186	3.9203	-.04
4	221	1.000	493.000	1.2019	1.1990	.25	4.5718	4.5824	-.23
4	222	1.000	493.000	1.4946	1.4860	.58	5.5849	5.6151	-.54
4	223	1.000	493.000	1.6370	1.6248	.75	6.0644	6.1060	-.68
4	224	1.000	493.000	1.9319	1.9116	1.06	7.0325	7.1000	-.95
4	225	1.000	493.000	2.2052	2.1766	1.32	7.9001	7.9925	-1.16
4	226	1.000	493.000	2.4027	2.3679	1.47	8.5102	8.6199	-1.27
4	227	1.000	493.000	2.6315	2.5897	1.62	9.2001	9.3282	-1.37
4	228	1.000	493.000	2.9342	2.8838	1.75	10.0868	10.2353	-1.45
4	229	1.000	493.000	3.1046	3.0501	1.79	10.5737	10.7313	-1.47
4	230	1.000	493.000	3.5436	3.4811	1.80	11.7895	11.9604	-1.43
4	231	1.000	493.000	3.8605	3.7954	1.72	12.6356	12.8068	-1.34
4	232	1.000	493.000	4.2264	4.1622	1.54	13.5926	13.7442	-1.18
4	233	1.000	493.000	4.7136	4.6574	1.21	14.7987	14.9326	-.90
4	234	1.000	493.000	4.9907	4.9394	1.04	15.4628	15.5817	-.76
4	235	1.000	493.000	5.6965	5.6780	.33	17.1228	17.1632	-.24
4	236	1.000	493.000	6.2070	6.2184	-.18	18.2826	18.2586	.13
4	237	1.000	493.000	6.7980	6.8489	-.74	19.6023	19.4964	.54
4	238	1.000	493.000	7.5870	7.6852	-1.28	21.3413	21.1359	.97
4	239	1.000	493.000	8.0197	8.1526	-1.63	22.3301	22.0467	1.29
4	240	1.000	493.000	9.3067	9.3191	-.13	24.9417	24.9123	.12
4	241	1.000	493.000	9.9750	10.1256	-1.49	26.9424	26.5534	1.46
4	242	1.000	493.000	10.9190	11.0395	-1.09	29.4804	29.1269	1.21
4	243	1.000	493.000	12.1940	12.2393	-.37	33.3875	33.2256	.49
4	244	1.000	493.000	12.6580	12.9165	-2.00	35.9698	34.9468	2.93
4	245	1.000	523.150	.0484	.0485	-.07	.2102	.2100	.07
4	246	1.000	523.150	.0511	.0511	-.07	.2216	.2214	.07
4	247	1.000	523.150	.0561	.0562	-.08	.2434	.2432	.08
4	248	1.000	523.150	.0565	.0565	-.08	.2449	.2447	.08
4	249	1.000	523.150	.0778	.0779	-.12	.3372	.3368	.12
4	250	1.000	523.150	.0821	.0822	-.13	.3554	.3550	.13
4	251	1.000	523.150	.0902	.0903	-.14	.3905	.3899	.14
4	252	1.000	523.150	.0907	.0909	-.14	.3928	.3923	.14
4	253	1.000	523.150	.1251	.1253	-.19	.5405	.5395	.19
4	254	1.000	523.150	.1318	.1321	-.20	.5695	.5684	.20
4	255	1.000	523.150	.1449	.1453	-.22	.6258	.6244	.22
4	256	1.000	523.150	.1457	.1461	-.22	.6292	.6278	.22
4	257	1.000	523.150	.2009	.2015	-.29	.8648	.8624	.29
4	258	1.000	523.150	.2118	.2124	-.30	.9112	.9085	.30
4	259	1.000	523.150	.2328	.2336	-.32	1.0007	.9975	.32
4	260	1.000	523.150	.2341	.2349	-.33	1.0062	1.0030	.32
4	261	1.000	523.150	.3227	.3240	-.39	1.3806	1.3753	.39

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

IO	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
4	262	1.000	523.150	.3402	.3416	-.40	1.4540	1.4483	.40
4	263	1.000	523.150	.3740	.3756	-.42	1.5957	1.5892	.41
4	264	1.000	523.150	.3761	.3777	-.42	1.6044	1.5979	.41
4	265	1.000	523.150	.4513	.4532	-.43	1.9176	1.9095	.42
4	266	1.000	523.150	.5032	.5054	-.43	2.1324	2.1234	.42
4	267	1.000	523.150	.5183	.5206	-.43	2.1949	2.1856	.42
4	268	1.000	523.150	.5464	.5488	-.43	2.3106	2.3010	.42
4	269	1.000	523.150	.5626	.5650	-.42	2.3768	2.3670	.41
4	270	1.000	523.150	.6008	.6033	-.41	2.5331	2.5229	.40
4	271	1.000	523.150	.6042	.6067	-.41	2.5470	2.5368	.40
4	272	1.000	523.150	.7248	.7274	-.36	3.0362	3.0257	.35
4	273	1.000	523.150	.8082	.8107	-.31	3.3709	3.3610	.29
4	274	1.000	523.150	.8326	.8350	-.29	3.4683	3.4587	.28
4	275	1.000	523.150	.8776	.8800	-.25	3.6479	3.6390	.24
4	276	1.000	523.150	.9036	.9057	-.23	3.7503	3.7419	.22
4	277	1.000	523.150	.9650	.9667	-.18	3.9920	3.9851	.17
4	278	1.000	523.150	.9705	.9722	-.18	4.0136	4.0068	.17
4	279	1.000	523.150	1.1644	1.1643	.01	4.7673	4.7678	-.01
4	280	1.000	523.150	1.2985	1.2966	.15	5.2796	5.2870	-.14
4	281	1.000	523.150	1.3380	1.3355	.19	5.4292	5.4390	-.18
4	282	1.000	523.150	1.4109	1.4072	.27	5.7036	5.7179	-.25
4	283	1.000	523.150	1.4517	1.4473	.31	5.8563	5.8734	-.29
4	284	1.000	523.150	1.5510	1.5446	.41	6.2251	6.2492	-.39
4	285	1.000	523.150	1.5595	1.5529	.42	6.2565	6.2813	-.39
4	286	1.000	523.150	1.7533	1.7425	.62	6.9654	7.0054	-.57
4	287	1.000	523.150	1.8714	1.8578	.73	7.3910	7.4408	-.67
4	288	1.000	523.150	2.0870	2.0681	.92	8.1556	8.2239	-.83
4	289	1.000	523.150	2.1502	2.1296	.97	8.3765	8.4502	-.87
4	290	1.000	523.150	2.2682	2.2446	1.05	8.7859	8.8696	-.94
4	291	1.000	523.150	2.3334	2.3081	1.10	9.0102	9.0991	-.98
4	292	1.000	523.150	2.4929	2.4636	1.19	9.5537	9.6550	-1.05
4	293	1.000	523.150	2.5066	2.4770	1.19	9.6000	9.7023	-1.05
4	294	1.000	523.150	2.8172	2.7807	1.31	10.6358	10.7583	-1.14
4	295	1.000	523.150	3.0073	2.9673	1.35	11.2568	11.3884	-1.16
4	296	1.000	523.150	3.3526	3.3084	1.33	12.3620	12.5023	-1.12
4	297	1.000	523.150	3.4613	3.4092	1.53	12.6814	12.8452	-1.27
4	298	1.000	523.150	3.6509	3.5991	1.44	13.2742	13.4338	-1.19
4	299	1.000	523.150	3.7562	3.7013	1.48	13.5887	13.7563	-1.22
4	300	1.000	523.150	4.0114	3.9579	1.35	14.3644	14.5237	-1.10
4	301	1.000	523.150	4.0352	3.9815	1.35	14.4349	14.5946	-1.09
4	302	1.000	523.150	4.5349	4.4886	1.03	15.9116	16.0431	-.82
4	303	1.000	523.150	4.8412	4.8038	.78	16.7977	16.9014	-.61
4	304	1.000	523.150	5.3983	5.3841	.26	18.3771	18.4150	-.21
4	305	1.000	523.150	5.5617	5.5568	.09	18.8365	18.8495	-.07
4	306	1.000	523.150	6.0358	6.0572	-.35	20.1471	20.0916	.28
4	307	1.000	523.150	6.4451	6.4959	-.78	21.2803	21.1495	.62
4	308	1.000	523.150	6.4839	6.5379	-.83	21.3884	21.2492	.65
4	309	1.000	523.150	7.2872	7.3960	-1.47	23.6004	23.3180	1.21
4	310	1.000	523.150	7.7796	7.9104	-1.65	24.9511	24.6047	1.41
4	311	1.000	523.150	8.6740	8.8475	-1.96	27.5259	27.0344	1.82
4	312	1.000	523.150	8.9381	9.1165	-1.96	28.3044	27.7857	1.87
4	313	1.000	523.150	9.6980	9.8743	-1.79	30.6255	30.0670	1.86
4	314	1.000	523.150	10.3581	10.5228	-1.57	32.7913	32.2237	1.76
4	315	1.000	523.150	10.4184	10.5845	-1.57	33.0072	32.4300	1.78
4	316	1.000	523.150	11.7148	11.8213	-.90	37.7608	37.3160	1.19

NP = 112, ONRMSPCT = .902, ONTRNDPCT = .041, PMEANPCT = .631

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
1	317	.001	360.928	17.7983	17.9241	-.70	10.5835	10.1864	3.90
1	318	.001	360.928	16.8615	17.0034	-.83	8.2186	7.9549	3.31
1	319	.001	360.928	4.4496	4.2904	3.71	7.1154	7.1952	-1.11
1	320	.001	360.928	4.0046	3.8477	4.08	6.8396	6.9468	-1.54
1	321	.001	366.483	17.7983	17.8154	-.10	12.7691	12.7102	.46
1	322	.001	366.483	16.8615	16.8887	-.16	10.2042	10.1465	.57
1	323	.001	366.483	16.0185	16.0339	-.10	8.7701	8.7508	.22
1	324	.001	366.483	5.7209	5.4840	4.32	7.9565	8.0116	-.69
1	325	.001	366.483	5.0058	4.8474	3.27	7.7359	7.8016	-.84
1	326	.001	366.483	4.4496	4.3133	3.16	7.4532	7.5349	-1.08
1	327	.001	366.483	4.0046	3.8770	3.29	7.1430	7.2418	-1.36
1	328	.001	372.039	16.8615	16.8743	-.08	12.3761	12.3449	.25
1	329	.001	372.039	16.0185	16.0210	-.02	10.6869	10.6829	.04
1	330	.001	372.039	14.5622	14.4653	.67	9.1700	9.2229	-.57
1	331	.001	372.039	13.3487	13.6959	-2.53	8.8804	8.8088	.81
1	332	.001	372.039	8.0092	7.4922	6.90	8.7563	8.7846	-.32
1	333	.001	372.039	6.6744	6.5501	1.90	8.6598	8.6786	-.22
1	334	.001	372.039	5.7209	5.6898	.55	8.4599	8.4696	-.11
1	335	.001	372.039	5.0058	4.9445	1.24	8.1565	8.1871	-.37
1	336	.001	372.039	4.4496	4.3509	2.27	7.7980	7.8659	-.86
1	337	.001	372.039	4.0046	3.9070	2.50	7.4463	7.5305	-1.12
1	338	.001	377.594	16.0185	16.0227	-.03	12.6312	12.6233	.06
1	339	.001	377.594	14.5622	14.5052	.39	10.7282	10.7735	-.42
1	340	.001	377.594	13.3487	13.3064	.32	10.0801	10.0952	-.15
1	341	.001	377.594	11.4418	11.5511	-.95	9.7216	9.7096	.12
1	342	.001	377.594	10.0115	9.8513	1.63	9.5768	9.5883	-.12
1	343	.001	377.594	8.0092	7.8448	2.10	9.4113	9.4301	-.20
1	344	.001	377.594	6.6744	6.6732	.02	9.2114	9.2117	-.00
1	345	.001	377.594	5.7209	5.6416	1.41	8.8804	8.9131	-.37
1	346	.001	377.594	5.0058	4.9023	2.11	8.5012	8.5632	-.72
1	347	.001	377.594	4.4496	4.3447	2.41	8.1082	8.1902	-1.00
1	348	.001	377.594	4.0046	3.9080	2.47	7.7221	7.8140	-1.18
1	349	.001	383.150	14.5622	14.5355	.18	12.3071	12.3349	-.22
1	350	.001	383.150	13.3487	13.3370	.09	11.3901	11.3966	-.06
1	351	.001	383.150	11.4418	11.6761	-2.01	10.7627	10.7044	.55
1	352	.001	383.150	10.0115	10.0685	-.57	10.4249	10.4148	.10
1	353	.001	383.150	8.0092	8.1420	-1.63	10.0939	10.0682	.26
1	354	.001	383.150	6.6744	6.6857	-.17	9.7354	9.7317	.04
1	355	.001	383.150	5.7209	5.6427	1.39	9.3079	9.3472	-.42
1	356	.001	383.150	5.0058	4.9202	1.74	8.8736	8.9323	-.66
1	357	.001	383.150	4.4496	4.3690	1.85	8.4392	8.5091	-.82
1	358	.001	383.150	4.0046	3.9323	1.84	8.0186	8.0933	-.92
1	359	.001	388.706	13.3487	13.5439	-1.44	12.8587	12.7070	1.19
1	360	.001	388.706	11.4418	11.7979	-3.02	11.8452	11.7043	1.20
1	361	.001	388.706	10.0115	10.2187	-2.03	11.3005	11.2404	.54
1	362	.001	388.706	8.0092	8.0178	-.11	10.7007	10.6982	.02
1	363	.001	388.706	6.6744	6.5494	1.91	10.1905	10.2432	-.52
1	364	.001	388.706	5.7209	5.5755	2.61	9.6871	9.7742	-.89
1	365	.001	388.706	5.0058	4.8803	2.57	9.1976	9.2958	-1.06
1	366	.001	388.706	4.4496	4.4224	.61	8.7977	8.8234	-.29
1	367	.001	388.706	4.0046	3.9198	2.16	8.2737	8.3690	-1.14
1	368	.001	394.261	11.4418	11.7618	-2.72	12.8794	12.7077	1.35
1	369	.001	394.261	10.0115	10.3012	-2.81	12.1830	12.0653	.98
1	370	.001	394.261	8.0092	8.1153	-1.31	11.3626	11.3226	.35
1	371	.001	394.261	6.6744	6.6211	.80	10.7213	10.7483	-.25
1	372	.001	394.261	5.7209	5.5928	2.29	10.1077	10.1954	-.86
1	373	.001	394.261	5.0058	4.9081	1.99	9.5699	9.6544	-.87
1	374	.001	394.261	4.4496	4.3717	1.78	9.0528	9.1338	-.89
1	375	.001	394.261	4.0046	3.9341	1.79	8.5564	8.6413	-.99

NP = 59, DNRMSPCT = 2.136, DNTRNDPCT = .898, PMEANPCT = .704

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
2	376	.001	373.000	14.0000	13.7151	2.08	9.1193	9.2150	-1.04
2	377	.001	373.000	15.0000	15.2466	-1.62	10.0312	9.8055	2.30
2	378	.001	373.000	16.0000	16.0967	-.60	11.1458	10.9888	1.43
2	379	.001	373.000	17.0000	17.1415	-.83	13.4762	13.0842	3.00
2	380	.001	373.000	18.0000	18.1003	-.55	16.9213	16.4894	2.62
2	381	.001	373.000	19.0000	19.1408	-.74	22.5955	21.6877	4.19
2	382	.001	373.000	20.0000	20.0917	-.46	30.0935	29.2578	2.86
2	383	.001	373.000	21.0000	21.0352	-.17	40.3274	39.8877	1.10
2	384	.001	373.000	22.0000	21.9770	.10	54.0062	54.3900	-.71
2	385	.001	373.000	23.0000	22.9421	.25	72.4474	73.7155	-1.72
2	386	.001	393.000	8.0000	6.2872	27.24	10.4365	11.1780	-6.63
2	387	.001	393.000	9.0000	6.9023	30.39	10.7405	11.5220	-6.78
2	388	.001	393.000	10.0000	8.1951	22.02	11.2471	11.8738	-5.28
2	389	.001	393.000	11.0000	9.6698	13.76	11.7537	12.2763	-4.26
2	390	.001	393.000	12.0000	10.9634	9.45	12.2603	12.7702	-3.99
2	391	.001	393.000	13.0000	12.6464	2.80	13.1723	13.4324	-1.94
2	392	.001	393.000	14.0000	13.8184	1.31	14.1855	14.3884	-1.41
2	393	.001	393.000	15.0000	14.8102	1.28	15.5027	15.8222	-2.02
2	394	.001	393.000	16.0000	16.0192	-.12	18.0359	17.9951	.28
2	395	.001	393.000	17.0000	16.9672	.19	21.0756	21.2018	-.60
2	396	.001	393.000	18.0000	18.0111	-.06	25.9392	25.8773	.24
2	397	.001	393.000	19.0000	19.0414	-.22	32.8293	32.5046	1.00
2	398	.001	393.000	20.0000	20.0161	-.08	41.8472	41.6751	.41
2	399	.001	393.000	21.0000	20.9940	.03	54.0062	54.0926	-.16
2	400	.001	393.000	22.0000	21.9204	.36	69.1037	70.5880	-2.10
2	401	.001	393.000	23.0000	22.9192	.35	90.1792	92.1332	-2.12
2	402	.001	413.000	8.0000	7.6841	4.11	13.1723	13.3941	-1.66
2	403	.001	413.000	9.0000	8.4103	7.01	13.6789	14.0909	-2.92
2	404	.001	413.000	10.0000	9.6842	3.26	14.5908	14.8348	-1.64
2	405	.001	413.000	11.0000	10.6835	2.96	15.4014	15.6848	-1.81
2	406	.001	413.000	12.0000	11.6437	3.06	16.3133	16.6979	-2.30
2	407	.001	413.000	13.0000	12.6823	2.50	17.5292	17.9682	-2.44
2	408	.001	413.000	14.0000	13.9036	.69	19.4544	19.6378	-.93
2	409	.001	413.000	15.0000	15.0312	-.21	21.9875	21.9044	.38
2	410	.001	413.000	16.0000	16.0541	-.34	25.2299	25.0302	.80
2	411	.001	413.000	17.0000	17.0070	-.04	29.3843	29.3490	.12
2	412	.001	413.000	18.0000	18.0273	-.15	35.4638	35.2749	.54
2	413	.001	413.000	19.0000	19.0708	-.37	43.9751	43.3112	1.53
2	414	.001	413.000	20.0000	20.0119	-.06	54.2089	54.0621	.27
2	415	.001	413.000	21.0000	20.9714	.14	67.7864	68.2465	-.67
2	416	.001	413.000	22.0000	21.9129	.40	84.9103	86.7131	-2.08
2	417	.001	413.000	23.0000	22.8610	.61	106.7966	110.4532	-3.31
2	418	.001	433.000	8.0000	8.0264	-.33	15.6041	15.5764	.18
2	419	.001	433.000	9.0000	8.9806	.22	16.6173	16.6384	-.13
2	420	.001	433.000	10.0000	10.1176	-1.16	17.9345	17.7897	.81
2	421	.001	433.000	11.0000	11.0336	-.30	19.1504	19.1027	.25
2	422	.001	433.000	12.0000	12.0721	-.60	20.7716	20.6486	.60
2	423	.001	433.000	13.0000	13.2149	-1.63	23.0008	22.5364	2.06
2	424	.001	433.000	14.0000	14.2198	-1.55	25.5339	24.9227	2.45
2	425	.001	433.000	15.0000	15.0136	-.09	28.0670	28.0190	.17
2	426	.001	433.000	16.0000	15.9828	.11	32.0187	32.0989	-.25
2	427	.001	433.000	17.0000	17.0459	-.27	37.7942	37.5074	.76
2	428	.001	433.000	18.0000	18.0265	-.15	44.8870	44.6689	.49
2	429	.001	433.000	19.0000	19.0384	-.20	54.5129	54.0979	.77
2	430	.001	433.000	20.0000	20.0113	-.06	66.5705	66.4116	.24
2	431	.001	433.000	21.0000	20.9849	.07	82.0733	82.3441	-.33
2	432	.001	433.000	22.0000	21.8875	.51	100.2104	102.7608	-2.48

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
2	433	.001	433.000	23.0000	22.7968	.89	122.9072	128.6723	-4.48
2	434	.001	453.000	8.0000	8.2136	-2.60	18.0359	17.7356	1.69
2	435	.001	453.000	9.0000	9.4535	-4.80	19.8597	19.1707	3.59
2	436	.001	453.000	10.0000	10.2589	-2.52	21.1769	20.7386	2.11
2	437	.001	453.000	11.0000	11.2437	-2.17	23.0008	22.5239	2.12
2	438	.001	453.000	12.0000	12.1368	-1.13	24.9260	24.6108	1.28
2	439	.001	453.000	13.0000	13.1555	-1.18	27.5604	27.1215	1.62
2	440	.001	453.000	14.0000	14.0778	-.55	30.4988	30.2263	.90
2	441	.001	453.000	15.0000	15.0899	-.60	34.5518	34.1496	1.18
2	442	.001	453.000	16.0000	16.0592	-.37	39.5168	39.1774	.87
2	443	.001	453.000	17.0000	17.0725	-.42	46.2042	45.6657	1.18
2	444	.001	453.000	18.0000	18.0378	-.21	54.4115	54.0503	.67
2	445	.001	453.000	19.0000	19.0322	-.17	65.2533	64.8577	.61
2	446	.001	453.000	20.0000	20.0072	-.04	78.8309	78.7184	.14
2	447	.001	453.000	21.0000	20.9112	.42	94.6375	96.3810	-1.81
2	448	.001	453.000	22.0000	21.7980	.93	113.7880	118.7282	-4.16
2	449	.001	453.000	23.0000	22.7447	1.12	139.0179	146.7884	-5.29
2	450	.001	473.000	8.0000	8.2761	-3.34	20.3663	19.8773	2.46
2	451	.001	473.000	9.0000	9.2092	-2.27	22.0889	21.6905	1.84
2	452	.001	473.000	10.0000	10.2955	-2.87	24.3180	23.6812	2.69
2	453	.001	473.000	11.0000	11.3231	-2.85	26.7498	25.9451	3.10
2	454	.001	473.000	12.0000	12.2414	-1.97	29.2829	28.5780	2.47
2	455	.001	473.000	13.0000	13.2017	-1.53	32.4240	31.7149	2.24
2	456	.001	473.000	14.0000	14.0537	-.38	35.7677	35.5388	.64
2	457	.001	473.000	15.0000	14.9886	.08	40.2260	40.2865	-.15
2	458	.001	473.000	16.0000	16.0822	-.51	46.8122	46.2563	1.20
2	459	.001	473.000	17.0000	17.0695	-.41	54.4115	53.8158	1.11
2	460	.001	473.000	18.0000	18.0203	-.11	63.6321	63.4127	.35
2	461	.001	473.000	19.0000	18.9705	.16	75.1832	75.5856	-.53
2	462	.001	473.000	20.0000	19.9475	.26	90.0779	90.9783	-.99
2	463	.001	473.000	21.0000	20.9144	.41	108.5191	110.3546	-1.66
2	464	.001	473.000	22.0000	21.7870	.98	128.9867	134.6131	-4.18
2	465	.001	473.000	23.0000	22.6830	1.40	154.5206	164.8005	-6.24
2	466	.001	493.000	8.0000	8.4165	-4.95	22.8995	22.0048	4.07
2	467	.001	493.000	9.0000	9.4402	-4.66	25.2299	24.1998	4.26
2	468	.001	493.000	10.0000	10.4339	-4.16	27.7631	26.6175	4.30
2	469	.001	493.000	11.0000	11.4717	-4.11	30.8028	29.3639	4.90
2	470	.001	493.000	12.0000	12.3923	-3.17	33.9439	32.5461	4.29
2	471	.001	493.000	13.0000	13.2321	-1.75	37.2876	36.3110	2.69
2	472	.001	493.000	14.0000	14.1944	-1.37	41.8472	40.8535	2.43
2	473	.001	493.000	15.0000	15.1427	-.94	47.3188	46.4229	1.93
2	474	.001	493.000	16.0000	16.0871	-.54	54.0062	53.3293	1.27
2	475	.001	493.000	17.0000	17.0166	-.10	62.1122	61.9523	.26
2	476	.001	493.000	18.0000	17.9663	.19	72.3461	72.7513	-.56
2	477	.001	493.000	19.0000	19.0034	-.02	86.3289	86.2777	.06
2	478	.001	493.000	20.0000	19.9979	.01	103.1489	103.1886	-.04
2	479	.001	493.000	21.0000	20.8934	.51	121.7927	124.2626	-1.99
2	480	.001	493.000	22.0000	21.7030	1.37	142.0577	150.4146	-5.56
2	481	.001	493.000	23.0000	22.6499	1.55	170.6313	182.7084	-6.61

NP = 106, DNRMSPCT = 5.095, DNTRNDPCT = .716, PMEANPCT = 1.946

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
3	482	.001	380.400	14.8540	15.3680	-3.34	12.5000	11.8546	5.44
3	483	.001	390.400	14.8436	14.9783	-.90	15.0000	14.7883	1.43
3	484	.001	398.600	14.8489	14.9897	-.94	17.5000	17.2266	1.59
3	485	.001	408.600	14.8361	14.7609	.51	20.0000	20.1722	-.85
3	486	.001	416.900	14.8196	14.7819	.26	22.5000	22.6001	-.44
3	487	.001	426.600	14.8098	14.6578	1.04	25.0000	25.4579	-1.80
3	488	.001	435.600	14.8069	14.6211	1.27	27.5000	28.1283	-2.23
3	489	.001	443.900	14.7942	14.6463	1.01	30.0000	30.5533	-1.81
3	490	.001	451.600	14.7793	14.7099	.47	32.5000	32.7840	-.87
3	491	.001	460.400	14.7667	14.6897	.52	35.0000	35.3424	-.97
3	492	.001	477.900	14.7578	14.6632	.64	40.0000	40.4890	-1.21
3	493	.001	488.100	14.7458	14.5754	1.17	42.5000	43.4443	-2.17
3	494	.001	495.900	14.7295	14.6183	.76	45.0000	45.6543	-1.43
3	495	.001	506.900	14.7332	14.5065	1.56	47.5000	48.9228	-2.91
3	496	.001	514.900	14.7169	14.5397	1.22	50.0000	51.1729	-2.29
3	497	.001	532.100	14.7096	14.5493	1.10	55.0000	56.1755	-2.09
3	498	.001	552.900	14.6683	14.4288	1.66	60.0000	61.9335	-3.12
3	499	.001	522.900	14.6994	14.5698	.89	52.5000	53.4023	-1.69
3	500	.001	541.900	14.6860	14.5084	1.22	57.5000	58.8661	-2.32
3	501	.001	389.900	9.9206	12.6319	-21.46	12.5000	11.3898	9.75
3	502	.001	409.600	9.9118	10.8737	-8.85	15.0000	14.2691	5.12
3	503	.001	428.600	9.9020	10.3129	-3.98	17.5000	17.0305	2.76
3	504	.001	444.400	9.8922	10.3505	-4.43	20.0000	19.3136	3.55
3	505	.001	461.900	9.8824	10.2383	-3.48	22.5000	21.8314	3.05
3	506	.001	480.100	9.8736	10.1203	-2.44	25.0000	24.4393	2.29
3	507	.001	498.100	9.8619	10.0501	-1.97	27.5000	26.9981	1.86
3	508	.001	515.900	9.8503	10.0093	-1.59	30.0000	29.5133	1.65
3	509	.001	533.900	9.8542	9.9710	-1.17	32.5000	32.0953	1.26
3	510	.001	552.500	9.8416	9.9199	-.79	35.0000	34.6967	.87
3	511	.001	570.100	9.8280	9.9134	-.86	37.5000	37.1360	.98
3	512	.001	588.500	9.8135	9.8848	-.72	40.0000	39.6674	.84
3	513	.001	606.900	9.8020	9.8620	-.61	42.5000	42.1957	.72
3	514	.001	624.900	9.8058	9.8539	-.49	45.0000	44.7366	.59
3	515	.001	643.900	9.7991	9.8242	-.25	47.5000	47.3525	.31
3	516	.001	663.900	9.7847	9.7773	.08	50.0000	50.0469	-.09
3	517	.001	701.900	9.7723	9.7416	.31	55.0000	55.2191	-.40
3	518	.001	740.400	9.7542	9.7078	.48	60.0000	60.3694	-.61
3	519	.001	402.100	7.2051	8.6128	-16.34	12.5000	11.7672	6.23
3	520	.001	428.400	7.2062	7.9204	-9.02	15.0000	14.3028	4.87
3	521	.001	454.400	7.2077	7.7284	-6.74	17.5000	16.7604	4.41
3	522	.001	480.100	7.2098	7.6621	-5.90	20.0000	19.1586	4.39
3	523	.001	507.400	7.1870	7.5639	-4.98	22.5000	21.6230	4.06
3	524	.001	535.400	7.1839	7.4825	-3.99	25.0000	24.1626	3.47
3	525	.001	562.400	7.1927	7.4593	-3.57	27.5000	26.6290	3.27
3	526	.001	589.400	7.1798	7.4459	-3.57	30.0000	29.0080	3.42
3	527	.001	617.100	7.1762	7.4231	-3.33	32.5000	31.4631	3.30
3	528	.001	645.400	7.1746	7.3958	-2.99	35.0000	33.9652	3.05
3	529	.001	672.900	7.1726	7.3900	-2.94	37.5000	36.3812	3.08
3	530	.001	702.100	7.1705	7.3596	-2.57	40.0000	38.9345	2.74
3	531	.001	730.900	7.1690	7.3416	-2.35	42.5000	41.4436	2.55
3	532	.001	759.900	7.1674	7.3250	-2.15	45.0000	43.9594	2.37
3	533	.001	390.900	4.8900	5.8177	-15.95	10.0000	9.3436	7.03
3	534	.001	435.600	4.8924	5.1979	-5.88	12.5000	12.0526	3.71
3	535	.001	478.900	4.8852	5.1039	-4.28	15.0000	14.5392	3.17
3	536	.001	523.400	4.8852	5.0538	-3.34	17.5000	17.0369	2.72
3	537	.001	568.100	4.8828	5.0332	-2.99	20.0000	19.4920	2.61
3	538	.001	613.600	4.8733	5.0164	-2.85	22.5000	21.9263	2.62

Table 6. Continued.

HYDROGEN SULFIDE PVT DATA VS. EQNSTATE
(1)REAMER, (2)LEWIS, (3)RAU, (4)STRATY

ID	PN	WT	T,K	MOL/L	CALCD	D,PCT	P,MPA	CALCD	P,PCT
3	539	.001	663.600	4.8709	4.9568	-1.73	25.0000	24.5966	1.64
3	540	.001	711.600	4.8662	4.9369	-1.43	27.5000	27.1217	1.39
3	541	.001	759.100	4.8614	4.9287	-1.37	30.0000	29.5968	1.35
3	542	.001	361.900	3.9293	4.3410	-9.48	7.2000	6.9475	3.63
3	543	.001	385.900	3.0120	3.3915	-11.19	7.5000	6.9631	7.71
3	544	.001	465.100	3.0184	3.1779	-5.02	10.0000	9.5966	4.20
3	545	.001	544.600	3.0120	3.1351	-3.92	12.5000	12.0667	3.59
3	546	.001	628.700	3.0075	3.0944	-2.81	15.0000	14.6065	2.69
3	547	.001	715.300	3.0021	3.0625	-1.97	17.5000	17.1660	1.95
3	548	.001	342.300	3.0211	19.2180	-84.28	6.0000	5.3725	11.68

NP = 67, ONRMSPCT =11.516, ONTRNOPCT = -4.044, PMEANPCT = 2.781

NP = 316, ONRMSPCT = .723, ONTRNDPCT = -.061, PMEANPCT = 1.520

Table 7. Comparisons of ideal gas functions for hydrogen sulfide.

HYDROGEN SULFIDE IDEAL GAS, JOULES,MOLES,KELVINS
(1)BAEHR, (2)JANAF.

ID	T,K	HZ-HZZ	CALCD	PCNT	SZ	CALCD	PCNT	CPZ	CALCD	PCNT
1	50.0	1644.6	1645.0	-.03	157.543	157.560	-.01	33.27	33.26	.02
1	100.0	3308.4	3308.2	.01	180.616	180.609	.00	33.29	33.28	.02
1	150.0	4973.2	4973.3	-.00	194.110	194.110	.00	33.31	33.32	-.02
1	180.0	5973.3	5973.4	-.00	200.188	200.188	.00	33.37	33.36	.01
1	200.0	6641.1	6641.3	-.00	203.705	203.706	-.00	33.43	33.43	.02
1	220.0	7310.7	7310.7	-.00	206.898	206.896	.00	33.53	33.53	.01
1	240.0	7982.9	7982.6	.00	209.825	209.819	.00	33.67	33.67	.00
1	260.0	8657.9	8657.6	.00	212.527	212.520	.00	33.84	33.84	-.01
1	280.0	9336.5	9336.3	.00	215.038	215.035	.00	34.03	34.04	-.02
1	300.0	10019.3	10019.3	0.00	217.391	217.391	0.00	34.26	34.26	-.02
1	320.0	10706.9	10707.0	-.00	219.611	219.610	.00	34.51	34.51	-.01
1	340.0	11399.6	11399.8	-.00	221.714	221.710	.00	34.77	34.77	-.01
1	360.0	12097.7	12098.0	-.00	223.710	223.705	.00	35.05	35.05	.00
1	380.0	12801.7	12801.9	-.00	225.614	225.608	.00	35.34	35.34	.01
1	400.0	13511.7	13511.7	-.00	227.435	227.428	.00	35.65	35.64	.01
1	420.0	14227.8	14227.7	.00	229.181	229.175	.00	35.96	35.95	.02
1	440.0	14950.0	14949.9	.00	230.860	230.855	.00	36.28	36.27	.02
1	460.0	15678.9	15678.6	.00	232.473	232.474	-.00	36.60	36.60	.01
1	480.0	16414.0	16413.9	.00	234.045	234.039	.00	36.94	36.93	.01
1	500.0	17156.1	17155.9	.00	235.558	235.553	.00	37.27	37.27	.00
1	520.0	17905.1	17904.8	.00	237.030	237.022	.00	37.62	37.62	-.00
1	540.0	18660.6	18660.6	.00	238.452	238.448	.00	37.96	37.97	-.00
1	560.0	19423.5	19423.4	.00	239.840	239.835	.00	38.32	38.32	-.01
1	580.0	20193.4	20193.4	-.00	241.187	241.186	.00	38.67	38.68	-.01
1	600.0	20970.5	20970.5	-.00	242.509	242.503	.00	39.03	39.04	-.01
1	620.0	21754.6	21754.9	-.00	243.789	243.789	.00	39.39	39.40	-.01
1	640.0	22546.3	22546.5	-.00	245.045	245.046	-.00	39.76	39.76	-.01
1	660.0	23345.2	23345.4	-.00	246.275	246.275	.00	40.12	40.13	-.01
1	680.0	24151.0	24151.5	-.00	247.481	247.478	.00	40.49	40.49	-.01
1	700.0	24964.4	24965.0	-.00	248.662	248.657	.00	40.85	40.85	-.01
1	720.0	25784.8	25785.6	-.00	249.817	249.813	.00	41.21	41.22	-.00
1	740.0	26613.0	26613.6	-.00	250.948	250.947	.00	41.58	41.58	-.00
1	760.0	27447.9	27448.7	-.00	252.062	252.061	.00	41.94	41.93	.00
1	780.0	28290.2	28290.9	-.00	253.160	253.155	.00	42.29	42.29	.01
1	800.0	29140.0	29140.3	-.00	254.232	254.230	.00	42.65	42.64	.01
1	820.0	29996.7	29995.7	.00	255.288	255.287	.00	43.00	42.99	.01
1	840.0	30859.6	30860.0	-.00	256.328	256.327	.00	43.35	43.34	.01
1	860.0	31730.2	31730.2	-.00	257.359	257.351	.00	43.69	43.68	.01
1	880.0	32607.1	32607.2	-.00	258.365	258.359	.00	44.03	44.02	.01
1	900.0	33491.1	33491.0	.00	259.354	259.352	.00	44.36	44.35	.01
1	920.0	34381.5	34381.3	.00	260.335	260.331	.00	44.69	44.68	.01
1	960.0	36182.0	36181.5	.00	262.248	262.246	.00	45.32	45.32	.00
1	1000.0	38007.2	38006.8	.00	264.110	264.109	.00	45.94	45.94	-.00
1	1050.0	40323.2	40322.5	.00	266.372	266.368	.00	46.68	46.68	-.01
1	1100.0	42674.1	42674.4	-.00	268.558	268.556	.00	47.38	47.39	-.02
1	1150.0	45059.4	45060.5	-.00	270.679	270.677	.00	48.04	48.05	-.02
1	1200.0	47477.5	47478.8	-.00	272.741	272.736	.00	48.67	48.68	-.02
1	1300.0	52403.5	52404.3	-.00	276.682	276.678	.00	49.82	49.81	.03
2	200.0	6646.9	6641.3	.09	191.932	203.706	-6.13	33.38	33.43	-.14
2	300.0	10019.3	10019.3	0.00	205.859	217.391	-5.60	34.21	34.26	-.16
2	400.0	13508.7	13511.7	-.02	215.886	227.428	-5.35	35.58	35.64	-.17
2	500.0	17144.5	17155.9	-.07	223.993	235.553	-5.16	37.19	37.27	-.21
2	600.0	20952.0	20970.5	-.09	230.927	242.503	-5.01	38.94	39.04	-.26
2	700.0	24935.3	24965.0	-.12	237.063	248.657	-4.89	40.74	40.85	-.28

Table 8. Interpolated ideal gas functions for hydrogen sulfide.

HYDROGEN SULFIDE IDEAL GAS, JOULES,MOLES,KELVINS

T,K	EZ-EZZ	HZ-HZZ	SZ	CVZ	CPZ
180.0	4476.8	5973.4	200.188	25.05	33.36
190.0	4727.4	6307.2	201.992	25.08	33.39
200.0	4978.4	6641.3	203.706	25.11	33.43
210.0	5229.7	6975.8	205.338	25.16	33.47
220.0	5481.6	7310.7	206.896	25.21	33.53
230.0	5734.0	7646.3	208.388	25.28	33.59
240.0	5987.2	7982.6	209.819	25.35	33.67
250.0	6241.1	8319.7	211.195	25.43	33.75
260.0	6495.8	8657.6	212.520	25.52	33.84
270.0	6751.6	8996.5	213.799	25.62	33.93
280.0	7008.3	9336.3	215.035	25.72	34.04
290.0	7266.0	9677.3	216.231	25.83	34.15
300.0	7525.0	10019.3	217.391	25.95	34.26
310.0	7785.0	10362.5	218.516	26.07	34.38
320.0	8046.4	10707.0	219.610	26.20	34.51
330.0	8309.0	11052.8	220.674	26.32	34.64
340.0	8572.9	11399.8	221.710	26.46	34.77
350.0	8838.1	11748.2	222.720	26.60	34.91
360.0	9104.8	12098.0	223.705	26.74	35.05
370.0	9372.9	12449.2	224.668	26.88	35.19
380.0	9642.4	12801.9	225.608	27.03	35.34
390.0	9913.4	13156.1	226.528	27.18	35.49
400.0	10185.9	13511.7	227.428	27.33	35.64
410.0	10460.0	13868.9	228.310	27.48	35.80
420.0	10735.6	14227.7	229.175	27.64	35.95
430.0	11012.7	14588.0	230.023	27.80	36.11
440.0	11291.5	14949.9	230.855	27.96	36.27
450.0	11571.9	15313.4	231.672	28.12	36.43
460.0	11853.9	15678.6	232.474	28.28	36.60
470.0	12137.6	16045.4	233.263	28.45	36.76
480.0	12422.9	16413.9	234.039	28.62	36.93
490.0	12709.9	16784.0	234.802	28.79	37.10
500.0	12998.6	17155.9	235.553	28.96	37.27
510.0	13289.1	17529.5	236.293	29.13	37.44
520.0	13581.2	17904.8	237.022	29.30	37.62
530.0	13875.1	18281.8	237.740	29.48	37.79
540.0	14170.7	18660.6	238.448	29.65	37.97
550.0	14468.1	19041.1	239.146	29.83	38.14
560.0	14767.3	19423.4	239.835	30.01	38.32
570.0	15068.3	19807.5	240.515	30.18	38.50
580.0	15371.0	20193.4	241.186	30.36	38.68
590.0	15675.5	20581.1	241.849	30.54	38.86
600.0	15981.8	20970.5	242.503	30.72	39.04
610.0	16290.0	21361.8	243.150	30.90	39.22
620.0	16599.9	21754.9	243.789	31.08	39.40
630.0	16911.7	22149.8	244.421	31.27	39.58
640.0	17225.2	22546.5	245.046	31.45	39.76
650.0	17540.6	22945.0	245.664	31.63	39.94
660.0	17857.8	23345.4	246.275	31.81	40.13
670.0	18176.8	23747.6	246.880	31.99	40.31
680.0	18497.7	24151.5	247.478	32.18	40.49
690.0	18820.3	24557.3	248.071	32.36	40.67
700.0	19144.8	24965.0	248.657	32.54	40.85
710.0	19471.1	25374.4	249.238	32.72	41.03
720.0	19799.2	25785.6	249.813	32.90	41.22
730.0	20129.1	26198.7	250.383	33.08	41.40
740.0	20460.8	26613.6	250.947	33.26	41.58
750.0	20794.3	27030.2	251.507	33.44	41.76

Table 9. Comparison with H_2S thermofunctions by Starling.

HYDROGEN SULFIDE PROPERTIES, STARLING(DATA) VS. RDG(CALC)

T	P	DENSITY, MOL/L			ENTHALPY, J/MOL			ENTROPY, J/MOL/K		
K	MPA	DATA	CALC	PCNT	DATA	CALC	DIFF	DATA	CALC	DIFF
255.372	.1014	.0483	.0483	-.07	-8789.9	8435.1	-17225.0	200.069	211.744	-11.675
255.372	1.3789	25.6145	25.5744	.16	-26064.0	-8684.1	-17379.9	118.193	130.465	-12.271
255.372	4.1368	25.6985	25.6933	.02	-26021.2	-8637.8	-17383.4	117.937	130.225	-12.288
255.372	8.2737	25.8114	25.8637	-.20	-25953.9	-8565.8	-17388.1	117.566	129.878	-12.312
255.372	9.6526	25.8398	25.9185	-.30	-25930.9	-8541.2	-17389.7	117.452	129.766	-12.314
255.372	13.7895	25.9539	26.0777	-.47	-25861.2	-8465.6	-17395.6	117.095	129.439	-12.344
255.372	20.6842	26.1125	26.3269	-.81	-25740.0	-8334.5	-17405.5	116.539	128.922	-12.382
310.928	.1014	.0394	.0395	-.08	-6874.5	10348.8	-17223.3	207.027	218.523	-11.496
310.928	1.3789	.5868	.5947	-1.33	-7524.9	9609.3	-17134.2	183.914	195.206	-11.293
310.928	4.1368	21.9433	22.0404	-.44	-22031.1	-4613.1	-17418.0	132.210	144.421	-12.211
310.928	8.2737	22.2339	22.4157	-.81	-22050.1	-4626.7	-17423.4	131.540	143.779	-12.239
310.928	9.6526	22.3184	22.5297	-.94	-22052.4	-4626.6	-17425.9	131.340	143.581	-12.241
310.928	13.7895	22.5648	22.8452	-1.23	-22049.3	-4615.4	-17433.8	130.756	143.031	-12.275
310.928	20.6842	22.9169	23.3036	-1.66	-22019.2	-4569.6	-17449.6	129.872	142.217	-12.346
366.483	.1014	.0334	.0334	-.06	-4935.2	12291.1	-17226.3	212.703	224.269	-11.567
366.483	1.3789	.4786	.4817	-.65	-5381.2	11785.3	-17166.5	190.202	201.651	-11.449
366.483	4.1368	1.6579	1.6659	-.48	-6521.9	10487.3	-17009.3	178.909	189.981	-11.072
366.483	8.2737	15.3955	15.5692	-1.12	-16134.1	657.4	-16791.5	148.793	159.198	-10.404
366.483	9.6526	16.1910	16.6103	-2.52	-16538.1	225.8	-16763.9	147.453	157.787	-10.334
366.483	13.7895	17.5121	18.0919	-3.20	-17144.2	-304.4	-16839.8	145.129	155.692	-10.564
366.483	20.6842	18.7261	19.4025	-3.49	-17598.1	-650.8	-16947.3	142.862	153.747	-10.885
377.594	.1014	.0324	.0324	-.06	-4543.1	12684.1	-17227.2	213.729	225.326	-11.596
377.594	1.3789	.4622	.4649	-.58	-4961.4	12208.4	-17169.7	191.314	202.788	-11.474
377.594	4.1368	1.5743	1.5772	-.18	-6009.4	11031.8	-17041.2	180.263	191.445	-11.181
377.594	8.2737	4.4927	4.5618	-1.52	-8537.2	8055.2	-16592.4	169.312	179.301	-9.988
377.594	9.6526	12.4083	10.8397	14.47	-13911.3	3649.6	-17560.9	154.469	167.027	-12.558
377.594	13.7895	15.8792	16.5687	-4.16	-15768.2	1032.1	-16800.2	148.793	159.364	-10.570
377.594	20.6842	17.6370	18.4147	-4.22	-16537.4	430.6	-16968.0	145.685	156.733	-11.048
399.817	.1014	.0306	.0306	-.03	-3754.1	13475.3	-17229.4	215.697	227.362	-11.665
399.817	1.3789	.4330	.4350	-.46	-4124.8	13050.2	-17175.1	193.396	204.955	-11.559
399.817	4.1368	1.4374	1.4351	.16	-5025.5	12055.8	-17081.3	182.744	194.081	-11.336
399.817	8.2737	3.5869	3.5386	1.36	-6842.0	10070.3	-16912.3	173.618	184.500	-10.882
399.817	9.6526	4.6857	4.6460	.85	-7711.8	9095.7	-16807.4	170.610	181.208	-10.598
399.817	13.7895	10.9896	11.5558	-4.90	-11964.2	4642.9	-16607.1	158.504	168.636	-10.132
399.817	20.6842	15.1036	16.0994	-6.18	-14170.3	2671.7	-16842.0	151.702	162.499	-10.797
422.039	.1014	.0289	.0290	-.07	-2958.8	14273.6	-17232.3	217.579	229.305	-11.725
422.039	1.3789	.4075	.4091	-.37	-3289.9	13889.8	-17179.6	195.364	206.998	-11.635
422.039	4.1368	1.3283	1.3239	.33	-4078.9	13027.0	-17105.9	184.983	196.445	-11.462
422.039	8.2737	3.1173	3.0559	1.98	-5540.4	11480.8	-17021.3	176.727	187.937	-11.210
422.039	9.6526	3.8906	3.8128	2.04	-6142.5	10833.8	-16976.3	174.360	185.446	-11.086
422.039	13.7895	7.1519	7.3125	-2.20	-8485.7	8218.5	-16704.3	166.931	177.358	-10.427
422.039	20.6842	12.3431	13.3586	-7.60	-11596.6	5060.0	-16656.5	157.905	168.311	-10.406
477.594	.1014	.0256	.0256	-.03	-936.3	16302.5	-17238.8	221.942	233.820	-11.877
477.594	1.3789	.3562	.3569	-.21	-1196.2	15995.2	-17191.4	199.898	211.684	-11.786
477.594	4.1368	1.1277	1.1219	.52	-1793.5	15346.6	-17140.1	189.945	201.611	-11.666
477.594	8.2737	2.3856	2.4116	-1.08	-2793.2	14328.5	-17121.7	182.730	194.289	-11.559
477.594	9.6526	2.9662	2.8937	2.51	-3156.8	13956.9	-17113.7	180.905	192.418	-11.513
477.594	13.7895	4.6542	4.5717	1.80	-4334.0	12708.1	-17042.0	176.114	187.422	-11.308
477.594	20.6842	7.7806	8.1713	-4.78	-6316.8	10409.9	-16726.7	169.583	180.259	-10.676

Table 10. Calculated P(T) isochores of hydrogen sulfide.

HYDROGEN SULFIDE ISOCHORE AT .500 MOL/L

T K	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
272.065	.9999	.88403	1.7372	-.2730E-02	.00474	-.0000084
280.000	1.0373	.89110	1.8237	-.2568E-02	.00468	-.0000066
288.000	1.0745	.89748	1.9096	-.2429E-02	.00464	-.0000054
296.000	1.1115	.90323	1.9917	-.2308E-02	.00460	-.0000045
304.000	1.1481	.90845	2.0733	-.2201E-02	.00456	-.0000038
312.000	1.1845	.91321	2.1536	-.2106E-02	.00454	-.0000032
320.000	1.2207	.91758	2.2330	-.2020E-02	.00451	-.0000028
328.000	1.2567	.92160	2.3115	-.1943E-02	.00449	-.0000024
336.000	1.2925	.92532	2.3892	-.1872E-02	.00447	-.0000021
344.000	1.3282	.92877	2.4663	-.1807E-02	.00446	-.0000019
352.000	1.3638	.93198	2.5428	-.1747E-02	.00444	-.0000017
360.000	1.3993	.93498	2.6188	-.1691E-02	.00443	-.0000015
368.000	1.4347	.93778	2.6944	-.1639E-02	.00442	-.0000013
376.000	1.4700	.94041	2.7695	-.1591E-02	.00441	-.0000012
384.000	1.5052	.94288	2.8443	-.1546E-02	.00440	-.0000011
392.000	1.5404	.94521	2.9188	-.1504E-02	.00439	-.0000010
400.000	1.5754	.94740	2.9930	-.1464E-02	.00438	-.0000009
408.000	1.6105	.94948	3.0669	-.1427E-02	.00438	-.0000008
416.000	1.6454	.95144	3.1406	-.1391E-02	.00437	-.0000008
424.000	1.6804	.95330	3.2141	-.1357E-02	.00436	-.0000007
432.000	1.7152	.95507	3.2874	-.1326E-02	.00436	-.0000006
440.000	1.7501	.95676	3.3605	-.1295E-02	.00435	-.0000006
448.000	1.7849	.95836	3.4334	-.1266E-02	.00435	-.0000005
456.000	1.8197	.95988	3.5062	-.1239E-02	.00434	-.0000005
464.000	1.8544	.96134	3.5788	-.1213E-02	.00434	-.0000005
472.000	1.8891	.96273	3.6513	-.1188E-02	.00434	-.0000004
480.000	1.9238	.96406	3.7236	-.1164E-02	.00433	-.0000004
488.000	1.9584	.96534	3.7959	-.1141E-02	.00433	-.0000004
496.000	1.9930	.96656	3.8680	-.1119E-02	.00433	-.0000004
504.000	2.0276	.96773	3.9400	-.1097E-02	.00432	-.0000003
512.000	2.0622	.96886	4.0120	-.1077E-02	.00432	-.0000003
520.000	2.0968	.96994	4.0838	-.1058E-02	.00432	-.0000003
528.000	2.1313	.97098	4.1556	-.1039E-02	.00432	-.0000003
536.000	2.1659	.97198	4.2273	-.1021E-02	.00431	-.0000003
544.000	2.2004	.97294	4.2989	-.1003E-02	.00431	-.0000003
552.000	2.2348	.97387	4.3705	-.9862E-03	.00431	-.0000002
560.000	2.2693	.97477	4.4419	-.9699E-03	.00431	-.0000002
568.000	2.3038	.97563	4.5133	-.9542E-03	.00431	-.0000002
576.000	2.3382	.97647	4.5847	-.9390E-03	.00430	-.0000002
584.000	2.3727	.97727	4.6560	-.9242E-03	.00430	-.0000002
592.000	2.4071	.97805	4.7272	-.9100E-03	.00430	-.0000002
600.000	2.4415	.97881	4.7984	-.8962E-03	.00430	-.0000002
608.000	2.4759	.97954	4.8696	-.8828E-03	.00430	-.0000002
616.000	2.5103	.98024	4.9407	-.8698E-03	.00430	-.0000002
624.000	2.5446	.98093	5.0117	-.8572E-03	.00430	-.0000002
632.000	2.5790	.98159	5.0827	-.8450E-03	.00430	-.0000001
640.000	2.6134	.98223	5.1537	-.8332E-03	.00429	-.0000001
648.000	2.6477	.98285	5.2246	-.8216E-03	.00429	-.0000001
656.000	2.6820	.98346	5.2955	-.8104E-03	.00429	-.0000001
664.000	2.7164	.98405	5.3664	-.7995E-03	.00429	-.0000001
672.000	2.7507	.98462	5.4372	-.7890E-03	.00429	-.0000001
680.000	2.7850	.98517	5.5080	-.7786E-03	.00429	-.0000001
688.000	2.8193	.98571	5.5788	-.7686E-03	.00429	-.0000001
696.000	2.8536	.98624	5.6495	-.7588E-03	.00429	-.0000001
704.000	2.8879	.98675	5.7202	-.7493E-03	.00429	-.0000001
712.000	2.9222	.98724	5.7909	-.7400E-03	.00429	-.0000001
720.000	2.9565	.98772	5.8615	-.7309E-03	.00428	-.0000001

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 1.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
298.215	2.0193	.81438	1.5764	-.6595E-02	.01040	-.0000279
304.000	2.0790	.82251	1.6515	-.6206E-02	.01025	-.0000235
312.000	2.1603	.83275	1.7517	-.5755E-02	.01008	-.0000190
320.000	2.2403	.84203	1.8485	-.5379E-02	.00994	-.0000158
328.000	2.3194	.85048	1.9427	-.5058E-02	.00983	-.0000133
336.000	2.3976	.85823	2.0347	-.4781E-02	.00973	-.0000114
344.000	2.4751	.86536	2.1249	-.4538E-02	.00964	-.0000099
352.000	2.5519	.87194	2.2136	-.4323E-02	.00957	-.0000086
360.000	2.6282	.87805	2.3009	-.4131E-02	.00950	-.0000076
368.000	2.7040	.88374	2.3872	-.3957E-02	.00945	-.0000067
376.000	2.7794	.88904	2.4724	-.3801E-02	.00940	-.0000060
384.000	2.8544	.89401	2.5567	-.3658E-02	.00935	-.0000054
392.000	2.9290	.89867	2.6402	-.3526E-02	.00931	-.0000048
400.000	3.0033	.90304	2.7231	-.3406E-02	.00927	-.0000044
408.000	3.0774	.90717	2.8053	-.3294E-02	.00924	-.0000039
416.000	3.1512	.91105	2.8869	-.3190E-02	.00921	-.0000036
424.000	3.2248	.91474	2.9681	-.3094E-02	.00918	-.0000033
432.000	3.2981	.91823	3.0487	-.3004E-02	.00916	-.0000030
440.000	3.3713	.92153	3.1290	-.2919E-02	.00914	-.0000028
448.000	3.4443	.92467	3.2088	-.2840E-02	.00911	-.0000025
456.000	3.5171	.92766	3.2883	-.2766E-02	.00909	-.0000023
464.000	3.5898	.93050	3.3675	-.2695E-02	.00908	-.0000022
472.000	3.6624	.93322	3.4463	-.2629E-02	.00906	-.0000020
480.000	3.7348	.93581	3.5249	-.2566E-02	.00904	-.0000019
488.000	3.8071	.93828	3.6033	-.2505E-02	.00903	-.0000017
496.000	3.8792	.94065	3.6813	-.2449E-02	.00902	-.0000016
504.000	3.9513	.94292	3.7592	-.2395E-02	.00900	-.0000015
512.000	4.0233	.94510	3.8368	-.2343E-02	.00899	-.0000014
520.000	4.0952	.94718	3.9143	-.2294E-02	.00898	-.0000013
528.000	4.1670	.94919	3.9916	-.2247E-02	.00897	-.0000013
536.000	4.2387	.95111	4.0687	-.2202E-02	.00896	-.0000012
544.000	4.3103	.95297	4.1456	-.2159E-02	.00895	-.0000011
552.000	4.3819	.95475	4.2224	-.2118E-02	.00894	-.0000011
560.000	4.4534	.95647	4.2990	-.2078E-02	.00893	-.0000010
568.000	4.5249	.95812	4.3755	-.2040E-02	.00893	-.0000010
576.000	4.5962	.95972	4.4519	-.2003E-02	.00892	-.0000009
584.000	4.6676	.96126	4.5281	-.1968E-02	.00891	-.0000009
592.000	4.7388	.96275	4.6043	-.1934E-02	.00890	-.0000008
600.000	4.8100	.96419	4.6803	-.1901E-02	.00890	-.0000008
608.000	4.8812	.96558	4.7562	-.1870E-02	.00889	-.0000007
616.000	4.9523	.96692	4.8320	-.1839E-02	.00889	-.0000007
624.000	5.0234	.96822	4.9078	-.1810E-02	.00888	-.0000007
632.000	5.0944	.96949	4.9834	-.1781E-02	.00888	-.0000006
640.000	5.1654	.97071	5.0589	-.1753E-02	.00887	-.0000006
648.000	5.2364	.97189	5.1344	-.1727E-02	.00887	-.0000006
656.000	5.3073	.97304	5.2098	-.1701E-02	.00886	-.0000006
664.000	5.3781	.97415	5.2851	-.1676E-02	.00886	-.0000005
672.000	5.4490	.97523	5.3604	-.1651E-02	.00885	-.0000005
680.000	5.5198	.97628	5.4355	-.1628E-02	.00885	-.0000005
688.000	5.5905	.97730	5.5106	-.1605E-02	.00884	-.0000005
696.000	5.6613	.97830	5.5857	-.1583E-02	.00884	-.0000005
704.000	5.7320	.97926	5.6607	-.1561E-02	.00884	-.0000005
712.000	5.8027	.98020	5.7356	-.1540E-02	.00883	-.0000004
720.000	5.8733	.98111	5.8104	-.1520E-02	.00883	-.0000004

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 2.000 MOL/L

T K	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
327.709	3.8949	.71472	1.2175	-.1946E-01	.02369	-.0000930
328.000	3.9017	.71535	1.2223	-.1936E-01	.02366	-.0000920
336.000	4.0884	.73172	1.3487	-.1707E-01	.02302	-.0000708
344.000	4.2704	.74653	1.4683	-.1533E-01	.02251	-.0000569
352.000	4.4488	.76004	1.5829	-.1396E-01	.02210	-.0000471
360.000	4.6242	.77244	1.6936	-.1284E-01	.02175	-.0000398
368.000	4.7970	.78389	1.8011	-.1191E-01	.02146	-.0000341
376.000	4.9676	.79450	1.9061	-.1112E-01	.02120	-.0000296
384.000	5.1364	.80437	2.0088	-.1045E-01	.02098	-.0000259
392.000	5.3034	.81359	2.1098	-.9854E-02	.02079	-.0000228
400.000	5.4690	.82221	2.2090	-.9333E-02	.02062	-.0000203
408.000	5.6333	.83031	2.3069	-.8870E-02	.02046	-.0000182
416.000	5.7965	.83792	2.4036	-.8456E-02	.02032	-.0000163
424.000	5.9586	.84510	2.4991	-.8083E-02	.02020	-.0000148
432.000	6.1197	.85188	2.5936	-.7745E-02	.02009	-.0000134
440.000	6.2800	.85830	2.6873	-.7437E-02	.01999	-.0000122
448.000	6.4395	.86439	2.7801	-.7155E-02	.01989	-.0000111
456.000	6.5983	.87016	2.8723	-.6896E-02	.01981	-.0000102
464.000	6.7564	.87566	2.9637	-.6657E-02	.01973	-.0000094
472.000	6.9140	.88089	3.0546	-.6435E-02	.01966	-.0000087
480.000	7.0710	.88587	3.1449	-.6229E-02	.01959	-.0000080
488.000	7.2274	.89063	3.2347	-.6037E-02	.01953	-.0000074
496.000	7.3834	.89518	3.3240	-.5858E-02	.01947	-.0000069
504.000	7.5390	.89953	3.4128	-.5689E-02	.01942	-.0000064
512.000	7.6941	.90369	3.5013	-.5531E-02	.01937	-.0000060
520.000	7.8488	.90769	3.5894	-.5383E-02	.01932	-.0000056
528.000	8.0032	.91152	3.6771	-.5242E-02	.01928	-.0000053
536.000	8.1573	.91520	3.7645	-.5110E-02	.01924	-.0000049
544.000	8.3110	.91873	3.8516	-.4984E-02	.01920	-.0000047
552.000	8.4645	.92213	3.9384	-.4865E-02	.01916	-.0000044
560.000	8.6176	.92541	4.0250	-.4752E-02	.01913	-.0000041
568.000	8.7705	.92856	4.1113	-.4645E-02	.01910	-.0000039
576.000	8.9232	.93160	4.1973	-.4542E-02	.01907	-.0000037
584.000	9.0756	.93453	4.2831	-.4445E-02	.01904	-.0000035
592.000	9.2277	.93736	4.3687	-.4351E-02	.01901	-.0000033
600.000	9.3797	.94010	4.4541	-.4262E-02	.01898	-.0000032
608.000	9.5315	.94274	4.5393	-.4177E-02	.01896	-.0000030
616.000	9.6831	.94529	4.6243	-.4095E-02	.01893	-.0000029
624.000	9.8344	.94776	4.7091	-.4016E-02	.01891	-.0000027
632.000	9.9857	.95015	4.7938	-.3941E-02	.01889	-.0000026
640.000	10.1367	.95247	4.8783	-.3868E-02	.01887	-.0000025
648.000	10.2876	.95471	4.9626	-.3799E-02	.01885	-.0000024
656.000	10.4383	.95689	5.0468	-.3732E-02	.01883	-.0000023
664.000	10.5889	.95900	5.1309	-.3667E-02	.01881	-.0000022
672.000	10.7394	.96104	5.2148	-.3605E-02	.01880	-.0000021
680.000	10.8897	.96303	5.2986	-.3544E-02	.01878	-.0000020
688.000	11.0398	.96496	5.3823	-.3486E-02	.01876	-.0000020
696.000	11.1899	.96683	5.4658	-.3430E-02	.01875	-.0000019
704.000	11.3398	.96865	5.5493	-.3376E-02	.01873	-.0000018
712.000	11.4897	.97042	5.6326	-.3324E-02	.01872	-.0000017
720.000	11.6394	.97214	5.7158	-.3273E-02	.01871	-.0000017

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 4.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
356.435	6.6998	.56518	.5666	-.9708E-01	.05500	-.0003395
360.000	6.8939	.57579	.6342	-.8502E-01	.05392	-.0002724
368.000	7.3176	.59789	.7753	-.6721E-01	.05211	-.0001894
376.000	7.7289	.61807	.9077	-.5595E-01	.05079	-.0001447
384.000	8.1310	.63667	1.0347	-.4808E-01	.04975	-.0001163
392.000	8.5255	.65394	1.1579	-.4224E-01	.04891	-.0000964
400.000	8.9138	.67005	1.2782	-.3771E-01	.04820	-.0000818
408.000	9.2969	.68515	1.3963	-.3408E-01	.04759	-.0000705
416.000	9.6755	.69933	1.5124	-.3112E-01	.04706	-.0000615
424.000	10.0501	.71270	1.6271	-.2864E-01	.04660	-.0000542
432.000	10.4213	.72534	1.7404	-.2654E-01	.04619	-.0000482
440.000	10.7893	.73730	1.8525	-.2474E-01	.04583	-.0000432
448.000	11.1546	.74865	1.9637	-.2317E-01	.04550	-.0000389
456.000	11.5174	.75944	2.0739	-.2180E-01	.04520	-.0000352
464.000	11.8780	.76971	2.1834	-.2058E-01	.04494	-.0000321
472.000	12.2365	.77950	2.2922	-.1950E-01	.04469	-.0000293
480.000	12.5931	.78885	2.4003	-.1852E-01	.04447	-.0000269
488.000	12.9480	.79778	2.5079	-.1765E-01	.04426	-.0000248
496.000	13.3013	.80633	2.6149	-.1685E-01	.04407	-.0000229
504.000	13.6531	.81452	2.7214	-.1613E-01	.04389	-.0000212
512.000	14.0036	.82238	2.8275	-.1547E-01	.04373	-.0000198
520.000	14.3528	.82992	2.9331	-.1486E-01	.04358	-.0000184
528.000	14.7008	.83716	3.0383	-.1429E-01	.04343	-.0000172
536.000	15.0477	.84413	3.1432	-.1378E-01	.04330	-.0000161
544.000	15.3936	.85083	3.2478	-.1329E-01	.04317	-.0000151
552.000	15.7385	.85729	3.3520	-.1285E-01	.04306	-.0000142
560.000	16.0825	.86352	3.4559	-.1243E-01	.04295	-.0000134
568.000	16.4257	.86952	3.5595	-.1204E-01	.04284	-.0000127
576.000	16.7680	.87531	3.6628	-.1167E-01	.04274	-.0000120
584.000	17.1096	.88091	3.7659	-.1133E-01	.04265	-.0000114
592.000	17.4504	.88632	3.8688	-.1100E-01	.04256	-.0000109
600.000	17.7906	.89154	3.9714	-.1070E-01	.04248	-.0000103
608.000	18.1301	.89660	4.0737	-.1041E-01	.04240	-.0000098
616.000	18.4690	.90150	4.1759	-.1013E-01	.04232	-.0000093
624.000	18.8072	.90624	4.2778	-.9876E-02	.04225	-.0000089
632.000	19.1449	.91084	4.3796	-.9631E-02	.04218	-.0000085
640.000	19.4821	.91529	4.4812	-.9397E-02	.04211	-.0000082
648.000	19.8187	.91961	4.5826	-.9176E-02	.04205	-.0000078
656.000	20.1549	.92380	4.6838	-.8964E-02	.04199	-.0000075
664.000	20.4905	.92787	4.7848	-.8763E-02	.04193	-.0000072
672.000	20.8257	.93183	4.8857	-.8570E-02	.04187	-.0000069
680.000	21.1605	.93566	4.9864	-.8386E-02	.04182	-.0000067
688.000	21.4948	.93940	5.0869	-.8210E-02	.04176	-.0000064
696.000	21.8287	.94302	5.1873	-.8041E-02	.04171	-.0000062
704.000	22.1622	.94655	5.2876	-.7880E-02	.04167	-.0000060
712.000	22.4954	.94998	5.3877	-.7725E-02	.04162	-.0000058
720.000	22.8281	.95333	5.4877	-.7576E-02	.04157	-.0000056

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 6.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
368.306	8.2230	.44754	.1830	-.4828E+00	.08835	-.0009175
376.000	8.8839	.47362	.3196	-.2631E+00	.08408	-.0003591
384.000	9.5465	.49834	.4503	-.1815E+00	.08174	-.0002353
392.000	10.1937	.52126	.5776	-.1387E+00	.08013	-.0001735
400.000	10.8296	.54271	.7033	-.1122E+00	.07890	-.0001370
408.000	11.4568	.56288	.8282	-.9407E-01	.07791	-.0001127
416.000	12.0766	.58192	.9525	-.8092E-01	.07708	-.0000952
424.000	12.6904	.59996	1.0765	-.7095E-01	.07638	-.0000820
432.000	13.2989	.61708	1.2003	-.6312E-01	.07576	-.0000716
440.000	13.9028	.63338	1.3238	-.5682E-01	.07522	-.0000634
448.000	14.5026	.64890	1.4471	-.5165E-01	.07474	-.0000566
456.000	15.0988	.66373	1.5704	-.4732E-01	.07432	-.0000509
464.000	15.6918	.67790	1.6935	-.4365E-01	.07393	-.0000461
472.000	16.2818	.69147	1.8164	-.4051E-01	.07358	-.0000421
480.000	16.8691	.70447	1.9393	-.3777E-01	.07325	-.0000386
488.000	17.4539	.71694	2.0621	-.3538E-01	.07296	-.0000355
496.000	18.0364	.72892	2.1847	-.3327E-01	.07268	-.0000329
504.000	18.6169	.74044	2.3073	-.3139E-01	.07243	-.0000305
512.000	19.1954	.75152	2.4297	-.2971E-01	.07219	-.0000285
520.000	19.7720	.76218	2.5521	-.2820E-01	.07197	-.0000266
528.000	20.3470	.77246	2.6744	-.2684E-01	.07177	-.0000250
536.000	20.9203	.78238	2.7965	-.2559E-01	.07157	-.0000235
544.000	21.4922	.79194	2.9185	-.2446E-01	.07139	-.0000222
552.000	22.0626	.80118	3.0405	-.2342E-01	.07122	-.0000210
560.000	22.6317	.81011	3.1623	-.2247E-01	.07106	-.0000199
568.000	23.1995	.81874	3.2840	-.2159E-01	.07090	-.0000189
576.000	23.7661	.82708	3.4056	-.2078E-01	.07075	-.0000180
584.000	24.3316	.83516	3.5271	-.2002E-01	.07061	-.0000171
592.000	24.8960	.84299	3.6485	-.1932E-01	.07048	-.0000164
600.000	25.4593	.85056	3.7698	-.1866E-01	.07035	-.0000157
608.000	26.0216	.85791	3.8910	-.1805E-01	.07023	-.0000150
616.000	26.5829	.86504	4.0121	-.1747E-01	.07011	-.0000144
624.000	27.1434	.87195	4.1330	-.1694E-01	.07000	-.0000139
632.000	27.7029	.87866	4.2538	-.1643E-01	.06989	-.0000134
640.000	28.2616	.88517	4.3746	-.1595E-01	.06978	-.0000129
648.000	28.8194	.89150	4.4952	-.1550E-01	.06968	-.0000125
656.000	29.3765	.89765	4.6157	-.1508E-01	.06958	-.0000120
664.000	29.9327	.90363	4.7360	-.1467E-01	.06949	-.0000116
672.000	30.4883	.90944	4.8563	-.1429E-01	.06940	-.0000113
680.000	31.0431	.91510	4.9764	-.1393E-01	.06931	-.0000109
688.000	31.5972	.92060	5.0965	-.1358E-01	.06922	-.0000106
696.000	32.1507	.92596	5.2164	-.1325E-01	.06914	-.0000103
704.000	32.7034	.93118	5.3362	-.1294E-01	.06906	-.0000100
712.000	33.2556	.93626	5.4559	-.1264E-01	.06898	-.0000098
720.000	33.8071	.94121	5.5755	-.1236E-01	.06890	-.0000095

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 8.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
372.609	8.8436	.35682	.0297	-.4061E+01	.12061	-.0031997
376.000	9.2439	.36961	.0846	-.1378E+01	.11656	-.0006050
384.000	10.1631	.39789	.2116	-.5373E+00	.11367	-.0002382
392.000	11.0659	.42440	.3421	-.3278E+00	.11215	-.0001542
400.000	11.9586	.44946	.4756	-.2336E+00	.11109	-.0001151
408.000	12.8439	.47327	.6113	-.1804E+00	.11027	-.0000920
416.000	13.7233	.49595	.7488	-.1464E+00	.10959	-.0000767
424.000	14.5977	.51760	.8878	-.1228E+00	.10903	-.0000658
432.000	15.4679	.53830	1.0280	-.1056E+00	.10853	-.0000576
440.000	16.3344	.55812	1.1692	-.9245E-01	.10810	-.0000512
448.000	17.1976	.57712	1.3114	-.8214E-01	.10771	-.0000461
456.000	18.0579	.59536	1.4543	-.7382E-01	.10736	-.0000419
464.000	18.9155	.61288	1.5979	-.6699E-01	.10704	-.0000385
472.000	19.7706	.62973	1.7420	-.6128E-01	.10674	-.0000356
480.000	20.6234	.64594	1.8866	-.5643E-01	.10647	-.0000331
488.000	21.4742	.66155	2.0316	-.5228E-01	.10621	-.0000310
496.000	22.3229	.67662	2.1770	-.4868E-01	.10597	-.0000291
504.000	23.1698	.69114	2.3227	-.4553E-01	.10575	-.0000275
512.000	24.0149	.70515	2.4687	-.4275E-01	.10553	-.0000261
520.000	24.8583	.71869	2.6148	-.4028E-01	.10533	-.0000249
528.000	25.7001	.73177	2.7612	-.3807E-01	.10513	-.0000238
536.000	26.5405	.74442	2.9078	-.3609E-01	.10495	-.0000228
544.000	27.3793	.75665	3.0544	-.3430E-01	.10477	-.0000219
552.000	28.2168	.76850	3.2012	-.3267E-01	.10460	-.0000210
560.000	29.0529	.77997	3.3481	-.3119E-01	.10443	-.0000203
568.000	29.8877	.79108	3.4950	-.2984E-01	.10427	-.0000196
576.000	30.7213	.80185	3.6419	-.2859E-01	.10412	-.0000190
584.000	31.5536	.81229	3.7889	-.2744E-01	.10397	-.0000184
592.000	32.3848	.82242	3.9359	-.2638E-01	.10382	-.0000179
600.000	33.2148	.83225	4.0829	-.2539E-01	.10368	-.0000174
608.000	34.0437	.84180	4.2299	-.2448E-01	.10354	-.0000170
616.000	34.8715	.85107	4.3768	-.2363E-01	.10341	-.0000166
624.000	35.6982	.86007	4.5238	-.2283E-01	.10328	-.0000162
632.000	36.5239	.86883	4.6706	-.2208E-01	.10315	-.0000158
640.000	37.3486	.87734	4.8174	-.2139E-01	.10303	-.0000155
648.000	38.1724	.88562	4.9642	-.2073E-01	.10290	-.0000151
656.000	38.9951	.89368	5.1109	-.2011E-01	.10278	-.0000148
664.000	39.8169	.90152	5.2575	-.1953E-01	.10267	-.0000146
672.000	40.6377	.90915	5.4040	-.1898E-01	.10255	-.0000143
680.000	41.4577	.91658	5.5505	-.1846E-01	.10244	-.0000140
688.000	42.2767	.92382	5.6968	-.1796E-01	.10233	-.0000138
696.000	43.0949	.93087	5.8431	-.1749E-01	.10222	-.0000135
704.000	43.9122	.93775	5.9892	-.1705E-01	.10211	-.0000133
712.000	44.7287	.94445	6.1353	-.1663E-01	.10200	-.0000131
720.000	45.5443	.95099	6.2812	-.1622E-01	.10190	-.0000129

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 9.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
373.261	8.9417	.32013	.0053	-.2574E+02	.13586	-.0093268
376.000	9.3068	.33078	.0477	-.2772E+01	.13220	-.0004575
384.000	10.3550	.36036	.1806	-.7210E+00	.13023	-.0001510
392.000	11.3928	.38839	.3212	-.4025E+00	.12928	-.0000955
400.000	12.4242	.41508	.4663	-.2758E+00	.12862	-.0000714
408.000	13.4511	.44057	.6148	-.2084E+00	.12811	-.0000577
416.000	14.4742	.46497	.7657	-.1667E+00	.12769	-.0000489
424.000	15.4942	.48834	.9188	-.1386E+00	.12732	-.0000427
432.000	16.5115	.51077	1.0735	-.1183E+00	.12700	-.0000382
440.000	17.5263	.53230	1.2296	-.1030E+00	.12671	-.0000347
448.000	18.5388	.55300	1.3869	-.9117E-01	.12644	-.0000320
456.000	19.5494	.57291	1.5453	-.8166E-01	.12619	-.0000298
464.000	20.5580	.59208	1.7045	-.7390E-01	.12596	-.0000281
472.000	21.5648	.61056	1.8644	-.6744E-01	.12574	-.0000266
480.000	22.5699	.62836	2.0250	-.6199E-01	.12554	-.0000253
488.000	23.5734	.64554	2.1862	-.5733E-01	.12534	-.0000243
496.000	24.5753	.66212	2.3478	-.5330E-01	.12515	-.0000234
504.000	25.5758	.67814	2.5099	-.4979E-01	.12496	-.0000226
512.000	26.5748	.69362	2.6723	-.4670E-01	.12479	-.0000219
520.000	27.5724	.70858	2.8350	-.4396E-01	.12461	-.0000213
528.000	28.5686	.72306	2.9979	-.4151E-01	.12444	-.0000208
536.000	29.5635	.73708	3.1611	-.3932E-01	.12428	-.0000203
544.000	30.5571	.75064	3.3245	-.3734E-01	.12412	-.0000198
552.000	31.5494	.76379	3.4880	-.3554E-01	.12396	-.0000194
560.000	32.5405	.77653	3.6516	-.3391E-01	.12381	-.0000191
568.000	33.5304	.78888	3.8153	-.3241E-01	.12366	-.0000187
576.000	34.5190	.80086	3.9791	-.3104E-01	.12351	-.0000184
584.000	35.5065	.81249	4.1429	-.2978E-01	.12336	-.0000181
592.000	36.4928	.82377	4.3068	-.2861E-01	.12322	-.0000178
600.000	37.4780	.83473	4.4707	-.2753E-01	.12308	-.0000176
608.000	38.4621	.84538	4.6345	-.2653E-01	.12294	-.0000173
616.000	39.4451	.85572	4.7983	-.2559E-01	.12280	-.0000171
624.000	40.4269	.86578	4.9621	-.2472E-01	.12267	-.0000169
632.000	41.4077	.87556	5.1259	-.2390E-01	.12253	-.0000167
640.000	42.3874	.88507	5.2896	-.2314E-01	.12240	-.0000165
648.000	43.3661	.89433	5.4532	-.2242E-01	.12227	-.0000163
656.000	44.3437	.90334	5.6168	-.2175E-01	.12214	-.0000161
664.000	45.3203	.91211	5.7802	-.2111E-01	.12201	-.0000159
672.000	46.2959	.92065	5.9436	-.2051E-01	.12188	-.0000157
680.000	47.2705	.92897	6.1069	-.1994E-01	.12176	-.0000155
688.000	48.2440	.93708	6.2700	-.1940E-01	.12164	-.0000154
696.000	49.2166	.94498	6.4331	-.1889E-01	.12151	-.0000152
704.000	50.1882	.95269	6.5960	-.1840E-01	.12139	-.0000150
712.000	51.1589	.96020	6.7588	-.1794E-01	.12127	-.0000149
720.000	52.1286	.96753	6.9215	-.1750E-01	.12115	-.0000147

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 10.200 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
373.400	8.9629	.28303	0.0000	-R	.15238	0.0000000
376.000	9.3591	.29350	.0448	-.3403E+01	.15238	-.0000006
384.000	10.5781	.32482	.1988	-.7663E+00	.15236	-.0000024
392.000	11.7969	.35485	.3620	-.4208E+00	.15234	-.0000040
400.000	13.0154	.38367	.5303	-.2872E+00	.15230	-.0000055
408.000	14.2337	.41136	.7023	-.2168E+00	.15225	-.0000069
416.000	15.4514	.43796	.8771	-.1735E+00	.15219	-.0000081
424.000	16.6687	.46355	1.0542	-.1443E+00	.15212	-.0000092
432.000	17.8854	.48818	1.2331	-.1233E+00	.15204	-.0000102
440.000	19.1014	.51189	1.4136	-.1075E+00	.15196	-.0000111
448.000	20.3167	.53474	1.5953	-.9520E-01	.15187	-.0000119
456.000	21.5312	.55676	1.7781	-.8535E-01	.15177	-.0000126
464.000	22.7450	.57800	1.9619	-.7731E-01	.15167	-.0000133
472.000	23.9579	.59851	2.1464	-.7061E-01	.15156	-.0000139
480.000	25.1699	.61831	2.3317	-.6495E-01	.15144	-.0000145
488.000	26.3810	.63743	2.5175	-.6011E-01	.15133	-.0000149
496.000	27.5911	.65592	2.7038	-.5592E-01	.15120	-.0000154
504.000	28.8002	.67380	2.8905	-.5227E-01	.15108	-.0000158
512.000	30.0083	.69109	3.0776	-.4905E-01	.15095	-.0000161
520.000	31.2154	.70783	3.2650	-.4619E-01	.15082	-.0000164
528.000	32.4215	.72404	3.4526	-.4364E-01	.15069	-.0000167
536.000	33.6265	.73974	3.6405	-.4136E-01	.15055	-.0000169
544.000	34.8304	.75496	3.8285	-.3929E-01	.15042	-.0000172
552.000	36.0332	.76971	4.0166	-.3741E-01	.15028	-.0000173
560.000	37.2348	.78402	4.2048	-.3571E-01	.15014	-.0000175
568.000	38.4354	.79790	4.3931	-.3414E-01	.15000	-.0000176
576.000	39.6348	.81137	4.5814	-.3271E-01	.14986	-.0000177
584.000	40.8331	.82445	4.7698	-.3139E-01	.14972	-.0000178
592.000	42.0303	.83715	4.9581	-.3017E-01	.14957	-.0000179
600.000	43.2263	.84949	5.1464	-.2904E-01	.14943	-.0000180
608.000	44.4212	.86149	5.3347	-.2798E-01	.14929	-.0000180
616.000	45.6149	.87315	5.5229	-.2700E-01	.14914	-.0000180
624.000	46.8075	.88449	5.7110	-.2609E-01	.14900	-.0000181
632.000	47.9989	.89552	5.8991	-.2523E-01	.14885	-.0000181
640.000	49.1891	.90626	6.0870	-.2443E-01	.14871	-.0000181
648.000	50.3782	.91671	6.2749	-.2368E-01	.14856	-.0000180
656.000	51.5661	.92688	6.4626	-.2297E-01	.14842	-.0000180
664.000	52.7529	.93679	6.6502	-.2230E-01	.14828	-.0000180
672.000	53.9385	.94644	6.8377	-.2166E-01	.14813	-.0000179
680.000	55.1230	.95585	7.0250	-.2107E-01	.14799	-.0000179
688.000	56.3064	.96501	7.2121	-.2050E-01	.14785	-.0000178
696.000	57.4886	.97395	7.3991	-.1996E-01	.14770	-.0000178
704.000	58.6696	.98266	7.5860	-.1945E-01	.14756	-.0000177
712.000	59.8495	.99116	7.7726	-.1897E-01	.14742	-.0000176
720.000	61.0283	.99945	7.9591	-.1850E-01	.14728	-.0000176

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 11.000 MOL/L

T K	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
373.359	8.9567	.26230	.0019	-.8850E+02	.16490	.0187807
376.000	9.3984	.27330	.0555	-.3027E+01	.16801	.0003320
384.000	10.7489	.30606	.2313	-.7322E+00	.16936	.0000993
392.000	12.1063	.33767	.4156	-.4089E+00	.16996	.0000582
400.000	13.4676	.36813	.6049	-.2816E+00	.17034	.0000391
408.000	14.8315	.39746	.7977	-.2139E+00	.17060	.0000275
416.000	16.1971	.42571	.9931	-.1720E+00	.17079	.0000194
424.000	17.5640	.45293	1.1907	-.1435E+00	.17092	.0000133
432.000	18.9317	.47916	1.3900	-.1230E+00	.17101	.0000085
440.000	20.2999	.50444	1.5907	-.1075E+00	.17106	.0000045
448.000	21.6685	.52884	1.7927	-.9543E-01	.17108	.0000014
456.000	23.0372	.55238	1.9957	-.8573E-01	.17108	-.0000014
464.000	24.4057	.57510	2.1995	-.7777E-01	.17106	-.0000037
472.000	25.7741	.59705	2.4041	-.7114E-01	.17102	-.0000058
480.000	27.1420	.61826	2.6092	-.6552E-01	.17097	-.0000075
488.000	28.5095	.63877	2.8149	-.6071E-01	.17090	-.0000091
496.000	29.8764	.65859	3.0210	-.5654E-01	.17082	-.0000104
504.000	31.2427	.67778	3.2275	-.5290E-01	.17073	-.0000115
512.000	32.6082	.69635	3.4343	-.4969E-01	.17064	-.0000127
520.000	33.9728	.71433	3.6413	-.4683E-01	.17053	-.0000136
528.000	35.3367	.73175	3.8485	-.4428E-01	.17042	-.0000145
536.000	36.6995	.74863	4.0559	-.4199E-01	.17030	-.0000152
544.000	38.0614	.76499	4.2633	-.3992E-01	.17018	-.0000159
552.000	39.4223	.78086	4.4709	-.3803E-01	.17005	-.0000165
560.000	40.7822	.79626	4.6785	-.3632E-01	.16991	-.0000170
568.000	42.1409	.81120	4.8860	-.3475E-01	.16977	-.0000175
576.000	43.4986	.82570	5.0936	-.3330E-01	.16963	-.0000179
584.000	44.8551	.83979	5.3011	-.3197E-01	.16949	-.0000182
592.000	46.2104	.85347	5.5086	-.3074E-01	.16934	-.0000185
600.000	47.5645	.86677	5.7160	-.2960E-01	.16919	-.0000188
608.000	48.9175	.87969	5.9233	-.2854E-01	.16904	-.0000191
616.000	50.2692	.89226	6.1305	-.2755E-01	.16889	-.0000193
624.000	51.6197	.90449	6.3376	-.2662E-01	.16873	-.0000194
632.000	52.9689	.91638	6.5445	-.2576E-01	.16858	-.0000196
640.000	54.3169	.92795	6.7513	-.2495E-01	.16842	-.0000197
648.000	55.6636	.93922	6.9579	-.2418E-01	.16826	-.0000198
656.000	57.0091	.95019	7.1643	-.2346E-01	.16810	-.0000199
664.000	58.3533	.96088	7.3706	-.2279E-01	.16794	-.0000200
672.000	59.6962	.97129	7.5767	-.2214E-01	.16778	-.0000200
680.000	61.0378	.98143	7.7826	-.2154E-01	.16762	-.0000201
688.000	62.3781	.99132	7.9883	-.2096E-01	.16746	-.0000201
696.000	63.7172	1.00095	8.1938	-.2042E-01	.16730	-.0000201
704.000	65.0549	1.01037	8.3991	-.1990E-01	.16714	-.0000201
712.000	66.3914	1.01954	8.6042	-.1941E-01	.16698	-.0000201
720.000	67.7266	1.02849	8.8090	-.1894E-01	.16682	-.0000200

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 12.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
372.990	8.9008	.23917	.0237	-.7915E+01	.18745	.0045988
376.000	9.4729	.25251	.1028	-.1861E+01	.19143	.0005925
384.000	11.0167	.28754	.3156	-.6150E+00	.19407	.0002057
392.000	12.5748	.32151	.5339	-.3659E+00	.19535	.0001257
400.000	14.1411	.35433	.7559	-.2595E+00	.19619	.0000830
408.000	15.7132	.38600	.9807	-.2007E+00	.19679	.0000552
416.000	17.2894	.41655	1.2076	-.1633E+00	.19725	.0000395
424.000	18.8689	.44603	1.4361	-.1376E+00	.19760	.0000278
432.000	20.4507	.47447	1.6661	-.1188E+00	.19786	.0000288
440.000	22.0344	.50192	1.8972	-.1044E+00	.19806	.0000215
448.000	23.6195	.52842	2.1292	-.9309E-01	.19821	.0000155
456.000	25.2056	.55401	2.3619	-.8396E-01	.19831	.0000104
464.000	26.7924	.57873	2.5954	-.7644E-01	.19838	.0000062
472.000	28.3796	.60262	2.8293	-.7013E-01	.19841	.0000025
480.000	29.9669	.62572	3.0636	-.6477E-01	.19842	-.0000007
488.000	31.5542	.64807	3.2983	-.6015E-01	.19840	-.0000035
496.000	33.1413	.66968	3.5333	-.5614E-01	.19836	-.0000059
504.000	34.7279	.69061	3.7685	-.5262E-01	.19831	-.0000081
512.000	36.3141	.71087	4.0038	-.4951E-01	.19823	-.0000100
520.000	37.8997	.73049	4.2392	-.4674E-01	.19815	-.0000116
528.000	39.4845	.74951	4.4747	-.4426E-01	.19805	-.0000131
536.000	41.0684	.76794	4.7102	-.4202E-01	.19794	-.0000145
544.000	42.6514	.78581	4.9457	-.4000E-01	.19782	-.0000156
552.000	44.2335	.80315	5.1812	-.3816E-01	.19769	-.0000167
560.000	45.8144	.81997	5.4165	-.3647E-01	.19755	-.0000176
568.000	47.3943	.83630	5.6518	-.3493E-01	.19741	-.0000185
576.000	48.9729	.85215	5.8869	-.3351E-01	.19726	-.0000192
584.000	50.5503	.86755	6.1219	-.3220E-01	.19710	-.0000199
592.000	52.1265	.88251	6.3568	-.3098E-01	.19694	-.0000205
600.000	53.7013	.89705	6.5914	-.2985E-01	.19677	-.0000210
608.000	55.2748	.91119	6.8259	-.2880E-01	.19660	-.0000215
616.000	56.8470	.92493	7.0602	-.2782E-01	.19643	-.0000219
624.000	58.4177	.93830	7.2942	-.2691E-01	.19625	-.0000222
632.000	59.9870	.95131	7.5281	-.2605E-01	.19607	-.0000226
640.000	61.5549	.96397	7.7616	-.2524E-01	.19589	-.0000228
648.000	63.1213	.97630	7.9950	-.2448E-01	.19571	-.0000231
656.000	64.6862	.98830	8.2281	-.2376E-01	.19552	-.0000233
664.000	66.2496	1.00000	8.4609	-.2309E-01	.19534	-.0000235
672.000	67.8115	1.01139	8.6935	-.2245E-01	.19515	-.0000236
680.000	69.3720	1.02249	8.9257	-.2184E-01	.19496	-.0000237
688.000	70.9308	1.03331	9.1578	-.2127E-01	.19477	-.0000238
696.000	72.4882	1.04386	9.3895	-.2072E-01	.19458	-.0000239
704.000	74.0441	1.05414	9.6209	-.2020E-01	.19438	-.0000240
712.000	75.5984	1.06418	9.8521	-.1971E-01	.19419	-.0000240
720.000	77.1511	1.07397	10.0830	-.1924E-01	.19400	-.0000241

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 14.000 MOL/L

T K	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
370.077	8.4733	.19670	.2630	-.9595E+00	.25237	.0011726
376.000	9.9822	.22807	.5003	-.5127E+00	.25651	.0004588
384.000	12.0462	.26950	.8114	-.3195E+00	.25923	.0002592
392.000	14.1273	.30961	1.1204	-.2329E+00	.26095	.0001777
400.000	16.2200	.34836	1.4289	-.1835E+00	.26217	.0001311
408.000	18.3212	.38577	1.7373	-.1514E+00	.26308	.0001002
416.000	20.4288	.42188	2.0457	-.1289E+00	.26379	.0000777
424.000	22.5414	.45672	2.3542	-.1123E+00	.26434	.0000605
432.000	24.6580	.49035	2.6626	-.9944E-01	.26477	.0000469
440.000	26.7775	.52282	2.9709	-.8923E-01	.26510	.0000357
448.000	28.8993	.55417	3.2792	-.8092E-01	.26535	.0000265
456.000	31.0228	.58446	3.5873	-.7402E-01	.26553	.0000186
464.000	33.1476	.61372	3.8953	-.6820E-01	.26565	.0000119
472.000	35.2731	.64200	4.2030	-.6322E-01	.26572	.0000061
480.000	37.3989	.66935	4.5106	-.5892E-01	.26575	.0000011
488.000	39.5249	.69580	4.8178	-.5516E-01	.26574	-.0000033
496.000	41.6507	.72140	5.1247	-.5185E-01	.26570	-.0000072
504.000	43.7760	.74618	5.4313	-.4891E-01	.26562	-.0000106
512.000	45.9006	.77017	5.7376	-.4628E-01	.26553	-.0000135
520.000	48.0243	.79340	6.0434	-.4392E-01	.26541	-.0000162
528.000	50.1471	.81592	6.3489	-.4178E-01	.26527	-.0000186
536.000	52.2686	.83774	6.6540	-.3984E-01	.26511	-.0000207
544.000	54.3888	.85891	6.9587	-.3807E-01	.26494	-.0000226
552.000	56.5075	.87943	7.2630	-.3645E-01	.26475	-.0000243
560.000	58.6247	.89935	7.5668	-.3496E-01	.26455	-.0000258
568.000	60.7403	.91868	7.8702	-.3359E-01	.26434	-.0000272
576.000	62.8541	.93745	8.1731	-.3232E-01	.26411	-.0000284
584.000	64.9661	.95567	8.4755	-.3113E-01	.26388	-.0000294
592.000	67.0762	.97338	8.7775	-.3004E-01	.26364	-.0000304
600.000	69.1844	.99059	9.0789	-.2901E-01	.26340	-.0000312
608.000	71.2906	1.00731	9.3799	-.2805E-01	.26314	-.0000320
616.000	73.3947	1.02358	9.6805	-.2716E-01	.26289	-.0000327
624.000	75.4967	1.03939	9.9805	-.2631E-01	.26262	-.0000332
632.000	77.5966	1.05478	10.2800	-.2552E-01	.26235	-.0000338
640.000	79.6944	1.06975	10.5790	-.2477E-01	.26208	-.0000342
648.000	81.7899	1.08433	10.8776	-.2407E-01	.26181	-.0000346
656.000	83.8833	1.09852	11.1756	-.2340E-01	.26153	-.0000350

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 16.000 MOL/L

T	P	Z	DP/OD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
362.932	7.5022	.15538	1.0347	-.3329E+00	.34440	.0004765
364.000	7.8702	.16253	1.0937	-.3154E+00	.34488	.0004371
368.000	9.2529	.18901	1.3116	-.2641E+00	.34641	.0003334
372.000	10.6410	.21502	1.5264	-.2277E+00	.34760	.0002580
376.000	12.0334	.24057	1.7391	-.2004E+00	.34858	.0002222
380.000	13.4294	.26565	1.9502	-.1792E+00	.34939	.0001878
384.000	14.8284	.29027	2.1601	-.1621E+00	.35009	.0001607
388.000	16.2300	.31443	2.3691	-.1480E+00	.35069	.0001387
392.000	17.6338	.33815	2.5772	-.1363E+00	.35120	.0001203
396.000	19.0395	.36141	2.7847	-.1263E+00	.35165	.0001047
400.000	20.4469	.38425	2.9915	-.1177E+00	.35204	.0000912
404.000	21.8558	.40666	3.1978	-.1102E+00	.35238	.0000793
408.000	23.2659	.42865	3.4036	-.1036E+00	.35268	.0000688
412.000	24.6772	.45024	3.6089	-.9780E-01	.35294	.0000595
416.000	26.0894	.47143	3.8138	-.9260E-01	.35316	.0000511
420.000	27.5024	.49223	4.0183	-.8793E-01	.35335	.0000435
424.000	28.9161	.51265	4.2225	-.8372E-01	.35351	.0000366
428.000	30.3304	.53269	4.4262	-.7990E-01	.35364	.0000303
432.000	31.7452	.55238	4.6296	-.7641E-01	.35375	.0000245
436.000	33.1604	.57171	4.8327	-.7322E-01	.35384	.0000192
440.000	34.5758	.59070	5.0355	-.7028E-01	.35390	.0000143
444.000	35.9916	.60934	5.2379	-.6757E-01	.35395	.0000097
448.000	37.4074	.62766	5.4401	-.6507E-01	.35398	.0000055
452.000	38.8234	.64565	5.6419	-.6274E-01	.35399	.0000016
456.000	40.2394	.66333	5.8435	-.6058E-01	.35399	-.0000021
460.000	41.6553	.68070	6.0448	-.5856E-01	.35398	-.0000055
464.000	43.0712	.69777	6.2458	-.5667E-01	.35395	-.0000086
468.000	44.4869	.71455	6.4465	-.5490E-01	.35391	-.0000115
472.000	45.9024	.73103	6.6470	-.5324E-01	.35386	-.0000144
476.000	47.3177	.74724	6.8472	-.5167E-01	.35379	-.0000170
480.000	48.7328	.76317	7.0471	-.5019E-01	.35372	-.0000194
484.000	50.1475	.77884	7.2468	-.4880E-01	.35364	-.0000217
488.000	51.5619	.79424	7.4462	-.4748E-01	.35355	-.0000239
492.000	52.9759	.80939	7.6454	-.4623E-01	.35345	-.0000259
496.000	54.3894	.82428	7.8443	-.4504E-01	.35334	-.0000278
500.000	55.8026	.83893	8.0429	-.4392E-01	.35323	-.0000296
504.000	57.2152	.85335	8.2413	-.4285E-01	.35310	-.0000313
508.000	58.6274	.86752	8.4395	-.4182E-01	.35296	-.0000329
512.000	60.0390	.88147	8.6374	-.4085E-01	.35284	-.0000344
516.000	61.4501	.89519	8.8351	-.3992E-01	.35270	-.0000358
520.000	62.8606	.90870	9.0325	-.3903E-01	.35255	-.0000372
524.000	64.2705	.92199	9.2297	-.3818E-01	.35240	-.0000384
528.000	65.6798	.93507	9.4266	-.3737E-01	.35225	-.0000396
532.000	67.0885	.94794	9.6234	-.3659E-01	.35209	-.0000407
536.000	68.4965	.96061	9.8198	-.3584E-01	.35192	-.0000418
540.000	69.9039	.97309	10.0161	-.3512E-01	.35175	-.0000428
544.000	71.3105	.98537	10.2121	-.3443E-01	.35158	-.0000437
548.000	72.7165	.99746	10.4079	-.3376E-01	.35140	-.0000446
552.000	74.1218	1.00937	10.6034	-.3312E-01	.35122	-.0000454
556.000	75.5263	1.02110	10.7987	-.3251E-01	.35104	-.0000462
560.000	76.9301	1.03265	10.9938	-.3191E-01	.35085	-.0000469
564.000	78.3331	1.04402	11.1886	-.3134E-01	.35066	-.0000476
568.000	79.7354	1.05523	11.3833	-.3079E-01	.35047	-.0000483
572.000	81.1369	1.06627	11.5777	-.3025E-01	.35028	-.0000489
576.000	82.5376	1.07714	11.7718	-.2974E-01	.35008	-.0000495
580.000	83.9375	1.08786	11.9658	-.2924E-01	.34988	-.0000500

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 18.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
350.667	6.0444	.11517	2.6721	-.1744E+00	.46610	.0001915
352.000	6.6660	.12654	2.7658	-.1686E+00	.46635	.0001803
356.000	8.5328	.16015	3.0453	-.1534E+00	.46701	.0001514
360.000	10.4019	.19306	3.3227	-.1407E+00	.46757	.0001280
364.000	12.2732	.22529	3.5985	-.1301E+00	.46804	.0001084
368.000	14.1462	.25685	3.8727	-.1210E+00	.46844	.0000916
372.000	16.0206	.28776	4.1456	-.1131E+00	.46878	.0000770
376.000	17.8963	.31803	4.4174	-.1062E+00	.46906	.0000641
380.000	19.7730	.34768	4.6881	-.1001E+00	.46929	.0000527
384.000	21.6506	.37673	4.9578	-.9470E-01	.46948	.0000424
388.000	23.5288	.40519	5.2266	-.8985E-01	.46963	.0000331
392.000	25.4076	.43308	5.4946	-.8549E-01	.46975	.0000246
396.000	27.2867	.46041	5.7617	-.8154E-01	.46983	.0000169
400.000	29.1662	.48720	6.0282	-.7795E-01	.46988	.0000098
404.000	31.0457	.51347	6.2939	-.7466E-01	.46991	.0000033
408.000	32.9254	.53922	6.5589	-.7164E-01	.46991	-.0000028
412.000	34.8050	.56446	6.8233	-.6887E-01	.46989	-.0000084
416.000	36.6845	.58922	7.0870	-.6630E-01	.46984	-.0000136
420.000	38.5637	.61351	7.3501	-.6391E-01	.46978	-.0000184
424.000	40.4427	.63733	7.6127	-.6170E-01	.46970	-.0000229
428.000	42.3213	.66070	7.8747	-.5963E-01	.46960	-.0000271
432.000	44.1994	.68363	8.1361	-.5770E-01	.46948	-.0000310
436.000	46.0771	.70614	8.3970	-.5589E-01	.46935	-.0000347
440.000	47.9542	.72822	8.6574	-.5420E-01	.46920	-.0000382
444.000	49.8307	.74990	8.9172	-.5260E-01	.46904	-.0000414
448.000	51.7065	.77118	9.1766	-.5109E-01	.46887	-.0000444
452.000	53.5816	.79208	9.4355	-.4967E-01	.46869	-.0000473
456.000	55.4560	.81260	9.6938	-.4833E-01	.46849	-.0000499
460.000	57.3296	.83275	9.9518	-.4706E-01	.46829	-.0000525
464.000	59.2023	.85253	10.2092	-.4585E-01	.46807	-.0000548
468.000	61.0741	.87197	10.4662	-.4470E-01	.46785	-.0000570
472.000	62.9451	.89107	10.7227	-.4361E-01	.46762	-.0000591
476.000	64.8151	.90983	10.9788	-.4257E-01	.46738	-.0000611
480.000	66.6841	.92827	11.2345	-.4158E-01	.46713	-.0000629
484.000	68.5521	.94638	11.4897	-.4063E-01	.46687	-.0000647
488.000	70.4191	.96419	11.7446	-.3973E-01	.46661	-.0000663
492.000	72.2850	.98169	11.9990	-.3887E-01	.46634	-.0000679
496.000	74.1498	.99889	12.2529	-.3804E-01	.46607	-.0000693
500.000	76.0135	1.01581	12.5065	-.3724E-01	.46579	-.0000707
504.000	77.8761	1.03244	12.7597	-.3648E-01	.46550	-.0000719
508.000	79.7375	1.04879	13.0124	-.3575E-01	.46521	-.0000731
512.000	81.5978	1.06488	13.2648	-.3505E-01	.46492	-.0000743
516.000	83.4569	1.08070	13.5167	-.3437E-01	.46462	-.0000753

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 20.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
332.918	4.3235	.07810	5.5111	-.1129E+00	.62217	.0000262
336.000	6.2413	.11170	5.7819	-.1076E+00	.62223	.0000180
340.000	8.7303	.15441	6.1321	-.1015E+00	.62229	.0000082
344.000	11.2195	.19613	6.4809	-.9602E-01	.62230	-.0000010
348.000	13.7087	.23689	6.8284	-.9113E-01	.62228	-.0000096
352.000	16.1977	.27672	7.1747	-.8672E-01	.62222	-.0000176
356.000	18.6864	.31565	7.5199	-.8273E-01	.62214	-.0000251
360.000	21.1748	.35371	7.8641	-.7910E-01	.62202	-.0000321
364.000	23.6626	.39093	8.2072	-.7577E-01	.62188	-.0000387
368.000	26.1498	.42732	8.5492	-.7272E-01	.62171	-.0000449
372.000	28.6363	.46292	8.8904	-.6991E-01	.62152	-.0000507
376.000	31.1220	.49775	9.2306	-.6731E-01	.62131	-.0000562
380.000	33.6067	.53183	9.5698	-.6490E-01	.62107	-.0000614
384.000	36.0905	.56519	9.9083	-.6266E-01	.62082	-.0000662
388.000	38.5733	.59784	10.2458	-.6057E-01	.62054	-.0000708
392.000	41.0549	.62981	10.5826	-.5861E-01	.62025	-.0000751
396.000	43.5353	.66112	10.9185	-.5678E-01	.61994	-.0000792
400.000	46.0144	.69178	11.2536	-.5506E-01	.61962	-.0000831
404.000	48.4922	.72181	11.5880	-.5344E-01	.61928	-.0000867
408.000	50.9686	.75124	11.9216	-.5192E-01	.61893	-.0000901
412.000	53.4436	.78007	12.2544	-.5048E-01	.61856	-.0000933
416.000	55.9171	.80832	12.5866	-.4911E-01	.61818	-.0000963
420.000	58.3890	.83602	12.9180	-.4782E-01	.61779	-.0000992
424.000	60.8594	.86317	13.2487	-.4660E-01	.61739	-.0001019
428.000	63.3281	.88979	13.5787	-.4544E-01	.61697	-.0001044
432.000	65.7951	.91589	13.9080	-.4433E-01	.61655	-.0001068
436.000	68.2605	.94149	14.2367	-.4328E-01	.61612	-.0001090
440.000	70.7241	.96660	14.5647	-.4227E-01	.61568	-.0001112
444.000	73.1859	.99124	14.8920	-.4131E-01	.61523	-.0001131
448.000	75.6459	1.01541	15.2187	-.4040E-01	.61477	-.0001150
452.000	78.1041	1.03913	15.5448	-.3952E-01	.61431	-.0001167
456.000	80.5604	1.06241	15.8702	-.3868E-01	.61384	-.0001184
460.000	83.0148	1.08525	16.1950	-.3787E-01	.61336	-.0001199

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 22.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
309.602	2.6403	.04662	9.9105	-.8275E-01	.82008	-.0000913
310.000	2.9667	.05232	9.9542	-.8238E-01	.82004	-.0000919
312.000	4.6066	.08072	10.1739	-.8058E-01	.81986	-.0000948
314.000	6.2461	.10875	10.3932	-.7887E-01	.81966	-.0000977
316.000	7.8852	.13642	10.6123	-.7722E-01	.81947	-.0001006
318.000	9.5240	.16373	10.8311	-.7564E-01	.81926	-.0001035
320.000	11.1623	.19070	11.0496	-.7412E-01	.81905	-.0001064
322.000	12.8002	.21732	11.2679	-.7267E-01	.81884	-.0001092
324.000	14.4376	.24361	11.4859	-.7127E-01	.81862	-.0001121
326.000	16.0746	.26957	11.7036	-.6993E-01	.81839	-.0001149
328.000	17.7112	.29520	11.9210	-.6863E-01	.81815	-.0001176
330.000	19.3473	.32051	12.1381	-.6738E-01	.81792	-.0001204
332.000	20.9828	.34552	12.3550	-.6618E-01	.81767	-.0001231
334.000	22.6179	.37021	12.5716	-.6502E-01	.81743	-.0001257
336.000	24.2525	.39460	12.7879	-.6390E-01	.81717	-.0001284
338.000	25.8866	.41870	13.0040	-.6282E-01	.81691	-.0001309
340.000	27.5202	.44250	13.2198	-.6177E-01	.81665	-.0001335
342.000	29.1532	.46602	13.4354	-.6076E-01	.81638	-.0001359
344.000	30.7857	.48925	13.6506	-.5979E-01	.81610	-.0001384
346.000	32.4176	.51221	13.8656	-.5884E-01	.81582	-.0001408
348.000	34.0490	.53489	14.0804	-.5792E-01	.81554	-.0001431
350.000	35.6798	.55731	14.2949	-.5703E-01	.81525	-.0001454
352.000	37.3100	.57946	14.5091	-.5617E-01	.81496	-.0001476
354.000	38.9396	.60135	14.7231	-.5533E-01	.81466	-.0001498
356.000	40.5686	.62299	14.9368	-.5452E-01	.81436	-.0001519
358.000	42.1971	.64438	15.1503	-.5373E-01	.81405	-.0001540
360.000	43.8249	.66552	15.3635	-.5297E-01	.81374	-.0001560
362.000	45.4520	.68641	15.5764	-.5222E-01	.81343	-.0001580
364.000	47.0786	.70707	15.7891	-.5150E-01	.81311	-.0001600
366.000	48.7045	.72749	16.0016	-.5079E-01	.81279	-.0001618
368.000	50.3297	.74768	16.2138	-.5011E-01	.81246	-.0001637
370.000	51.9543	.76765	16.4258	-.4944E-01	.81214	-.0001655
372.000	53.5783	.78738	16.6375	-.4879E-01	.81180	-.0001672
374.000	55.2015	.80690	16.8490	-.4816E-01	.81147	-.0001689
376.000	56.8241	.82620	17.0602	-.4755E-01	.81113	-.0001705
378.000	58.4460	.84529	17.2712	-.4694E-01	.81078	-.0001722
380.000	60.0673	.86416	17.4819	-.4636E-01	.81044	-.0001737
382.000	61.6878	.88283	17.6924	-.4579E-01	.81009	-.0001752
384.000	63.3076	.90129	17.9027	-.4523E-01	.80974	-.0001767
386.000	64.9268	.91955	18.1127	-.4469E-01	.80938	-.0001781
388.000	66.5452	.93762	18.3225	-.4415E-01	.80903	-.0001795
390.000	68.1629	.95549	18.5321	-.4364E-01	.80867	-.0001809
392.000	69.7798	.97316	18.7414	-.4313E-01	.80830	-.0001822
394.000	71.3961	.99065	18.9505	-.4263E-01	.80794	-.0001834
396.000	73.0116	1.00795	19.1594	-.4215E-01	.80757	-.0001846
398.000	74.6263	1.02506	19.3681	-.4168E-01	.80720	-.0001858
400.000	76.2404	1.04200	19.5765	-.4121E-01	.80683	-.0001870
402.000	77.8536	1.05875	19.7846	-.4076E-01	.80645	-.0001881
404.000	79.4661	1.07533	19.9926	-.4032E-01	.80607	-.0001892
406.000	81.0779	1.09174	20.2003	-.3989E-01	.80569	-.0001902
408.000	82.6889	1.10797	20.4078	-.3946E-01	.80531	-.0001912
410.000	84.2992	1.12404	20.6151	-.3905E-01	.80493	-.0001922

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 24.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
280.867	1.2862	.02295	16.2124	-.6607E-01	1.07113	-.0001867
282.000	2.4995	.04442	16.3691	-.6542E-01	1.07092	-.0001889
284.000	4.6410	.08189	16.6456	-.6431E-01	1.07054	-.0001927
286.000	6.7817	.11883	16.9217	-.6324E-01	1.07015	-.0001966
288.000	8.9216	.15524	17.1975	-.6220E-01	1.06975	-.0002004
290.000	11.0607	.19113	17.4730	-.6120E-01	1.06935	-.0002041
292.000	13.1990	.22652	17.7481	-.6023E-01	1.06894	-.0002079
294.000	15.3364	.26141	18.0230	-.5929E-01	1.06852	-.0002116
296.000	17.4730	.29582	18.2975	-.5837E-01	1.06809	-.0002152
298.000	19.6088	.32975	18.5717	-.5749E-01	1.06765	-.0002188
300.000	21.7436	.36321	18.8456	-.5663E-01	1.06721	-.0002224
302.000	23.8776	.39622	19.1192	-.5580E-01	1.06677	-.0002259
304.000	26.0107	.42878	19.3924	-.5499E-01	1.06631	-.0002293
306.000	28.1428	.46089	19.6653	-.5420E-01	1.06585	-.0002326
308.000	30.2741	.49258	19.9378	-.5344E-01	1.06538	-.0002359
310.000	32.4044	.52383	20.2100	-.5269E-01	1.06490	-.0002392
312.000	34.5337	.55468	20.4819	-.5197E-01	1.06442	-.0002423
314.000	36.6620	.58511	20.7535	-.5127E-01	1.06394	-.0002454
316.000	38.7894	.61515	21.0247	-.5058E-01	1.06344	-.0002484
318.000	40.9158	.64479	21.2955	-.4991E-01	1.06294	-.0002514
320.000	43.0412	.67404	21.5661	-.4926E-01	1.06244	-.0002543
322.000	45.1655	.70292	21.8363	-.4863E-01	1.06192	-.0002571
324.000	47.2889	.73142	22.1061	-.4801E-01	1.06141	-.0002598
326.000	49.4112	.75956	22.3757	-.4741E-01	1.06089	-.0002624
328.000	51.5324	.78733	22.6448	-.4683E-01	1.06036	-.0002650
330.000	53.6526	.81476	22.9137	-.4625E-01	1.05983	-.0002675
332.000	55.7717	.84184	23.1822	-.4569E-01	1.05929	-.0002700
334.000	57.8897	.86858	23.4504	-.4515E-01	1.05875	-.0002724
336.000	60.0067	.89498	23.7182	-.4462E-01	1.05820	-.0002747
338.000	62.1225	.92105	23.9857	-.4409E-01	1.05765	-.0002769
340.000	64.2373	.94681	24.2529	-.4359E-01	1.05709	-.0002791
342.000	66.3509	.97224	24.5198	-.4309E-01	1.05653	-.0002812
344.000	68.4634	.99736	24.7863	-.4260E-01	1.05597	-.0002832
346.000	70.5748	1.02218	25.0524	-.4213E-01	1.05540	-.0002852
348.000	72.6850	1.04669	25.3183	-.4166E-01	1.05483	-.0002871
350.000	74.7941	1.07091	25.5838	-.4121E-01	1.05425	-.0002889
352.000	76.9020	1.09483	25.8490	-.4076E-01	1.05367	-.0002907
354.000	79.0087	1.11847	26.1138	-.4033E-01	1.05309	-.0002924
356.000	81.1143	1.14183	26.3783	-.3990E-01	1.05250	-.0002941
358.000	83.2187	1.16491	26.6425	-.3948E-01	1.05191	-.0002957

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 26.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
247.245	.4431	.00829	24.5849	-.5661E-01	1.39178	-.0002741
248.000	1.4939	.02787	24.7180	-.5630E-01	1.39158	-.0002772
250.000	4.2765	.07913	25.0704	-.5548E-01	1.39101	-.0002854
252.000	7.0580	.12956	25.4223	-.5469E-01	1.39043	-.0002935
254.000	9.8382	.17917	25.7737	-.5392E-01	1.38984	-.0003013
256.000	12.6173	.22799	26.1247	-.5318E-01	1.38923	-.0003090
258.000	15.3951	.27603	26.4751	-.5245E-01	1.38860	-.0003165
260.000	18.1717	.32331	26.8250	-.5174E-01	1.38796	-.0003238
262.000	20.9470	.36984	27.1744	-.5105E-01	1.38731	-.0003309
264.000	23.7209	.41564	27.5233	-.5038E-01	1.38664	-.0003378
266.000	26.4935	.46073	27.8717	-.4973E-01	1.38596	-.0003445
268.000	29.2648	.50513	28.2195	-.4909E-01	1.38526	-.0003511
270.000	32.0346	.54884	28.5668	-.4847E-01	1.38455	-.0003574
272.000	34.8030	.59189	28.9136	-.4786E-01	1.38383	-.0003636
274.000	37.5699	.63428	29.2599	-.4727E-01	1.38310	-.0003695
276.000	40.3354	.67603	29.6056	-.4669E-01	1.38235	-.0003754
278.000	43.0993	.71716	29.9508	-.4613E-01	1.38160	-.0003810
280.000	45.8617	.75768	30.2955	-.4558E-01	1.38083	-.0003865
282.000	48.6226	.79759	30.6397	-.4504E-01	1.38005	-.0003917
284.000	51.3820	.83692	30.9833	-.4452E-01	1.37926	-.0003968
286.000	54.1397	.87567	31.3264	-.4400E-01	1.37847	-.0004018
288.000	56.8958	.91386	31.6689	-.4350E-01	1.37766	-.0004065
290.000	59.6503	.95149	32.0109	-.4301E-01	1.37684	-.0004111
292.000	62.4032	.98859	32.3524	-.4253E-01	1.37601	-.0004156
294.000	65.1543	1.02515	32.6934	-.4206E-01	1.37518	-.0004199
296.000	67.9039	1.06119	33.0338	-.4160E-01	1.37433	-.0004240
298.000	70.6517	1.09672	33.3737	-.4115E-01	1.37348	-.0004280
300.000	73.3978	1.13175	33.7130	-.4071E-01	1.37262	-.0004318
302.000	76.1422	1.16630	34.0519	-.4028E-01	1.37175	-.0004355
304.000	78.8848	1.20036	34.3902	-.3986E-01	1.37088	-.0004390
306.000	81.6257	1.23395	34.7279	-.3945E-01	1.37000	-.0004424
308.000	84.3648	1.26707	35.0652	-.3904E-01	1.36911	-.0004457

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 28.000 MOL/L

T	P	Z	DP/DD	DD/DT	DP/DT	D2P/DT2
K	MPA		MPA-L/MOL	MOL/L/K	MPA/K	MPA/K/K
209.883	.0869	.00178	34.8306	-.5184E-01	1.80569	-.0003661
210.000	.2974	.00608	34.8572	-.5180E-01	1.80565	-.0003673
211.000	2.1029	.04281	35.0854	-.5145E-01	1.80528	-.0003770
212.000	3.9080	.07918	35.3134	-.5111E-01	1.80490	-.0003865
213.000	5.7127	.11520	35.5410	-.5077E-01	1.80450	-.0003959
214.000	7.5170	.15088	35.7685	-.5044E-01	1.80410	-.0004051
215.000	9.3209	.18622	35.9957	-.5011E-01	1.80369	-.0004141
216.000	11.1243	.22122	36.2227	-.4978E-01	1.80328	-.0004230
217.000	12.9274	.25589	36.4494	-.4946E-01	1.80285	-.0004317
218.000	14.7300	.29024	36.6759	-.4914E-01	1.80241	-.0004403
219.000	16.5322	.32426	36.9021	-.4883E-01	1.80197	-.0004487
220.000	18.3340	.35796	37.1281	-.4852E-01	1.80151	-.0004570
221.000	20.1353	.39135	37.3538	-.4822E-01	1.80105	-.0004651
222.000	21.9361	.42444	37.5793	-.4791E-01	1.80058	-.0004730
223.000	23.7364	.45721	37.8046	-.4762E-01	1.80011	-.0004808
224.000	25.5363	.48968	38.0296	-.4732E-01	1.79962	-.0004885
225.000	27.3357	.52186	38.2543	-.4703E-01	1.79913	-.0004960
226.000	29.1345	.55374	38.4788	-.4674E-01	1.79863	-.0005034
227.000	30.9329	.58533	38.7031	-.4646E-01	1.79812	-.0005106
228.000	32.7308	.61663	38.9271	-.4618E-01	1.79761	-.0005177
229.000	34.5281	.64765	39.1509	-.4590E-01	1.79709	-.0005246
230.000	36.3250	.67840	39.3744	-.4563E-01	1.79656	-.0005315
231.000	38.1213	.70886	39.5977	-.4536E-01	1.79603	-.0005381
232.000	39.9170	.73905	39.8207	-.4509E-01	1.79548	-.0005447
233.000	41.7122	.76898	40.0435	-.4482E-01	1.79494	-.0005511
234.000	43.5069	.79863	40.2660	-.4456E-01	1.79438	-.0005574
235.000	45.3010	.82803	40.4883	-.4430E-01	1.79382	-.0005636
236.000	47.0945	.85716	40.7104	-.4405E-01	1.79326	-.0005696
237.000	48.8875	.88604	40.9322	-.4380E-01	1.79268	-.0005755
238.000	50.6799	.91467	41.1537	-.4355E-01	1.79210	-.0005813
239.000	52.4717	.94305	41.3750	-.4330E-01	1.79152	-.0005870
240.000	54.2629	.97118	41.5961	-.4306E-01	1.79093	-.0005925
241.000	56.0536	.99906	41.8169	-.4281E-01	1.79034	-.0005979
242.000	57.8436	1.02671	42.0375	-.4257E-01	1.78973	-.0006033
243.000	59.6330	1.05411	42.2578	-.4234E-01	1.78913	-.0006085
244.000	61.4219	1.08128	42.4779	-.4210E-01	1.78852	-.0006136
245.000	63.2101	1.10822	42.6977	-.4187E-01	1.78790	-.0006186
246.000	64.9977	1.13493	42.9173	-.4164E-01	1.78728	-.0006234
247.000	66.7846	1.16141	43.1367	-.4142E-01	1.78665	-.0006282
248.000	68.5710	1.18767	43.3558	-.4119E-01	1.78602	-.0006329
249.000	70.3567	1.21370	43.5747	-.4097E-01	1.78539	-.0006374
250.000	72.1417	1.23952	43.7933	-.4075E-01	1.78475	-.0006419
251.000	73.9262	1.26512	44.0117	-.4054E-01	1.78411	-.0006463
252.000	75.7099	1.29050	44.2299	-.4032E-01	1.78346	-.0006505
253.000	77.4931	1.31567	44.4478	-.4011E-01	1.78280	-.0006547
254.000	79.2756	1.34064	44.6655	-.3990E-01	1.78215	-.0006588
255.000	81.0574	1.36539	44.8829	-.3969E-01	1.78149	-.0006627
256.000	82.8385	1.38995	45.1002	-.3949E-01	1.78082	-.0006666
257.000	84.6190	1.41430	45.3171	-.3928E-01	1.78015	-.0006704

Table 10. Continued.

HYDROGEN SULFIDE ISOCHORE AT 29.136 MOL/L

T K	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
187.660	.0232	.00051	41.3041	-.5072E-01	2.09475	-.0004265
192.000	9.1102	.19587	42.4564	-.4929E-01	2.09275	-.0004931
193.000	11.2027	.23961	42.7209	-.4897E-01	2.09225	-.0005075
194.000	13.2947	.28289	42.9850	-.4866E-01	2.09174	-.0005218
195.000	15.3861	.32571	43.2488	-.4835E-01	2.09121	-.0005357
196.000	17.4771	.36808	43.5122	-.4805E-01	2.09066	-.0005493
197.000	19.5675	.41002	43.7752	-.4775E-01	2.09011	-.0005626
198.000	21.6573	.45152	44.0378	-.4745E-01	2.08954	-.0005757
199.000	23.7466	.49259	44.3001	-.4715E-01	2.08896	-.0005884
200.000	25.8352	.53323	44.5620	-.4686E-01	2.08836	-.0006008
201.000	27.9233	.57346	44.8235	-.4658E-01	2.08776	-.0006130
202.000	30.0107	.61328	45.0846	-.4629E-01	2.08714	-.0006249
203.000	32.0975	.65269	45.3454	-.4601E-01	2.08651	-.0006366
204.000	34.1837	.69171	45.6058	-.4574E-01	2.08586	-.0006479
205.000	36.2693	.73033	45.8658	-.4546E-01	2.08521	-.0006591
206.000	38.3541	.76856	46.1255	-.4519E-01	2.08455	-.0006699
207.000	40.4384	.80641	46.3847	-.4493E-01	2.08387	-.0006805
208.000	42.5219	.84389	46.6437	-.4466E-01	2.08318	-.0006909
209.000	44.6047	.88099	46.9022	-.4440E-01	2.08249	-.0007011
210.000	46.6869	.91772	47.1604	-.4414E-01	2.08178	-.0007110
211.000	48.7683	.95409	47.4182	-.4389E-01	2.08107	-.0007206
212.000	50.8490	.99010	47.6756	-.4364E-01	2.08034	-.0007301
213.000	52.9290	1.02577	47.9327	-.4339E-01	2.07961	-.0007393
214.000	55.0082	1.06108	48.1895	-.4314E-01	2.07886	-.0007483
215.000	57.0867	1.09605	48.4458	-.4290E-01	2.07811	-.0007571
216.000	59.1644	1.13068	48.7018	-.4265E-01	2.07735	-.0007657
217.000	61.2414	1.16498	48.9575	-.4242E-01	2.07658	-.0007741
218.000	63.3176	1.19895	49.2127	-.4218E-01	2.07580	-.0007822
219.000	65.3930	1.23260	49.4677	-.4195E-01	2.07501	-.0007902
220.000	67.4676	1.26592	49.7222	-.4172E-01	2.07422	-.0007980
221.000	69.5414	1.29893	49.9764	-.4149E-01	2.07342	-.0008056
222.000	71.6144	1.33163	50.2303	-.4126E-01	2.07261	-.0008129
223.000	73.6866	1.36401	50.4838	-.4104E-01	2.07179	-.0008202
224.000	75.7580	1.39609	50.7370	-.4082E-01	2.07097	-.0008272
225.000	77.8286	1.42788	50.9898	-.4060E-01	2.07014	-.0008340
226.000	79.8983	1.45936	51.2422	-.4038E-01	2.06930	-.0008407
227.000	81.9672	1.49056	51.4943	-.4017E-01	2.06846	-.0008472
228.000	84.0352	1.52146	51.7461	-.3996E-01	2.06761	-.0008535

Table 11. Calculated P(ρ) isotherms of hydrogen sulfide.

HYDROGEN SULFIDE ISOTHERM AT 200.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.031	.0503	.98961	1.6233	-.1585E-03	.00026	-.0000001
28.508	.0503	.00106	37.6755	-.5121E-01	1.92948	-.0003921
28.600	3.5581	.07481	38.6439	-.5051E-01	1.95206	-.0004194
28.700	7.4758	.15664	39.7128	-.4978E-01	1.97689	-.0004504
28.800	11.5012	.24015	40.7978	-.4907E-01	2.00200	-.0004827
28.900	15.6358	.32535	41.8989	-.4839E-01	2.02738	-.0005163
29.000	19.8815	.41227	43.0163	-.4773E-01	2.05303	-.0005513
29.100	24.2397	.50092	44.1501	-.4709E-01	2.07897	-.0005875
29.200	28.7120	.59131	45.3004	-.4647E-01	2.10518	-.0006250
29.300	33.3003	.68346	46.4673	-.4587E-01	2.13166	-.0006638
29.400	38.0061	.77739	47.6509	-.4530E-01	2.15842	-.0007040
29.500	42.8310	.87311	48.8513	-.4474E-01	2.18546	-.0007454
29.600	47.7769	.97064	50.0687	-.4419E-01	2.21277	-.0007881
29.700	52.8453	1.07000	51.3031	-.4367E-01	2.24036	-.0008320
29.800	58.0381	1.17120	52.5546	-.4316E-01	2.26823	-.0008773

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 210.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.051	.0874	.98202	1.6806	-.2568E-03	.00043	-.0000001
27.994	.0873	.00179	34.7974	-.5185E-01	1.80427	-.0003658
28.000	.2974	.00608	34.8572	-.5180E-01	1.80565	-.0003673
28.100	3.8331	.07812	35.8582	-.5100E-01	1.82861	-.0003917
28.200	7.4696	.15170	36.8747	-.5022E-01	1.85182	-.0004173
28.300	11.2085	.22683	37.9069	-.4947E-01	1.87530	-.0004441
28.400	15.0515	.30353	38.9547	-.4875E-01	1.89904	-.0004719
28.500	19.0000	.38182	40.0185	-.4805E-01	1.92303	-.0005008
28.600	23.0557	.46170	41.0981	-.4738E-01	1.94729	-.0005309
28.700	27.2202	.54319	42.1938	-.4673E-01	1.97181	-.0005620
28.800	31.4950	.62632	43.3056	-.4610E-01	1.99659	-.0005943
28.900	35.8819	.71109	44.4337	-.4550E-01	2.02164	-.0006277
29.000	40.3823	.79751	45.5780	-.4491E-01	2.04695	-.0006622
29.100	44.9980	.88561	46.7388	-.4434E-01	2.07252	-.0006979
29.200	49.7306	.97541	47.9161	-.4379E-01	2.09836	-.0007346
29.300	54.5818	1.06690	49.1100	-.4326E-01	2.12446	-.0007725
29.400	59.5532	1.16012	50.3206	-.4274E-01	2.15082	-.0008115
29.500	64.6465	1.25507	51.5481	-.4224E-01	2.17745	-.0008515
29.600	69.8633	1.35177	52.7925	-.4175E-01	2.20435	-.0008927
29.700	75.2055	1.45023	54.0539	-.4128E-01	2.23150	-.0009350
29.800	80.6747	1.55048	55.3324	-.4082E-01	2.25893	-.0009784

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 220.000 K

DEN MOL/L	P MPA	Z	DP/DO MPA-L/MOL	OD/OT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.081	.1435	.97312	1.7269	-.3992E-03	.00069	-.0000003
27.473	.1435	.00286	31.9745	-.5273E-01	1.68589	-.0003406
27.500	1.0109	.02010	32.2284	-.5249E-01	1.69165	-.0003459
27.600	4.2810	.08480	33.1778	-.5164E-01	1.71314	-.0003663
27.700	7.6469	.15092	34.1424	-.5081E-01	1.73486	-.0003875
27.800	11.1100	.21848	35.1222	-.5002E-01	1.75683	-.0004097
27.900	14.6718	.28749	36.1174	-.4926E-01	1.77905	-.0004329
28.000	18.3340	.35796	37.1281	-.4852E-01	1.80151	-.0004570
28.100	22.0980	.42992	38.1543	-.4781E-01	1.82422	-.0004820
28.200	25.9654	.50337	39.1962	-.4713E-01	1.84718	-.0005080
28.300	29.9378	.57833	40.2537	-.4647E-01	1.87039	-.0005350
28.400	34.0167	.65481	41.3271	-.4583E-01	1.89385	-.0005629
28.500	38.2037	.73283	42.4164	-.4521E-01	1.91755	-.0005917
28.600	42.5005	.81240	43.5217	-.4461E-01	1.94151	-.0006216
28.700	46.9086	.89354	44.6431	-.4403E-01	1.96572	-.0006524
28.800	51.4297	.97625	45.7807	-.4347E-01	1.99018	-.0006842
28.900	56.0653	1.06056	46.9345	-.4293E-01	2.01490	-.0007169
29.000	60.8171	1.14649	48.1047	-.4240E-01	2.03987	-.0007506
29.100	65.6868	1.23403	49.2913	-.4190E-01	2.06509	-.0007853
29.200	70.6759	1.32321	50.4945	-.4140E-01	2.09056	-.0008209
29.300	75.7862	1.41405	51.7143	-.4092E-01	2.11629	-.0008575
29.400	81.0193	1.50655	52.9509	-.4046E-01	2.14227	-.0008950

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 240.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.100	.1939	.97155	1.8784	-.4547E-03	.00085	-.0000003
.179	.3375	.94745	1.7798	-.8819E-03	.00157	-.0000014
26.401	.3375	.00641	26.5036	-.5533E-01	1.46643	-.0002917
26.500	2.9956	.05665	27.3261	-.5434E-01	1.48485	-.0003053
26.600	5.7704	.10871	28.1733	-.5337E-01	1.50372	-.0003197
26.700	8.6307	.16199	29.0349	-.5245E-01	1.52281	-.0003348
26.800	11.5779	.21649	29.9110	-.5156E-01	1.54210	-.0003505
26.900	14.6134	.27224	30.8019	-.5070E-01	1.56162	-.0003669
27.000	17.7388	.32924	31.7075	-.4987E-01	1.58135	-.0003839
27.100	20.9554	.38751	32.6280	-.4908E-01	1.60130	-.0004016
27.200	24.2649	.44706	33.5634	-.4831E-01	1.62147	-.0004200
27.300	27.6686	.50790	34.5139	-.4757E-01	1.64186	-.0004391
27.400	31.1682	.57005	35.4795	-.4686E-01	1.66248	-.0004589
27.500	34.7650	.63352	36.4604	-.4617E-01	1.68332	-.0004794
27.600	38.4607	.69833	37.4566	-.4550E-01	1.70439	-.0005006
27.700	42.2568	.76449	38.4681	-.4486E-01	1.72568	-.0005225
27.800	46.1549	.83200	39.4952	-.4424E-01	1.74720	-.0005451
27.900	50.1563	.90090	40.5378	-.4364E-01	1.76895	-.0005684
28.000	54.2629	.97118	41.5961	-.4306E-01	1.79093	-.0005925
28.100	58.4761	1.04286	42.6701	-.4249E-01	1.81314	-.0006173
28.200	62.7975	1.11595	43.7599	-.4195E-01	1.83558	-.0006428
28.300	67.2286	1.19048	44.8655	-.4142E-01	1.85825	-.0006691
28.400	71.7712	1.26644	45.9872	-.4091E-01	1.88116	-.0006961
28.500	76.4266	1.34386	47.1249	-.4041E-01	1.90430	-.0007238
28.600	81.1967	1.42274	48.2787	-.3993E-01	1.92767	-.0007523

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 260.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.100	.2109	.97559	2.0536	-.4135E-03	.00085	-.0000002
.200	.4106	.94975	1.9409	-.8998E-03	.00175	-.0000010
.300	.5991	.92374	1.8280	-.1480E-02	.00271	-.0000030
.349	.6875	.91095	1.7725	-.1807E-02	.00320	-.0000045
25.272	.6875	.01258	21.2991	-.5942E-01	1.26562	-.0002424
25.300	1.2967	.02371	21.5015	-.5908E-01	1.27022	-.0002452
25.400	3.4827	.06343	22.2211	-.5789E-01	1.28648	-.0002551
25.500	5.7414	.10415	22.9541	-.5676E-01	1.30293	-.0002655
25.600	8.0740	.14589	23.7007	-.5568E-01	1.31956	-.0002763
25.700	10.4820	.18867	24.4609	-.5463E-01	1.33638	-.0002875
25.800	12.9667	.23249	25.2350	-.5363E-01	1.35338	-.0002991
25.900	15.5294	.27736	26.0230	-.5267E-01	1.37058	-.0003112
26.000	18.1717	.32331	26.8250	-.5174E-01	1.38796	-.0003238
26.100	20.8949	.37033	27.6412	-.5085E-01	1.40554	-.0003368
26.200	23.7004	.41845	28.4716	-.4999E-01	1.42332	-.0003502
26.300	26.5897	.46768	29.3164	-.4916E-01	1.44129	-.0003642
26.400	29.5642	.51803	30.1756	-.4837E-01	1.45946	-.0003786
26.500	32.6253	.56951	31.0495	-.4760E-01	1.47782	-.0003936
26.600	35.7746	.62213	31.9380	-.4685E-01	1.49639	-.0004090
26.700	39.0134	.67592	32.8412	-.4614E-01	1.51516	-.0004250
26.800	42.3433	.73087	33.7593	-.4544E-01	1.53414	-.0004414
26.900	45.7658	.78701	34.6924	-.4477E-01	1.55331	-.0004584
27.000	49.2823	.84434	35.6405	-.4413E-01	1.57270	-.0004759
27.100	52.8944	.90288	36.6037	-.4350E-01	1.59229	-.0004940
27.200	56.6035	.96264	37.5821	-.4290E-01	1.61209	-.0005126
27.300	60.4113	1.02364	38.5759	-.4231E-01	1.63210	-.0005317
27.400	64.3192	1.08588	39.5850	-.4174E-01	1.65232	-.0005514
27.500	68.3288	1.14937	40.6095	-.4119E-01	1.67275	-.0005716
27.600	72.4416	1.21414	41.6496	-.4066E-01	1.69340	-.0005924
27.700	76.6593	1.28019	42.7053	-.4014E-01	1.71426	-.0006138
27.800	80.9832	1.34754	43.7766	-.3964E-01	1.73533	-.0006357

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 280.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.100	.2279	.97872	2.2270	-.3799E-03	.00085	-.0000001
.200	.4454	.95654	2.1238	-.8145E-03	.00173	-.0000007
.300	.6527	.93452	2.0226	-.1315E-02	.00266	-.0000018
.400	.8499	.91272	1.9228	-.1894E-02	.00364	-.0000037
.500	1.0373	.89110	1.8237	-.2568E-02	.00468	-.0000066
.600	1.2147	.86960	1.7248	-.3359E-02	.00579	-.0000110
.624	1.2556	.86448	1.7011	-.3568E-02	.00607	-.0000123
24.055	1.2556	.02242	16.4159	-.6573E-01	1.07897	-.0001892
24.100	1.9959	.03557	16.6804	-.6506E-01	1.08521	-.0001926
24.200	3.6938	.06556	17.2805	-.6361E-01	1.09929	-.0002003
24.300	5.4524	.09638	17.8928	-.6223E-01	1.11352	-.0002083
24.400	7.2728	.12803	18.5173	-.6091E-01	1.12790	-.0002165
24.500	9.1562	.16053	19.1543	-.5964E-01	1.14245	-.0002249
24.600	11.1041	.19389	19.8040	-.5843E-01	1.15715	-.0002335
24.700	13.1175	.22812	20.4663	-.5727E-01	1.17202	-.0002425
24.800	15.1977	.26323	21.1415	-.5615E-01	1.18705	-.0002517
24.900	17.3462	.29923	21.8298	-.5507E-01	1.20225	-.0002612
25.000	19.5641	.33614	22.5312	-.5404E-01	1.21761	-.0002710
25.100	21.8529	.37397	23.2458	-.5305E-01	1.23315	-.0002811
25.200	24.2138	.41273	23.9739	-.5209E-01	1.24885	-.0002915
25.300	26.6481	.45243	24.7155	-.5117E-01	1.26473	-.0003021
25.400	29.1573	.49308	25.4707	-.5028E-01	1.28078	-.0003132
25.500	31.7427	.53470	26.2397	-.4943E-01	1.29701	-.0003245
25.600	34.4057	.57729	27.0226	-.4860E-01	1.31341	-.0003362
25.700	37.1477	.62088	27.8196	-.4781E-01	1.32999	-.0003482
25.800	39.9701	.66546	28.6306	-.4704E-01	1.34676	-.0003606
25.900	42.8743	.71105	29.4559	-.4630E-01	1.36370	-.0003734
26.000	45.8617	.75768	30.2955	-.4558E-01	1.38083	-.0003865
26.100	48.9339	.80533	31.1496	-.4488E-01	1.39814	-.0004000
26.200	52.0922	.85404	32.0182	-.4421E-01	1.41564	-.0004138
26.300	55.3380	.90380	32.9015	-.4356E-01	1.43333	-.0004281
26.400	58.6729	.95464	33.7995	-.4294E-01	1.45121	-.0004428
26.500	62.0984	1.00656	34.7124	-.4233E-01	1.46927	-.0004578
26.600	65.6159	1.05958	35.6402	-.4174E-01	1.48753	-.0004733
26.700	69.2270	1.11370	36.5831	-.4117E-01	1.50598	-.0004892
26.800	72.9330	1.16895	37.5410	-.4061E-01	1.52463	-.0005055
26.900	76.7357	1.22532	38.5142	-.4008E-01	1.54347	-.0005222
27.000	80.6364	1.28284	39.5026	-.3955E-01	1.56250	-.0005394
27.100	84.6367	1.34151	40.5064	-.3905E-01	1.58174	-.0005570

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 300.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.200	.4799	.96189	2.3036	-.7462E-03	.00172	-.0000004
.400	.9221	.92424	2.1210	-.1689E-02	.00358	-.0000024
.600	1.3287	.88781	1.9454	-.2891E-02	.00562	-.0000066
.800	1.7005	.85218	1.7727	-.4439E-02	.00787	-.0000140
1.000	2.0378	.81696	1.5999	-.6469E-02	.01035	-.0000264
1.045	2.1088	.80907	1.5608	-.7011E-02	.01094	-.0000301
22.710	2.1088	.03723	11.9162	-.7573E-01	.90244	-.0001269
22.800	3.1962	.05620	12.3389	-.7401E-01	.91317	-.0001331
23.000	5.7606	.10041	13.3119	-.7042E-01	.93748	-.0001470
23.200	8.5238	.14730	14.3280	-.6715E-01	.96233	-.0001612
23.400	11.4947	.19694	15.3882	-.6419E-01	.98771	-.0001757
23.600	14.6821	.24941	16.4937	-.6146E-01	1.01364	-.0001907
23.800	18.0953	.30481	17.6458	-.5895E-01	1.04014	-.0002062
24.000	21.7436	.36321	18.8456	-.5663E-01	1.06721	-.0002224
24.200	25.6368	.42471	20.0943	-.5449E-01	1.09488	-.0002392
24.400	29.7847	.48938	21.3931	-.5250E-01	1.12316	-.0002568
24.600	34.1974	.55732	22.7430	-.5066E-01	1.15205	-.0002751
24.800	38.8854	.62860	24.1452	-.4894E-01	1.18157	-.0002944
25.000	43.8591	.70334	25.6009	-.4733E-01	1.21174	-.0003146
25.200	49.1293	.78160	27.1106	-.4583E-01	1.24256	-.0003358
25.400	54.7070	.86348	28.6759	-.4443E-01	1.27405	-.0003581
25.600	60.6034	.94907	30.2974	-.4311E-01	1.30621	-.0003815
25.800	66.8298	1.03847	31.9762	-.4188E-01	1.33907	-.0004060
26.000	73.3978	1.13175	33.7130	-.4071E-01	1.37262	-.0004318
26.200	80.3190	1.22902	35.5088	-.3962E-01	1.40689	-.0004589

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 320.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.200	.5142	.96623	2.4811	-.6898E-03	.00171	-.0000003
.400	.9934	.93341	2.3132	-.1532E-02	.00354	-.0000016
.600	1.4400	.90206	2.1544	-.2560E-02	.00552	-.0000044
.800	1.8555	.87172	2.0004	-.3822E-02	.00764	-.0000089
1.000	2.2403	.84203	1.8485	-.5379E-02	.00994	-.0000158
1.200	2.5949	.81274	1.6971	-.7318E-02	.01242	-.0000255
1.400	2.9192	.78370	1.5456	-.9765E-02	.01509	-.0000394
1.600	3.2131	.75478	1.3935	-.1290E-01	.01798	-.0000588
1.677	3.3178	.74370	1.3349	-.1435E-01	.01915	-.0000683
21.166	3.3178	.05892	7.8623	-.9308E-01	.73182	-.0000460
21.200	3.5884	.06362	7.9809	-.9213E-01	.73525	-.0000487
21.400	5.2554	.09230	8.6948	-.8690E-01	.75555	-.0000637
21.600	7.0686	.12300	9.4434	-.8220E-01	.77628	-.0000782
21.800	9.0352	.15577	10.2280	-.7797E-01	.79744	-.0000924
22.000	11.1623	.19070	11.0496	-.7412E-01	.81905	-.0001064
22.200	13.4576	.22784	11.9095	-.7063E-01	.84112	-.0001202
22.400	15.9287	.26727	12.8088	-.6743E-01	.86367	-.0001341
22.600	18.5838	.30906	13.7488	-.6449E-01	.88669	-.0001480
22.800	21.4310	.35328	14.7305	-.6179E-01	.91022	-.0001621
23.000	24.4789	.40002	15.7552	-.5930E-01	.93425	-.0001765
23.200	27.7361	.44934	16.8242	-.5699E-01	.95880	-.0001912
23.400	31.2116	.50132	17.9386	-.5485E-01	.98388	-.0002062
23.600	34.9146	.55604	19.0995	-.5285E-01	1.00950	-.0002217
23.800	38.8546	.61359	20.3083	-.5100E-01	1.03569	-.0002377
24.000	43.0412	.67404	21.5661	-.4926E-01	1.06244	-.0002543
24.200	47.4843	.73748	22.8740	-.4764E-01	1.08976	-.0002714
24.400	52.1942	.80398	24.2331	-.4612E-01	1.11768	-.0002893
24.600	57.1811	.87364	25.6446	-.4470E-01	1.14620	-.0003079
24.800	62.4556	.94653	27.1096	-.4336E-01	1.17534	-.0003273
25.000	68.0286	1.02274	28.6291	-.4209E-01	1.20510	-.0003475
25.200	73.9110	1.10236	30.2041	-.4090E-01	1.23550	-.0003686
25.400	80.1140	1.18545	31.8356	-.3978E-01	1.26654	-.0003905

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 340.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.0640	.94091	2.5014	-.1405E-02	.00352	-.0000012
.800	2.0068	.88736	2.2166	-.3382E-02	.00750	-.0000062
1.200	2.8389	.83686	1.9448	-.6175E-02	.01201	-.0000166
1.600	3.5630	.78773	1.6759	-.1019E-01	.01708	-.0000345
2.000	4.1799	.73930	1.4092	-.1615E-01	.02275	-.0000632
2.400	4.6909	.69141	1.1469	-.2533E-01	.02906	-.0001093
2.652	4.9599	.66148	.9849	-.3391E-01	.03340	-.0001541
19.274	4.9599	.09103	4.3202	-.1299E+00	.56118	.0000785
19.600	6.4897	.11713	5.0897	-.1155E+00	.58804	.0000443
20.000	8.7303	.15441	6.1321	-.1015E+00	.62229	.0000082
20.400	11.4105	.19786	7.2885	-.9027E-01	.65796	-.0000237
20.800	14.5774	.24791	8.5669	-.8114E-01	.69516	-.0000528
21.200	18.2815	.30504	9.9758	-.7357E-01	.73395	-.0000803
21.600	22.5766	.36973	11.5237	-.6720E-01	.77442	-.0001070
22.000	27.5202	.44250	13.2198	-.6177E-01	.81665	-.0001335
22.400	33.1734	.52387	15.0733	-.5710E-01	.86072	-.0001602
22.800	39.6011	.61441	17.0938	-.5304E-01	.90671	-.0001878
23.200	46.8720	.71468	19.2908	-.4949E-01	.95471	-.0002165
23.600	55.0586	.82527	21.6740	-.4636E-01	1.00481	-.0002469
24.000	64.2373	.94681	24.2529	-.4359E-01	1.05709	-.0002791
24.400	74.4882	1.07990	27.0368	-.4112E-01	1.11164	-.0003137

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 360.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.1340	.94718	2.6868	-.1301E-02	.00349	-.0000009
.800	2.1556	.90021	2.4253	-.3048E-02	.00739	-.0000045
1.200	3.0761	.85641	2.1782	-.5385E-02	.01173	-.0000117
1.600	3.8986	.81405	1.9348	-.8538E-02	.01652	-.0000231
2.000	4.6242	.77244	1.6936	-.1284E-01	.02175	-.0000398
2.400	5.2541	.73139	1.4571	-.1881E-01	.02741	-.0000625
2.800	5.7910	.69097	1.2294	-.2723E-01	.03348	-.0000931
3.200	6.2393	.65140	1.0143	-.3936E-01	.03993	-.0001340
3.600	6.6046	.61292	.8152	-.5733E-01	.04674	-.0001903
4.000	6.8939	.57579	.6342	-.8502E-01	.05392	-.0002724
4.400	7.1145	.54020	.4718	-.1304E+00	.06153	-.0004068
4.436	7.1312	.53707	.4581	-.1359E+00	.06224	-.0004236
16.557	7.1312	.14381	1.3963	-.2691E+00	.37570	.0003749
16.800	7.4861	.14887	1.6484	-.2364E+00	.38974	.0003132
17.200	8.2401	.16005	2.1332	-.1943E+00	.41459	.0002342
17.600	9.2022	.17468	2.6894	-.1638E+00	.44051	.0001752
18.000	10.4019	.19306	3.3227	-.1407E+00	.46757	.0001280
18.400	11.8714	.21555	4.0391	-.1228E+00	.49583	.0000884
18.800	13.6451	.24248	4.8447	-.1084E+00	.52536	.0000539
19.200	15.7600	.27423	5.7461	-.9679E-01	.55619	.0000229
19.600	18.2557	.31117	6.7502	-.8717E-01	.58840	-.0000055
20.000	21.1748	.35371	7.8641	-.7910E-01	.62202	-.0000321
20.400	24.5626	.40226	9.0955	-.7225E-01	.65714	-.0000575
20.800	28.4679	.45725	10.4525	-.6638E-01	.69380	-.0000823
21.200	32.9426	.51914	11.9436	-.6129E-01	.73207	-.0001067
21.600	38.0419	.58840	13.5775	-.5686E-01	.77203	-.0001312
22.000	43.8249	.66552	15.3635	-.5297E-01	.81374	-.0001560
22.400	50.3542	.75102	17.3108	-.4952E-01	.85729	-.0001815
22.800	57.6962	.84542	19.4291	-.4646E-01	.90274	-.0002082
23.200	65.9215	.94929	21.7280	-.4373E-01	.95018	-.0002362
23.600	75.1040	1.06319	24.2173	-.4128E-01	.99967	-.0002657

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 365.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.1515	.94859	2.7328	-.1277E-02	.00349	-.0000008
.800	2.1925	.90308	2.4766	-.2976E-02	.00737	-.0000042
1.200	3.1346	.86074	2.2350	-.5223E-02	.01167	-.0000108
1.600	3.9809	.81985	1.9970	-.8216E-02	.01641	-.0000212
2.000	4.7325	.77970	1.7611	-.1224E-01	.02156	-.0000360
2.400	5.3904	.74009	1.5297	-.1773E-01	.02712	-.0000550
2.800	5.9573	.70107	1.3066	-.2529E-01	.03304	-.0000819
3.200	6.4373	.66287	1.0958	-.3587E-01	.03930	-.0001151
3.600	6.8361	.62571	.9008	-.5093E-01	.04587	-.0001578
4.000	7.1603	.58985	.7237	-.7284E-01	.05272	-.0002139
4.400	7.4176	.55550	.5658	-.1057E+00	.05982	-.0002908
4.800	7.6155	.52279	.4270	-.1573E+00	.06719	-.0004051
5.200	7.7616	.49184	.3065	-.2444E+00	.07489	-.0006011
5.238	7.7730	.48900	.2959	-.2556E+00	.07565	-.0006277
15.542	7.7730	.16480	.7934	-.4044E+00	.32081	.0005785
15.600	7.8205	.16519	.8347	-.3880E+00	.32386	.0005503
16.000	8.2153	.16919	1.1485	-.3006E+00	.34530	.0004057
16.400	8.7468	.17574	1.5186	-.2421E+00	.36769	.0003108
16.800	9.4384	.18512	1.9501	-.2006E+00	.39112	.0002415
17.200	10.3158	.19763	2.4484	-.1698E+00	.41563	.0001871
17.600	11.4068	.21356	3.0189	-.1462E+00	.44130	.0001423
18.000	12.7413	.23324	3.6671	-.1277E+00	.46815	.0001039
18.400	14.3516	.25701	4.3991	-.1128E+00	.49623	.0000701
18.800	16.2725	.28521	5.2209	-.1007E+00	.52559	.0000395
19.200	18.5412	.31821	6.1391	-.9061E-01	.55628	.0000113
19.600	21.1976	.35637	7.1606	-.8216E-01	.58834	-.0000151
20.000	24.2845	.40010	8.2928	-.7499E-01	.62184	-.0000403
20.400	27.8476	.44981	9.5432	-.6883E-01	.65683	-.0000646
20.800	31.9359	.50593	10.9200	-.6350E-01	.69337	-.0000885
21.200	36.6016	.56890	12.4317	-.5884E-01	.73152	-.0001124
21.600	41.9004	.63920	14.0871	-.5476E-01	.77136	-.0001364
22.000	47.8916	.71731	15.8954	-.5114E-01	.81295	-.0001609
22.400	54.6383	.80375	17.8660	-.4793E-01	.85637	-.0001862
22.800	62.2073	.89904	20.0086	-.4507E-01	.90169	-.0002126
23.200	70.6694	1.00372	22.3328	-.4249E-01	.94898	-.0002403
23.600	80.0991	1.11837	24.8483	-.4018E-01	.99834	-.0002696

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 370.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.1689	.94994	2.7787	-.1255E-02	.00349	-.0000038
.800	2.2293	.90583	2.5275	-.2908E-02	.00735	-.0000039
1.200	3.1928	.86489	2.2912	-.5072E-02	.01162	-.0000100
1.600	4.0627	.82539	2.0585	-.7922E-02	.01631	-.0000195
2.000	4.8398	.78662	1.8276	-.1170E-01	.02139	-.0000328
2.400	5.5253	.74836	1.6008	-.1677E-01	.02685	-.0000505
2.800	6.1215	.71067	1.3819	-.2363E-01	.03266	-.0000728
3.200	6.6325	.67373	1.1750	-.3299E-01	.03877	-.0001005
3.600	7.0636	.63780	.9832	-.4591E-01	.04514	-.0001344
4.000	7.4214	.60310	.8091	-.6396E-01	.05175	-.0001760
4.400	7.7133	.56984	.6537	-.8954E-01	.05854	-.0002273
4.800	7.9469	.53817	.5174	-.1265E+00	.06548	-.0002922
5.200	8.1298	.50820	.3997	-.1815E+00	.07254	-.0003774
5.600	8.2690	.47999	.2995	-.2662E+00	.07972	-.0004953
6.000	8.3715	.45354	.2153	-.4042E+00	.08702	-.0006795
6.400	8.4432	.42883	.1454	-.6502E+00	.09453	-.0010159
6.542	8.4622	.42049	.1236	-.7870E+00	.09728	-.0012232
14.032	8.4622	.19604	.2702	-.9385E+00	.25362	.0011538
14.400	8.5860	.19382	.4070	-.6619E+00	.26940	.0007992
14.800	8.7844	.19294	.5917	-.4856E+00	.28734	.0005919
15.200	9.0650	.19386	.8188	-.3740E+00	.30621	.0004609
15.600	9.4457	.19692	1.0930	-.2983E+00	.32610	.0003682
16.000	9.9464	.20207	1.4193	-.2445E+00	.34704	.0002975
16.400	10.5888	.20988	1.8026	-.2047E+00	.36906	.0002407
16.800	11.3968	.22051	2.2480	-.1745E+00	.39220	.0001933
17.200	12.3962	.23427	2.7606	-.1509E+00	.41648	.0001524
17.600	13.6149	.25146	3.3458	-.1321E+00	.44194	.0001154
18.000	15.0832	.27239	4.0093	-.1169E+00	.46861	.0000840
18.400	16.8336	.29739	4.7571	-.1044E+00	.49654	.0000544
18.800	18.9009	.32680	5.5952	-.9397E-01	.52576	.0000268
19.200	21.3227	.36100	6.5304	-.8519E-01	.55631	.0000009
19.600	24.1391	.40034	7.5695	-.7771E-01	.58825	-.0000239
20.000	27.3931	.44522	8.7199	-.7129E-01	.62162	-.0000478
20.400	31.1309	.49605	9.9894	-.6572E-01	.65649	-.0000713
20.800	35.4016	.55325	11.3859	-.6086E-01	.69291	-.0000945
21.200	40.2577	.61727	12.9182	-.5658E-01	.73095	-.0001177
21.600	45.7554	.68857	14.5951	-.5280E-01	.77067	-.0001413
22.000	51.9543	.76765	16.4258	-.4944E-01	.81214	-.0001655
22.400	58.9178	.85499	18.4197	-.4644E-01	.85543	-.0001905
22.800	66.7131	.95113	20.5864	-.4375E-01	.90061	-.0002165
23.200	75.4113	1.05660	22.9358	-.4132E-01	.94777	-.0002440

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 373.400 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.2543	.90763	2.5620	-.2864E-02	.00734	-.0000037
1.600	4.1181	.82901	2.0999	-.7735E-02	.01624	-.0000184
2.400	5.6163	.75376	1.6484	-.1619E-01	.02669	-.0000472
3.200	6.7637	.68081	1.2277	-.3131E-01	.03844	-.0000923
4.000	7.5964	.61170	.9654	-.5914E-01	.05118	-.0001569
4.800	8.1680	.54810	.5760	-.1121E+00	.06456	-.0002464
5.600	8.5375	.49106	.3593	-.2178E+00	.07826	-.0003729
6.400	8.7599	.44087	.2063	-.4460E+00	.09201	-.0005522
7.200	8.8813	.39731	.1048	-.1007E+01	.10561	-.0008787
8.000	8.9383	.35988	.0434	-.2742E+01	.11893	-.0015094
8.800	8.9587	.32791	.0118	-.1113E+02	.13187	-.0032227
9.600	8.9628	.30072	.0010	-.1464E+03	.14422	-.0130821
10.400	8.9629	.27759	.0000	-.3927E+04	.15494	.0798568
11.200	8.9642	.25780	.0054	-.3126E+02	.16951	.0058312
12.000	8.9780	.24098	.0349	-.5402E+01	.18872	.0022175
12.800	9.0335	.22732	.1147	-.1849E+01	.21216	.0011992
13.600	9.1832	.21749	.2760	-.8688E+00	.23977	.0007546
14.400	9.5059	.21263	.5530	-.4911E+00	.27156	.0005117
15.200	10.1086	.21421	.9821	-.3132E+00	.30759	.0003582
16.000	11.1279	.22402	1.6011	-.2173E+00	.34796	.0002503
16.800	12.7313	.24409	2.4489	-.1604E+00	.39281	.0001682
17.600	15.1182	.27668	3.5668	-.1240E+00	.44231	.0001016
18.400	18.5221	.32424	4.9994	-.9935E-01	.49671	.0000449
19.200	23.2141	.38944	6.7955	-.8186E-01	.55630	-.0000057
20.000	29.5064	.47520	9.0095	-.6898E-01	.62145	-.0000527
20.800	37.7569	.58469	11.7020	-.5919E-01	.69258	-.0000983
21.600	48.3749	.72137	14.9397	-.5155E-01	.77018	-.0001445
22.400	61.8252	.88901	18.7952	-.4548E-01	.85477	-.0001932
23.200	78.6323	1.09170	23.3448	-.4056E-01	.94694	-.0002464

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 375.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.2650	.90846	2.5782	-.2843E-02	.00733	-.0000036
1.600	4.1440	.83068	2.1192	-.7651E-02	.01621	-.0000180
2.400	5.6590	.75624	1.6707	-.1593E-01	.02661	-.0000458
3.200	6.8251	.68406	1.2522	-.3058E-01	.03829	-.0000889
4.000	7.6781	.61564	.8915	-.5713E-01	.05094	-.0001492
4.800	8.2710	.55265	.6031	-.1064E+00	.06418	-.0002295
5.600	8.6623	.49611	.3866	-.2010E+00	.07770	-.0003347
6.400	8.9064	.44633	.2334	-.3908E+00	.09119	-.0004699
7.200	9.0493	.40310	.1313	-.7954E+00	.10442	-.0006324
8.000	9.1271	.36591	.0689	-.1701E+01	.11724	-.0007749
8.800	9.1675	.33412	.0364	-.3559E+01	.12967	-.0007398
9.600	9.1912	.30707	.0258	-.5520E+01	.14224	-.0003841
10.400	9.2122	.28409	.0279	-.5600E+01	.15598	.0001303
11.200	9.2379	.26454	.0392	-.4386E+01	.17181	.0005999
12.000	9.2818	.24808	.0768	-.2484E+01	.19075	.0009058
12.800	9.3742	.23489	.1652	-.1294E+01	.21365	.0007388
13.600	9.5678	.22563	.3350	-.7190E+00	.24082	.0005841
14.400	9.9410	.22141	.6205	-.4388E+00	.27231	.0004398
15.200	10.6012	.22369	1.0583	-.2912E+00	.30813	.0003240
16.000	11.6850	.23423	1.6861	-.2066E+00	.34835	.0002324
16.800	13.3600	.25505	2.5430	-.1546E+00	.39307	.0001579
17.600	15.8260	.28840	3.6706	-.1205E+00	.44247	.0000953
18.400	19.3169	.33671	5.1132	-.9716E-01	.49678	.0000407
19.200	24.1042	.40265	6.9201	-.8039E-01	.55629	-.0000085
20.000	30.5006	.48912	9.1456	-.6794E-01	.62137	-.0000549
20.800	38.8649	.59928	11.8505	-.5843E-01	.69242	-.0001000
21.600	49.6070	.73658	15.1016	-.5098E-01	.76995	-.0001459
22.400	63.1926	.90480	18.9717	-.4504E-01	.85446	-.0001944
23.200	80.1471	1.10798	23.5370	-.4022E-01	.94654	-.0002475

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 380.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.3026	.91099	2.6286	-.2782E-02	.00731	-.0000034
1.600	4.2249	.83574	2.1793	-.7400E-02	.01613	-.0000156
2.400	5.7915	.76376	1.7395	-.1517E-01	.02639	-.0000417
3.200	7.0155	.69389	1.3278	-.2852E-01	.03787	-.0000794
4.000	7.9310	.62755	.9718	-.5170E-01	.05024	-.0001291
4.800	8.5892	.56636	.6857	-.9208E-01	.06314	-.0001891
5.600	9.0469	.51132	.4698	-.1623E+00	.07624	-.0002547
6.400	9.3573	.46275	.3154	-.2830E+00	.08928	-.0003156
7.200	9.5650	.42047	.2115	-.4829E+00	.10211	-.0003516
8.000	9.7063	.38401	.1476	-.7776E+00	.11479	-.0003356
8.800	9.8099	.35283	.1163	-.1098E+01	.12765	-.0002521
9.600	9.8994	.32638	.1115	-.1267E+01	.14126	-.0001167
10.400	9.9930	.30412	.1243	-.1258E+01	.15630	.0000372
11.200	10.1016	.28546	.1506	-.1151E+01	.17336	.0001859
12.000	10.2423	.27015	.2083	-.9268E+00	.19308	.0003009
12.800	10.4495	.25838	.3209	-.6736E+00	.21614	.0003555
13.600	10.7779	.25083	.5168	-.4703E+00	.24305	.0003499
14.400	11.3074	.24853	.8293	-.3306E+00	.27414	.0003066
15.200	12.1455	.25290	1.2945	-.2391E+00	.30955	.0002432
16.000	13.4294	.26565	1.9502	-.1792E+00	.34939	.0001878
16.800	15.3272	.28876	2.8360	-.1389E+00	.39379	.0001305
17.600	18.0394	.32441	3.9935	-.1109E+00	.44290	.0000776
18.400	21.8012	.37501	5.4678	-.9089E-01	.49695	.0000287
19.200	26.8855	.44320	7.3083	-.7611E-01	.55622	-.0000172
20.000	33.6067	.53183	9.5698	-.6490E-01	.62107	-.0000614
20.800	42.3258	.64405	12.3135	-.5619E-01	.69191	-.0001052
21.600	53.4549	.78327	15.6067	-.4929E-01	.76921	-.0001502
22.400	67.4624	.95322	19.5222	-.4372E-01	.85348	-.0001981
23.200	84.8767	1.15793	24.1365	-.3916E-01	.94530	-.0002507

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 390.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.3756	.91576	2.7288	-.2668E-02	.00728	-.0000030
1.600	4.3853	.84525	2.2978	-.6951E-02	.01597	-.0000143
2.400	6.0534	.77784	1.8742	-.1388E-01	.02601	-.0000352
3.200	7.3906	.71224	1.4752	-.2519E-01	.03716	-.0000548
4.000	8.4275	.64974	1.1274	-.4355E-01	.04910	-.0001008
4.800	9.2121	.59186	.8456	-.7276E-01	.06153	-.0001390
5.600	9.7983	.53959	.6305	-.1176E+00	.07416	-.0001730
6.400	10.2368	.49327	.4752	-.1827E+00	.08683	-.0001942
7.200	10.5720	.45282	.3706	-.2686E+00	.09954	-.0001943
8.000	10.8413	.41792	.3092	-.3638E+00	.11247	-.0001687
8.800	11.0769	.38818	.2859	-.4406E+00	.12596	-.0001199
9.600	11.3077	.36325	.2961	-.4744E+00	.14048	-.0000557
10.400	11.5573	.34271	.3308	-.4732E+00	.15652	.0000138
11.200	11.8419	.32607	.3855	-.4528E+00	.17456	.0000816
12.000	12.1844	.31313	.4789	-.4074E+00	.19508	.0001396
12.800	12.6246	.30416	.6341	-.3448E+00	.21861	.0001789
13.600	13.2226	.29983	.8782	-.2797E+00	.24563	.0001945
14.400	14.0617	.30114	1.2424	-.2226E+00	.27652	.0001874
15.200	15.2518	.30944	1.7617	-.1769E+00	.31156	.0001633
16.000	16.9316	.32635	2.4733	-.1419E+00	.35095	.0001291
16.800	19.2709	.35375	3.4169	-.1156E+00	.39488	.0000900
17.600	22.4718	.39375	4.6348	-.9569E-01	.44353	.0000493
18.400	26.7718	.44870	6.1726	-.8054E-01	.49713	.0000083
19.200	32.4466	.52116	8.0806	-.6880E-01	.55597	-.0000323
20.000	39.8142	.61391	10.4143	-.5957E-01	.62040	-.0000730
20.800	49.2395	.73004	13.2356	-.5219E-01	.69081	-.0001145
21.600	61.1393	.87290	16.6125	-.4621E-01	.76767	-.0001580
22.400	75.9872	1.04615	20.6184	-.4130E-01	.85147	-.0002047

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 400.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.4483	.92018	2.8280	-.2565E-02	.00725	-.0000026
1.600	4.5444	.85400	2.4143	-.6561E-02	.01584	-.0000125
2.400	6.3119	.79077	2.0057	-.1281E-01	.02568	-.0000300
3.200	7.7591	.72906	1.6183	-.2260E-01	.03657	-.0000541
4.000	8.9138	.67005	1.2782	-.3771E-01	.04820	-.0000818
4.800	9.8210	.61520	1.0006	-.6026E-01	.06030	-.0001089
5.600	10.5320	.56549	.7873	-.9229E-01	.07266	-.0001302
6.400	11.0965	.52133	.6332	-.1345E+00	.08519	-.0001404
7.200	11.5589	.48271	.5311	-.1844E+00	.09793	-.0001356
8.000	11.9586	.44946	.4756	-.2336E+00	.11109	-.0001151
8.800	12.3313	.42134	.4631	-.2699E+00	.12499	-.0000813
9.600	12.7101	.39809	.4898	-.2859E+00	.14002	-.0000393
10.400	13.1231	.37941	.5465	-.2866E+00	.15662	.0000058
11.200	13.5910	.36487	.6288	-.2786E+00	.17519	.0000497
12.000	14.1411	.35433	.7559	-.2595E+00	.19619	.0000880
12.800	14.8184	.34809	.9507	-.2315E+00	.22005	.0001159
13.600	15.6874	.34683	1.2398	-.1994E+00	.24722	.0001298
14.400	16.8352	.35153	1.6532	-.1682E+00	.27808	.0001289
15.200	18.3747	.36348	2.2249	-.1407E+00	.31293	.0001149
16.000	20.4469	.38425	2.9915	-.1177E+00	.35204	.0000912
16.800	23.2236	.41565	3.9927	-.9909E-01	.39563	.0000611
17.600	26.9091	.45972	5.2709	-.8422E-01	.44391	.0000275
18.400	31.7433	.51873	6.8723	-.7234E-01	.49713	-.0000082
19.200	38.0045	.59517	8.8478	-.6279E-01	.55559	-.0000451
20.000	46.0144	.69178	11.2536	-.5506E-01	.61962	-.0000831
20.800	56.1417	.81157	14.1524	-.4873E-01	.68963	-.0001227
21.600	68.8080	.95783	17.6128	-.4349E-01	.76605	-.0001647
22.400	84.4916	1.13415	21.7086	-.3913E-01	.84939	-.0002103

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 420.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.5929	.92812	3.0245	-.2383E-02	.00721	-.0000021
1.600	4.8589	.86962	2.6422	-.5912E-02	.01562	-.0000095
2.400	6.8201	.81376	2.2612	-.1113E-01	.02516	-.0000225
3.200	8.4807	.75892	1.8951	-.1881E-01	.03564	-.0000395
4.000	9.8633	.70612	1.5699	-.2983E-01	.04683	-.0000577
4.800	11.0079	.65672	1.3019	-.4494E-01	.05851	-.0000740
5.600	11.9627	.61172	1.0953	-.6442E-01	.07056	-.0000852
6.400	12.7763	.57166	.9482	-.8750E-01	.08296	-.0000890
7.200	13.4946	.53671	.8567	-.1118E+00	.09581	-.0000840
8.000	14.1611	.50690	.8181	-.1336E+00	.10930	-.0000708
8.800	14.8173	.48217	.8310	-.1489E+00	.12371	-.0000512
9.600	15.5037	.46246	.8925	-.1562E+00	.13938	-.0000275
10.400	16.2560	.44760	.9935	-.1577E+00	.15664	-.0000023
11.200	17.1025	.43728	1.1301	-.1556E+00	.17587	.0000220
12.000	18.0788	.43142	1.3217	-.1494E+00	.19743	.0000433
12.800	19.2380	.43039	1.5914	-.1393E+00	.22172	.0000591
13.600	20.6527	.43486	1.9651	-.1268E+00	.24911	.0000675
14.400	22.4176	.44580	2.4719	-.1133E+00	.27997	.0000676
15.200	24.6520	.46443	3.1444	-.1001E+00	.31461	.0000592
16.000	27.5024	.49223	4.0183	-.8793E-01	.35335	.0000435
16.800	31.1454	.53088	5.1328	-.7723E-01	.39643	.0000219
17.600	35.7904	.58233	6.5306	-.6801E-01	.44412	-.0000041
18.400	41.6824	.64871	8.2585	-.6014E-01	.49670	-.0000334
19.200	49.1058	.73240	10.3684	-.5348E-01	.55447	-.0000651
20.000	58.3890	.83602	12.9180	-.4782E-01	.61779	-.0000992
20.800	69.9088	.96246	15.9709	-.4302E-01	.68703	-.0001358
21.600	84.0953	1.11489	19.5970	-.3892E-01	.76264	-.0001754

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 450.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	2.8082	.93819	3.3148	-.2158E-02	.00715	-.0000015
1.600	5.3236	.88928	2.9747	-.5169E-02	.01538	-.0000069
2.400	7.5660	.84257	2.6306	-.9351E-02	.02460	-.0000157
3.200	9.5344	.79634	2.2940	-.1511E-01	.03467	-.0000267
4.000	11.2456	.75140	1.9913	-.2281E-01	.04542	-.0000379
4.800	12.7346	.70908	1.7408	-.3259E-01	.05673	-.0000475
5.600	14.0469	.67041	1.5502	-.4421E-01	.06854	-.0000536
6.400	15.2313	.63607	1.4211	-.5691E-01	.08087	-.0000553
7.200	16.3370	.60644	1.3533	-.6934E-01	.09383	-.0000523
8.000	17.4130	.58175	1.3470	-.7989E-01	.10762	-.0000450
8.800	18.5088	.56214	1.4029	-.8730E-01	.12247	-.0000344
9.600	19.6737	.54773	1.5191	-.9127E-01	.13865	-.0000219
10.400	20.9531	.53848	1.6869	-.9276E-01	.15647	-.0000088
11.200	22.3852	.53419	1.9029	-.9261E-01	.17622	.0000036
12.000	24.0160	.53490	2.1873	-.9063E-01	.19824	.0000141
12.800	25.9093	.54100	2.5634	-.8694E-01	.22285	.0000215
13.600	28.1487	.55319	3.0568	-.8192E-01	.25041	.0000246
14.400	30.8391	.57239	3.6959	-.7610E-01	.28124	.0000228
15.200	34.1094	.59977	4.5123	-.6996E-01	.31567	.0000157
16.000	38.1154	.63670	5.5411	-.6388E-01	.35399	.0000035
16.800	43.0420	.68475	6.8208	-.5813E-01	.39650	-.0000133
17.600	49.1070	.74573	8.3944	-.5283E-01	.44351	-.0000341
18.400	56.5641	.82163	10.3095	-.4804E-01	.49529	-.0000584
19.200	65.7073	.91467	12.6189	-.4376E-01	.55219	-.0000857
20.000	76.8752	1.02733	15.3818	-.3995E-01	.61454	-.0001159

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 500.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.800	3.1642	.95142	3.7908	-.1871E-02	.00709	-.0000010
1.600	6.0851	.91483	3.5117	-.4301E-02	.01510	-.0000043
2.400	8.7794	.87993	3.2220	-.7445E-02	.02399	-.0000095
3.200	11.2400	.84491	2.9317	-.1148E-01	.03364	-.0000158
4.000	13.4773	.81047	2.6682	-.1648E-01	.04398	-.0000221
4.800	15.5221	.77787	2.4531	-.2239E-01	.05494	-.0000273
5.600	17.4185	.74820	2.2986	-.2894E-01	.06652	-.0000307
6.400	19.2177	.72229	2.2107	-.3563E-01	.07878	-.0000320
7.200	20.9744	.70073	2.1932	-.4187E-01	.09184	-.0000311
8.000	22.7466	.68394	2.2498	-.4705E-01	.10586	-.0000283
8.800	24.5946	.67228	2.3833	-.5079E-01	.12105	-.0000242
9.600	26.5804	.66601	2.5935	-.5307E-01	.13764	-.0000193
10.400	28.7627	.66526	2.8725	-.5426E-01	.15587	-.0000144
11.200	31.1938	.66995	3.2179	-.5470E-01	.17601	-.0000101
12.000	33.9347	.68023	3.6509	-.5433E-01	.19834	-.0000070
12.800	37.0649	.69654	4.1954	-.5319E-01	.22314	-.0000059
13.600	40.6838	.71958	4.8770	-.5141E-01	.25073	-.0000072
14.400	44.9123	.75023	5.7242	-.4916E-01	.28140	-.0000114
15.200	49.8949	.78960	6.7679	-.4661E-01	.31547	-.0000189
16.000	55.8026	.83893	8.0429	-.4392E-01	.35323	-.0000296
16.800	62.8354	.89968	9.5877	-.4120E-01	.39498	-.0000437
17.600	71.2263	.97347	11.4454	-.3853E-01	.44104	-.0000609
18.400	81.2444	1.06211	13.6644	-.3599E-01	.49173	-.0000812

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 550.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.7892	.97816	4.3876	-.7802E-03	.00342	-.0000001
.800	3.5178	.96156	4.2599	-.1655E-02	.00705	-.0000007
1.200	5.1991	.94743	4.1475	-.2625E-02	.01089	-.0000016
1.600	6.8357	.93425	4.0346	-.3701E-02	.01493	-.0000029
2.000	8.4261	.92130	3.9168	-.4895E-02	.01917	-.0000044
2.400	9.9685	.90828	3.7944	-.6220E-02	.02360	-.0000063
2.800	11.4614	.89512	3.6704	-.7687E-02	.02821	-.0000083
3.200	12.9051	.88188	3.5485	-.9301E-02	.03300	-.0000104
3.600	14.3010	.86869	3.4326	-.1106E-01	.03796	-.0000125
4.000	15.6524	.85570	3.3259	-.1295E-01	.04309	-.0000145
4.400	16.9634	.84307	3.2314	-.1497E-01	.04837	-.0000163
4.800	18.2394	.83094	3.1510	-.1708E-01	.05383	-.0000179
5.200	19.4864	.81946	3.0866	-.1926E-01	.05946	-.0000193
5.600	20.7109	.80875	3.0392	-.2147E-01	.06526	-.0000204
6.000	21.9201	.79890	3.0100	-.2367E-01	.07126	-.0000213
6.400	23.1215	.79002	2.9998	-.2582E-01	.07746	-.0000218
6.800	24.3226	.78217	3.0094	-.2787E-01	.08388	-.0000220
7.200	25.5318	.77544	3.0396	-.2978E-01	.09053	-.0000220
7.600	26.7572	.76989	3.0911	-.3153E-01	.09745	-.0000217
8.000	28.0075	.76557	3.1645	-.3307E-01	.10464	-.0000212
8.400	29.2918	.76255	3.2604	-.3439E-01	.11214	-.0000206
8.800	30.6189	.76087	3.3791	-.3550E-01	.11996	-.0000199
9.200	31.9981	.76057	3.5207	-.3639E-01	.12814	-.0000191
9.600	33.4385	.76169	3.6847	-.3710E-01	.13670	-.0000184
10.000	34.9487	.76424	3.8697	-.3764E-01	.14567	-.0000175
10.400	36.5368	.76824	4.0740	-.3806E-01	.15508	-.0000170
10.800	38.2106	.77368	4.2983	-.3838E-01	.16495	-.0000165
11.200	39.9786	.78057	4.5458	-.3857E-01	.17533	-.0000162
11.600	41.8507	.78894	4.8195	-.3864E-01	.18624	-.0000162
12.000	43.8381	.79886	5.1223	-.3860E-01	.19772	-.0000164
12.400	45.9529	.81039	5.4574	-.3844E-01	.20980	-.0000170
12.800	48.2087	.82360	5.8280	-.3818E-01	.22251	-.0000181
13.200	50.6205	.83860	6.2375	-.3782E-01	.23589	-.0000195
13.600	53.2044	.85548	6.6892	-.3737E-01	.24997	-.0000214
14.000	55.9780	.87436	7.1870	-.3684E-01	.26480	-.0000239
14.400	58.9606	.89537	7.7344	-.3625E-01	.28040	-.0000269
14.800	62.1727	.91863	8.3357	-.3561E-01	.29681	-.0000305
15.200	65.6369	.94429	8.9950	-.3492E-01	.31408	-.0000347
15.600	69.3771	.97251	9.7167	-.3419E-01	.33223	-.0000396
16.000	73.4192	1.00344	10.5057	-.3344E-01	.35131	-.0000450
16.400	77.7912	1.03726	11.3667	-.3267E-01	.37136	-.0000511
16.800	82.5229	1.07415	12.3052	-.3189E-01	.39240	-.0000579

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 600.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	1.9602	.98233	4.8272	-.7078E-03	.00342	-.0000001
.800	3.8696	.96959	4.7246	-.1487E-02	.00702	-.0000005
1.200	5.7418	.95913	4.6370	-.2334E-02	.01082	-.0000011
1.600	7.5790	.94952	4.5484	-.3256E-02	.01481	-.0000020
2.000	9.3797	.94010	4.4541	-.4262E-02	.01898	-.0000032
2.400	11.1416	.93057	4.3545	-.5359E-02	.02334	-.0000045
2.800	12.8630	.92086	4.2524	-.6553E-02	.02787	-.0000059
3.200	14.5437	.91104	4.1520	-.7844E-02	.03257	-.0000073
3.600	16.1853	.90122	4.0571	-.9228E-02	.03744	-.0000088
4.000	17.7906	.89154	3.9714	-.1070E-01	.04248	-.0000103
4.400	19.3640	.88218	3.8979	-.1223E-01	.04769	-.0000116
4.800	20.9109	.87326	3.8393	-.1382E-01	.05307	-.0000129
5.200	22.4377	.86494	3.7973	-.1544E-01	.05864	-.0000140
5.600	23.9512	.85734	3.7738	-.1706E-01	.06439	-.0000149
6.000	25.4593	.85056	3.7698	-.1866E-01	.07035	-.0000157
6.400	26.9699	.84472	3.7867	-.2021E-01	.07652	-.0000163
6.800	28.4916	.83989	3.8255	-.2168E-01	.08292	-.0000168
7.200	30.0333	.83615	3.8872	-.2304E-01	.08957	-.0000171
7.600	31.6045	.83358	3.9727	-.2429E-01	.09648	-.0000173
8.000	33.2148	.83225	4.0829	-.2539E-01	.10368	-.0000174
8.400	34.8742	.83222	4.2185	-.2636E-01	.11119	-.0000175
8.800	36.5931	.83354	4.3801	-.2717E-01	.11903	-.0000175
9.200	38.3818	.83628	4.5677	-.2785E-01	.12722	-.0000176
9.600	40.2507	.84046	4.7810	-.2840E-01	.13580	-.0000177
10.000	42.2099	.84611	5.0189	-.2885E-01	.14478	-.0000179
10.400	44.2688	.85325	5.2795	-.2921E-01	.15419	-.0000181
10.800	46.4366	.86189	5.5639	-.2949E-01	.16407	-.0000185
11.200	48.7235	.87203	5.8753	-.2969E-01	.17444	-.0000191
11.600	51.1409	.88374	6.2167	-.2981E-01	.18533	-.0000199
12.000	53.7013	.89705	6.5914	-.2985E-01	.19677	-.0000210
12.400	56.4189	.91204	7.0025	-.2982E-01	.20880	-.0000223
12.800	59.3087	.92880	7.4534	-.2971E-01	.22144	-.0000240
13.200	62.3873	.94740	7.9473	-.2954E-01	.23473	-.0000260
13.600	65.6728	.96796	8.4879	-.2930E-01	.24871	-.0000284
14.000	69.1844	.99059	9.0789	-.2901E-01	.26340	-.0000312
14.400	72.9431	1.01539	9.7242	-.2868E-01	.27884	-.0000345
14.800	76.9715	1.04251	10.4278	-.2830E-01	.29507	-.0000382
15.200	81.2937	1.07208	11.1939	-.2788E-01	.31213	-.0000424

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 650.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	2.1309	.98574	5.2654	-.6480E-03	.00341	-.0000001
.800	4.2202	.97610	5.1859	-.1350E-02	.00700	-.0000004
1.200	6.2816	.96858	5.1215	-.2103E-02	.01077	-.0000009
1.600	8.3172	.96185	5.0557	-.2912E-02	.01472	-.0000015
2.000	10.3253	.95526	4.9837	-.3782E-02	.01885	-.0000024
2.400	12.3034	.94856	4.9059	-.4718E-02	.02314	-.0000033
2.800	14.2496	.94166	4.8253	-.5722E-02	.02761	-.0000044
3.200	16.1638	.93464	4.7460	-.6795E-02	.03225	-.0000055
3.600	18.0472	.92759	4.6722	-.7931E-02	.03706	-.0000066
4.000	19.9028	.92067	4.6079	-.9122E-02	.04203	-.0000077
4.400	21.7352	.91403	4.5562	-.1036E-01	.04718	-.0000088
4.800	23.5499	.90782	4.5201	-.1162E-01	.05251	-.0000098
5.200	25.3536	.90217	4.5017	-.1289E-01	.05803	-.0000107
5.600	27.1538	.89721	4.5029	-.1415E-01	.06374	-.0000116
6.000	28.9587	.89306	4.5253	-.1539E-01	.06966	-.0000123
6.400	30.7771	.88981	4.5703	-.1658E-01	.07579	-.0000130
6.800	32.6182	.88757	4.6392	-.1771E-01	.08217	-.0000136
7.200	34.4918	.88641	4.7332	-.1876E-01	.08879	-.0000141
7.600	36.4082	.88641	4.8534	-.1972E-01	.09569	-.0000146
8.000	38.3781	.88766	5.0009	-.2057E-01	.10287	-.0000151
8.400	40.4127	.89020	5.1765	-.2132E-01	.11037	-.0000155
8.800	42.5232	.89412	5.3810	-.2196E-01	.11819	-.0000160
9.200	44.7213	.89945	5.6145	-.2251E-01	.12637	-.0000165
9.600	47.0187	.90625	5.8769	-.2296E-01	.13493	-.0000170
10.000	49.4265	.91456	6.1669	-.2333E-01	.14389	-.0000177
10.400	51.9557	.92438	6.4831	-.2364E-01	.15328	-.0000184
10.800	54.6166	.93573	6.8265	-.2390E-01	.16312	-.0000193
11.200	57.4210	.94864	7.2006	-.2409E-01	.17345	-.0000204
11.600	60.3816	.96316	7.6084	-.2422E-01	.18428	-.0000217
12.000	63.5126	.97933	8.0533	-.2430E-01	.19566	-.0000231
12.400	66.8296	.99724	8.5385	-.2431E-01	.20761	-.0000249
12.800	70.3492	1.01695	9.0674	-.2428E-01	.22016	-.0000269
13.200	74.0898	1.03857	9.6435	-.2420E-01	.23334	-.0000291
13.600	78.0708	1.06219	10.2705	-.2407E-01	.24719	-.0000318
14.000	82.3135	1.08791	10.9521	-.2390E-01	.26174	-.0000347

Table 11. Continued.

HYDROGEN SULFIDE ISOTHERM AT 700.000 K

DEN MOL/L	P MPA	Z	DP/DD MPA-L/MOL	DD/DT MOL/L/K	DP/DT MPA/K	D2P/DT2 MPA/K/K
.400	2.3014	.98856	5.7024	-.5977E-03	.00341	-.0000001
.800	4.5699	.98148	5.6449	-.1238E-02	.00699	-.0000003
1.200	6.8192	.97638	5.6024	-.1916E-02	.01073	-.0000007
1.600	9.0515	.97200	5.5582	-.2636E-02	.01465	-.0000012
2.000	11.2649	.96775	5.5076	-.3403E-02	.01874	-.0000018
2.400	13.4567	.96337	5.4509	-.4219E-02	.02300	-.0000026
2.800	15.6252	.95881	5.3913	-.5086E-02	.02742	-.0000034
3.200	17.7699	.95412	5.3330	-.6002E-02	.03201	-.0000043
3.600	19.8923	.94940	5.2803	-.6962E-02	.03676	-.0000052
4.000	21.9955	.94480	5.2375	-.7960E-02	.04169	-.0000061
4.400	24.0841	.94047	5.2080	-.8984E-02	.04679	-.0000070
4.800	26.1641	.93655	5.1948	-.1002E-01	.05207	-.0000078
5.200	28.2425	.93318	5.2005	-.1107E-01	.05755	-.0000087
5.600	30.3272	.93049	5.2270	-.1209E-01	.06322	-.0000094
6.000	32.4271	.92859	5.2763	-.1310E-01	.06910	-.0000102
6.400	34.5515	.92758	5.3499	-.1406E-01	.07520	-.0000109
6.800	36.7105	.92757	5.4494	-.1496E-01	.08154	-.0000115
7.200	38.9147	.92864	5.5761	-.1581E-01	.08814	-.0000122
7.600	41.1752	.93087	5.7313	-.1658E-01	.09501	-.0000128
8.000	43.5037	.93433	5.9162	-.1727E-01	.10216	-.0000134
8.400	45.9122	.93911	6.1318	-.1788E-01	.10963	-.0000141
8.800	48.4133	.94525	6.3790	-.1841E-01	.11742	-.0000148
9.200	51.0197	.95283	6.6581	-.1886E-01	.12557	-.0000155
9.600	53.7441	.96189	6.9690	-.1924E-01	.13409	-.0000163
10.000	56.5990	.97247	7.3107	-.1956E-01	.14301	-.0000173
10.400	59.5965	.98459	7.6816	-.1983E-01	.15236	-.0000183
10.800	62.7484	.99826	8.0832	-.2006E-01	.16215	-.0000195
11.200	66.0676	1.01353	8.5187	-.2024E-01	.17241	-.0000208
11.600	69.5684	1.03043	8.9916	-.2037E-01	.18318	-.0000223
12.000	73.2663	1.04903	9.5052	-.2046E-01	.19448	-.0000240
12.400	77.1784	1.06940	10.0629	-.2050E-01	.20634	-.0000259
12.800	81.3230	1.09161	10.6681	-.2051E-01	.21878	-.0000280

Table 12. The Joule-Thomson inversion locus for hydrogen sulfide.

T,K	MOL/L	P,MPA	T,K	MOL/L	P,MPA
280	24.055	1.256	560	16.942	88.292
290	23.402	1.642	570	16.731	89.438
300	22.712	2.125	580	16.521	90.489
310	22.488	8.325	590	16.314	91.454
320	22.264	14.227	600	16.108	92.335
330	22.040	19.836	610	15.904	93.140
340	21.816	25.164	620	15.703	93.872
350	21.592	30.218	630	15.504	94.535
360	21.368	35.009	640	15.307	95.135
370	21.144	39.544	650	15.112	95.675
380	20.920	43.832	660	14.919	96.159
390	20.696	47.882	670	14.729	96.590
400	20.472	51.703	680	14.541	96.972
410	20.247	55.302	690	14.356	97.308
420	20.023	58.688	700	14.173	97.600
430	19.799	61.870	710	13.992	97.851
440	19.575	64.856	720	13.814	98.065
450	19.351	67.654	730	13.638	98.242
460	19.128	70.272	740	13.465	98.386
470	18.905	72.719	750	13.294	98.499
480	18.683	75.002	760	13.125	98.582
490	18.462	77.129	770	12.959	98.638
500	18.241	79.109	780	12.795	98.668
510	18.021	80.948	790	12.633	98.675
520	17.803	82.655	800	12.474	98.659
530	17.585	84.235	810	12.318	98.622
540	17.369	85.698	820	12.163	98.567
550	17.155	87.048	830	12.011	98.493

Table 13. Properties of saturated liquid hydrogen sulfide.

T K	P MPA	DEN,L MOL/L	DEN,G MOL/L	Z,LIQ	Z,GAS	DPS/DT MPA/K	DOL/DT MOL/L/K	DP/DT MPA/K	DP/DD MPA-L/MOL
187.660	.23199E-01	29.136	.14957E-01	.00051	.99405	.1563E-02	-.05068	2.0947	.4130E+02
190.000	.27102E-01	29.017	.17273E-01	.00059	.99321	.1776E-02	-.05074	2.0624	.4061E+02
195.000	.37253E-01	28.763	.23183E-01	.00080	.99113	.2302E-02	-.05092	1.9949	.3914E+02
200.000	.50299E-01	28.508	.30596E-01	.00106	.98861	.2935E-02	-.05114	1.9295	.3768E+02
205.000	.66803E-01	28.252	.39765E-01	.00139	.98559	.3687E-02	-.05140	1.8660	.3623E+02
210.000	.87387E-01	27.994	.50964E-01	.00179	.98202	.4569E-02	-.05172	1.8043	.3480E+02
212.874	.10133E+00	27.845	.58433E-01	.00206	.97972	.5138E-02	-.05193	1.7696	.3398E+02
215.000	.11272E+00	27.734	.64484E-01	.00227	.97788	.5590E-02	-.05209	1.7443	.3338E+02
220.000	.14353E+00	27.473	.80636E-01	.00286	.97312	.6750E-02	-.05251	1.6859	.3197E+02
225.000	.18059E+00	27.209	.99753E-01	.00355	.96771	.8089E-02	-.05300	1.6290	.3058E+02
230.000	.22470E+00	26.943	.12219E+00	.00436	.96164	.9584E-02	-.05354	1.5735	.2921E+02
235.000	.27672E+00	26.674	.14832E+00	.00531	.95489	.1125E-01	-.05415	1.5193	.2785E+02
240.000	.33754E+00	26.401	.17853E+00	.00641	.94745	.1310E-01	-.05484	1.4664	.2650E+02
245.000	.40806E+00	26.125	.21326E+00	.00767	.93932	.1514E-01	-.05559	1.4147	.2518E+02
250.000	.48924E+00	25.845	.25294E+00	.00911	.93052	.1737E-01	-.05643	1.3640	.2386E+02
255.000	.58204E+00	25.561	.29805E+00	.01074	.92106	.1979E-01	-.05735	1.3143	.2257E+02
260.000	.68745E+00	25.272	.34909E+00	.01258	.91095	.2241E-01	-.05837	1.2656	.2130E+02
265.000	.80648E+00	24.977	.40660E+00	.01465	.90022	.2524E-01	-.05949	1.2178	.2005E+02
270.000	.94015E+00	24.676	.47115E+00	.01697	.88888	.2827E-01	-.06073	1.1708	.1881E+02
275.000	.10895E+01	24.369	.54335E+00	.01955	.87696	.3151E-01	-.06209	1.1245	.1760E+02
280.000	.12556E+01	24.055	.62386E+00	.02242	.86448	.3496E-01	-.06360	1.0790	.1642E+02
285.000	.14395E+01	23.733	.71346E+00	.02560	.85145	.3863E-01	-.06526	1.0340	.1525E+02
290.000	.16423E+01	23.402	.81288E+00	.02910	.83788	.4251E-01	-.06711	.9897	.1411E+02
295.000	.18650E+01	23.062	.92304E+00	.03297	.82376	.4662E-01	-.06916	.9458	.1300E+02
300.000	.21088E+01	22.710	.10449E+01	.03723	.80907	.5095E-01	-.07145	.9024	.1192E+02
305.000	.23748E+01	22.347	.11798E+01	.04191	.79379	.5550E-01	-.07403	.8594	.1086E+02
310.000	.26642E+01	21.969	.13288E+01	.04705	.77786	.6029E-01	-.07695	.8167	.9830E+01
315.000	.29781E+01	21.577	.14938E+01	.05270	.76120	.6532E-01	-.08027	.7742	.8831E+01
320.000	.33178E+01	21.166	.16767E+01	.05892	.74370	.7059E-01	-.08410	.7318	.7862E+01
325.000	.36845E+01	20.734	.18801E+01	.06576	.72522	.7612E-01	-.08856	.6895	.6926E+01
330.000	.40794E+01	20.279	.21073E+01	.07332	.70555	.8192E-01	-.09383	.6470	.6023E+01
335.000	.45041E+01	19.794	.23627E+01	.08159	.68442	.8800E-01	-.10019	.6043	.5153E+01
340.000	.49599E+01	19.274	.26524E+01	.09103	.66148	.9440E-01	-.10805	.5612	.4320E+01
345.000	.54486E+01	18.710	.29856E+01	.10152	.63622	.1011E+00	-.11806	.5173	.3525E+01
350.000	.59719E+01	18.088	.33757E+01	.11345	.60792	.1083E+00	-.13142	.4722	.2770E+01
355.000	.65319E+01	17.387	.38454E+01	.12728	.57548	.1158E+00	-.15040	.4254	.2058E+01
360.000	.71312E+01	16.567	.44361E+01	.14381	.53707	.1240E+00	-.18027	.3757	.1396E+01
365.000	.77730E+01	15.542	.52379E+01	.16480	.48900	.1329E+00	-.23685	.3208	.7934E+00
370.000	.84622E+01	14.032	.65417E+01	.19604	.42049	.1431E+00	-.40906	.2536	.2702E+00
373.400	.89629E+01	10.200	.10200E+02	.28303	.28303	.1524E+00	0.00000	.1524	0.

Table 13. Continued.

PROPERTIES OF SATURATED LIQUID HYDROGEN SULFIDE

T	Q,VAP	E	H	S	CV	CS	CP	F/P	W
K	J/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.660	19602.8	.0	.8	109.287	43.89	67.36	67.37	.99445	1364
190.000	19521.7	155.0	156.0	110.122	43.89	67.51	67.53	.99193	1353
195.000	19345.9	487.1	488.4	111.880	43.88	67.82	67.85	.98621	1332
200.000	19166.1	820.9	822.6	113.601	43.83	68.11	68.15	.98028	1311
205.000	18981.4	1156.7	1159.0	115.286	43.74	68.38	68.43	.97442	1289
210.000	18790.9	1494.8	1497.9	116.937	43.62	68.63	68.69	.96879	1267
212.874	18678.6	1690.3	1694.0	117.871	43.54	68.77	68.84	.96571	1255
215.000	18594.1	1835.5	1839.6	118.554	43.47	68.86	68.95	.96351	1246
220.000	18390.2	2179.0	2184.2	120.140	43.28	69.08	69.19	.95861	1224
225.000	18178.8	2525.3	2531.9	121.695	43.05	69.28	69.42	.95410	1202
230.000	17959.2	2874.3	2882.6	123.220	42.78	69.48	69.64	.94992	1181
235.000	17731.3	3225.9	3235.3	124.716	42.48	69.66	69.86	.94597	1159
240.000	17494.8	3579.9	3592.7	126.184	42.14	69.83	70.08	.94214	1137
245.000	17249.5	3936.0	3951.7	127.626	41.77	70.00	70.30	.93828	1115
250.000	16995.3	4293.9	4312.9	129.041	41.36	70.16	70.53	.93423	1092
255.000	16732.3	4653.2	4676.0	130.432	40.91	70.33	70.78	.92992	1070
260.000	16460.4	5013.5	5040.7	131.800	40.43	70.50	71.05	.92489	1047
265.000	16179.7	5374.3	5406.6	133.145	39.91	70.69	71.34	.91928	1025
270.000	15890.1	5735.3	5773.4	134.468	39.37	70.89	71.67	.91283	1002
275.000	15591.7	6096.1	6140.8	135.771	38.78	71.12	72.05	.90543	979
280.000	15284.1	6456.4	6508.6	137.054	38.17	71.38	72.49	.89698	956
285.000	14967.1	6815.9	6874.6	138.320	37.53	71.68	73.00	.88744	933
290.000	14640.2	7174.7	7244.9	139.570	36.86	72.03	73.61	.87679	909
295.000	14302.7	7532.8	7613.6	140.805	36.17	72.45	74.33	.86506	885
300.000	13953.6	7890.4	7983.2	142.026	35.45	72.96	75.20	.85233	861
305.000	13591.3	8248.1	8354.3	143.237	34.72	73.58	76.26	.83873	836
310.000	13214.2	8606.6	8727.9	144.440	33.97	74.34	77.55	.82442	811
315.000	12819.6	8967.3	9105.3	145.636	33.22	75.27	79.15	.80953	785
320.000	12404.5	9331.4	9488.2	146.830	32.47	76.44	81.13	.79460	759
325.000	11964.8	9701.2	9878.9	148.026	31.74	77.90	83.63	.77962	731
330.000	11495.0	10079.3	10280.5	149.229	31.04	79.77	86.83	.76498	703
335.000	10988.2	10469.0	10696.6	150.445	30.40	82.17	91.00	.75102	672
340.000	10434.8	10874.8	11132.1	151.686	29.86	85.35	96.57	.73803	640
345.000	9821.6	11302.4	11593.6	152.962	29.47	89.65	104.28	.72631	604
350.000	9129.5	11759.7	12089.9	154.292	29.33	95.72	115.46	.71610	565
355.000	8328.6	12258.6	12634.3	155.710	29.64	104.77	132.89	.70755	520
360.000	7367.5	12818.3	13248.7	157.269	30.80	119.64	163.40	.70055	466
365.000	6139.8	13478.3	13978.5	159.094	33.98	148.81	230.01	.69449	396
370.000	4319.6	14363.1	14966.2	161.583	44.84	239.80	492.12	.68698	295
373.400	0.0	16195.2	17073.9	167.265	0.00	0.00	0.00	.66594	0

Table 14. Properties of hydrogen sulfide along isobars.

HYDROGEN SULFIDE ISOBAR AT P = .02500 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.660	.29136E+02	.00055	2.094756	41.3045	.0	.9	109.287	43.89	67.37	.9229E+00	1364
188.777	.29079E+02	.00055	2.079254	40.9720	73.9	74.8	109.679	43.89	67.45	.9941E+00	1359
188.777	.16029E-01	.99366	.000134	1.5488	18079.3	19638.9	213.316	25.22	33.76	.9941E+00	246
190.000	.15924E-01	.99378	.000133	1.5593	18110.3	19680.2	213.534	25.22	33.75	.9942E+00	247
200.000	.15114E-01	.99469	.000126	1.6446	18363.4	20017.4	215.263	25.22	33.70	.9950E+00	253
210.000	.14384E-01	.99540	.000120	1.7294	18616.4	20354.4	216.907	25.23	33.69	.9956E+00	260
220.000	.13722E-01	.99598	.000114	1.8140	18869.6	20691.5	218.475	25.27	33.71	.9962E+00	266
230.000	.13119E-01	.99646	.000109	1.8984	19123.1	21028.7	219.974	25.32	33.74	.9966E+00	272
240.000	.12568E-01	.99686	.000105	1.9826	19377.2	21366.4	221.412	25.39	33.80	.9970E+00	278
250.000	.12061E-01	.99720	.000100	2.0667	19631.8	21704.6	222.792	25.46	33.86	.9973E+00	283
260.000	.11594E-01	.99749	.000097	2.1506	19887.3	22043.7	224.122	25.55	33.93	.9976E+00	289
270.000	.11162E-01	.99774	.000093	2.2345	20143.6	22383.4	225.404	25.64	34.02	.9978E+00	294
280.000	.10761E-01	.99795	.000090	2.3183	20400.8	22724.1	226.643	25.74	34.11	.9980E+00	300
290.000	.10389E-01	.99814	.000086	2.4020	20659.0	23065.7	227.842	25.85	34.22	.9982E+00	305
300.000	.10040E-01	.99831	.000084	2.4857	20918.3	23408.4	229.004	25.96	34.32	.9983E+00	310
310.000	.97144E-02	.99845	.000081	2.5693	21178.7	23752.2	230.131	26.08	34.44	.9985E+00	315
320.000	.94096E-02	.99858	.000078	2.6529	21440.3	24097.2	231.226	26.20	34.56	.9986E+00	320
330.000	.91234E-02	.99870	.000076	2.7365	21703.2	24443.4	232.292	26.33	34.69	.9987E+00	325
340.000	.88542E-02	.99880	.000074	2.8200	21967.4	24790.9	233.329	26.47	34.82	.9988E+00	329
350.000	.86004E-02	.99889	.000072	2.9035	22232.9	25139.7	234.340	26.60	34.95	.9989E+00	334
360.000	.83608E-02	.99897	.000070	2.9870	22499.8	25489.9	235.327	26.74	35.09	.9990E+00	339
370.000	.81342E-02	.99905	.000068	3.0704	22768.0	25841.5	236.290	26.89	35.23	.9991E+00	343
380.000	.79196E-02	.99912	.000066	3.1538	23037.8	26194.5	237.231	27.03	35.37	.9991E+00	347
390.000	.77161E-02	.99918	.000064	3.2372	23308.9	26548.9	238.152	27.18	35.52	.9992E+00	352
400.000	.75227E-02	.99924	.000063	3.3206	23581.6	26904.9	239.053	27.33	35.67	.9992E+00	356
410.000	.73389E-02	.99929	.000061	3.4040	23855.8	27262.3	239.936	27.49	35.82	.9993E+00	360
420.000	.71638E-02	.99934	.000060	3.4874	24131.5	27621.3	240.801	27.64	35.98	.9993E+00	364
430.000	.69969E-02	.99938	.000058	3.5707	24408.8	27981.8	241.649	27.80	36.13	.9994E+00	369
440.000	.68376E-02	.99942	.000057	3.6541	24687.7	28344.0	242.482	27.96	36.29	.9994E+00	373
450.000	.66854E-02	.99946	.000056	3.7374	24968.2	28707.7	243.299	28.12	36.45	.9995E+00	377
460.000	.65398E-02	.99949	.000054	3.8207	25250.3	29073.1	244.102	28.29	36.62	.9995E+00	380
470.000	.64005E-02	.99952	.000053	3.9040	25534.1	29440.1	244.891	28.45	36.78	.9995E+00	384
480.000	.62670E-02	.99955	.000052	3.9873	25819.5	29808.7	245.667	28.62	36.95	.9996E+00	388
490.000	.61389E-02	.99958	.000051	4.0706	26106.6	30179.0	246.431	28.79	37.12	.9996E+00	392
500.000	.60160E-02	.99960	.000050	4.1539	26395.5	30551.1	247.182	28.96	37.29	.9996E+00	396
520.000	.57843E-02	.99965	.000048	4.3205	26978.2	31300.2	248.652	29.30	37.63	.9996E+00	403
540.000	.55699E-02	.99969	.000046	4.4870	27567.9	32056.3	250.078	29.65	37.98	.9997E+00	410
560.000	.53708E-02	.99972	.000045	4.6535	28164.6	32819.4	251.466	30.01	38.33	.9997E+00	417
580.000	.51854E-02	.99975	.000043	4.8200	28768.4	33589.6	252.817	30.36	38.69	.9998E+00	424
600.000	.50124E-02	.99978	.000042	4.9865	29379.4	34367.0	254.135	30.72	39.05	.9998E+00	431
620.000	.48506E-02	.99980	.000040	5.1529	29997.5	35151.5	255.421	31.09	39.41	.9998E+00	437
640.000	.46989E-02	.99983	.000039	5.3194	30623.0	35943.3	256.678	31.45	39.77	.9998E+00	444
660.000	.45565E-02	.99984	.000038	5.4858	31255.6	36742.3	257.907	31.81	40.13	.9998E+00	450
680.000	.44224E-02	.99986	.000037	5.6523	31895.6	37548.7	259.111	32.18	40.50	.9999E+00	456
700.000	.42960E-02	.99988	.000035	5.8187	32542.8	38362.2	260.290	32.54	40.86	.9999E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .05000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.665	.29136E+02	.00110	2.094846	41.3097	.1	1.8	109.287	43.89	67.37	.4618E+00	1364
190.000	.29018E+02	.00109	2.062562	40.6155	154.8	156.5	110.121	43.89	67.53	.5379E+00	1354
199.898	.28513E+02	.00106	1.930791	37.7051	814.2	816.0	113.490	43.83	68.14	.9895E+00	1311
199.898	.30428E-01	.98866	.000256	1.6227	18342.6	19985.8	209.388	25.38	34.09	.9895E+00	252
200.000	.30412E-01	.98868	.000256	1.6236	18345.2	19989.3	209.405	25.38	34.09	.9896E+00	252
210.000	.28918E-01	.99027	.000243	1.7107	18600.6	20329.6	211.065	25.35	33.99	.9910E+00	259
220.000	.27568E-01	.99154	.000231	1.7971	18855.6	20669.3	212.646	25.36	33.94	.9921E+00	265
230.000	.26342E-01	.99257	.000220	1.8830	19110.6	21008.7	214.154	25.39	33.94	.9931E+00	271
240.000	.25222E-01	.99343	.000211	1.9685	19365.8	21348.1	215.599	25.44	33.96	.9938E+00	277
250.000	.24196E-01	.99416	.000202	2.0536	19621.4	21687.9	216.985	25.50	34.00	.9945E+00	283
260.000	.23251E-01	.99477	.000194	2.1385	19877.7	22028.2	218.320	25.58	34.05	.9951E+00	289
270.000	.22378E-01	.99530	.000187	2.2232	20134.6	22369.0	219.606	25.67	34.12	.9956E+00	294
280.000	.21569E-01	.99575	.000180	2.3078	20392.4	22710.6	220.849	25.76	34.20	.9960E+00	299
290.000	.20817E-01	.99615	.000174	2.3921	20651.2	23053.1	222.050	25.87	34.29	.9964E+00	305
300.000	.20116E-01	.99649	.000168	2.4764	20910.9	23396.5	223.215	25.98	34.39	.9967E+00	310
310.000	.19461E-01	.99680	.000162	2.5606	21171.8	23741.0	224.344	26.09	34.50	.9970E+00	315
320.000	.18848E-01	.99707	.000157	2.6447	21433.8	24086.6	225.441	26.22	34.62	.9972E+00	320
330.000	.18272E-01	.99731	.000152	2.7287	21697.0	24433.4	226.508	26.34	34.74	.9975E+00	324
340.000	.17731E-01	.99752	.000148	2.8126	21961.4	24781.3	227.547	26.48	34.86	.9977E+00	329
350.000	.17221E-01	.99771	.000143	2.8965	22227.2	25130.6	228.560	26.61	34.99	.9978E+00	334
360.000	.16740E-01	.99789	.000139	2.9803	22494.3	25481.2	229.547	26.75	35.13	.9980E+00	338
370.000	.16285E-01	.99804	.000136	3.0641	22762.8	25833.2	230.512	26.89	35.26	.9982E+00	343
380.000	.15854E-01	.99818	.000132	3.1478	23032.7	26186.5	231.454	27.04	35.41	.9983E+00	347
390.000	.15446E-01	.99831	.000129	3.2315	23304.1	26541.3	232.375	27.19	35.55	.9984E+00	352
400.000	.15058E-01	.99843	.000125	3.3151	23577.0	26897.5	233.277	27.34	35.70	.9985E+00	356
410.000	.14689E-01	.99854	.000122	3.3988	23851.3	27255.3	234.161	27.49	35.85	.9986E+00	360
420.000	.14338E-01	.99864	.000119	3.4824	24127.2	27614.5	235.026	27.65	36.00	.9987E+00	364
430.000	.14003E-01	.99873	.000117	3.5659	24404.6	27975.3	235.875	27.80	36.16	.9988E+00	368
440.000	.13684E-01	.99881	.000114	3.6495	24683.7	28337.7	236.708	27.96	36.32	.9989E+00	372
450.000	.13378E-01	.99888	.000111	3.7330	24964.3	28701.6	237.526	28.13	36.48	.9990E+00	376
460.000	.13087E-01	.99895	.000109	3.8165	25246.5	29067.2	238.330	28.29	36.64	.9990E+00	380
470.000	.12807E-01	.99902	.000107	3.9000	25530.4	29434.4	239.119	28.45	36.80	.9991E+00	384
480.000	.12540E-01	.99908	.000104	3.9835	25815.9	29803.2	239.896	28.62	36.97	.9992E+00	388
490.000	.12283E-01	.99914	.000102	4.0669	26103.2	30173.7	240.660	28.79	37.13	.9992E+00	392
500.000	.12037E-01	.99919	.000100	4.1503	26392.1	30545.9	241.412	28.96	37.30	.9993E+00	396
520.000	.11573E-01	.99928	.000096	4.3172	26975.0	31295.4	242.882	29.31	37.65	.9994E+00	403
540.000	.11143E-01	.99936	.000093	4.4840	27564.8	32051.8	244.309	29.66	37.99	.9994E+00	410
560.000	.10745E-01	.99943	.000089	4.6507	28161.7	32815.1	245.697	30.01	38.34	.9995E+00	417
580.000	.10374E-01	.99949	.000086	4.8174	28765.6	33585.6	247.049	30.37	38.70	.9996E+00	424
600.000	.10027E-01	.99955	.000083	4.9841	29376.7	34363.2	248.367	30.73	39.06	.9996E+00	431
620.000	.97032E-02	.99960	.000081	5.1507	29995.0	35147.9	249.653	31.09	39.42	.9997E+00	437
640.000	.93996E-02	.99964	.000078	5.3174	30620.5	35939.9	250.910	31.45	39.78	.9997E+00	444
660.000	.91144E-02	.99968	.000076	5.4840	31253.3	36739.1	252.140	31.81	40.14	.9997E+00	450
680.000	.88460E-02	.99971	.000074	5.6505	31893.3	37545.6	253.344	32.18	40.50	.9998E+00	456
700.000	.85930E-02	.99975	.000071	5.8171	32540.6	38359.3	254.523	32.54	40.87	.9998E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .10133 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.676	.29137E+02	.00223	2.095031	41.3204	.2	3.7	109.288	43.89	67.37	.2283E+00	1364
190.000	.29019E+02	.00221	2.062893	40.6294	154.2	157.7	110.118	43.89	67.53	.2657E+00	1354
200.000	.28509E+02	.00214	1.929806	37.6896	820.2	823.8	113.597	43.83	68.14	.4871E+00	1311
210.000	.27994E+02	.00207	1.804364	34.8014	1494.6	1498.2	116.936	43.62	68.69	.8358E+00	1268
212.874	.27845E+02	.00206	1.769585	33.9803	1690.3	1693.9	117.736	43.54	68.84	.9815E+00	1255
212.874	.58433E-01	.97972	.000496	1.6951	18638.5	20372.5	205.481	25.65	34.70	.9815E+00	259
220.000	.56425E-01	.98172	.000477	1.7597	18823.5	20619.2	206.619	25.59	34.54	.9833E+00	264
230.000	.53844E-01	.98405	.000454	1.8492	19082.1	20963.9	208.152	25.56	34.41	.9853E+00	270
240.000	.51500E-01	.98596	.000433	1.9376	19340.2	21307.6	209.614	25.57	34.34	.9870E+00	276
250.000	.49361E-01	.98755	.000415	2.0253	19598.2	21650.9	211.016	25.61	34.32	.9885E+00	282
260.000	.47398E-01	.98889	.000398	2.1124	19856.4	21994.2	212.362	25.66	34.32	.9897E+00	287
270.000	.45590E-01	.99003	.000382	2.1989	20115.0	22337.5	213.658	25.74	34.36	.9907E+00	293
280.000	.43918E-01	.99101	.000368	2.2851	20374.2	22681.3	214.908	25.82	34.41	.9916E+00	298
290.000	.42367E-01	.99186	.000354	2.3710	20634.1	23025.7	216.117	25.91	34.47	.9924E+00	304
300.000	.40924E-01	.99260	.000342	2.4565	20894.9	23370.9	217.287	26.02	34.55	.9931E+00	309
310.000	.39578E-01	.99326	.000331	2.5419	21156.7	23716.8	218.421	26.13	34.64	.9937E+00	314
320.000	.38319E-01	.99383	.000320	2.6270	21419.5	24063.8	219.523	26.25	34.74	.9942E+00	319
330.000	.37139E-01	.99434	.000310	2.7120	21683.5	24411.7	220.593	26.37	34.85	.9947E+00	324
340.000	.36030E-01	.99479	.000301	2.7968	21948.6	24760.8	221.635	26.50	34.97	.9951E+00	329
350.000	.34987E-01	.99520	.000292	2.8815	22215.0	25111.1	222.651	26.63	35.09	.9955E+00	333
360.000	.34002E-01	.99557	.000284	2.9661	22482.7	25462.6	223.641	26.77	35.21	.9959E+00	338
370.000	.33072E-01	.99590	.000276	3.0506	22751.7	25815.4	224.608	26.91	35.35	.9962E+00	342
380.000	.32192E-01	.99620	.000268	3.1349	23022.0	26169.5	225.552	27.05	35.48	.9965E+00	347
390.000	.31358E-01	.99647	.000261	3.2192	23293.8	26525.0	226.475	27.20	35.62	.9967E+00	351
400.000	.30567E-01	.99671	.000255	3.3035	23567.1	26881.9	227.379	27.35	35.76	.9970E+00	356
410.000	.29815E-01	.99694	.000249	3.3876	23841.8	27240.3	228.264	27.50	35.91	.9972E+00	360
420.000	.29099E-01	.99714	.000243	3.4717	24118.0	27600.1	229.131	27.65	36.06	.9974E+00	364
430.000	.28417E-01	.99733	.000237	3.5557	24395.8	27961.5	229.981	27.81	36.21	.9975E+00	368
440.000	.27766E-01	.99750	.000231	3.6397	24675.1	28324.3	230.815	27.97	36.36	.9977E+00	372
450.000	.27145E-01	.99766	.000226	3.7237	24956.0	28688.8	231.634	28.13	36.52	.9979E+00	376
460.000	.26551E-01	.99781	.000221	3.8076	25238.5	29054.8	232.439	28.30	36.68	.9980E+00	380
470.000	.25982E-01	.99795	.000216	3.8914	25522.6	29422.4	233.229	28.46	36.84	.9981E+00	384
480.000	.25438E-01	.99807	.000212	3.9752	25808.4	29791.6	234.007	28.63	37.01	.9983E+00	388
490.000	.24916E-01	.99819	.000208	4.0590	26095.8	30162.5	234.771	28.80	37.17	.9984E+00	392
500.000	.24415E-01	.99830	.000203	4.1428	26384.9	30535.1	235.524	28.97	37.34	.9985E+00	395
520.000	.23471E-01	.99849	.000195	4.3102	26968.2	31285.2	236.995	29.31	37.68	.9987E+00	403
540.000	.22598E-01	.99866	.000188	4.4775	27558.4	32042.2	238.423	29.66	38.02	.9988E+00	410
560.000	.21788E-01	.99881	.000181	4.6448	28155.5	32806.1	239.813	30.01	38.37	.9990E+00	417
580.000	.21034E-01	.99894	.000175	4.8119	28759.8	33577.1	241.165	30.37	38.72	.9991E+00	424
600.000	.20330E-01	.99905	.000169	4.9790	29371.1	34355.1	242.484	30.73	39.08	.9992E+00	431
620.000	.19672E-01	.99916	.000164	5.1461	29989.6	35140.3	243.771	31.09	39.44	.9993E+00	437
640.000	.19056E-01	.99925	.000159	5.3130	30615.4	35932.6	245.029	31.45	39.80	.9994E+00	444
660.000	.18477E-01	.99933	.000154	5.4800	31248.4	36732.2	246.259	31.82	40.16	.9995E+00	450
680.000	.17932E-01	.99940	.000149	5.6468	31888.6	37539.0	247.463	32.18	40.52	.9995E+00	456
700.000	.17419E-01	.99946	.000145	5.8137	32536.1	38353.1	248.643	32.54	40.88	.9996E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .15000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.686	.29138E+02	.00330	2.095207	41.3306	.3	5.4	109.288	43.89	67.37	.1545E+00	1364
190.000	.29020E+02	.00327	2.063207	40.6425	153.6	158.8	110.115	43.89	67.52	.1797E+00	1354
200.000	.28511E+02	.00316	1.930122	37.7032	819.6	824.9	113.594	43.83	68.14	.3294E+00	1311
210.000	.27996E+02	.00307	1.804683	34.8152	1493.9	1499.3	116.933	43.62	68.69	.5651E+00	1268
220.000	.27473E+02	.00298	1.685931	31.9763	2178.9	2184.4	120.140	43.28	69.18	.9174E+00	1224
220.940	.27424E+02	.00298	1.675080	31.7120	2243.6	2249.1	120.287	43.23	69.23	.9747E+00	1220
220.940	.83994E-01	.97215	.000719	1.7306	18814.3	20600.1	203.346	25.87	35.22	.9747E+00	262
230.000	.80409E-01	.97549	.000685	1.8153	19052.4	20917.9	204.754	25.77	34.95	.9777E+00	268
240.000	.76821E-01	.97851	.000651	1.9070	19313.8	21266.4	206.238	25.73	34.77	.9803E+00	275
250.000	.73561E-01	.98100	.000622	1.9973	19574.5	21613.6	207.655	25.73	34.67	.9825E+00	281
260.000	.70582E-01	.98308	.000595	2.0866	19834.8	21960.0	209.014	25.76	34.62	.9844E+00	286
270.000	.67846E-01	.98485	.000571	2.1751	20095.2	22306.1	210.320	25.81	34.60	.9860E+00	292
280.000	.65322E-01	.98636	.000549	2.2630	20355.9	22652.2	211.578	25.88	34.62	.9873E+00	298
290.000	.62986E-01	.98767	.000529	2.3504	20617.1	22998.6	212.794	25.97	34.66	.9885E+00	303
300.000	.60817E-01	.98880	.000510	2.4372	20879.1	23345.5	213.970	26.06	34.72	.9896E+00	308
310.000	.58796E-01	.98980	.000493	2.5238	21141.8	23693.0	215.109	26.17	34.79	.9905E+00	313
320.000	.56908E-01	.99067	.000477	2.6100	21405.5	24041.3	216.215	26.28	34.87	.9913E+00	318
330.000	.55140E-01	.99145	.000461	2.6959	21670.2	24390.5	217.290	26.40	34.97	.9920E+00	323
340.000	.53481E-01	.99214	.000447	2.7816	21936.0	24740.7	218.335	26.52	35.07	.9927E+00	328
350.000	.51921E-01	.99276	.000434	2.8671	22203.0	25092.0	219.353	26.65	35.18	.9932E+00	333
360.000	.50451E-01	.99331	.000422	2.9524	22471.2	25444.4	220.346	26.79	35.30	.9938E+00	337
370.000	.49062E-01	.99381	.000410	3.0376	22740.7	25798.1	221.315	26.92	35.43	.9942E+00	342
380.000	.47750E-01	.99426	.000399	3.1226	23011.6	26153.0	222.262	27.07	35.55	.9947E+00	346
390.000	.46506E-01	.99467	.000388	3.2074	23283.8	26509.2	223.187	27.21	35.69	.9951E+00	351
400.000	.45327E-01	.99504	.000378	3.2922	23557.4	26866.7	224.092	27.36	35.83	.9954E+00	355
410.000	.44206E-01	.99538	.000369	3.3769	23832.5	27225.7	224.978	27.51	35.97	.9957E+00	359
420.000	.43140E-01	.99569	.000360	3.4614	24109.1	27586.1	225.847	27.66	36.11	.9960E+00	364
430.000	.42125E-01	.99598	.000351	3.5459	24387.1	27948.0	226.698	27.82	36.26	.9963E+00	368
440.000	.41157E-01	.99624	.000343	3.6303	24666.7	28311.4	227.534	27.98	36.41	.9966E+00	372
450.000	.40232E-01	.99648	.000336	3.7147	24947.9	28676.3	228.354	28.14	36.57	.9968E+00	376
460.000	.39349E-01	.99670	.000328	3.7989	25230.7	29042.7	229.159	28.30	36.72	.9970E+00	380
470.000	.38504E-01	.99691	.000321	3.8831	25515.0	29410.8	229.951	28.47	36.88	.9972E+00	384
480.000	.37694E-01	.99710	.000314	3.9673	25801.0	29780.4	230.729	28.63	37.04	.9974E+00	388
490.000	.36919E-01	.99727	.000308	4.0514	26088.7	30151.7	231.494	28.80	37.21	.9975E+00	391
500.000	.36174E-01	.99743	.000302	4.1355	26378.0	30524.6	232.248	28.97	37.37	.9977E+00	395
520.000	.34773E-01	.99773	.000290	4.3035	26961.6	31275.4	233.720	29.31	37.71	.9980E+00	403
540.000	.33476E-01	.99798	.000279	4.4713	27552.2	32032.9	235.150	29.66	38.05	.9982E+00	410
560.000	.32274E-01	.99820	.000269	4.6390	28149.6	32797.4	236.540	30.02	38.40	.9984E+00	417
580.000	.31155E-01	.99840	.000260	4.8066	28754.1	33568.8	237.893	30.37	38.75	.9986E+00	424
600.000	.30111E-01	.99857	.000251	4.9741	29365.7	34347.3	239.213	30.73	39.10	.9988E+00	430
620.000	.29135E-01	.99872	.000243	5.1415	29984.5	35132.9	240.501	31.09	39.46	.9989E+00	437
640.000	.28221E-01	.99886	.000235	5.3088	30610.4	35925.6	241.759	31.45	39.82	.9991E+00	444
660.000	.27362E-01	.99898	.000228	5.4761	31243.6	36725.6	242.990	31.82	40.18	.9992E+00	450
680.000	.26555E-01	.99909	.000221	5.6432	31884.0	37532.7	244.194	32.18	40.54	.9993E+00	456
700.000	.25794E-01	.99918	.000215	5.8104	32531.7	38347.1	245.375	32.54	40.90	.9994E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .20000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.696	.29138E+02	.00440	2.095387	41.3410	.4	7.3	107.239	43.89	67.37	.1161E+00	1364
190.000	.29022E+02	.00436	2.063529	40.6561	153.0	159.9	110.112	43.89	67.52	.1349E+00	1354
200.000	.28512E+02	.00422	1.930446	37.7170	819.0	826.0	113.591	43.83	68.14	.2473E+00	1311
210.000	.27997E+02	.00409	1.805011	34.8295	1493.2	1500.4	116.929	43.62	68.69	.4243E+00	1268
220.000	.27475E+02	.00398	1.686264	31.9910	2178.1	2185.4	120.136	43.28	69.18	.6887E+00	1224
227.305	.27087E+02	.00391	1.603246	29.9481	2685.5	2692.8	122.259	42.93	69.52	.9684E+00	1192
227.305	.10966E+00	.96500	.000946	1.7528	18947.6	20771.4	201.793	26.07	35.72	.9684E+00	265
230.000	.10823E+00	.96631	.000931	1.7790	19019.6	20867.5	202.212	26.03	35.60	.9697E+00	267
240.000	.10327E+00	.97057	.000883	1.8744	19285.0	21221.7	203.719	25.91	35.27	.9733E+00	273
250.000	.98781E-01	.97405	.000841	1.9678	19548.7	21573.3	205.155	25.87	35.07	.9763E+00	279
260.000	.94700E-01	.97695	.000803	2.0596	19811.5	21923.5	206.528	25.87	34.95	.9788E+00	285
270.000	.90965E-01	.97939	.000769	2.1503	20073.9	22272.6	207.845	25.90	34.88	.9810E+00	291
280.000	.87530E-01	.98148	.000739	2.2399	20336.3	22621.2	209.113	25.95	34.86	.9829E+00	297
290.000	.84357E-01	.98327	.000711	2.3289	20599.0	22969.9	210.337	26.03	34.87	.9845E+00	302
300.000	.81417E-01	.98483	.000685	2.4172	20862.1	23318.6	211.519	26.11	34.90	.9859E+00	307
310.000	.78682E-01	.98619	.000661	2.5050	21126.0	23667.9	212.664	26.21	34.95	.9872E+00	313
320.000	.76131E-01	.98738	.000639	2.5923	21390.6	24017.7	213.775	26.31	35.02	.9883E+00	318
330.000	.73745E-01	.98844	.000619	2.6792	21656.2	24368.2	214.853	26.43	35.10	.9892E+00	323
340.000	.71508E-01	.98938	.000599	2.7659	21922.7	24719.6	215.903	26.55	35.19	.9901E+00	327
350.000	.69406E-01	.99022	.000581	2.8522	22190.4	25072.0	216.924	26.67	35.29	.9909E+00	332
360.000	.67427E-01	.99097	.000565	2.9383	22459.2	25425.4	217.919	26.81	35.40	.9916E+00	337
370.000	.65560E-01	.99164	.000549	3.0241	22729.3	25779.9	218.891	26.94	35.51	.9922E+00	341
380.000	.63795E-01	.99226	.000534	3.1098	23000.6	26135.6	219.839	27.08	35.63	.9928E+00	346
390.000	.62125E-01	.99281	.000520	3.1953	23273.3	26492.6	220.767	27.23	35.76	.9933E+00	350
400.000	.60541E-01	.99331	.000506	3.2806	23547.3	26850.9	221.674	27.37	35.89	.9938E+00	355
410.000	.59037E-01	.99377	.000493	3.3658	23822.8	27210.5	222.562	27.52	36.03	.9943E+00	359
420.000	.57607E-01	.99419	.000481	3.4509	24099.7	27571.5	223.432	27.67	36.17	.9947E+00	363
430.000	.56246E-01	.99457	.000470	3.5358	24378.1	27934.0	224.284	27.83	36.32	.9950E+00	367
440.000	.54948E-01	.99493	.000459	3.6207	24658.0	28297.9	225.121	27.99	36.46	.9954E+00	372
450.000	.53709E-01	.99525	.000448	3.7054	24939.5	28663.2	225.942	28.15	36.62	.9957E+00	376
460.000	.52526E-01	.99555	.000439	3.7901	25222.5	29030.2	226.749	28.31	36.77	.9960E+00	380
470.000	.51394E-01	.99583	.000429	3.8746	25507.1	29398.6	227.541	28.47	36.93	.9962E+00	383
480.000	.50310E-01	.99608	.000420	3.9591	25793.4	29768.7	228.320	28.64	37.08	.9965E+00	387
490.000	.49272E-01	.99632	.000411	4.0436	26081.2	30140.3	229.086	28.81	37.25	.9967E+00	391
500.000	.48276E-01	.99654	.000403	4.1280	26370.8	30513.6	229.841	28.98	37.41	.9969E+00	395
520.000	.46401E-01	.99693	.000387	4.2965	26954.8	31265.1	231.314	29.32	37.74	.9973E+00	402
540.000	.44667E-01	.99727	.000373	4.4649	27545.7	32023.3	232.745	29.67	38.08	.9976E+00	410
560.000	.43059E-01	.99757	.000359	4.6331	28143.5	32788.3	234.136	30.02	38.42	.9979E+00	417
580.000	.41563E-01	.99784	.000347	4.8011	28748.3	33560.2	235.490	30.37	38.77	.9982E+00	424
600.000	.40168E-01	.99807	.000335	4.9690	29360.1	34339.2	236.811	30.73	39.12	.9984E+00	430
620.000	.38864E-01	.99827	.000324	5.1368	29979.1	35125.2	238.099	31.09	39.48	.9986E+00	437
640.000	.37643E-01	.99845	.000314	5.3045	30605.3	35918.4	239.358	31.46	39.84	.9988E+00	443
660.000	.36496E-01	.99862	.000304	5.4720	31238.7	36718.7	240.590	31.82	40.19	.9989E+00	450
680.000	.35419E-01	.99876	.000295	5.6395	31879.3	37526.2	241.795	32.18	40.55	.9990E+00	456
700.000	.34401E-01	.99889	.000287	5.8069	32527.1	38340.8	242.976	32.55	40.91	.9992E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .30000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.716	.29140E+02	.00660	2.095747	41.3618	.6	10.9	109.290	43.89	67.36	.7766E-01	1364
190.000	.29024E+02	.00654	2.064174	40.6832	151.9	162.2	110.106	43.89	67.52	.9015E-01	1355
200.000	.28515E+02	.00633	1.931094	37.7448	817.7	828.3	113.585	43.83	68.13	.1652E+00	1312
210.000	.28000E+02	.00614	1.805666	34.8580	1491.8	1502.5	116.923	43.62	68.68	.2834E+00	1268
220.000	.27478E+02	.00597	1.686929	32.0203	2176.6	2187.5	120.129	43.28	69.17	.4601E+00	1225
230.000	.26945E+02	.00582	1.574025	29.2313	2873.0	2884.1	123.214	42.78	69.63	.7125E+00	1181
237.005	.26565E+02	.00573	1.497987	27.3071	3367.2	3378.5	125.197	42.35	69.95	.9570E+00	1150
237.005	.15992E+00	.95199	.001399	1.7756	19140.0	21016.0	199.615	26.45	36.66	.9570E+00	268
240.000	.15760E+00	.95394	.001374	1.8064	19222.0	21125.5	200.072	26.38	36.48	.9588E+00	270
250.000	.15040E+00	.95962	.001300	1.9067	19493.1	21487.8	201.551	26.21	36.01	.9635E+00	277
260.000	.14391E+00	.96429	.001236	2.0042	19761.8	21846.3	202.957	26.13	35.70	.9675E+00	283
270.000	.13803E+00	.96818	.001180	2.0995	20028.8	22202.3	204.301	26.11	35.51	.9708E+00	289
280.000	.13265E+00	.97148	.001130	2.1931	20295.1	22556.7	205.589	26.12	35.39	.9737E+00	295
290.000	.12770E+00	.97430	.001085	2.2855	20561.0	22910.2	206.830	26.16	35.32	.9762E+00	300
300.000	.12314E+00	.97673	.001043	2.3767	20826.9	23263.2	208.027	26.22	35.29	.9784E+00	306
310.000	.11891E+00	.97885	.001006	2.4671	21093.1	23616.0	209.184	26.30	35.29	.9803E+00	311
320.000	.11497E+00	.98071	.000971	2.5568	21359.7	23969.1	210.304	26.39	35.32	.9820E+00	316
330.000	.11130E+00	.98234	.000938	2.6459	21627.1	24322.4	211.392	26.50	35.36	.9835E+00	321
340.000	.10787E+00	.98379	.000908	2.7344	21895.3	24676.4	212.448	26.61	35.43	.9849E+00	326
350.000	.10465E+00	.98508	.000880	2.8224	22164.4	25031.0	213.476	26.73	35.50	.9861E+00	331
360.000	.10162E+00	.98624	.000854	2.9101	22434.5	25386.5	214.478	26.85	35.59	.9871E+00	336
370.000	.98774E-01	.98728	.000830	2.9974	22705.7	25742.9	215.454	26.98	35.69	.9881E+00	341
380.000	.96084E-01	.98821	.000807	3.0844	22978.1	26100.4	216.407	27.12	35.80	.9890E+00	345
390.000	.93540E-01	.98906	.000785	3.1711	23251.7	26458.9	217.339	27.26	35.91	.9898E+00	350
400.000	.91131E-01	.98983	.000764	3.2575	23526.7	26818.7	218.250	27.40	36.03	.9905E+00	354
410.000	.88845E-01	.99053	.000745	3.3438	23803.0	27179.6	219.141	27.55	36.16	.9912E+00	358
420.000	.86674E-01	.99117	.000726	3.4299	24080.6	27541.9	220.014	27.70	36.29	.9918E+00	363
430.000	.84608E-01	.99175	.000709	3.5157	24359.7	27905.5	220.869	27.85	36.43	.9924E+00	367
440.000	.82641E-01	.99229	.000692	3.6014	24640.3	28270.5	221.708	28.01	36.57	.9929E+00	371
450.000	.80764E-01	.99278	.000676	3.6870	24922.3	28636.9	222.532	28.16	36.71	.9933E+00	375
460.000	.78972E-01	.99324	.000661	3.7724	25205.9	29004.7	223.340	28.33	36.86	.9938E+00	379
470.000	.77259E-01	.99366	.000646	3.8578	25491.1	29374.1	224.135	28.49	37.01	.9942E+00	383
480.000	.75620E-01	.99404	.000632	3.9429	25777.8	29745.0	224.916	28.65	37.17	.9945E+00	387
490.000	.74050E-01	.99440	.000619	4.0280	26066.1	30117.4	225.684	28.82	37.32	.9949E+00	391
500.000	.72545E-01	.99474	.000606	4.1130	26356.1	30491.5	226.439	28.99	37.48	.9952E+00	395
520.000	.69713E-01	.99533	.000583	4.2828	26941.0	31244.3	227.915	29.33	37.81	.9958E+00	402
540.000	.67096E-01	.99585	.000560	4.4522	27532.6	32003.8	229.349	29.68	38.14	.9963E+00	409
560.000	.64670E-01	.99631	.000540	4.6213	28131.0	32769.9	230.742	30.03	38.48	.9967E+00	416
580.000	.62415E-01	.99671	.000521	4.7902	28736.4	33542.9	232.098	30.38	38.82	.9971E+00	423
600.000	.60313E-01	.99706	.000503	4.9589	29348.8	34322.8	233.420	30.74	39.17	.9975E+00	430
620.000	.58350E-01	.99737	.000487	5.1275	29968.3	35109.7	234.710	31.10	39.52	.9978E+00	437
640.000	.56511E-01	.99764	.000472	5.2958	30594.9	35903.7	235.970	31.46	39.87	.9980E+00	443
660.000	.54785E-01	.99789	.000457	5.4640	31228.7	36704.7	237.203	31.82	40.23	.9983E+00	450
680.000	.53162E-01	.99811	.000443	5.6321	31869.7	37512.9	238.409	32.19	40.59	.9985E+00	456
700.000	.51633E-01	.99831	.000431	5.8001	32517.9	38328.2	239.591	32.55	40.94	.9987E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .40000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.737	.29141E+02	.00879	2.096108	41.3827	.9	14.6	109.292	43.89	67.36	.5845E-01	1365
190.000	.29026E+02	.00872	2.064818	40.7102	150.8	164.5	110.100	43.89	67.51	.6776E-01	1355
200.000	.28517E+02	.00843	1.931742	37.7725	816.5	830.5	113.579	43.83	68.13	.1242E+00	1312
210.000	.28003E+02	.00818	1.806321	34.8865	1490.4	1504.7	116.916	43.62	68.67	.2130E+00	1269
220.000	.27481E+02	.00796	1.687595	32.0496	2175.1	2189.6	120.122	43.28	69.16	.3457E+00	1225
230.000	.26949E+02	.00776	1.574705	29.2615	2871.3	2886.1	123.207	42.78	69.62	.5354E+00	1182
240.000	.26404E+02	.00759	1.466865	26.5230	3578.7	3593.9	126.179	42.14	70.07	.7960E+00	1137
244.463	.26155E+02	.00752	1.420168	25.3173	3897.6	3912.8	127.401	41.81	70.28	.9467E+00	1117
244.463	.20930E+00	.94023	.001855	1.7836	19278.0	21189.1	198.071	26.80	37.56	.9467E+00	270
250.000	.20373E+00	.94454	.001793	1.8431	19432.5	21395.8	198.904	26.63	37.14	.9505E+00	274
260.000	.19453E+00	.95117	.001696	1.9470	19708.1	21764.4	200.349	26.44	36.59	.9559E+00	281
270.000	.18625E+00	.95665	.001612	2.0476	19980.7	22128.3	201.723	26.35	36.22	.9606E+00	287
280.000	.17874E+00	.96125	.001538	2.1456	20251.4	22489.2	203.036	26.31	35.98	.9645E+00	293
290.000	.17188E+00	.96516	.001473	2.2416	20520.9	22848.1	204.295	26.32	35.82	.9679E+00	299
300.000	.16557E+00	.96852	.001414	2.3361	20789.9	23205.7	205.507	26.35	35.72	.9709E+00	304
310.000	.15975E+00	.97143	.001360	2.4293	21058.7	23562.6	206.678	26.41	35.66	.9735E+00	310
320.000	.15436E+00	.97397	.001311	2.5214	21327.7	23919.1	207.809	26.48	35.64	.9758E+00	315
330.000	.14934E+00	.97620	.001266	2.6126	21597.0	24275.5	208.906	26.57	35.65	.9778E+00	320
340.000	.14465E+00	.97818	.001224	2.7031	21866.9	24632.2	209.971	26.67	35.68	.9796E+00	325
350.000	.14027E+00	.97993	.001185	2.7929	22137.6	24989.2	211.006	26.78	35.73	.9812E+00	330
360.000	.13615E+00	.98150	.001149	2.8821	22409.1	25346.9	212.014	26.90	35.80	.9827E+00	335
370.000	.13229E+00	.98290	.001115	2.9709	22681.5	25705.3	212.995	27.03	35.88	.9840E+00	340
380.000	.12864E+00	.98417	.001084	3.0592	22955.0	26064.5	213.953	27.16	35.97	.9852E+00	344
390.000	.12519E+00	.98531	.001054	3.1472	23229.7	26424.7	214.889	27.29	36.07	.9862E+00	349
400.000	.12194E+00	.98635	.001026	3.2348	23505.6	26786.0	215.804	27.43	36.18	.9872E+00	353
410.000	.11885E+00	.98729	.000999	3.3221	23782.7	27148.3	216.698	27.57	36.29	.9881E+00	358
420.000	.11592E+00	.98815	.000974	3.4092	24061.2	27511.9	217.574	27.72	36.42	.9889E+00	362
430.000	.11313E+00	.98894	.000950	3.4960	24341.0	27876.7	218.433	27.87	36.54	.9897E+00	366
440.000	.11048E+00	.98966	.000927	3.5826	24622.2	28242.8	219.274	28.03	36.68	.9904E+00	370
450.000	.10795E+00	.99032	.000906	3.6689	24904.9	28610.2	220.100	28.18	36.81	.9910E+00	374
460.000	.10554E+00	.99093	.000885	3.7551	25189.1	28979.1	220.911	28.34	36.96	.9916E+00	379
470.000	.10324E+00	.99149	.000865	3.8412	25474.8	29349.3	221.707	28.50	37.10	.9921E+00	383
480.000	.10103E+00	.99201	.000847	3.9271	25762.0	29721.1	222.490	28.67	37.25	.9926E+00	386
490.000	.98924E-01	.99249	.000829	4.0128	26050.8	30094.3	223.259	28.83	37.40	.9931E+00	390
500.000	.96901E-01	.99294	.000812	4.0984	26341.2	30469.1	224.017	29.00	37.56	.9935E+00	394
520.000	.93099E-01	.99374	.000779	4.2693	26926.9	31223.4	225.496	29.34	37.87	.9943E+00	402
540.000	.89588E-01	.99444	.000750	4.4397	27519.3	31984.1	226.931	29.68	38.20	.9950E+00	409
560.000	.86336E-01	.99505	.000722	4.6098	28118.4	32751.4	228.326	30.04	38.53	.9956E+00	416
580.000	.83314E-01	.99558	.000697	4.7796	28724.4	33525.5	229.684	30.39	38.87	.9961E+00	423
600.000	.80499E-01	.99605	.000673	4.9491	29337.3	34306.3	231.008	30.75	39.22	.9965E+00	430
620.000	.77870E-01	.99647	.000651	5.1183	29957.3	35094.1	232.300	31.11	39.56	.9969E+00	437
640.000	.75409E-01	.99683	.000630	5.2873	30584.4	35888.9	233.561	31.47	39.91	.9973E+00	443
660.000	.73099E-01	.99716	.000611	5.4562	31218.7	36690.7	234.795	31.83	40.27	.9976E+00	450
680.000	.70928E-01	.99745	.000592	5.6248	31860.1	37499.5	236.002	32.19	40.62	.9979E+00	456
700.000	.68884E-01	.99772	.000575	5.7933	32508.6	38315.5	237.185	32.55	40.98	.9982E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.757	.29143E+02	.01099	2.096468	41.4035	1.1	18.2	109.293	43.89	67.36	.4693E-01	1365
190.000	.29029E+02	.01090	2.065462	40.7373	149.6	166.8	110.094	43.89	67.51	.5432E-01	1355
200.000	.28520E+02	.01054	1.932390	37.8003	815.2	832.8	113.572	43.83	68.12	.9955E-01	1312
210.000	.28006E+02	.01023	1.806975	34.9150	1489.1	1506.9	116.909	43.63	68.66	.1708E+00	1269
220.000	.27484E+02	.00995	1.688260	32.0789	2173.5	2191.7	120.115	43.28	69.15	.2771E+00	1226
230.000	.26952E+02	.00970	1.575384	29.2917	2869.6	2888.1	123.199	42.78	69.61	.4292E+00	1182
240.000	.26407E+02	.00949	1.467564	26.5542	3576.8	3595.8	126.171	42.14	70.06	.6380E+00	1138
250.000	.25846E+02	.00931	1.364071	23.8683	4293.7	4313.1	129.040	41.36	70.53	.9143E+00	1092
250.615	.25810E+02	.00930	1.357836	23.7050	4338.1	4357.5	129.181	41.30	70.56	.9374E+00	1090
250.615	.25818E+00	.92940	.002317	1.7838	19384.3	21320.9	196.869	27.12	38.44	.9374E+00	272
260.000	.24668E+00	.93762	.002185	1.8882	19650.7	21577.6	198.263	26.81	37.62	.9443E+00	278
270.000	.23573E+00	.94482	.002067	1.9947	19929.6	22050.7	199.671	26.63	37.04	.9501E+00	285
280.000	.22588E+00	.95082	.001966	2.0975	20205.4	22418.9	201.010	26.53	36.64	.9552E+00	291
290.000	.21694E+00	.95589	.001877	2.1975	20479.0	22783.9	202.291	26.49	36.37	.9595E+00	297
300.000	.20876E+00	.96021	.001797	2.2953	20751.4	23146.5	203.520	26.49	36.18	.9632E+00	303
310.000	.20124E+00	.96395	.001726	2.3914	21023.1	23507.7	204.705	26.53	36.06	.9665E+00	308
320.000	.19430E+00	.96719	.001661	2.4861	21294.6	23867.9	205.848	26.58	35.99	.9694E+00	314
330.000	.18786E+00	.97004	.001602	2.5796	21566.0	24227.6	206.955	26.66	35.96	.9720E+00	319
340.000	.18186E+00	.97255	.001547	2.6721	21837.8	24587.1	208.028	26.74	35.95	.9743E+00	324
350.000	.17626E+00	.97478	.001497	2.7637	22110.1	24946.8	209.071	26.84	35.98	.9763E+00	329
360.000	.17102E+00	.97676	.001450	2.8546	22383.1	25306.7	210.085	26.95	36.02	.9782E+00	334
370.000	.16609E+00	.97854	.001406	2.9448	22656.8	25667.2	211.072	27.07	36.08	.9798E+00	339
380.000	.16146E+00	.98014	.001365	3.0345	22931.5	26028.3	212.036	27.20	36.15	.9813E+00	344
390.000	.15709E+00	.98158	.001327	3.1237	23207.3	26390.2	212.976	27.33	36.23	.9827E+00	348
400.000	.15296E+00	.98288	.001291	3.2125	23484.1	26753.0	213.894	27.46	36.33	.9839E+00	353
410.000	.14905E+00	.98407	.001257	3.3009	23762.1	27116.8	214.792	27.60	36.43	.9850E+00	357
420.000	.14534E+00	.98515	.001224	3.3889	24041.4	27481.6	215.672	27.75	36.54	.9860E+00	361
430.000	.14182E+00	.98614	.001194	3.4766	24322.0	27847.7	216.533	27.90	36.66	.9870E+00	366
440.000	.13847E+00	.98705	.001165	3.5641	24603.9	28214.9	217.377	28.05	36.79	.9878E+00	370
450.000	.13528E+00	.98788	.001137	3.6513	24887.3	28583.4	218.205	28.20	36.92	.9886E+00	374
460.000	.13223E+00	.98864	.001111	3.7382	25172.0	28953.3	219.018	28.36	37.05	.9894E+00	378
470.000	.12933E+00	.98935	.001086	3.8250	25458.3	29324.5	219.816	28.52	37.19	.9900E+00	382
480.000	.12655E+00	.99000	.001063	3.9115	25746.0	29697.1	220.601	28.68	37.33	.9907E+00	386
490.000	.12389E+00	.99060	.001040	3.9979	26035.3	30071.2	221.372	28.85	37.48	.9913E+00	390
500.000	.12134E+00	.99116	.001018	4.0841	26326.2	30446.7	222.131	29.01	37.63	.9918E+00	394
520.000	.11656E+00	.99217	.000977	4.2561	26912.8	31202.4	223.613	29.35	37.94	.9928E+00	401
540.000	.11214E+00	.99304	.000940	4.4275	27505.9	31964.4	225.051	29.69	38.26	.9936E+00	409
560.000	.10806E+00	.99380	.000905	4.5986	28105.6	32732.9	226.448	30.04	38.59	.9944E+00	416
580.000	.10426E+00	.99447	.000873	4.7692	28712.3	33508.0	227.808	30.40	38.92	.9950E+00	423
600.000	.10072E+00	.99505	.000843	4.9394	29325.8	34289.8	229.133	30.75	39.26	.9956E+00	430
620.000	.97425E-01	.99557	.000815	5.1094	29946.3	35078.5	230.426	31.11	39.61	.9961E+00	436
640.000	.94337E-01	.99603	.000789	5.2791	30573.9	35874.0	231.689	31.47	39.95	.9965E+00	443
660.000	.91440E-01	.99644	.000765	5.4485	31208.5	36676.6	232.924	31.83	40.30	.9969E+00	449
680.000	.88719E-01	.99681	.000742	5.6178	31850.3	37486.2	234.132	32.20	40.65	.9973E+00	456
700.000	.86155E-01	.99714	.000720	5.7868	32499.3	38302.8	235.316	32.56	41.01	.9976E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .60000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.777	.29144E+02	.01319	2.096828	41.4244	1.3	21.9	109.294	43.89	67.35	.3925E-01	1365
190.000	.29031E+02	.01308	2.066106	40.7643	148.5	169.1	110.088	43.89	67.50	.4537E-01	1356
200.000	.28523E+02	.01265	1.933037	37.8280	814.0	835.0	113.566	43.83	68.11	.8314E-01	1313
210.000	.28009E+02	.01227	1.807629	34.9434	1487.7	1509.1	116.903	43.63	68.66	.1426E+00	1270
220.000	.27487E+02	.01193	1.688924	32.1082	2172.0	2193.8	120.108	43.28	69.14	.2314E+00	1226
230.000	.26956E+02	.01164	1.576064	29.3219	2867.9	2890.1	123.192	42.78	69.60	.3583E+00	1183
240.000	.26411E+02	.01138	1.468263	26.5853	3574.9	3597.6	126.163	42.14	70.04	.5327E+00	1138
250.000	.25850E+02	.01117	1.364795	23.9005	4291.6	4314.8	129.032	41.36	70.51	.7633E+00	1093
255.897	.25509E+02	.01105	1.305525	22.3425	4718.1	4741.6	130.683	40.83	70.83	.9287E+00	1066
255.897	.30676E+00	.91929	.002786	1.7791	19469.8	21425.7	195.881	27.43	39.29	.9287E+00	273
260.000	.30051E+00	.92361	.002710	1.8275	19589.3	21585.9	196.499	27.24	38.82	.9324E+00	276
270.000	.28656E+00	.93270	.002549	1.9406	19875.7	21969.5	197.946	26.94	37.96	.9397E+00	283
280.000	.27412E+00	.94020	.002414	2.0486	20157.2	22346.0	199.315	26.77	37.37	.9458E+00	289
290.000	.26291E+00	.94648	.002297	2.1530	20435.4	22717.6	200.619	26.68	36.97	.9511E+00	295
300.000	.25272E+00	.95183	.002195	2.2544	20711.6	23085.7	201.868	26.65	36.68	.9556E+00	301
310.000	.24339E+00	.95641	.002103	2.3536	20986.4	23451.5	203.067	26.65	36.49	.9596E+00	307
320.000	.23481E+00	.96039	.002021	2.4509	21260.5	23815.7	204.223	26.69	36.36	.9631E+00	313
330.000	.22687E+00	.96387	.001946	2.5468	21534.2	24178.9	205.341	26.75	36.28	.9662E+00	318
340.000	.21950E+00	.96693	.001877	2.6413	21808.0	24541.4	206.423	26.82	36.24	.9690E+00	323
350.000	.21264E+00	.96963	.001814	2.7348	22082.0	24903.7	207.473	26.91	36.23	.9715E+00	328
360.000	.20622E+00	.97204	.001756	2.8273	22356.6	25266.1	208.494	27.01	36.24	.9737E+00	333
370.000	.20020E+00	.97420	.001702	2.9191	22631.7	25628.7	209.488	27.12	36.28	.9757E+00	338
380.000	.19455E+00	.97613	.001651	3.0102	22907.6	25991.7	210.456	27.24	36.33	.9775E+00	343
390.000	.18927E+00	.97787	.001604	3.1006	23184.5	26355.4	211.401	27.37	36.40	.9791E+00	347
400.000	.18419E+00	.97945	.001559	3.1906	23462.3	26719.8	212.323	27.50	36.48	.9806E+00	352
410.000	.17944E+00	.98088	.001517	3.2800	23741.3	27085.1	213.225	27.63	36.57	.9819E+00	356
420.000	.17493E+00	.98218	.001478	3.3690	24021.4	27451.3	214.108	27.78	36.67	.9832E+00	361
430.000	.17066E+00	.98337	.001441	3.4577	24302.8	27818.6	214.972	27.92	36.78	.9843E+00	365
440.000	.16660E+00	.98446	.001405	3.5460	24585.4	28187.0	215.819	28.07	36.90	.9853E+00	369
450.000	.16273E+00	.98546	.001372	3.6340	24869.4	28556.6	216.649	28.22	37.02	.9863E+00	373
460.000	.15904E+00	.98638	.001340	3.7217	25154.8	28927.4	217.464	28.38	37.15	.9872E+00	378
470.000	.15552E+00	.98723	.001309	3.8091	25441.6	29299.6	218.265	28.54	37.28	.9880E+00	382
480.000	.15216E+00	.98801	.001280	3.8964	25729.9	29673.1	219.051	28.70	37.42	.9888E+00	386
490.000	.14895E+00	.98874	.001253	3.9834	26019.8	30048.0	219.824	28.86	37.56	.9895E+00	390
500.000	.14587E+00	.98941	.001226	4.0702	26311.1	30424.3	220.584	29.03	37.71	.9901E+00	393
520.000	.14009E+00	.99061	.001177	4.2433	26898.5	31181.5	222.069	29.36	38.01	.9913E+00	401
540.000	.13476E+00	.99166	.001131	4.4157	27492.4	31944.7	223.509	29.70	38.32	.9923E+00	408
560.000	.12983E+00	.99257	.001089	4.5876	28092.9	32714.4	224.909	30.05	38.64	.9932E+00	416
580.000	.12525E+00	.99337	.001050	4.7591	28700.1	33490.5	226.271	30.40	38.97	.9940E+00	423
600.000	.12099E+00	.99407	.001014	4.9301	29314.2	34273.3	227.597	30.76	39.31	.9947E+00	429
620.000	.11701E+00	.99469	.000980	5.1008	29935.2	35062.8	228.892	31.12	39.65	.9953E+00	436
640.000	.11329E+00	.99524	.000949	5.2711	30563.3	35859.2	230.155	31.48	39.99	.9958E+00	443
660.000	.10981E+00	.99574	.000919	5.4412	31198.4	36662.6	231.392	31.84	40.34	.9963E+00	449
680.000	.10653E+00	.99618	.000892	5.6109	31840.6	37472.8	232.601	32.20	40.69	.9967E+00	456
700.000	.10344E+00	.99657	.000865	5.7805	32489.9	38290.1	233.786	32.56	41.04	.9971E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .70000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.798	.29145E+02	.01538	2.097188	41.4452	1.6	25.6	109.296	43.89	67.35	.3376E-01	1366
190.000	.29034E+02	.01526	2.066750	40.7914	147.3	171.4	110.082	43.89	67.50	.3897E-01	1356
200.000	.28525E+02	.01476	1.933684	37.8557	812.7	837.3	113.560	43.83	68.11	.7141E-01	1313
210.000	.28012E+02	.01431	1.808283	34.9719	1486.3	1511.3	116.895	43.63	68.65	.1225E+00	1270
220.000	.27490E+02	.01392	1.689589	32.1375	2170.5	2195.9	120.101	43.28	69.14	.1987E+00	1227
230.000	.26959E+02	.01358	1.576742	29.3520	2866.2	2892.2	123.184	42.78	69.59	.3078E+00	1183
240.000	.26415E+02	.01328	1.468962	26.6164	3573.0	3599.5	126.155	42.14	70.03	.4574E+00	1139
250.000	.25854E+02	.01303	1.365519	23.9327	4289.5	4316.5	129.023	41.36	70.50	.6555E+00	1094
260.000	.25272E+02	.01281	1.265719	21.3033	5013.2	5040.9	131.799	40.43	71.04	.9085E+00	1048
260.556	.25239E+02	.01280	1.260261	21.1587	5053.9	5081.6	131.984	40.37	71.08	.9207E+00	1045
260.556	.35516E+00	.90979	.003263	1.7714	19540.3	21511.3	195.040	27.72	40.14	.9207E+00	274
270.000	.33883E+00	.92026	.003062	1.8851	19818.7	21884.6	196.444	27.31	39.00	.9292E+00	281
280.000	.32353E+00	.92937	.002886	1.9990	20106.7	22270.3	197.846	27.04	38.19	.9364E+00	287
290.000	.30985E+00	.93695	.002737	2.1080	20390.0	22649.2	199.176	26.89	37.63	.9426E+00	294
300.000	.29748E+00	.94336	.002607	2.2133	20670.3	23023.4	200.445	26.82	37.23	.9480E+00	300
310.000	.28623E+00	.94884	.002493	2.3158	20948.5	23394.2	201.661	26.79	36.95	.9527E+00	306
320.000	.27590E+00	.95357	.002391	2.4159	21225.5	23762.6	202.830	26.80	36.75	.9568E+00	311
330.000	.26639E+00	.95769	.002299	2.5141	21501.7	24129.4	203.959	26.84	36.62	.9605E+00	317
340.000	.25758E+00	.96131	.002215	2.6108	21777.6	24495.1	205.051	26.90	36.54	.9637E+00	322
350.000	.24940E+00	.96451	.002139	2.7062	22053.5	24860.2	206.109	26.98	36.49	.9666E+00	327
360.000	.24176E+00	.96736	.002068	2.8005	22329.6	25225.1	207.137	27.07	36.48	.9692E+00	332
370.000	.23461E+00	.96988	.002003	2.8938	22606.2	25589.9	208.137	27.17	36.49	.9715E+00	337
380.000	.22790E+00	.97215	.001942	2.9862	22883.4	25954.9	209.110	27.29	36.52	.9736E+00	342
390.000	.22159E+00	.97419	.001885	3.0779	23161.4	26320.4	210.059	27.41	36.57	.9755E+00	347
400.000	.21564E+00	.97604	.001832	3.1690	23440.3	26686.4	210.986	27.53	36.64	.9773E+00	351
410.000	.21002E+00	.97772	.001782	3.2595	23720.2	27053.2	211.892	27.67	36.72	.9789E+00	356
420.000	.20470E+00	.97924	.001734	3.3496	24001.2	27420.8	212.778	27.80	36.81	.9803E+00	360
430.000	.19966E+00	.98063	.001690	3.4391	24283.4	27789.4	213.645	27.95	36.91	.9816E+00	365
440.000	.19487E+00	.98191	.001648	3.5283	24566.8	28159.0	214.495	28.09	37.01	.9828E+00	369
450.000	.19031E+00	.98307	.001608	3.6171	24851.5	28529.7	215.328	28.24	37.13	.9840E+00	373
460.000	.18597E+00	.98415	.001570	3.7055	25137.5	28901.5	216.145	28.40	37.25	.9850E+00	377
470.000	.18183E+00	.98514	.001534	3.7937	25424.9	29274.6	216.947	28.55	37.37	.9859E+00	381
480.000	.17788E+00	.98605	.001500	3.8816	25713.8	29649.0	217.736	28.71	37.51	.9868E+00	385
490.000	.17410E+00	.98689	.001467	3.9692	26004.1	30024.8	218.510	28.88	37.64	.9876E+00	389
500.000	.17048E+00	.98768	.001436	4.0566	26295.9	30401.9	219.272	29.04	37.78	.9884E+00	393
520.000	.16369E+00	.98908	.001377	4.2308	26884.2	31160.5	220.760	29.37	38.08	.9898E+00	401
540.000	.15744E+00	.99029	.001324	4.4042	27478.8	31925.1	222.203	29.71	38.38	.9910E+00	408
560.000	.15165E+00	.99136	.001274	4.5770	28080.0	32695.9	223.604	30.06	38.70	.9920E+00	415
580.000	.14628E+00	.99228	.001228	4.7493	28687.9	33473.1	224.968	30.41	39.02	.9929E+00	422
600.000	.14129E+00	.99310	.001186	4.9210	29302.5	34256.8	226.296	30.77	39.35	.9937E+00	429
620.000	.13663E+00	.99383	.001146	5.0924	29924.1	35047.3	227.592	31.12	39.69	.9944E+00	436
640.000	.13228E+00	.99447	.001109	5.2634	30552.6	35844.5	228.858	31.48	40.03	.9951E+00	443
660.000	.12820E+00	.99504	.001074	5.4340	31188.2	36648.5	230.095	31.84	40.38	.9956E+00	449
680.000	.12436E+00	.99555	.001042	5.6044	31830.8	37459.5	231.305	32.21	40.72	.9961E+00	455
700.000	.12075E+00	.99601	.001011	5.7744	32480.5	38277.4	232.491	32.57	41.07	.9966E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = .80000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
187.818	.29147E+02	.01758	2.097547	41.4661	1.8	29.2	109.297	43.89	67.35	.2964E-01	1366
190.000	.29036E+02	.01744	2.067393	40.8184	146.2	173.7	110.076	43.90	67.49	.3418E-01	1357
200.000	.28528E+02	.01686	1.934331	37.8834	811.5	839.5	113.554	43.83	68.10	.6262E-01	1314
210.000	.28014E+02	.01636	1.808937	35.0003	1484.9	1513.5	116.890	43.63	68.64	.1074E+00	1271
220.000	.27493E+02	.01591	1.690252	32.1667	2168.9	2198.0	120.094	43.28	69.13	.1743E+00	1227
230.000	.26963E+02	.01552	1.577421	29.3821	2864.5	2894.2	123.177	42.78	69.58	.2698E+00	1184
240.000	.26419E+02	.01518	1.469660	26.6475	3571.1	3601.4	126.147	42.14	70.02	.4010E+00	1139
250.000	.25858E+02	.01488	1.366243	23.9648	4287.3	4318.3	129.015	41.36	70.48	.5746E+00	1094
260.000	.25277E+02	.01464	1.266475	21.3365	5010.8	5042.4	131.789	40.43	71.02	.7964E+00	1048
264.742	.24992E+02	.01454	1.220238	20.1098	5356.1	5388.1	133.136	39.94	71.33	.9131E+00	1026
264.742	.40347E+00	.90078	.003748	1.7614	19599.6	21582.4	194.306	28.01	40.98	.9131E+00	274
270.000	.39270E+00	.90747	.003608	1.8281	19758.6	21795.8	195.100	27.72	40.19	.9186E+00	278
280.000	.37420E+00	.91832	.003383	1.9484	20053.9	22191.8	196.540	27.35	39.09	.9270E+00	285
290.000	.35780E+00	.92728	.003196	2.0625	20342.9	22578.8	197.898	27.13	38.34	.9342E+00	292
300.000	.34309E+00	.93481	.003036	2.1720	20627.7	22959.4	199.189	27.00	37.82	.9404E+00	298
310.000	.32977E+00	.94121	.002896	2.2778	20909.6	23335.6	200.422	26.94	37.44	.9458E+00	304
320.000	.31760E+00	.94672	.002772	2.3809	21189.6	23708.5	201.606	26.93	37.17	.9505E+00	310
330.000	.30643E+00	.95151	.002662	2.4817	21468.4	24079.2	202.747	26.94	36.98	.9547E+00	316
340.000	.29611E+00	.95570	.002561	2.5806	21746.5	24448.2	203.849	26.99	36.85	.9584E+00	321
350.000	.28654E+00	.95939	.002470	2.6779	22024.4	24816.3	204.915	27.05	36.77	.9617E+00	326
360.000	.27764E+00	.96267	.002386	2.7739	22302.2	25183.7	205.950	27.13	36.72	.9647E+00	331
370.000	.26932E+00	.96558	.002309	2.8687	22580.3	25550.8	206.956	27.23	36.71	.9674E+00	336
380.000	.26152E+00	.96819	.002237	2.9626	22858.9	25917.9	207.935	27.33	36.72	.9698E+00	341
390.000	.25420E+00	.97054	.002170	3.0556	23138.1	26285.2	208.889	27.45	36.75	.9720E+00	346
400.000	.24730E+00	.97266	.002108	3.1479	23418.1	26653.0	209.820	27.57	36.80	.9740E+00	351
410.000	.24080E+00	.97459	.002049	3.2395	23699.0	27021.3	210.730	27.70	36.86	.9758E+00	355
420.000	.23464E+00	.97633	.001994	3.3305	23980.9	27390.3	211.619	27.83	36.94	.9774E+00	360
430.000	.22881E+00	.97792	.001942	3.4210	24263.8	27760.2	212.489	27.97	37.03	.9789E+00	364
440.000	.22328E+00	.97938	.001893	3.5110	24548.0	28130.9	213.342	28.12	37.13	.9803E+00	368
450.000	.21802E+00	.98072	.001847	3.6006	24833.4	28502.7	214.177	28.27	37.23	.9816E+00	373
460.000	.21301E+00	.98194	.001803	3.6898	25120.0	28875.6	214.997	28.42	37.35	.9828E+00	377
470.000	.20824E+00	.98307	.001761	3.7786	25408.1	29249.7	215.801	28.57	37.47	.9839E+00	381
480.000	.20369E+00	.98411	.001721	3.8672	25697.5	29625.0	216.592	28.73	37.59	.9849E+00	385
490.000	.19934E+00	.98508	.001683	3.9554	25988.3	30001.6	217.368	28.89	37.73	.9858E+00	389
500.000	.19517E+00	.98597	.001647	4.0434	26280.6	30379.6	218.132	29.05	37.86	.9867E+00	393
520.000	.18736E+00	.98757	.001579	4.2186	26869.8	31139.6	219.622	29.39	38.15	.9883E+00	400
540.000	.18017E+00	.98896	.001517	4.3930	27465.2	31905.5	221.067	29.73	38.44	.9896E+00	408
560.000	.17352E+00	.99016	.001460	4.5667	28067.1	32677.5	222.471	30.07	38.75	.9908E+00	415
580.000	.16736E+00	.99122	.001407	4.7398	28675.6	33455.7	223.836	30.42	39.07	.9918E+00	422
600.000	.16163E+00	.99215	.001358	4.9123	29290.9	34240.4	225.167	30.77	39.40	.9928E+00	429
620.000	.15629E+00	.99298	.001313	5.0843	29913.0	35031.8	226.464	31.13	39.73	.9936E+00	436
640.000	.15129E+00	.99371	.001270	5.2559	30542.0	35829.8	227.731	31.49	40.07	.9943E+00	442
660.000	.14661E+00	.99436	.001230	5.4271	31178.0	36634.6	228.969	31.85	40.41	.9949E+00	449
680.000	.14222E+00	.99494	.001193	5.5980	31821.0	37446.3	230.180	32.21	40.76	.9955E+00	455
700.000	.13808E+00	.99546	.001158	5.7686	32471.1	38264.8	231.367	32.57	41.10	.9960E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 1.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.859	.29149E+02	.02196	2.098266	41.5077	2.2	36.6	109.300	43.89	67.34	.2388E-01	1367
190.000	.29041E+02	.02180	2.068679	40.8724	143.9	178.3	110.064	43.90	67.48	.2746E-01	1357
200.000	.28533E+02	.02108	1.935624	37.9388	809.0	844.0	113.541	43.83	68.09	.5030E-01	1315
210.000	.28020E+02	.02044	1.810243	35.0572	1482.2	1517.8	116.876	43.63	68.63	.8625E-01	1272
220.000	.27500E+02	.01988	1.691579	32.2252	2165.9	2202.3	120.080	43.28	69.11	.1400E+00	1228
230.000	.26969E+02	.01939	1.579776	29.4424	2861.1	2898.2	123.162	42.78	69.55	.2167E+00	1185
240.000	.26426E+02	.01896	1.471054	26.7096	3567.4	3605.2	126.132	42.14	69.99	.3220E+00	1140
250.000	.25867E+02	.01860	1.367687	24.0290	4283.1	4321.7	128.998	41.36	70.45	.4614E+00	1095
260.000	.25286E+02	.01829	1.267985	21.4030	5006.0	5045.5	131.771	40.43	70.98	.6395E+00	1049
270.000	.24680E+02	.01805	1.171261	18.8342	5733.7	5774.2	134.462	39.37	71.66	.8591E+00	1002
272.069	.24550E+02	.01801	1.151554	18.3099	5885.0	5925.7	135.109	39.13	71.82	.8992E+00	993
272.069	.50006E+00	.88402	.004744	1.7372	19693.6	21693.4	193.064	28.55	42.64	.8992E+00	275
280.000	.47968E+00	.89548	.004467	1.8438	19940.9	22025.7	194.263	28.06	41.22	.9081E+00	281
290.000	.45702E+00	.90748	.004182	1.9695	20243.2	22431.3	195.686	27.66	39.99	.9172E+00	289
300.000	.43699E+00	.91742	.003946	2.0881	20538.3	22826.7	197.027	27.41	39.13	.9251E+00	295
310.000	.41907E+00	.92580	.003745	2.2015	20828.5	23214.7	198.299	27.27	38.52	.9319E+00	302
320.000	.40286E+00	.93295	.003570	2.3108	21115.3	23597.5	199.515	27.19	38.07	.9379E+00	308
330.000	.38809E+00	.93912	.003416	2.4170	21399.8	23976.6	200.681	27.17	37.75	.9432E+00	313
340.000	.37453E+00	.94449	.003279	2.5205	21682.8	24352.8	201.804	27.18	37.51	.9479E+00	319
350.000	.36202E+00	.94921	.003154	2.6219	21964.8	24727.0	202.889	27.21	37.35	.9521E+00	324
360.000	.35043E+00	.95337	.003041	2.7215	22246.2	25099.9	203.940	27.27	37.23	.9558E+00	330
370.000	.33964E+00	.95707	.002937	2.8195	22527.5	25471.8	204.959	27.35	37.16	.9591E+00	335
380.000	.32957E+00	.96037	.002842	2.9163	22809.0	25843.3	205.949	27.44	37.13	.9622E+00	340
390.000	.32013E+00	.96333	.002753	3.0119	23090.7	26214.5	206.913	27.54	37.12	.9649E+00	345
400.000	.31126E+00	.96600	.002671	3.1065	23373.0	26585.7	207.853	27.65	37.13	.9674E+00	349
410.000	.30291E+00	.96842	.002594	3.2003	23655.9	26957.2	208.771	27.77	37.17	.9696E+00	354
420.000	.29503E+00	.97061	.002522	3.2933	23939.7	27329.1	209.667	27.90	37.22	.9717E+00	359
430.000	.28758E+00	.97260	.002455	3.3856	24224.4	27701.6	210.543	28.03	37.29	.9736E+00	363
440.000	.28052E+00	.97442	.002391	3.4773	24510.1	28074.9	211.402	28.17	37.36	.9753E+00	367
450.000	.27382E+00	.97609	.002331	3.5685	24796.9	28449.0	212.242	28.31	37.45	.9769E+00	372
460.000	.26745E+00	.97762	.002274	3.6592	25084.9	28824.0	213.066	28.46	37.55	.9784E+00	376
470.000	.26138E+00	.97903	.002220	3.7495	25374.1	29200.0	213.875	28.61	37.66	.9798E+00	380
480.000	.25560E+00	.98033	.002169	3.8393	25664.7	29577.1	214.669	28.77	37.77	.9810E+00	384
490.000	.25007E+00	.98152	.002121	3.9288	25956.6	29955.5	215.449	28.92	37.89	.9822E+00	388
500.000	.24479E+00	.98264	.002074	4.0179	26249.9	30335.0	216.215	29.08	38.02	.9833E+00	392
520.000	.23490E+00	.98462	.001987	4.1953	26840.9	31098.0	217.712	29.41	38.28	.9852E+00	400
540.000	.22581E+00	.98634	.001908	4.3716	27438.0	31866.5	219.152	29.75	38.57	.9869E+00	407
560.000	.21741E+00	.98784	.001835	4.5470	28041.3	32640.8	220.570	30.09	38.87	.9884E+00	415
580.000	.20964E+00	.98915	.001768	4.7216	28651.1	33421.2	221.940	30.44	39.17	.9897E+00	422
600.000	.20242E+00	.99031	.001706	4.8955	29267.5	34207.9	223.273	30.79	39.49	.9909E+00	429
620.000	.19568E+00	.99132	.001648	5.0689	29890.7	35001.0	224.573	31.14	39.82	.9919E+00	436
640.000	.18940E+00	.99223	.001594	5.2417	30520.7	35800.6	225.843	31.50	40.15	.9928E+00	442
660.000	.18351E+00	.99303	.001543	5.4140	31157.6	36606.9	227.083	31.86	40.48	.9936E+00	449
680.000	.17798E+00	.99375	.001496	5.5859	31801.4	37420.0	228.297	32.22	40.82	.9943E+00	455
700.000	.17278E+00	.99440	.001452	5.7575	32452.2	38239.8	229.485	32.58	41.16	.9949E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 1.20000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.900	.29152E+02	.02635	2.048983	41.5494	2.7	43.9	109.303	43.89	67.34	.2004E-01	1367
190.000	.29046E+02	.02615	2.069964	40.9265	141.6	183.0	110.052	43.90	67.47	.2298E-01	1358
200.000	.28538E+02	.02529	1.936915	37.9941	804.5	848.5	113.528	43.83	68.08	.4210E-01	1315
210.000	.28026E+02	.02452	1.811547	35.1140	1479.4	1522.2	116.863	43.63	68.61	.7217E-01	1272
220.000	.27506E+02	.02385	1.692904	32.2836	2162.9	2206.5	120.065	43.28	69.09	.1171E+00	1229
230.000	.26976E+02	.02326	1.580130	29.5025	2857.7	2902.2	123.148	42.78	69.53	.1813E+00	1186
240.000	.26434E+02	.02275	1.472446	26.7717	3563.6	3609.0	126.116	42.14	69.96	.2694E+00	1141
250.000	.25875E+02	.02231	1.369130	24.0931	4278.8	4325.2	128.991	41.36	70.41	.3860E+00	1097
260.000	.25295E+02	.02194	1.269493	21.4694	5001.2	5048.6	131.752	40.43	70.93	.5348E+00	1051
270.000	.24690E+02	.02165	1.172852	18.9031	5728.2	5776.8	134.441	39.37	71.60	.7185E+00	1004
278.383	.24158E+02	.02146	1.093626	16.7972	6340.1	6389.8	136.765	38.37	72.34	.8866E+00	963
278.383	.59689E+00	.86858	.005775	1.7093	19763.9	21774.3	192.029	29.07	44.32	.8866E+00	276
280.000	.59150E+00	.87143	.005696	1.7332	19816.9	21845.6	192.280	28.93	43.91	.8891E+00	277
290.000	.56112E+00	.88693	.005274	1.8729	20135.7	22274.3	193.784	28.29	41.97	.9003E+00	285
300.000	.53479E+00	.89958	.004937	2.0022	20443.2	22687.0	195.184	27.89	40.66	.9099E+00	292
310.000	.51155E+00	.91011	.004658	2.1240	20743.0	23088.8	196.501	27.65	39.75	.9182E+00	299
320.000	.49076E+00	.91903	.004420	2.2403	21037.6	23482.8	197.752	27.50	39.08	.9254E+00	305
330.000	.47196E+00	.92667	.004214	2.3523	21328.5	23871.0	198.946	27.41	38.60	.9318E+00	311
340.000	.45484E+00	.93328	.004032	2.4608	21616.8	24255.1	200.093	27.38	38.24	.9375E+00	317
350.000	.43912E+00	.93906	.003869	2.5665	21903.4	24636.1	201.197	27.39	37.97	.9425E+00	323
360.000	.42463E+00	.94414	.003722	2.6698	22188.8	25014.8	202.264	27.42	37.78	.9470E+00	328
370.000	.41119E+00	.94864	.003589	2.7712	22473.5	25391.9	203.297	27.47	37.65	.9510E+00	333
380.000	.39869E+00	.95264	.003467	2.8709	22758.0	25767.9	204.300	27.55	37.56	.9546E+00	338
390.000	.38701E+00	.95623	.003354	2.9692	23042.4	26143.1	205.275	27.64	37.50	.9579E+00	343
400.000	.37606E+00	.95945	.003250	3.0663	23327.1	26518.1	206.224	27.74	37.48	.9609E+00	348
410.000	.36578E+00	.96236	.003154	3.1623	23612.2	26892.9	207.150	27.85	37.48	.9636E+00	353
420.000	.35610E+00	.96499	.003064	3.2573	23898.0	27267.8	208.053	27.96	37.51	.9661E+00	358
430.000	.34696E+00	.96739	.002979	3.3515	24184.4	27643.1	208.936	28.09	37.55	.9684E+00	362
440.000	.33831E+00	.96958	.002900	3.4449	24471.8	28018.8	209.800	28.22	37.61	.9705E+00	367
450.000	.33011E+00	.97157	.002825	3.5377	24760.1	28395.3	210.646	28.36	37.68	.9724E+00	371
460.000	.32232E+00	.97341	.002754	3.6299	25049.5	28772.4	211.475	28.50	37.76	.9741E+00	375
470.000	.31492E+00	.97509	.002688	3.7215	25340.0	29150.5	212.288	28.65	37.85	.9758E+00	379
480.000	.30787E+00	.97664	.002624	3.8126	25631.7	29529.5	213.086	28.80	37.95	.9773E+00	383
490.000	.30115E+00	.97807	.002564	3.9033	25924.7	29909.5	213.870	28.96	38.06	.9787E+00	387
500.000	.29472E+00	.97940	.002507	3.9936	26219.1	30290.7	214.640	29.11	38.18	.9800E+00	391
520.000	.28270E+00	.98177	.002401	4.1730	26811.9	31056.6	216.142	29.44	38.42	.9823E+00	399
540.000	.27167E+00	.98381	.002304	4.3512	27410.6	31827.8	217.597	29.77	38.69	.9843E+00	407
560.000	.26149E+00	.98560	.002214	4.5283	28015.4	32604.5	219.009	30.11	38.98	.9861E+00	414
580.000	.25208E+00	.98716	.002132	4.7044	28626.5	33387.0	220.382	30.45	39.28	.9876E+00	421
600.000	.24334E+00	.98853	.002056	4.8798	29244.1	34175.6	221.719	30.80	39.58	.9890E+00	428
620.000	.23520E+00	.98974	.001986	5.0544	29868.4	34970.5	223.022	31.16	39.90	.9902E+00	435
640.000	.22760E+00	.99081	.001920	5.2284	30499.3	35771.7	224.294	31.51	40.23	.9913E+00	442
660.000	.22049E+00	.99177	.001859	5.4018	31137.1	36579.5	225.537	31.87	40.55	.9923E+00	449
680.000	.21382E+00	.99262	.001801	5.5747	31781.8	37393.9	226.752	32.23	40.89	.9931E+00	455
700.000	.20755E+00	.99338	.001748	5.7472	32433.4	38215.1	227.942	32.59	41.22	.9939E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 1.40000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
187.940	.29155E+02	.03073	2.099700	41.5910	3.2	51.2	109.305	43.89	67.33	.1730E-01	1368
190.000	.29051E+02	.03051	2.071248	40.9804	139.4	187.6	110.040	43.90	67.46	.1979E-01	1359
200.000	.28544E+02	.02950	1.938206	38.0494	804.0	853.0	113.516	43.83	68.07	.3624E-01	1316
210.000	.28031E+02	.02860	1.812851	35.1708	1476.7	1526.6	116.850	43.63	68.60	.6212E-01	1273
220.000	.27512E+02	.02782	1.694228	32.3420	2159.8	2210.7	120.053	43.28	69.08	.1008E+00	1230
230.000	.26983E+02	.02713	1.581482	29.5627	2854.4	2906.2	123.133	42.79	69.51	.1560E+00	1187
240.000	.26441E+02	.02653	1.473836	26.8337	3559.8	3612.8	126.100	42.15	69.93	.2318E+00	1143
250.000	.25883E+02	.02602	1.370570	24.1572	4274.6	4328.7	128.954	41.36	70.38	.3321E+00	1098
260.000	.25305E+02	.02559	1.270997	21.5357	4996.4	5051.7	131.734	40.43	70.89	.4601E+00	1052
270.000	.24701E+02	.02525	1.174439	18.9719	5722.7	5779.4	134.421	39.37	71.54	.6181E+00	1005
280.000	.24064E+02	.02499	1.080191	16.4677	6451.8	6510.0	137.038	38.17	72.43	.8065E+00	957
283.967	.23800E+02	.02491	1.043269	15.4908	6741.7	6800.5	138.196	37.67	72.89	.8750E+00	937
283.967	.69418E+00	.85418	.006944	1.6790	19817.1	21833.8	191.137	29.57	46.01	.8750E+00	276
290.000	.67088E+00	.86547	.006494	1.7716	20019.4	22106.2	192.081	29.04	44.38	.8834E+00	281
300.000	.63695E+00	.88118	.006022	1.9134	20341.8	22539.7	193.551	28.44	42.46	.8947E+00	289
310.000	.60750E+00	.89409	.005643	2.0449	20652.8	22957.4	194.920	28.07	41.15	.9045E+00	296
320.000	.58148E+00	.90491	.005327	2.1689	20956.3	23363.9	196.211	27.83	40.21	.9130E+00	303
330.000	.55818E+00	.91412	.005058	2.2872	21254.4	23762.5	197.437	27.69	39.53	.9205E+00	309
340.000	.53711E+00	.92204	.004823	2.4010	21548.6	24155.2	198.609	27.61	39.03	.9272E+00	315
350.000	.51790E+00	.92892	.004616	2.5113	21840.2	24543.4	199.735	27.57	38.65	.9330E+00	321
360.000	.50027E+00	.93495	.004431	2.6186	22129.9	24928.4	200.820	27.58	38.37	.9383E+00	326
370.000	.48399E+00	.94027	.004264	2.7235	22418.4	25311.0	201.868	27.61	38.16	.9430E+00	332
380.000	.46890E+00	.94499	.004113	2.8263	22706.1	25691.8	202.883	27.67	38.01	.9472E+00	337
390.000	.45485E+00	.94921	.003974	2.9274	22993.4	26071.3	203.869	27.74	37.91	.9510E+00	342
400.000	.44171E+00	.95300	.003846	3.0270	23280.6	26450.1	204.828	27.83	37.84	.9545E+00	347
410.000	.42940E+00	.95640	.003727	3.1252	23568.0	26828.3	205.762	27.93	37.81	.9577E+00	352
420.000	.41783E+00	.95949	.003617	3.2223	23855.8	27206.4	206.673	28.04	37.81	.9605E+00	357
430.000	.40693E+00	.96229	.003515	3.3184	24144.1	27584.5	207.563	28.15	37.82	.9632E+00	361
440.000	.39663E+00	.96483	.003419	3.4135	24433.1	27962.9	208.433	28.28	37.86	.9656E+00	366
450.000	.38688E+00	.96716	.003328	3.5079	24723.0	28341.7	209.284	28.41	37.91	.9678E+00	370
460.000	.37764E+00	.96929	.003243	3.6016	25013.8	28721.0	210.118	28.55	37.97	.9699E+00	374
470.000	.36886E+00	.97125	.003163	3.6946	25305.6	29101.1	210.935	28.69	38.05	.9718E+00	379
480.000	.36051E+00	.97305	.003087	3.7870	25598.6	29482.0	211.737	28.84	38.13	.9735E+00	383
490.000	.35255E+00	.97472	.003015	3.8789	25892.7	29863.8	212.524	28.99	38.23	.9752E+00	387
500.000	.34495E+00	.97625	.002946	3.9703	26188.1	30246.7	213.298	29.15	38.34	.9767E+00	391
520.000	.33076E+00	.97900	.002819	4.1518	26782.9	31015.6	214.806	29.47	38.57	.9794E+00	399
540.000	.31774E+00	.98137	.002704	4.3318	27383.2	31789.4	216.265	29.79	38.82	.9817E+00	406
560.000	.30575E+00	.98343	.002598	4.5106	27989.5	32568.5	217.683	30.13	39.09	.9838E+00	414
580.000	.29466E+00	.98523	.002500	4.6882	28602.0	33353.2	219.059	30.47	39.38	.9856E+00	421
600.000	.28438E+00	.98681	.002410	4.8649	29220.8	34143.7	220.399	30.82	39.68	.9872E+00	428
620.000	.27482E+00	.98821	.002326	5.0408	29846.1	34940.3	221.705	31.17	39.99	.9886E+00	435
640.000	.26590E+00	.98945	.002249	5.2159	30478.1	35743.2	222.980	31.53	40.30	.9898E+00	442
660.000	.25756E+00	.99055	.002176	5.3904	31116.8	36552.5	224.225	31.88	40.63	.9910E+00	448
680.000	.24973E+00	.99153	.002109	5.5643	31762.3	37368.3	225.443	32.24	40.95	.9920E+00	455
700.000	.24238E+00	.99241	.002045	5.7377	32414.6	38190.6	226.635	32.60	41.28	.9929E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 1.60000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
187.981	.29158E+02	.03511	2.100417	41.6326	3.6	58.5	109.308	43.89	67.32	.1525E-01	1368
190.000	.29056E+02	.03496	2.072531	41.0344	137.1	192.2	110.028	43.90	67.46	.1739E-01	1360
200.000	.28549E+02	.03370	1.939495	38.1047	801.5	857.5	113.503	43.83	68.06	.3184E-01	1317
210.000	.28037E+02	.03268	1.814153	35.2275	1473.9	1531.0	116.837	43.63	68.59	.5457E-01	1274
220.000	.27518E+02	.03179	1.695550	32.4003	2156.8	2214.9	120.039	43.28	69.06	.8852E-01	1231
230.000	.26990E+02	.03100	1.582833	29.6227	2851.0	2910.3	123.118	42.79	69.49	.1370E+00	1188
240.000	.26449E+02	.03032	1.475224	26.8956	3556.1	3616.6	126.084	42.15	69.91	.2036E+00	1144
250.000	.25891E+02	.02973	1.372007	24.2212	4270.4	4332.2	128.947	41.36	70.34	.2916E+00	1099
260.000	.25314E+02	.02924	1.272498	21.6020	4991.6	5054.8	131.715	40.43	70.85	.4041E+00	1053
270.000	.24711E+02	.02884	1.176023	19.0406	5717.3	5782.0	134.401	39.37	71.49	.5428E+00	1007
280.000	.24076E+02	.02855	1.081982	16.5392	6445.5	6512.0	137.015	38.17	72.36	.7082E+00	959
288.997	.23469E+02	.02837	.998541	14.3406	7102.5	7170.6	139.459	37.00	73.48	.8644E+00	914
288.997	.79210E+00	.84054	.007951	1.6471	19857.4	21877.3	190.348	30.06	47.73	.8644E+00	277
290.000	.78730E+00	.84284	.007974	1.6639	19892.7	21925.0	190.507	29.94	47.37	.8664E+00	277
300.000	.74406E+00	.86209	.007218	1.8209	20233.4	22383.7	192.062	29.08	44.59	.8796E+00	286
310.000	.70729E+00	.87765	.006711	1.9635	20557.7	22819.9	193.492	28.55	42.76	.8909E+00	293
320.000	.67527E+00	.89055	.006298	2.0961	20871.3	23240.7	194.829	28.20	41.49	.9007E+00	300
330.000	.64691E+00	.90142	.005953	2.2214	21177.4	23650.7	196.090	27.98	40.56	.9093E+00	307
340.000	.62147E+00	.91072	.005657	2.3410	21478.2	24052.8	197.290	27.85	39.88	.9169E+00	313
350.000	.59843E+00	.91876	.005398	2.4561	21775.3	24449.0	198.439	27.78	39.37	.9236E+00	319
360.000	.57740E+00	.92578	.005170	2.5677	22069.6	24840.7	199.543	27.75	38.99	.9296E+00	325
370.000	.55807E+00	.93195	.004965	2.6762	22362.0	25229.1	200.607	27.76	38.70	.9350E+00	330
380.000	.54022E+00	.93741	.004780	2.7822	22653.2	25614.9	201.636	27.79	38.49	.9398E+00	336
390.000	.52365E+00	.94227	.004612	2.8862	22943.5	25999.0	202.633	27.85	38.33	.9442E+00	341
400.000	.50821E+00	.94662	.004458	2.9883	23233.4	26381.7	203.602	27.92	38.22	.9482E+00	346
410.000	.49378E+00	.95054	.004316	3.0889	23523.2	26763.5	204.545	28.01	38.15	.9518E+00	351
420.000	.48023E+00	.95407	.004185	3.1880	23813.1	27144.8	205.464	28.11	38.11	.9551E+00	356
430.000	.46750E+00	.95727	.004062	3.2860	24103.4	27525.9	206.361	28.22	38.10	.9581E+00	360
440.000	.45549E+00	.96019	.003948	3.3830	24394.2	27906.9	207.237	28.34	38.11	.9608E+00	365
450.000	.44413E+00	.96284	.003841	3.4790	24685.7	28288.2	208.093	28.47	38.14	.9634E+00	369
460.000	.43339E+00	.96528	.003741	3.5741	24977.9	28669.8	208.932	28.60	38.19	.9657E+00	374
470.000	.42319E+00	.96751	.003646	3.6685	25271.1	29052.0	209.754	28.74	38.25	.9678E+00	378
480.000	.41349E+00	.96956	.003557	3.7622	25565.3	29434.8	210.560	28.88	38.32	.9698E+00	382
490.000	.40427E+00	.97145	.003472	3.8553	25860.6	29818.4	211.351	29.03	38.40	.9717E+00	386
500.000	.39547E+00	.97320	.003392	3.9478	26157.1	30202.9	212.128	29.18	38.50	.9734E+00	390
520.000	.37905E+00	.97631	.003243	4.1314	26753.8	30974.9	213.642	29.49	38.71	.9765E+00	398
540.000	.36401E+00	.97900	.003108	4.3133	27355.8	31751.4	215.107	29.82	38.94	.9792E+00	406
560.000	.35017E+00	.98133	.002985	4.4937	27963.6	32532.8	216.528	30.15	39.20	.9815E+00	414
580.000	.33739E+00	.98337	.002871	4.6728	28577.4	33319.6	217.908	30.49	39.48	.9836E+00	421
600.000	.32556E+00	.98516	.002767	4.8508	29197.4	34112.1	219.252	30.84	39.77	.9854E+00	428
620.000	.31455E+00	.98674	.002670	5.0279	29823.8	34910.5	220.561	31.19	40.07	.9870E+00	435
640.000	.30429E+00	.98814	.002580	5.2042	30456.8	35715.0	221.838	31.54	40.38	.9884E+00	442
660.000	.29470E+00	.98939	.002496	5.3797	31096.4	36525.7	223.085	31.89	40.70	.9897E+00	448
680.000	.28571E+00	.99050	.002418	5.5546	31742.8	37342.9	224.305	32.25	41.02	.9908E+00	455
700.000	.27727E+00	.99149	.002345	5.7289	32395.9	38166.5	225.499	32.61	41.35	.9918E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 1.80000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.022	.29161E+02	.03949	2.101132	41.6742	4.1	65.8	109.311	43.89	67.32	.1365E-01	1369
190.000	.29061E+02	.03921	2.073813	41.0883	134.8	196.8	110.016	43.90	67.45	.1552E-01	1361
200.000	.28554E+02	.03791	1.940783	38.1600	799.0	862.0	113.491	43.83	68.05	.2842E-01	1318
210.000	.28043E+02	.03676	1.815454	35.2842	1471.2	1535.4	116.824	43.63	68.57	.4871E-01	1275
220.000	.27524E+02	.03575	1.696871	32.4586	2153.8	2219.2	120.025	43.28	69.04	.7900E-01	1232
230.000	.26996E+02	.03487	1.584181	29.6827	2847.6	2914.3	123.104	42.79	69.47	.1223E+00	1189
240.000	.26456E+02	.03410	1.476610	26.9575	3552.3	3620.4	126.069	42.15	69.88	.1816E+00	1145
250.000	.25900E+02	.03344	1.373442	24.2851	4266.2	4335.7	128.930	41.36	70.31	.2602E+00	1100
260.000	.25323E+02	.03288	1.273996	21.6681	4986.9	5058.0	131.697	40.44	70.81	.3605E+00	1055
270.000	.24722E+02	.03243	1.177602	19.1092	5711.9	5784.7	134.380	39.37	71.43	.4842E+00	1008
280.000	.24088E+02	.03210	1.083568	16.6106	6439.2	6514.0	136.993	38.18	72.28	.6318E+00	960
290.000	.23414E+02	.03188	.991124	14.1731	7168.9	7245.8	139.550	36.86	73.53	.8022E+00	910
293.588	.23159E+02	.03184	.958171	13.3132	7431.2	7508.9	140.591	36.37	74.11	.8545E+00	892
293.588	.89079E+00	.82780	.009096	1.6140	19887.4	21908.1	189.636	30.53	49.50	.8545E+00	277
300.000	.85692E+00	.84213	.008549	1.7236	20117.0	22217.5	190.673	29.82	47.15	.8644E+00	282
310.000	.81139E+00	.86069	.007874	1.8792	20457.1	22675.5	192.175	29.09	44.62	.8773E+00	290
320.000	.77242E+00	.87586	.007342	2.0215	20782.3	23112.6	193.563	28.62	42.92	.8884E+00	298
330.000	.73832E+00	.88854	.006905	2.1544	21097.5	23535.4	194.864	28.31	41.71	.8982E+00	305
340.000	.70803E+00	.89931	.006536	2.2803	21405.6	23947.8	196.095	28.11	40.82	.9067E+00	311
350.000	.68079E+00	.90856	.006218	2.4007	21708.6	24352.6	197.268	27.99	40.16	.9143E+00	317
360.000	.65607E+00	.91661	.005939	2.5167	22007.9	24751.5	198.392	27.93	39.66	.9211E+00	323
370.000	.63347E+00	.92365	.005692	2.6291	22304.6	25146.1	199.473	27.91	39.28	.9271E+00	329
380.000	.61268E+00	.92987	.005471	2.7385	22599.4	25537.3	200.517	27.92	38.99	.9325E+00	334
390.000	.59344E+00	.93539	.005270	2.8454	22892.9	25926.1	201.527	27.96	38.77	.9374E+00	340
400.000	.57557E+00	.94032	.005088	2.9501	23185.6	26312.9	202.506	28.02	38.61	.9419E+00	345
410.000	.55890E+00	.94475	.004920	3.0531	23477.9	26698.5	203.458	28.10	38.50	.9460E+00	350
420.000	.54330E+00	.94874	.004765	3.1544	23770.1	27083.1	204.385	28.19	38.43	.9497E+00	355
430.000	.52866E+00	.95234	.004622	3.2544	24062.3	27467.2	205.288	28.29	38.39	.9531E+00	359
440.000	.51487E+00	.95562	.004488	3.3531	24355.0	27851.0	206.171	28.40	38.37	.9561E+00	364
450.000	.50186E+00	.95861	.004364	3.4507	24648.1	28234.7	207.033	28.52	38.38	.9590E+00	369
460.000	.48955E+00	.96134	.004247	3.5474	24941.9	28618.7	207.877	28.65	38.41	.9616E+00	373
470.000	.47789E+00	.96384	.004137	3.6432	25236.4	29003.0	208.704	28.78	38.45	.9640E+00	377
480.000	.46683E+00	.96614	.004034	3.7382	25531.9	29387.8	209.514	28.92	38.51	.9663E+00	382
490.000	.45630E+00	.96826	.003936	3.8325	25828.4	29773.2	210.308	29.07	38.58	.9683E+00	386
500.000	.44627E+00	.97021	.003844	3.9262	26126.0	30159.4	211.089	29.21	38.66	.9702E+00	390
520.000	.42757E+00	.97370	.003672	4.1118	26724.6	30934.5	212.609	29.52	38.85	.9737E+00	398
540.000	.41047E+00	.97670	.003517	4.2955	27328.4	31713.6	214.079	29.84	39.07	.9767E+00	406
560.000	.39476E+00	.97930	.003376	4.4775	27937.7	32497.5	215.504	30.17	39.32	.9793E+00	413
580.000	.38026E+00	.98158	.003246	4.6581	28552.9	33286.5	216.888	30.51	39.58	.9816E+00	421
600.000	.36684E+00	.98357	.003126	4.8375	29174.1	34080.9	218.235	30.85	39.86	.9836E+00	428
620.000	.35438E+00	.98533	.003016	5.0158	29801.6	34881.0	219.547	31.20	40.15	.9854E+00	435
640.000	.34276E+00	.98688	.002913	5.1931	30435.5	35687.1	220.826	31.55	40.46	.9870E+00	442
660.000	.33191E+00	.98827	.002818	5.3697	31076.1	36499.3	222.076	31.91	40.77	.9884E+00	448
680.000	.32174E+00	.98950	.002729	5.5455	31723.3	37317.8	223.298	32.26	41.08	.9897E+00	455
700.000	.31220E+00	.99061	.002646	5.7206	32377.2	38142.7	224.493	32.62	41.41	.9908E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 2.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.063	.29163E+02	.04386	2.101847	41.7157	4.6	73.2	109.313	43.89	67.31	.1237E-01	1370
190.000	.29066E+02	.04356	2.075094	41.1422	132.6	201.4	110.004	43.90	67.44	.1403E-01	1361
200.000	.28559E+02	.04211	1.942070	38.2152	796.5	866.5	113.479	43.83	68.03	.2569E-01	1319
210.000	.28049E+02	.04084	1.816753	35.3409	1468.4	1539.8	116.811	43.63	68.56	.4402E-01	1276
220.000	.27531E+02	.03972	1.698190	32.5169	2150.7	2223.4	120.011	43.28	69.02	.7138E-01	1233
230.000	.27003E+02	.03873	1.585528	29.7427	2844.3	2918.4	123.089	42.79	69.45	.1105E+00	1190
240.000	.26463E+02	.03787	1.477994	27.0193	3548.6	3624.2	126.053	42.15	69.85	.1641E+00	1146
250.000	.25908E+02	.03714	1.374875	24.3489	4262.0	4339.2	128.913	41.36	70.28	.2350E+00	1101
260.000	.25333E+02	.03652	1.275491	21.7341	4982.2	5061.1	131.679	40.44	70.76	.3256E+00	1056
270.000	.24732E+02	.03602	1.179178	19.1777	5706.5	5787.3	134.360	39.37	71.38	.4374E+00	1010
280.000	.24100E+02	.03565	1.085248	16.6819	6433.0	6516.0	136.970	38.18	72.21	.5707E+00	962
290.000	.23428E+02	.03541	.992943	14.2477	7161.6	7246.9	139.524	36.86	73.43	.7245E+00	912
297.823	.22865E+02	.03532	.921280	12.3854	7734.0	7821.5	141.619	35.77	74.80	.8452E+00	871
297.823	.99036E+00	.81553	.010281	1.5798	19909.2	21928.6	188.986	31.00	51.31	.8452E+00	277
300.000	.97654E+00	.82108	.010045	1.6202	19991.1	22039.2	189.350	30.70	50.29	.8493E+00	279
310.000	.92037E+00	.84308	.009149	1.7912	20350.2	22523.2	190.937	29.70	46.80	.8638E+00	287
320.000	.87327E+00	.86078	.008466	1.9446	20689.0	22979.2	192.385	29.07	44.54	.8763E+00	295
330.000	.83265E+00	.87542	.007919	2.0861	21014.3	23416.3	193.730	28.66	42.97	.8872E+00	302
340.000	.79694E+00	.88775	.007464	2.2188	21330.5	23840.1	194.995	28.40	41.84	.8967E+00	309
350.000	.76508E+00	.89829	.007078	2.3447	21640.0	24254.1	196.195	28.23	41.00	.9051E+00	316
360.000	.73636E+00	.90740	.006742	2.4654	21944.7	24660.8	197.341	28.12	40.37	.9126E+00	322
370.000	.71023E+00	.91536	.006448	2.5819	22246.0	25061.9	198.440	28.07	39.88	.9193E+00	328
380.000	.68630E+00	.92235	.006185	2.6948	22544.7	25458.8	199.499	28.06	39.52	.9254E+00	333
390.000	.66424E+00	.92855	.005949	2.8048	22841.6	25852.5	200.521	28.08	39.23	.9308E+00	339
400.000	.64380E+00	.93407	.005735	2.9123	23137.2	26243.8	201.511	28.13	39.02	.9358E+00	344
410.000	.62479E+00	.93901	.005539	3.0177	23432.1	26633.2	202.473	28.19	38.87	.9403E+00	349
420.000	.60704E+00	.94346	.005360	3.1212	23726.6	27021.3	203.408	28.27	38.76	.9444E+00	354
430.000	.59041E+00	.94748	.005194	3.2232	24021.0	27408.5	204.319	28.36	38.68	.9481E+00	359
440.000	.57478E+00	.95113	.005040	3.3237	24315.5	27795.1	205.208	28.46	38.64	.9515E+00	363
450.000	.56005E+00	.95445	.004896	3.4230	24610.3	28181.4	206.076	28.58	38.63	.9547E+00	368
460.000	.54614E+00	.95748	.004762	3.5212	24905.6	28567.7	206.925	28.70	38.63	.9576E+00	372
470.000	.53298E+00	.96025	.004637	3.6185	25201.6	28954.1	207.756	28.83	38.66	.9602E+00	377
480.000	.52050E+00	.96280	.004518	3.7148	25498.4	29340.9	208.571	28.96	38.70	.9627E+00	381
490.000	.50864E+00	.96514	.004407	3.8103	25796.1	29728.2	209.369	29.10	38.76	.9650E+00	385
500.000	.49735E+00	.96730	.004301	3.9051	26094.8	30116.1	210.153	29.25	38.83	.9671E+00	390
520.000	.47633E+00	.97115	.004107	4.0928	26695.5	30894.3	211.679	29.55	39.00	.9709E+00	398
540.000	.45712E+00	.97446	.003931	4.2783	27301.0	31676.2	213.154	29.87	39.20	.9742E+00	405
560.000	.43950E+00	.97733	.003770	4.4620	27911.9	32462.5	214.584	30.19	39.43	.9771E+00	413
580.000	.42326E+00	.97984	.003624	4.6440	28528.4	33253.6	215.972	30.53	39.68	.9797E+00	420
600.000	.40824E+00	.98203	.003489	4.8247	29150.9	34049.9	217.322	30.87	39.95	.9819E+00	428
620.000	.39430E+00	.98397	.003365	5.0042	29779.5	34851.8	218.637	31.22	40.24	.9839E+00	435
640.000	.38131E+00	.98569	.003249	5.1827	30414.5	35659.5	219.919	31.57	40.53	.9856E+00	441
660.000	.36919E+00	.98720	.003142	5.3602	31055.9	36473.2	221.171	31.92	40.84	.9872E+00	448
680.000	.35784E+00	.98855	.003042	5.5370	31703.9	37293.1	222.395	32.27	41.15	.9886E+00	455
700.000	.34719E+00	.98976	.002949	5.7130	32358.6	38119.2	223.592	32.63	41.47	.9899E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 2.20000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.103	.29166E+02	.04823	2.102561	41.7573	5.1	80.5	109.316	43.89	67.31	.1133E-01	1370
190.000	.29070E+02	.04791	2.076374	41.1960	130.3	206.0	109.992	43.90	67.43	.1281E-01	1362
200.000	.28565E+02	.04632	1.943356	38.2703	794.0	871.1	113.466	43.83	68.02	.2345E-01	1320
210.000	.28054E+02	.04491	1.818052	35.3975	1465.7	1544.1	116.798	43.63	68.55	.4018E-01	1277
220.000	.27537E+02	.04368	1.699508	32.5751	2147.7	2227.6	119.997	43.28	69.01	.6515E-01	1234
230.000	.27010E+02	.04259	1.586873	29.8026	2840.9	2922.4	123.074	42.79	69.43	.1008E+00	1191
240.000	.26471E+02	.04165	1.479377	27.0811	3544.9	3628.0	126.038	42.15	69.83	.1497E+00	1147
250.000	.25916E+02	.04084	1.376305	24.4127	4257.8	4342.7	128.896	41.36	70.25	.2145E+00	1102
260.000	.25342E+02	.04016	1.276983	21.8001	4977.4	5064.3	131.660	40.44	70.72	.2971E+00	1057
270.000	.24743E+02	.03961	1.180750	19.2461	5701.1	5790.0	134.340	39.37	71.32	.3991E+00	1011
280.000	.24112E+02	.03919	1.086924	16.7531	6426.8	6518.0	136.948	38.18	72.14	.5206E+00	963
290.000	.23442E+02	.03892	.994756	14.3221	7154.3	7248.1	139.499	36.86	73.33	.6610E+00	914
300.000	.22718E+02	.03882	.903346	11.9519	7886.4	7983.2	142.013	35.45	75.14	.8183E+00	862
301.763	.22584E+02	.03883	.887228	11.5401	8015.7	8113.1	142.562	35.19	75.55	.8365E+00	852
301.763	.10909E+01	.80375	.011506	1.5447	19924.0	21940.6	188.384	31.45	53.19	.8365E+00	276
310.000	.10350E+01	.82469	.010557	1.6987	20236.3	22361.9	189.755	30.40	49.38	.8503E+00	284
320.000	.97827E+00	.84523	.009684	1.8649	20590.8	22839.7	191.272	29.58	46.39	.8641E+00	292
330.000	.93017E+00	.86201	.009002	2.0159	20927.8	23293.0	192.667	29.05	44.38	.8762E+00	300
340.000	.88837E+00	.87602	.008446	2.1560	21252.8	23729.3	193.970	28.70	42.96	.8867E+00	307
350.000	.85143E+00	.88792	.007980	2.2881	21569.5	24153.4	195.199	28.47	41.91	.8960E+00	314
360.000	.81834E+00	.89815	.007580	2.4138	21880.0	24568.4	196.368	28.33	41.13	.9043E+00	320
370.000	.78842E+00	.90705	.007232	2.5345	22186.1	24976.6	197.487	28.25	40.53	.9116E+00	326
380.000	.76112E+00	.91485	.006924	2.6511	22489.0	25379.5	198.561	28.21	40.07	.9183E+00	332
390.000	.73606E+00	.92173	.006649	2.7643	22789.5	25778.3	199.597	28.21	39.72	.9242E+00	337
400.000	.71293E+00	.92786	.006401	2.8747	23088.2	26174.1	200.599	28.23	39.45	.9297E+00	343
410.000	.69146E+00	.93333	.006175	2.9826	23385.9	26567.5	201.571	28.28	39.25	.9346E+00	348
420.000	.67146E+00	.93825	.005968	3.0884	23682.8	26959.2	202.514	28.35	39.10	.9391E+00	353
430.000	.65276E+00	.94268	.005778	3.1924	23979.3	27349.6	203.433	28.43	38.99	.9432E+00	358
440.000	.63522E+00	.94670	.005602	3.2948	24275.7	27739.1	204.329	28.53	38.92	.9469E+00	363
450.000	.61871E+00	.95035	.005439	3.3958	24572.3	28128.1	205.203	28.64	38.88	.9504E+00	367
460.000	.60315E+00	.95368	.005287	3.4956	24869.2	28516.8	206.057	28.75	38.86	.9536E+00	372
470.000	.58844E+00	.95673	.005144	3.5942	25166.7	28905.4	206.893	28.88	38.87	.9565E+00	376
480.000	.57450E+00	.95952	.005010	3.6919	25464.8	29294.2	207.711	29.01	38.90	.9592E+00	381
490.000	.56128E+00	.96209	.004884	3.7887	25763.7	29683.4	208.514	29.14	38.94	.9617E+00	385
500.000	.54870E+00	.96445	.004765	3.8846	26063.6	30073.0	209.301	29.29	38.99	.9640E+00	389
520.000	.52530E+00	.96866	.004546	4.0744	26666.3	30854.4	210.833	29.58	39.14	.9682E+00	397
540.000	.50396E+00	.97229	.004349	4.2617	27273.6	31639.0	212.314	29.89	39.33	.9718E+00	405
560.000	.48440E+00	.97542	.004169	4.4470	27886.0	32427.7	213.748	30.22	39.55	.9750E+00	413
580.000	.46639E+00	.97815	.004005	4.6305	28503.9	33221.0	215.140	30.55	39.79	.9777E+00	420
600.000	.44975E+00	.98054	.003855	4.8125	29127.6	34019.3	216.493	30.89	40.05	.9802E+00	427
620.000	.43431E+00	.98265	.003716	4.9932	29757.4	34822.9	217.811	31.23	40.32	.9823E+00	434
640.000	.41994E+00	.98451	.003588	5.1728	30393.4	35632.2	219.095	31.58	40.61	.9843E+00	441
660.000	.40653E+00	.98617	.003468	5.3513	31035.7	36447.4	220.350	31.93	40.91	.9860E+00	448
680.000	.39398E+00	.98764	.003357	5.5290	31684.6	37268.6	221.575	32.28	41.21	.9875E+00	455
700.000	.38222E+00	.98896	.003253	5.7058	32340.1	38096.0	222.774	32.64	41.52	.9889E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 2.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.164	.29170E+02	.05478	2.103629	41.8195	5.8	91.5	109.320	43.90	67.30	.1007E-01	1371
190.000	.29078E+02	.05442	2.078292	41.2767	127.0	212.9	109.974	43.90	67.41	.1135E-01	1363
200.000	.28573E+02	.05262	1.945283	38.3530	790.3	877.8	113.447	43.84	68.01	.2077E-01	1321
210.000	.28063E+02	.05102	1.819997	35.4823	1461.6	1550.7	116.778	43.63	68.52	.3558E-01	1278
220.000	.27546E+02	.04962	1.701482	32.6622	2143.2	2234.0	119.977	43.28	68.98	.5768E-01	1235
230.000	.27020E+02	.04838	1.588888	29.8923	2835.9	2928.5	123.052	42.79	69.40	.8923E-01	1192
240.000	.26482E+02	.04731	1.481446	27.1736	3539.3	3633.7	126.014	42.15	69.79	.1325E+00	1149
250.000	.25928E+02	.04639	1.378446	24.5082	4251.6	4348.0	128.871	41.37	70.20	.1898E+00	1104
260.000	.25355E+02	.04561	1.279216	21.8989	4970.4	5069.0	131.633	40.44	70.66	.2629E+00	1059
270.000	.24758E+02	.04498	1.183101	19.3485	5693.0	5794.0	134.310	39.37	71.24	.3531E+00	1013
280.000	.24130E+02	.04450	1.089428	16.8596	6417.5	6521.1	136.915	38.18	72.03	.4606E+00	966
290.000	.23462E+02	.04419	.997463	14.4334	7143.4	7249.9	139.461	36.87	73.18	.5848E+00	916
300.000	.22743E+02	.04407	.906329	12.0690	7873.4	7983.3	141.969	35.45	74.93	.7239E+00	865
307.214	.22181E+02	.04412	.840463	10.3994	8406.0	8518.7	143.850	34.39	76.80	.8243E+00	825
307.214	.12439E+01	.78682	.013422	1.4907	19935.2	21945.0	187.554	32.13	56.12	.8243E+00	276
310.000	.12197E+01	.79522	.012981	1.5492	20049.2	22098.8	188.045	31.66	54.32	.8300E+00	279
320.000	.11448E+01	.82080	.011717	1.7389	20433.3	22617.1	189.691	30.45	49.73	.8460E+00	288
330.000	.10831E+01	.84121	.010775	1.9065	20790.8	23098.9	191.173	29.70	46.83	.8598E+00	296
340.000	.10307E+01	.85800	.010032	2.0592	21131.2	23556.7	192.540	29.21	44.85	.8718E+00	304
350.000	.98508E+00	.87209	.009422	2.2012	21459.9	23997.7	193.819	28.88	43.42	.8824E+00	311
360.000	.94469E+00	.88412	.008909	2.3351	21780.1	24426.4	195.026	28.66	42.37	.8918E+00	318
370.000	.90849E+00	.89451	.008467	2.4627	22094.1	24846.0	196.176	28.52	41.57	.9002E+00	324
380.000	.87571E+00	.90356	.008082	2.5852	22403.7	25258.5	197.275	28.44	40.96	.9077E+00	330
390.000	.84580E+00	.91153	.007740	2.7035	22709.9	25665.6	198.334	28.41	40.49	.9145E+00	336
400.000	.81832E+00	.91859	.007435	2.8183	23013.6	26068.6	199.354	28.41	40.12	.9207E+00	341
410.000	.79294E+00	.92487	.007159	2.9302	23315.5	26468.3	200.341	28.43	39.84	.9262E+00	347
420.000	.76937E+00	.93050	.006909	3.0395	23616.2	26865.6	201.298	28.48	39.62	.9313E+00	352
430.000	.74741E+00	.93557	.006679	3.1467	23916.1	27261.0	202.229	28.55	39.46	.9359E+00	357
440.000	.72687E+00	.94015	.006468	3.2520	24215.6	27655.0	203.134	28.63	39.35	.9401E+00	362
450.000	.70759E+00	.94430	.006272	3.3556	24514.9	28048.1	204.018	28.73	39.27	.9440E+00	366
460.000	.68944E+00	.94809	.006091	3.4578	24814.3	28440.5	204.880	28.84	39.22	.9476E+00	371
470.000	.67232E+00	.95154	.005921	3.5586	25114.1	28832.5	205.723	28.95	39.20	.9509E+00	375
480.000	.65613E+00	.95471	.005763	3.6583	25414.3	29224.4	206.549	29.07	39.20	.9540E+00	380
490.000	.64079E+00	.95761	.005614	3.7570	25715.1	29616.5	207.357	29.21	39.21	.9568E+00	384
500.000	.62623E+00	.96029	.005473	3.8547	26016.6	30008.8	208.150	29.34	39.25	.9594E+00	388
520.000	.59918E+00	.96504	.005216	4.0476	26622.5	30794.9	209.691	29.63	39.36	.9641E+00	397
540.000	.57456E+00	.96912	.004984	4.2377	27232.5	31583.7	211.180	29.93	39.52	.9682E+00	405
560.000	.55203E+00	.97264	.004775	4.4254	27847.3	32376.1	212.620	30.25	39.72	.9718E+00	412
580.000	.53132E+00	.97571	.004584	4.6111	28467.3	33172.6	214.018	30.58	39.94	.9749E+00	420
600.000	.51220E+00	.97839	.004409	4.7951	29092.9	33973.8	215.376	30.91	40.19	.9776E+00	427
620.000	.49448E+00	.98076	.004248	4.9776	29724.4	34780.1	216.698	31.26	40.45	.9801E+00	434
640.000	.47801E+00	.98284	.004099	5.1588	30361.9	35591.8	217.987	31.60	40.72	.9822E+00	441
660.000	.46266E+00	.98469	.003961	5.3388	31005.6	36409.2	219.244	31.95	41.01	.9842E+00	448
680.000	.44830E+00	.98634	.003833	5.5178	31655.8	37232.4	220.473	32.30	41.31	.9859E+00	455
700.000	.43484E+00	.98781	.003713	5.6959	32312.4	38061.6	221.675	32.65	41.61	.9875E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 3.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.266	.29177E+02	.06569	2.105408	41.9232	7.0	109.8	109.327	43.90	67.28	.8544E-02	1373
190.000	.29090E+02	.06528	2.081484	41.4111	121.3	224.5	109.944	43.90	67.39	.9561E-02	1365
200.000	.28586E+02	.06311	1.948489	38.4906	784.2	889.1	113.416	43.84	67.98	.1749E-01	1323
210.000	.28077E+02	.06120	1.823233	35.6235	1454.9	1561.7	116.746	43.63	68.49	.2995E-01	1280
220.000	.27561E+02	.05951	1.704765	32.8073	2135.7	2244.6	119.943	43.28	68.94	.4854E-01	1238
230.000	.27037E+02	.05802	1.592238	30.0417	2827.7	2938.6	123.016	42.79	69.34	.7508E-01	1195
240.000	.26500E+02	.05673	1.484885	27.3275	3530.1	3643.3	125.975	42.15	69.73	.1115E+00	1151
250.000	.25949E+02	.05562	1.382001	24.6670	4241.3	4356.9	128.830	41.37	70.12	.1596E+00	1107
260.000	.25378E+02	.05468	1.282922	22.0630	4958.7	5076.9	131.588	40.44	70.56	.2211E+00	1062
270.000	.24784E+02	.05392	1.187000	19.5186	5679.7	5800.8	134.261	39.38	71.11	.2969E+00	1016
280.000	.24160E+02	.05334	1.093577	17.0364	6402.2	6526.3	136.859	38.18	71.86	.3873E+00	969
290.000	.23497E+02	.05295	1.001941	14.6180	7125.5	7253.1	139.399	36.87	72.94	.4916E+00	921
300.000	.22784E+02	.05279	.911253	12.2631	7852.0	7983.6	141.897	35.46	74.59	.6086E+00	870
310.000	.22003E+02	.05290	.820411	9.9679	8589.0	8725.4	144.382	33.97	77.21	.7365E+00	815
315.334	.21550E+02	.05310	.771357	8.7650	8991.2	9130.4	145.742	33.17	79.27	.8061E+00	783
315.334	.15055E+01	.76006	.016833	1.3969	19930.2	21923.0	186.310	33.23	61.45	.8061E+00	275
320.000	.14530E+01	.77603	.015837	1.5054	20135.4	22200.2	187.175	32.32	57.57	.8156E+00	280
330.000	.13597E+01	.80413	.014219	1.7095	20539.8	22746.2	188.855	31.00	52.11	.8326E+00	290
340.000	.12841E+01	.82645	.013027	1.8881	20912.8	23249.1	190.357	30.18	48.72	.8472E+00	299
350.000	.12203E+01	.84477	.012094	2.0498	21265.8	23724.1	191.734	29.64	46.41	.8600E+00	306
360.000	.11652E+01	.86014	.011335	2.1995	21604.9	24179.5	193.018	29.27	44.76	.8713E+00	314
370.000	.11167E+01	.87325	.010698	2.3399	21934.3	24620.7	194.227	29.02	43.54	.8814E+00	320
380.000	.10734E+01	.88458	.010153	2.4733	22256.4	25051.3	195.375	28.86	42.61	.8904E+00	327
390.000	.10343E+01	.89446	.009679	2.6008	22573.2	25473.6	196.472	28.76	41.89	.8985E+00	333
400.000	.99877E+00	.90315	.009261	2.7237	22886.0	25889.7	197.525	28.71	41.34	.9059E+00	339
410.000	.96617E+00	.91085	.008888	2.8427	23195.8	26300.8	198.540	28.70	40.90	.9125E+00	344
420.000	.93611E+00	.91772	.008553	2.9583	23503.3	26708.1	199.521	28.71	40.56	.9186E+00	350
430.000	.90825E+00	.92387	.008248	3.0711	23809.3	27112.3	200.473	28.75	40.30	.9241E+00	355
440.000	.88231E+00	.92941	.007970	3.1814	24114.1	27514.3	201.397	28.81	40.10	.9291E+00	360
450.000	.85808E+00	.93443	.007714	3.2896	24418.3	27914.5	202.296	28.89	39.95	.9337E+00	365
460.000	.83536E+00	.93898	.007478	3.3959	24722.0	28313.3	203.173	28.98	39.83	.9380E+00	370
470.000	.81399E+00	.94312	.007259	3.5006	25025.7	28711.3	204.029	29.08	39.76	.9419E+00	374
480.000	.79384E+00	.94691	.007055	3.6038	25329.5	29108.6	204.865	29.19	39.71	.9455E+00	379
490.000	.77480E+00	.95038	.006864	3.7056	25633.6	29505.6	205.684	29.31	39.69	.9489E+00	383
500.000	.75677E+00	.95357	.006685	3.8063	25938.2	29902.5	206.485	29.44	39.69	.9520E+00	388
520.000	.72337E+00	.95922	.006358	4.0047	26549.4	30696.7	208.043	29.71	39.74	.9576E+00	396
540.000	.69309E+00	.96406	.006066	4.1994	27164.1	31492.6	209.545	30.00	39.85	.9624E+00	404
560.000	.66546E+00	.96823	.005803	4.3913	27783.0	32291.2	210.997	30.31	40.01	.9666E+00	412
580.000	.64012E+00	.97185	.005565	4.5807	28406.6	33093.2	212.404	30.63	40.20	.9703E+00	420
600.000	.61677E+00	.97501	.005347	4.7680	29035.3	33899.4	213.771	30.96	40.42	.9736E+00	427
620.000	.59518E+00	.97779	.005148	4.9534	29669.6	34710.1	215.100	31.30	40.66	.9764E+00	434
640.000	.57514E+00	.98023	.004964	5.1373	30309.7	35525.8	216.395	31.64	40.92	.9790E+00	441
660.000	.55648E+00	.98240	.004793	5.3198	30955.8	36346.8	217.658	31.98	41.19	.9813E+00	448
680.000	.53906E+00	.98433	.004635	5.5011	31608.1	37173.3	218.892	32.33	41.47	.9833E+00	455
700.000	.52274E+00	.98605	.004488	5.6812	32266.6	38005.6	220.098	32.68	41.76	.9852E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 3.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.368	.29184E+02	.07657	2.107181	42.0268	8.2	128.1	109.334	43.90	67.27	.7454E-02	1374
190.000	.29102E+02	.07613	2.084670	41.5453	115.8	236.0	109.915	43.90	67.37	.8285E-02	1367
200.000	.28598E+02	.07360	1.951689	38.6280	778.0	900.4	113.385	43.84	67.95	.1515E-01	1325
210.000	.28091E+02	.07136	1.826461	35.7645	1448.1	1572.7	116.713	43.63	68.46	.2593E-01	1283
220.000	.27576E+02	.06939	1.708039	32.9522	2128.3	2255.2	119.908	43.29	68.90	.4202E-01	1240
230.000	.27053E+02	.06765	1.595577	30.1906	2819.4	2948.8	122.980	42.79	69.29	.6498E-01	1197
240.000	.26518E+02	.06614	1.488312	27.4810	3520.9	3652.9	125.937	42.15	69.66	.9647E-01	1154
250.000	.25969E+02	.06484	1.385543	24.8254	4231.0	4365.8	128.788	41.37	70.04	.1381E+00	1110
260.000	.25401E+02	.06374	1.286610	22.2267	4947.1	5084.9	131.543	40.44	70.46	.1912E+00	1065
270.000	.24809E+02	.06284	1.190877	19.6881	5666.5	5807.6	134.211	39.38	70.98	.2568E+00	1020
280.000	.24189E+02	.06215	1.097697	17.2125	6387.0	6531.7	136.805	38.19	71.69	.3349E+00	973
290.000	.23531E+02	.06169	1.006380	14.8016	7107.8	7256.5	139.337	36.87	72.71	.4251E+00	925
300.000	.22825E+02	.06148	.916121	12.4558	7830.9	7984.2	141.826	35.46	74.26	.5263E+00	874
310.000	.22053E+02	.06157	.825883	10.1722	8563.3	8722.0	144.298	33.98	76.72	.6369E+00	820
320.000	.21189E+02	.06208	.734133	7.9422	9319.6	9484.7	146.793	32.47	80.84	.7557E+00	761
322.532	.20950E+02	.06230	.710386	7.3841	9518.1	9685.1	147.407	32.10	82.32	.7897E+00	745
322.532	.17770E+01	.73448	.020538	1.2985	19900.8	21870.4	185.187	34.32	67.51	.7897E+00	273
330.000	.16725E+01	.76268	.018507	1.4871	20250.8	22343.5	186.630	32.71	59.88	.8054E+00	282
340.000	.15627E+01	.79228	.016586	1.7009	20670.0	22909.7	188.320	31.38	53.90	.8228E+00	292
350.000	.14743E+01	.81578	.015174	1.8876	21054.8	23428.8	189.825	30.54	50.18	.8380E+00	301
360.000	.14002E+01	.83509	.014071	2.0561	21417.6	23917.2	191.201	29.97	47.66	.8512E+00	309
370.000	.13364E+01	.85130	.013174	2.2116	21765.3	24384.2	192.481	29.59	45.85	.8630E+00	317
380.000	.12804E+01	.86515	.012423	2.3573	22102.2	24835.7	193.685	29.33	44.50	.8735E+00	323
390.000	.12306E+01	.87713	.011782	2.4953	22431.2	25275.4	194.828	29.15	43.48	.8829E+00	330
400.000	.11857E+01	.88759	.011225	2.6271	22754.2	25706.1	195.918	29.04	42.69	.8915E+00	336
410.000	.11449E+01	.89680	.010735	2.7538	23072.7	26129.8	196.964	28.98	42.07	.8992E+00	342
420.000	.11075E+01	.90497	.010298	2.8762	23387.8	26548.0	197.971	28.96	41.59	.9062E+00	348
430.000	.10731E+01	.91226	.009905	2.9950	23700.3	26961.9	198.945	28.97	41.20	.9126E+00	353
440.000	.10412E+01	.91881	.009549	3.1107	24011.0	27372.3	199.889	29.00	40.90	.9184E+00	358
450.000	.10116E+01	.92471	.009224	3.2238	24320.3	27780.1	200.805	29.06	40.67	.9237E+00	363
460.000	.98394E+00	.93005	.008926	3.3345	24628.7	28185.8	201.697	29.13	40.48	.9286E+00	368
470.000	.95801E+00	.93490	.008651	3.4432	24936.6	28590.0	202.565	29.22	40.35	.9332E+00	373
480.000	.93363E+00	.93932	.008396	3.5501	25244.1	28992.9	203.415	29.31	40.25	.9373E+00	378
490.000	.91066E+00	.94337	.008159	3.6553	25551.7	29395.1	204.244	29.42	40.18	.9412E+00	382
500.000	.88895E+00	.94708	.007938	3.7591	25859.5	29796.7	205.056	29.54	40.14	.9448E+00	387
520.000	.84888E+00	.95363	.007535	3.9630	26476.3	30599.4	206.630	29.80	40.13	.9512E+00	395
540.000	.81268E+00	.95922	.007177	4.1627	27095.8	31402.5	208.145	30.08	40.19	.9568E+00	404
560.000	.77974E+00	.96403	.006857	4.3588	27718.8	32207.5	209.609	30.37	40.31	.9616E+00	411
580.000	.74962E+00	.96820	.006567	4.5519	28346.0	33015.1	211.026	30.68	40.46	.9659E+00	419
600.000	.72192E+00	.97183	.006304	4.7426	28978.0	33826.2	212.401	31.01	40.65	.9696E+00	427
620.000	.69635E+00	.97501	.006063	4.9310	29615.2	34641.4	213.737	31.34	40.87	.9729E+00	434
640.000	.67256E+00	.97782	.005842	5.1176	30257.9	35461.1	215.039	31.67	41.11	.9759E+00	441
660.000	.65063E+00	.98030	.005638	5.3026	30906.3	36285.8	216.307	32.01	41.36	.9785E+00	448
680.000	.63027E+00	.98250	.005449	5.4861	31560.8	37115.7	217.546	32.36	41.63	.9809E+00	455
700.000	.61085E+00	.98446	.005273	5.6684	32221.3	37951.0	218.757	32.71	41.91	.9830E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 4.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.470	.29191E+02	.08745	2.108950	42.1302	9.4	146.4	109.341	43.90	67.25	.6638E-02	1376
190.000	.29114E+02	.08697	2.087850	41.6793	110.2	247.6	109.885	43.90	67.35	.7328E-02	1369
200.000	.28611E+02	.08407	1.954881	38.7652	771.9	911.7	113.355	43.84	67.92	.1340E-01	1327
210.000	.28105E+02	.08151	1.829682	35.9051	1441.4	1583.7	116.681	43.64	68.42	.2293E-01	1285
220.000	.27592E+02	.07925	1.711304	33.0967	2120.9	2265.9	119.874	43.29	68.86	.3714E-01	1242
230.000	.27070E+02	.07727	1.598906	30.3393	2811.2	2959.0	122.944	42.79	69.24	.5741E-01	1200
240.000	.26537E+02	.07554	1.491727	27.6341	3511.8	3662.5	125.898	42.16	69.60	.8521E-01	1157
250.000	.25989E+02	.07404	1.389069	24.9833	4220.8	4374.7	128.747	41.37	69.96	.1220E+00	1113
260.000	.25423E+02	.07278	1.290281	22.3899	4935.6	5093.0	131.498	40.45	70.36	.1689E+00	1069
270.000	.24835E+02	.07175	1.194731	19.8570	5653.5	5814.5	134.162	39.38	70.85	.2267E+00	1023
280.000	.24218E+02	.07095	1.101789	17.3878	6372.0	6537.2	136.750	38.19	71.52	.2957E+00	977
290.000	.23564E+02	.07040	1.010781	14.9843	7090.3	7260.0	139.276	36.88	72.48	.3753E+00	929
300.000	.22864E+02	.07014	.920936	12.6473	7810.2	7985.1	141.756	35.46	73.95	.4646E+00	879
310.000	.22102E+02	.07022	.831275	10.3747	8538.0	8719.0	144.215	33.98	76.25	.5622E+00	826
320.000	.21251E+02	.07074	.740387	8.1597	9287.5	9475.8	146.691	32.48	80.08	.6671E+00	768
329.024	.20370E+02	.07178	.655343	6.1963	10005.4	10201.7	148.919	31.18	86.14	.7749E+00	708
329.024	.20609E+01	.70949	.024568	1.1955	19850.3	21791.2	184.142	35.43	74.54	.7749E+00	271
330.000	.20412E+01	.71420	.024153	1.2255	19903.5	21863.1	184.352	35.11	72.82	.7779E+00	273
340.000	.18760E+01	.75426	.020929	1.4916	20394.1	22526.3	186.333	32.88	61.26	.7984E+00	285
350.000	.17522E+01	.78445	.018777	1.7109	20822.6	23105.4	188.012	31.60	55.10	.8160E+00	295
360.000	.16528E+01	.80852	.017185	1.9027	21215.6	23635.7	189.506	30.78	51.24	.8313E+00	304
370.000	.15697E+01	.82836	.015937	2.0761	21585.8	24134.1	190.872	30.23	48.60	.8448E+00	312
380.000	.14981E+01	.84506	.014920	2.2360	21940.2	24610.1	192.142	29.84	46.70	.8568E+00	320
390.000	.14354E+01	.85936	.014069	2.3857	22283.2	25069.7	193.336	29.58	45.29	.8676E+00	327
400.000	.13797E+01	.87174	.013342	2.5274	22617.7	25517.0	194.468	29.40	44.20	.8773E+00	333
410.000	.13295E+01	.88258	.012709	2.6625	22945.9	25954.6	195.549	29.29	43.36	.8861E+00	340
420.000	.12839E+01	.89214	.012153	2.7924	23269.4	26384.8	196.585	29.23	42.70	.8940E+00	345
430.000	.12422E+01	.90064	.011657	2.9177	23589.1	26809.1	197.583	29.20	42.18	.9013E+00	351
440.000	.12039E+01	.90823	.011211	3.0392	23906.0	27228.7	198.548	29.21	41.76	.9079E+00	357
450.000	.11683E+01	.91506	.010807	3.1574	24220.9	27644.6	199.483	29.24	41.43	.9139E+00	362
460.000	.11353E+01	.92121	.010439	3.2728	24534.3	28057.6	200.390	29.29	41.17	.9195E+00	367
470.000	.11044E+01	.92679	.010101	3.3857	24846.5	28468.3	201.274	29.36	40.97	.9246E+00	372
480.000	.10755E+01	.93186	.009789	3.4965	25158.1	28877.1	202.135	29.44	40.81	.9293E+00	377
490.000	.10484E+01	.93649	.009500	3.6053	25469.3	29284.7	202.975	29.54	40.70	.9337E+00	381
500.000	.10228E+01	.94073	.009232	3.7124	25780.4	29691.2	203.795	29.64	40.62	.9378E+00	386
520.000	.97571E+00	.94820	.008746	3.9221	26403.0	30502.6	205.387	29.88	40.54	.9450E+00	395
540.000	.93332E+00	.95456	.008317	4.1267	27027.5	31313.2	206.917	30.15	40.54	.9513E+00	403
560.000	.89487E+00	.96001	.007935	4.3272	27654.8	32124.7	208.393	30.44	40.61	.9568E+00	411
580.000	.85990E+00	.96472	.007591	4.5242	28285.7	32938.0	209.820	30.74	40.73	.9616E+00	419
600.000	.82762E+00	.96882	.007279	4.7183	28921.0	33754.2	211.203	31.05	40.89	.9658E+00	426
620.000	.79797E+00	.97240	.006995	4.9099	29561.2	34573.9	212.547	31.38	41.08	.9696E+00	434
640.000	.77054E+00	.97555	.006735	5.0992	30206.5	35397.6	213.855	31.71	41.30	.9729E+00	441
660.000	.74506E+00	.97833	.006495	5.2867	30857.3	36226.0	215.129	32.05	41.54	.9758E+00	448
680.000	.72133E+00	.98080	.006273	5.4725	31513.9	37059.2	216.373	32.39	41.79	.9785E+00	455
700.000	.69915E+00	.98300	.006068	5.6569	32176.4	37897.6	217.588	32.73	42.05	.9809E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 4.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.571	.29197E+02	.09830	2.110714	42.2336	10.6	164.7	109.348	43.90	67.24	.6005E-02	1377
190.000	.29126E+02	.09780	2.091023	41.8130	104.6	259.1	109.856	43.90	67.32	.6585E-02	1371
200.000	.28624E+02	.09454	1.958067	38.9021	765.8	923.0	113.324	43.84	67.90	.1203E-01	1329
210.000	.28119E+02	.09166	1.832895	36.0456	1434.7	1594.7	116.649	43.64	68.39	.2059E-01	1287
220.000	.27607E+02	.08911	1.714561	33.2409	2113.5	2276.5	119.840	43.29	68.82	.3334E-01	1245
230.000	.27086E+02	.08688	1.602225	30.4876	2803.0	2969.2	122.908	42.80	69.19	.5153E-01	1202
240.000	.26555E+02	.08492	1.495130	27.7868	3502.7	3672.2	125.860	42.16	69.54	.7646E-01	1159
250.000	.26009E+02	.08324	1.392582	25.1408	4210.6	4383.7	128.706	41.37	69.88	.1094E+00	1116
260.000	.25445E+02	.08181	1.293934	22.5525	4924.2	5101.1	131.454	40.45	70.26	.1515E+00	1072
270.000	.24860E+02	.08063	1.198564	20.0253	5640.5	5821.5	134.114	39.38	70.73	.2033E+00	1027
280.000	.24246E+02	.07972	1.105852	17.5623	6357.1	6542.7	136.697	38.19	71.36	.2651E+00	981
290.000	.23598E+02	.07909	1.015143	15.1660	7073.0	7263.7	139.215	36.88	72.27	.3365E+00	933
300.000	.22904E+02	.07877	.925498	12.8375	7789.7	7986.2	141.687	35.47	73.64	.4166E+00	884
310.000	.22149E+02	.07882	.836590	10.5755	8513.2	8716.4	144.134	33.98	75.80	.5041E+00	831
320.000	.21311E+02	.07936	.746515	8.3746	9256.3	9467.5	146.592	32.48	79.36	.5982E+00	774
330.000	.20348E+02	.08060	.653297	6.2205	10044.3	10265.4	149.121	31.04	85.73	.6987E+00	709
334.953	.19799E+02	.08161	.604739	5.1614	10466.2	10693.5	150.325	30.41	90.95	.7614E+00	673
334.953	.23601E+01	.68463	.028970	1.0879	19780.0	21686.7	183.145	36.55	82.95	.7614E+00	269
340.000	.22407E+01	.71041	.026465	1.2506	20069.2	22077.5	184.294	34.90	72.82	.7738E+00	276
350.000	.20622E+01	.74986	.023083	1.5157	20562.3	22744.4	186.228	32.90	61.84	.7940E+00	289
360.000	.19276E+01	.77993	.020773	1.7370	20995.5	23330.0	187.879	31.72	55.79	.8115E+00	299
370.000	.18192E+01	.80408	.019045	1.9316	21393.7	23867.4	189.351	30.94	51.94	.8268E+00	308
380.000	.17283E+01	.82407	.017680	2.1080	21769.0	24372.7	190.699	30.41	49.28	.8403E+00	316
390.000	.16502E+01	.84096	.016564	2.2710	22128.4	24855.3	191.953	30.04	47.35	.8524E+00	324
400.000	.15817E+01	.85547	.015627	2.4237	22476.1	25321.2	193.132	29.79	45.90	.8634E+00	331
410.000	.15207E+01	.86808	.014824	2.5682	22815.2	25774.5	194.252	29.62	44.79	.8732E+00	337
420.000	.14658E+01	.87913	.014125	2.7060	23147.8	26217.8	195.320	29.51	43.92	.8821E+00	343
430.000	.14160E+01	.88890	.013509	2.8384	23475.4	26653.4	196.345	29.44	43.23	.8902E+00	349
440.000	.13704E+01	.89760	.012960	2.9661	23799.2	27082.9	197.332	29.42	42.69	.8976E+00	355
450.000	.13284E+01	.90539	.012466	3.0898	24120.0	27507.5	198.286	29.42	42.25	.9044E+00	360
460.000	.12895E+01	.91240	.012018	3.2102	24438.6	27928.2	199.211	29.46	41.90	.9106E+00	366
470.000	.12534E+01	.91873	.011609	3.3276	24755.6	28345.8	200.109	29.51	41.62	.9163E+00	371
480.000	.12197E+01	.92447	.011235	3.4424	25071.4	28760.9	200.983	29.58	41.41	.9215E+00	376
490.000	.11880E+01	.92971	.010889	3.5550	25386.4	29174.1	201.835	29.66	41.24	.9264E+00	380
500.000	.11583E+01	.93449	.010568	3.6655	25700.9	29585.8	202.666	29.75	41.11	.9310E+00	385
520.000	.11039E+01	.94289	.009992	3.8812	26329.6	30406.2	204.275	29.97	40.95	.9390E+00	394
540.000	.10550E+01	.95001	.009486	4.0911	26959.1	31224.5	205.820	30.23	40.90	.9460E+00	403
560.000	.10108E+01	.95611	.009038	4.2961	27590.8	32042.6	207.307	30.50	40.92	.9521E+00	411
580.000	.97065E+00	.96136	.008636	4.4971	28225.6	32861.7	208.744	30.79	41.00	.9575E+00	419
600.000	.93386E+00	.96593	.008273	4.6947	28864.3	33683.0	210.137	31.10	41.13	.9622E+00	426
620.000	.90002E+00	.96991	.007943	4.8894	29507.4	34507.3	211.488	31.42	41.30	.9663E+00	434
640.000	.86876E+00	.97341	.007642	5.0816	30155.4	35335.1	212.802	31.75	41.49	.9700E+00	441
660.000	.83977E+00	.97649	.007365	5.2717	30808.6	36167.2	214.082	32.08	41.71	.9733E+00	448
680.000	.81280E+00	.97923	.007109	5.4598	31467.3	37003.8	215.331	32.42	41.95	.9763E+00	455
700.000	.78762E+00	.98166	.006873	5.6463	32131.8	37845.2	216.551	32.76	42.20	.9789E+00	461

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 5.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.673	.29204E+02	.10914	2.112473	42.3368	11.8	183.0	109.355	43.90	67.22	.5500E-02	1379
190.000	.29138E+02	.10862	2.094191	41.9466	99.1	270.7	109.826	43.91	67.30	.5991E-02	1373
200.000	.28637E+02	.10500	1.961247	39.0389	759.8	934.4	113.293	43.84	67.87	.1094E-01	1331
210.000	.28132E+02	.10179	1.836100	36.1858	1428.0	1605.8	116.617	43.64	68.36	.1872E-01	1289
220.000	.27622E+02	.09896	1.717809	33.3849	2106.2	2287.2	119.807	43.29	68.78	.3030E-01	1247
230.000	.27103E+02	.09647	1.605534	30.6356	2794.9	2979.4	122.872	42.80	69.14	.4682E-01	1205
240.000	.26573E+02	.09430	1.498521	27.9392	3493.7	3681.8	125.822	42.16	69.48	.6947E-01	1162
250.000	.26029E+02	.09241	1.396080	25.2978	4200.6	4392.7	128.665	41.38	69.81	.9939E-01	1119
260.000	.25468E+02	.09082	1.297569	22.7146	4912.9	5109.2	131.410	40.45	70.16	.1376E+00	1075
270.000	.24885E+02	.08950	1.202375	20.1929	5627.7	5828.6	134.065	39.39	70.60	.1846E+00	1030
280.000	.24275E+02	.08848	1.109887	17.7361	6342.4	6548.4	136.643	38.19	71.20	.2408E+00	984
290.000	.23630E+02	.08775	1.019470	15.3469	7055.9	7267.5	139.156	36.88	72.05	.3055E+00	937
300.000	.22942E+02	.08737	.930410	13.0266	7769.6	7987.5	141.618	35.47	73.35	.3782E+00	889
310.000	.22196E+02	.08740	.841831	10.7747	8488.9	8714.1	144.054	33.99	75.37	.4577E+00	837
320.000	.21370E+02	.08794	.752525	8.5871	9225.9	9459.9	146.495	32.48	78.69	.5432E+00	781
330.000	.20427E+02	.08921	.660537	6.4523	10004.0	10248.8	148.996	31.04	84.53	.6345E+00	717
340.000	.19284E+02	.09172	.561929	4.3411	10870.1	11129.4	151.672	29.86	96.36	.7327E+00	641
340.423	.19229E+02	.09187	.557496	4.2514	10910.7	11170.7	151.662	29.82	97.13	.7488E+00	637
340.423	.26788E+01	.65944	.033806	.9758	19689.7	21556.2	182.170	37.73	93.29	.7488E+00	266
350.000	.24180E+01	.71057	.028400	1.2958	20262.2	22330.1	184.404	34.56	71.82	.7719E+00	281
360.000	.22313E+01	.74863	.024975	1.5560	20752.0	22992.9	186.272	32.82	61.81	.7916E+00	293
370.000	.20889E+01	.77807	.022573	1.7767	21186.4	23580.0	187.881	31.76	56.07	.8088E+00	303
380.000	.19734E+01	.80192	.020749	1.9724	21587.2	24120.9	189.324	31.04	52.34	.8240E+00	312
390.000	.18764E+01	.82177	.019297	2.1504	21965.8	24630.6	190.648	30.55	49.73	.8375E+00	320
400.000	.17927E+01	.83864	.018102	2.3153	22328.7	25117.8	191.881	30.20	47.82	.8496E+00	327
410.000	.17191E+01	.85317	.017093	2.4701	22680.1	25588.5	193.043	29.96	46.37	.8605E+00	334
420.000	.16537E+01	.86584	.016226	2.6167	23022.8	26046.4	194.146	29.80	45.26	.8704E+00	341
430.000	.15947E+01	.87698	.015470	2.7566	23359.0	26494.4	195.201	29.70	44.38	.8794E+00	347
440.000	.15411E+01	.88685	.014801	2.8909	23690.1	26934.6	196.213	29.64	43.68	.8875E+00	353
450.000	.14920E+01	.89565	.014205	3.0206	24017.4	27368.5	197.188	29.62	43.12	.8950E+00	359
460.000	.14469E+01	.90355	.013668	3.1462	24341.6	27797.4	198.131	29.63	42.67	.9018E+00	364
470.000	.14050E+01	.91066	.013180	3.2684	24663.5	28222.2	199.044	29.66	42.31	.9081E+00	369
480.000	.13661E+01	.91710	.012735	3.3875	24983.8	28643.9	199.932	29.71	42.03	.9139E+00	374
490.000	.13297E+01	.92295	.012326	3.5039	25302.8	29063.0	200.795	29.78	41.80	.9193E+00	379
500.000	.12956E+01	.92829	.011949	3.6180	25620.9	29480.0	201.638	29.86	41.62	.9243E+00	384
520.000	.12334E+01	.93764	.011274	3.8401	26255.9	30309.8	203.266	30.07	41.38	.9332E+00	393
540.000	.11778E+01	.94555	.010686	4.0554	26890.7	31136.1	204.825	30.30	41.26	.9409E+00	402
560.000	.11276E+01	.95230	.010166	4.2651	27526.9	31960.9	206.325	30.57	41.24	.9476E+00	410
580.000	.10822E+01	.95811	.009702	4.4702	28165.7	32786.0	207.773	30.85	41.28	.9535E+00	418
600.000	.10406E+01	.96314	.009285	4.6715	28807.7	33612.5	209.174	31.15	41.38	.9586E+00	426
620.000	.10025E+01	.96752	.008907	4.8694	29453.9	34441.4	210.533	31.47	41.52	.9632E+00	434
640.000	.96732E+00	.97137	.008563	5.0645	30104.6	35273.5	211.854	31.79	41.69	.9673E+00	441
660.000	.93475E+00	.97475	.008247	5.2572	30760.2	36109.2	213.139	32.12	41.89	.9709E+00	448
680.000	.90448E+00	.97774	.007956	5.4477	31421.2	36949.2	214.393	32.45	42.11	.9741E+00	455
700.000	.87626E+00	.98040	.007687	5.6364	32087.6	37793.7	215.617	32.79	42.35	.9770E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 5.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.775	.29211E+02	.11996	2.114228	42.4399	13.1	201.4	109.362	43.90	67.21	.5088E-02	1380
190.000	.29150E+02	.11944	2.097353	42.0800	93.6	282.3	109.797	43.91	67.28	.5506E-02	1375
200.000	.28650E+02	.11544	1.964419	39.1754	753.7	945.7	113.263	43.84	67.84	.1005E-01	1333
210.000	.28146E+02	.11191	1.839298	36.3257	1421.4	1616.8	116.585	43.64	68.33	.1719E-01	1291
220.000	.27637E+02	.10880	1.721048	33.5285	2098.9	2297.9	119.773	43.29	68.74	.2782E-01	1249
230.000	.27119E+02	.10605	1.608833	30.7833	2786.9	2989.7	122.837	42.80	69.10	.4298E-01	1207
240.000	.26590E+02	.10366	1.501900	28.0912	3484.7	3691.6	125.784	42.16	69.42	.6375E-01	1164
250.000	.26048E+02	.10158	1.399564	25.4545	4190.6	4401.7	128.624	41.38	69.73	.9119E-01	1121
260.000	.25489E+02	.09981	1.301188	22.8762	4901.7	5117.4	131.366	40.45	70.07	.1262E+00	1078
270.000	.24909E+02	.09836	1.206165	20.3600	5615.0	5835.8	134.018	39.39	70.48	.1694E+00	1033
280.000	.24303E+02	.09721	1.113896	17.9092	6327.9	6554.2	136.590	38.20	71.04	.2208E+00	988
290.000	.23663E+02	.09640	1.023761	15.5268	7039.1	7271.5	139.096	36.88	71.85	.2802E+00	942
300.000	.22980E+02	.09595	.935073	13.2145	7749.7	7989.1	141.551	35.47	73.06	.3468E+00	893
310.000	.22242E+02	.09594	.847002	10.9724	8465.0	8712.2	143.975	33.99	74.96	.4197E+00	842
320.000	.21428E+02	.09647	.758424	8.7973	9196.2	9452.9	146.400	32.48	78.05	.4981E+00	787
330.000	.20503E+02	.09777	.667578	6.6804	9965.1	10233.4	148.876	31.04	83.42	.5820E+00	725
340.000	.19396E+02	.10031	.571073	4.5986	10814.1	11097.7	151.502	29.85	93.95	.6722E+00	651
345.506	.18650E+02	.10266	.512773	3.4464	11347.4	11642.3	152.960	29.44	105.22	.7370E+00	601
345.506	.30222E+01	.63350	.039161	.8595	19578.0	21397.8	181.196	38.97	106.47	.7370E+00	262
350.000	.28464E+01	.66400	.035338	1.0408	19899.7	21832.0	182.435	36.82	88.65	.7493E+00	271
360.000	.25748E+01	.71363	.030016	1.3563	20476.9	22612.9	184.636	34.17	70.24	.7717E+00	286
370.000	.23842E+01	.74986	.026630	1.6096	20959.8	23266.7	186.428	32.69	61.36	.7909E+00	297
380.000	.22366E+01	.77832	.024187	1.8280	21392.7	23851.8	187.989	31.74	56.05	.8078E+00	307
390.000	.21160E+01	.80159	.022304	2.0232	21794.3	24393.6	189.396	31.10	52.52	.8227E+00	316
400.000	.20140E+01	.82110	.020789	2.2019	22174.7	24905.5	190.692	30.65	50.01	.8360E+00	324
410.000	.19258E+01	.83776	.019533	2.3679	22540.0	25395.8	191.903	30.33	48.15	.8480E+00	332
420.000	.18482E+01	.85218	.018467	2.5239	22894.0	25869.9	193.045	30.11	46.73	.8589E+00	338
430.000	.17789E+01	.86478	.017548	2.6720	23239.6	26331.4	194.131	29.96	45.62	.8687E+00	345
440.000	.17164E+01	.87590	.016742	2.8134	23578.8	26783.1	195.170	29.87	44.75	.8776E+00	351
450.000	.16596E+01	.88577	.016029	2.9493	23912.9	27227.0	196.167	29.82	44.05	.8858E+00	357
460.000	.16075E+01	.89460	.015391	3.0805	24243.1	27664.7	197.129	29.80	43.49	.8933E+00	363
470.000	.15594E+01	.90254	.014816	3.2077	24570.4	28097.3	198.060	29.82	43.04	.9001E+00	368
480.000	.15149E+01	.90970	.014293	3.3313	24895.3	28525.8	198.962	29.85	42.68	.9065E+00	373
490.000	.14735E+01	.91619	.013815	3.4518	25218.5	28951.1	199.839	29.91	42.39	.9123E+00	378
500.000	.14348E+01	.92210	.013376	3.5696	25540.4	29373.8	200.692	29.98	42.15	.9178E+00	383
520.000	.13643E+01	.93243	.012594	3.7983	26181.9	30213.3	202.339	30.16	41.83	.9275E+00	393
540.000	.13016E+01	.94114	.011916	4.0192	26822.2	31047.7	203.914	30.38	41.64	.9359E+00	402
560.000	.12453E+01	.94856	.011320	4.2339	27463.0	31879.6	205.426	30.63	41.56	.9432E+00	410
580.000	.11944E+01	.95492	.010791	4.4433	28105.8	32710.8	206.885	30.91	41.56	.9496E+00	418
600.000	.11479E+01	.96042	.010316	4.6483	28751.4	33542.6	208.295	31.20	41.63	.9552E+00	426
620.000	.11054E+01	.96521	.009888	4.8496	29400.6	34376.2	209.661	31.51	41.74	.9602E+00	434
640.000	.10662E+01	.96940	.009498	5.0477	30054.0	35212.4	210.989	31.83	41.89	.9646E+00	441
660.000	.10300E+01	.97308	.009142	5.2430	30712.1	36052.0	212.281	32.15	42.07	.9685E+00	448
680.000	.99636E+00	.97634	.008814	5.4360	31375.3	36895.3	213.540	32.48	42.27	.9720E+00	455
700.000	.96504E+00	.97923	.008512	5.6268	32043.8	37743.0	214.768	32.82	42.50	.9752E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 6.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
188.876	.29217E+02	.13077	2.115978	42.5429	14.3	219.7	109.369	43.91	67.19	.4746E-02	1382
190.000	.29162E+02	.13024	2.100509	42.2133	88.1	293.9	109.768	43.91	67.26	.5102E-02	1377
200.000	.28663E+02	.12588	1.967585	39.3117	747.7	957.1	113.232	43.84	67.82	.9314E-02	1335
210.000	.28160E+02	.12203	1.842488	36.4655	1414.8	1627.9	116.553	43.64	68.29	.1592E-01	1294
220.000	.27651E+02	.11862	1.724279	33.6719	2091.6	2308.6	119.739	43.29	68.70	.2576E-01	1252
230.000	.27135E+02	.11563	1.612123	30.9307	2778.8	2999.9	122.801	42.80	69.05	.3978E-01	1210
240.000	.26608E+02	.11300	1.505269	28.2429	3475.8	3701.3	125.746	42.16	69.36	.5899E-01	1167
250.000	.26068E+02	.11073	1.403035	25.6107	4180.6	4410.8	128.584	41.38	69.66	.8437E-01	1124
260.000	.25511E+02	.10880	1.304790	23.0374	4890.5	5125.7	131.322	40.45	69.98	.1167E+00	1081
270.000	.24934E+02	.10719	1.209934	20.5265	5602.4	5843.0	133.970	39.39	70.37	.1566E+00	1037
280.000	.24330E+02	.10593	1.117878	18.0816	6313.5	6560.1	136.538	38.20	70.89	.2042E+00	992
290.000	.23695E+02	.10502	1.028018	15.7058	7022.4	7275.6	139.038	36.89	71.64	.2591E+00	946
300.000	.23018E+02	.10450	.939690	13.4013	7730.2	7990.8	141.484	35.48	72.78	.3207E+00	898
310.000	.22287E+02	.10445	.852105	11.1685	8441.5	8710.7	143.898	33.99	74.57	.3881E+00	847
320.000	.21484E+02	.10497	.764219	9.0054	9167.2	9446.4	146.307	32.49	77.45	.4607E+00	793
330.000	.20576E+02	.10628	.674437	6.9050	9927.5	10219.1	148.759	31.05	82.39	.5382E+00	733
340.000	.19501E+02	.10884	.579819	4.8495	10761.0	11068.6	151.341	29.85	91.82	.6218E+00	661
350.000	.18098E+02	.11392	.472945	2.7864	11754.8	12086.3	154.278	29.33	115.11	.7131E+00	566
350.259	.18054E+02	.11412	.469851	2.7316	11784.0	12116.3	154.244	29.33	116.18	.7258E+00	563
350.259	.33978E+01	.60635	.045160	.7395	19441.5	21207.3	180.199	40.33	124.00	.7258E+00	258
360.000	.29770E+01	.67334	.036285	1.1324	20155.7	22171.1	182.906	35.88	83.11	.7514E+00	277
370.000	.27135E+01	.71876	.031374	1.4284	20708.3	22919.5	184.958	33.78	68.41	.7729E+00	291
380.000	.25222E+01	.75293	.028075	1.6740	21182.5	23561.4	186.670	32.53	60.65	.7915E+00	302
390.000	.23716E+01	.78021	.025633	1.8890	21612.1	24142.1	188.179	31.70	55.82	.8079E+00	312
400.000	.22474E+01	.80273	.023719	2.0828	22013.1	24682.8	189.547	31.13	52.52	.8225E+00	321
410.000	.21419E+01	.82174	.022163	2.2612	22394.2	25195.5	190.813	30.73	50.14	.8356E+00	329
420.000	.20502E+01	.83807	.020862	2.4275	22761.0	25687.6	191.999	30.44	48.36	.8474E+00	336
430.000	.19692E+01	.85225	.019752	2.5843	23117.0	26164.0	193.120	30.24	46.98	.8581E+00	343
440.000	.18967E+01	.86470	.018790	2.7333	23464.8	26628.2	194.188	30.11	45.91	.8678E+00	349
450.000	.18312E+01	.87571	.017944	2.8759	23806.4	27082.9	195.209	30.03	45.05	.8767E+00	355
460.000	.17716E+01	.88552	.017193	3.0129	24143.1	27529.9	196.192	29.99	44.37	.8848E+00	361
470.000	.17168E+01	.89431	.016519	3.1453	24475.9	27970.7	197.140	29.98	43.81	.8923E+00	367
480.000	.16663E+01	.90223	.015911	3.2737	24805.8	28406.5	198.058	30.00	43.37	.8991E+00	372
490.000	.16195E+01	.90939	.015357	3.3985	25133.4	28838.3	198.948	30.04	43.00	.9055E+00	377
500.000	.15758E+01	.91589	.014849	3.5202	25459.2	29266.8	199.813	30.10	42.71	.9114E+00	382
520.000	.14967E+01	.92723	.013951	3.7558	26107.5	30116.4	201.480	30.26	42.29	.9219E+00	392
540.000	.14266E+01	.93676	.013177	3.9825	26753.5	30959.3	203.070	30.46	42.03	.9310E+00	401
560.000	.13638E+01	.94485	.012500	4.2022	27399.1	31798.4	204.596	30.70	41.90	.9389E+00	410
580.000	.13072E+01	.95178	.011901	4.4160	28046.0	32635.8	206.065	30.97	41.85	.9458E+00	418
600.000	.12558E+01	.95776	.011366	4.6249	28695.1	33473.1	207.485	31.25	41.88	.9518E+00	426
620.000	.12087E+01	.96295	.010885	4.8296	29347.5	34311.5	208.859	31.55	41.96	.9572E+00	434
640.000	.11654E+01	.96749	.010448	5.0308	30003.7	35152.0	210.194	31.87	42.09	.9620E+00	441
660.000	.11255E+01	.97148	.010049	5.2290	30664.2	35995.3	211.491	32.19	42.25	.9662E+00	448
680.000	.10884E+01	.97499	.009683	5.4244	31329.6	36842.1	212.755	32.51	42.44	.9700E+00	455
700.000	.10540E+01	.97811	.009346	5.6175	32000.2	37692.9	213.988	32.85	42.65	.9734E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 6.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
188.978	.29224E+02	.14155	2.117724	42.6458	15.6	238.0	109.376	43.91	67.18	.4459E-02	1383
190.000	.29173E+02	.14104	2.103658	42.3463	82.7	305.5	109.738	43.91	67.24	.4761E-02	1379
200.000	.28675E+02	.13631	1.970744	39.4478	741.7	968.4	113.202	43.85	67.79	.8688E-02	1337
210.000	.28174E+02	.13213	1.845672	36.6049	1408.2	1639.0	116.521	43.64	68.26	.1484E-01	1296
220.000	.27666E+02	.12844	1.727502	33.8151	2084.4	2319.3	119.706	43.30	68.66	.2401E-01	1254
230.000	.27151E+02	.12519	1.615402	31.0778	2770.8	3010.2	122.766	42.80	69.00	.3707E-01	1212
240.000	.26626E+02	.12234	1.508626	28.3941	3467.0	3711.1	125.709	42.16	69.30	.5497E-01	1170
250.000	.26087E+02	.11987	1.406492	25.7665	4170.8	4419.9	128.544	41.38	69.59	.7860E-01	1127
260.000	.25533E+02	.11776	1.308376	23.1980	4879.4	5134.0	131.279	40.46	69.89	.1087E+00	1084
270.000	.24958E+02	.11601	1.213683	20.6924	5589.8	5850.3	133.923	39.39	70.25	.1459E+00	1040
280.000	.24358E+02	.11462	1.121835	18.2533	6299.2	6566.1	136.485	38.20	70.74	.1902E+00	995
290.000	.23726E+02	.11362	1.032241	15.8840	7006.0	7279.9	138.980	36.89	71.45	.2413E+00	950
300.000	.23055E+02	.11303	.944261	13.5869	7710.9	7992.8	141.419	35.48	72.52	.2986E+00	902
310.000	.22332E+02	.11293	.857144	11.3632	8418.4	8709.5	143.822	34.00	74.19	.3614E+00	852
320.000	.21539E+02	.11342	.769915	9.2115	9138.8	9440.6	146.216	32.49	76.88	.4289E+00	799
330.000	.20648E+02	.11473	.681126	7.1265	9891.0	10205.8	148.645	31.05	81.44	.5013E+00	740
340.000	.19602E+02	.11730	.588214	5.0947	10710.4	11042.0	151.188	29.84	89.93	.5792E+00	671
350.000	.18269E+02	.12226	.485187	3.0777	11671.5	12027.3	154.031	29.30	109.51	.6645E+00	580
354.724	.17428E+02	.12645	.428052	2.0963	12228.7	12601.6	155.541	29.60	131.68	.7152E+00	523
354.724	.38169E+01	.57741	.051984	.6164	19275.1	20978.0	179.155	41.85	148.60	.7152E+00	253
360.000	.34762E+01	.62470	.044590	.8750	19759.3	21629.2	180.968	38.25	105.95	.7307E+00	266
370.000	.30899E+01	.68381	.037056	1.2306	20422.8	22526.5	183.429	35.09	78.34	.7547E+00	283
380.000	.28364E+01	.72531	.032525	1.5095	20952.7	23244.4	185.343	33.42	66.52	.7753E+00	296
390.000	.26467E+01	.75738	.029342	1.7472	21417.3	23873.2	186.977	32.36	59.80	.7931E+00	307
400.000	.24949E+01	.78336	.026927	1.9581	21842.7	24448.0	188.432	31.64	55.44	.8090E+00	317
410.000	.23686E+01	.80501	.025006	2.1499	22242.1	24986.4	189.761	31.14	52.40	.8233E+00	325
420.000	.22605E+01	.82343	.023425	2.3273	22623.2	25498.7	190.996	30.79	50.17	.8361E+00	333
430.000	.21661E+01	.83933	.022094	2.4935	22990.7	25991.5	192.156	30.53	48.48	.8476E+00	340
440.000	.20824E+01	.85321	.020952	2.6505	23348.1	26469.4	193.255	30.36	47.16	.8581E+00	347
450.000	.20074E+01	.86543	.019956	2.8000	23697.7	26935.7	194.303	30.24	46.13	.8677E+00	353
460.000	.19395E+01	.87627	.019077	2.9433	24041.2	27392.7	195.307	30.18	45.30	.8764E+00	360
470.000	.18774E+01	.88596	.018295	3.0812	24380.0	27842.2	196.274	30.15	44.63	.8845E+00	365
480.000	.18204E+01	.89466	.017591	3.2145	24715.1	28285.7	197.208	30.15	44.09	.8919E+00	371
490.000	.17678E+01	.90251	.016953	3.3438	25047.4	28724.3	198.112	30.17	43.65	.8987E+00	376
500.000	.17189E+01	.90963	.016372	3.4696	25377.4	29158.9	198.990	30.21	43.29	.9051E+00	381
520.000	.16306E+01	.92201	.015348	3.7122	26032.7	30019.1	200.677	30.35	42.76	.9164E+00	391
540.000	.15527E+01	.93238	.014470	3.9451	26684.5	30870.7	202.284	30.54	42.43	.9261E+00	401
560.000	.14833E+01	.94116	.013707	4.1700	27335.1	31717.3	203.823	30.77	42.24	.9346E+00	409
580.000	.14208E+01	.94867	.013034	4.3883	27986.1	32561.0	205.304	31.03	42.15	.9420E+00	418
600.000	.13642E+01	.95513	.012436	4.6012	28638.9	33403.8	206.733	31.31	42.14	.9485E+00	426
620.000	.13124E+01	.96074	.011898	4.8095	29294.5	34247.1	208.115	31.60	42.19	.9543E+00	434
640.000	.12650E+01	.96563	.011412	5.0138	29953.5	35091.9	209.456	31.91	42.29	.9594E+00	441
660.000	.12212E+01	.96992	.010969	5.2148	30616.6	35939.1	210.760	32.22	42.43	.9640E+00	448
680.000	.11807E+01	.97370	.010564	5.4128	31284.3	36789.4	212.029	32.55	42.60	.9680E+00	455
700.000	.11431E+01	.97704	.010191	5.6083	31956.8	37643.4	213.267	32.88	42.80	.9717E+00	462

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 7.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
189.080	.29231E+02	.15233	2.119464	42.7485	16.9	256.3	109.383	43.91	67.16	.4213E-02	1385
190.000	.29185E+02	.15183	2.106803	42.4791	77.2	317.1	109.709	43.91	67.22	.4469E-02	1381
200.000	.28688E+02	.14673	1.973897	39.5837	735.8	979.8	113.171	43.85	67.77	.8152E-02	1339
210.000	.28187E+02	.14223	1.848848	36.7442	1401.7	1650.0	116.489	43.64	68.23	.1392E-01	1298
220.000	.27681E+02	.13825	1.730716	33.9579	2077.2	2330.0	119.673	43.30	68.62	.2252E-01	1256
230.000	.27167E+02	.13474	1.618672	31.2245	2762.9	3020.6	122.731	42.80	68.95	.3476E-01	1214
240.000	.26643E+02	.13166	1.511971	28.5451	3458.1	3720.9	125.672	42.17	69.24	.5152E-01	1172
250.000	.26107E+02	.12899	1.409936	25.9218	4160.9	4429.1	128.504	41.38	69.51	.7366E-01	1130
260.000	.25554E+02	.12671	1.311946	23.3582	4868.4	5142.4	131.235	40.46	69.80	.1019E+00	1087
270.000	.24982E+02	.12482	1.217412	20.8577	5577.4	5857.6	133.876	39.40	70.14	.1367E+00	1043
280.000	.24385E+02	.12330	1.125766	18.4243	6285.1	6572.1	136.434	38.20	70.59	.1781E+00	999
290.000	.23758E+02	.12220	1.036431	16.0613	6989.7	7284.3	138.922	36.89	71.26	.2260E+00	954
300.000	.23092E+02	.12153	.948787	13.7715	7691.8	7995.0	141.354	35.48	72.26	.2797E+00	907
310.000	.22375E+02	.12138	.862120	11.5564	8395.8	8708.6	143.747	34.00	73.82	.3385E+00	858
320.000	.21593E+02	.12184	.775517	9.4156	9111.0	9435.2	146.127	32.49	76.33	.4018E+00	805
330.000	.20717E+02	.12315	.687659	7.3451	9855.6	10193.5	148.534	31.05	80.55	.4696E+00	747
340.000	.19698E+02	.12571	.596298	5.3347	10662.0	11017.4	151.041	29.84	88.24	.5427E+00	680
350.000	.18425E+02	.13056	.496524	3.3567	11595.3	11975.2	153.804	29.28	105.00	.6229E+00	594
358.934	.16755E+02	.14000	.386628	1.5329	12691.3	13109.1	156.881	30.45	155.13	.7050E+00	478
358.934	.42967E+01	.54590	.059919	.4912	19069.7	20698.9	178.026	43.62	185.73	.7050E+00	247
360.000	.41779E+01	.55976	.057243	.5597	19208.5	20884.0	178.531	42.30	163.05	.7092E+00	251
370.000	.35363E+01	.64344	.044113	1.0127	20087.7	22067.2	181.778	36.74	93.59	.7361E+00	275
380.000	.31883E+01	.69488	.037700	1.3335	20697.7	22893.2	183.980	34.44	74.28	.7589E+00	290
390.000	.29457E+01	.73283	.033513	1.5975	21207.2	23583.5	185.774	33.09	64.68	.7784E+00	302
400.000	.27591E+01	.76283	.030458	1.8274	21662.1	24199.2	187.333	32.20	58.87	.7956E+00	313
410.000	.26076E+01	.78747	.028089	2.0340	22082.8	24767.2	188.736	31.58	54.97	.8110E+00	322
420.000	.24802E+01	.80820	.026176	2.2233	22480.0	25302.3	190.025	31.15	52.19	.8248E+00	330
430.000	.23705E+01	.82596	.024587	2.3994	22860.4	25813.4	191.228	30.84	50.12	.8372E+00	338
440.000	.22742E+01	.84137	.023237	2.5650	23228.2	26306.3	192.361	30.62	48.53	.8485E+00	345
450.000	.21885E+01	.85488	.022071	2.7219	23586.5	26785.1	193.438	30.47	47.28	.8587E+00	352
460.000	.21114E+01	.86682	.021050	2.8716	23937.5	27252.8	194.465	30.37	46.29	.8681E+00	358
470.000	.20415E+01	.87745	.020145	3.0152	24282.6	27711.5	195.452	30.32	45.50	.8768E+00	364
480.000	.19775E+01	.88697	.019336	3.1536	24623.3	28163.2	196.403	30.30	44.85	.8847E+00	370
490.000	.19186E+01	.89555	.018607	3.2876	24960.4	28608.9	197.323	30.30	44.32	.8920E+00	375
500.000	.18641E+01	.90330	.017945	3.4176	25294.7	29050.0	198.213	30.34	43.89	.8988E+00	380
520.000	.17661E+01	.91675	.016785	3.6676	25957.5	29921.1	199.922	30.45	43.26	.9109E+00	390
540.000	.16801E+01	.92798	.015796	3.9067	26615.3	30781.8	201.546	30.63	42.85	.9214E+00	400
560.000	.16037E+01	.93748	.014941	4.1370	27270.9	31635.9	203.099	30.84	42.59	.9304E+00	409
580.000	.15351E+01	.94557	.014190	4.3601	27926.3	32486.2	204.591	31.09	42.45	.9384E+00	417
600.000	.14731E+01	.95253	.013524	4.5771	28582.8	33334.7	206.029	31.36	42.41	.9453E+00	426
620.000	.14166E+01	.95855	.012928	4.7890	29241.6	34182.9	207.420	31.64	42.43	.9515E+00	434
640.000	.13649E+01	.96380	.012390	4.9966	29903.5	35032.1	208.768	31.95	42.50	.9569E+00	441
660.000	.13172E+01	.96839	.011901	5.2005	30569.2	35883.3	210.078	32.26	42.62	.9618E+00	449
680.000	.12732E+01	.97244	.011455	5.4011	31239.1	36737.1	211.352	32.58	42.77	.9661E+00	456
700.000	.12323E+01	.97601	.011045	5.5990	31913.7	37594.2	212.595	32.90	42.95	.9700E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 7.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.181	.29237E+02	.16308	2.121201	42.8512	18.1	274.7	109.390	43.91	67.15	.4001E-02	1386
190.000	.29197E+02	.16261	2.109941	42.6118	71.8	328.7	109.680	43.91	67.20	.4217E-02	1383
200.000	.28701E+02	.15715	1.977043	39.7194	729.8	991.2	113.141	43.85	67.74	.7689E-02	1341
210.000	.28201E+02	.15232	1.852016	36.8832	1395.2	1661.1	116.458	43.65	68.20	.1313E-01	1300
220.000	.27696E+02	.14804	1.733923	34.1005	2070.0	2340.8	119.640	43.30	68.59	.2123E-01	1258
230.000	.27183E+02	.14428	1.621933	31.3710	2755.0	3030.9	122.696	42.81	68.91	.3276E-01	1217
240.000	.26661E+02	.14097	1.515306	28.6956	3449.4	3730.7	125.634	42.17	69.19	.4854E-01	1175
250.000	.26126E+02	.13811	1.413367	26.0768	4151.2	4438.3	128.464	41.39	69.44	.6939E-01	1133
260.000	.25576E+02	.13565	1.315499	23.5179	4857.5	5150.8	131.193	40.46	69.71	.9596E-01	1090
270.000	.25006E+02	.13360	1.221122	21.0225	5565.1	5865.1	133.829	39.40	70.03	.1287E+00	1047
280.000	.24412E+02	.13197	1.129673	18.5947	6271.1	6578.3	136.383	38.21	70.45	.1677E+00	1003
290.000	.23789E+02	.13075	1.040589	16.2379	6973.6	7288.8	138.865	36.90	71.07	.2128E+00	957
300.000	.23128E+02	.13001	.953271	13.9551	7673.1	7997.4	141.289	35.49	72.01	.2633E+00	911
310.000	.22418E+02	.12980	.867036	11.7484	8373.4	8708.0	143.673	34.00	73.47	.3187E+00	863
320.000	.21645E+02	.13023	.781029	9.6178	9083.8	9430.3	146.039	32.50	75.82	.3783E+00	811
330.000	.20784E+02	.13152	.694046	7.5609	9821.2	10182.1	148.427	31.05	79.72	.4421E+00	754
340.000	.19790E+02	.13406	.604103	5.5701	10615.7	10994.7	150.900	29.84	86.72	.5110E+00	689
350.000	.18568E+02	.13880	.507129	3.6255	11524.8	11928.7	153.594	29.26	101.27	.5868E+00	606
360.000	.16808E+02	.14907	.390254	1.6579	12704.9	13151.1	156.937	30.70	147.75	.6710E+00	483
362.915	.16004E+02	.15531	.344584	1.0367	13186.3	13655.0	158.309	32.26	194.56	.6951E+00	428
362.915	.48678E+01	.51060	.069454	.3649	18809.9	20350.6	176.758	45.82	248.30	.6951E+00	240
370.000	.40996E+01	.59457	.053422	.7686	19672.1	21501.5	179.893	38.97	120.72	.7171E+00	264
380.000	.35922E+01	.66081	.043851	1.1451	20408.7	22496.6	182.547	35.64	85.09	.7423E+00	283
390.000	.32751E+01	.70622	.038251	1.4400	20978.1	23268.1	184.552	33.90	70.84	.7635E+00	297
400.000	.30434E+01	.74098	.034368	1.6911	21469.5	23933.8	186.238	32.80	62.96	.7821E+00	308
410.000	.28610E+01	.76900	.031447	1.9136	21915.2	24536.7	187.727	32.05	57.94	.7987E+00	318
420.000	.27107E+01	.79231	.029135	2.1157	22330.9	25097.7	189.079	31.53	54.46	.8135E+00	327
430.000	.25832E+01	.81209	.027243	2.3023	22725.6	25629.0	190.329	31.15	51.93	.8268E+00	335
440.000	.24725E+01	.82915	.025655	2.4768	23104.9	26138.3	191.500	30.88	50.01	.8389E+00	343
450.000	.23750E+01	.84403	.024296	2.6414	23472.7	26630.7	192.607	30.70	48.53	.8499E+00	350
460.000	.22878E+01	.85713	.023115	2.7978	23831.6	27109.8	193.660	30.57	47.35	.8599E+00	356
470.000	.22092E+01	.86876	.022075	2.9474	24183.6	27578.5	194.668	30.49	46.41	.8692E+00	362
480.000	.21376E+01	.87914	.021151	3.0912	24530.1	28038.7	195.637	30.45	45.65	.8776E+00	368
490.000	.20720E+01	.88846	.020321	3.2299	24872.3	28492.0	196.572	30.44	45.03	.8854E+00	374
500.000	.20115E+01	.89688	.019571	3.3643	25211.2	28939.8	197.476	30.46	44.53	.8927E+00	379
520.000	.19033E+01	.91143	.018264	3.6219	25881.6	29822.3	199.207	30.55	43.77	.9056E+00	390
540.000	.18087E+01	.92356	.017157	3.8675	26545.8	30692.4	200.849	30.71	43.27	.9167E+00	399
560.000	.17250E+01	.93378	.016203	4.1033	27206.6	31554.4	202.417	30.91	42.95	.9263E+00	409
580.000	.16502E+01	.94247	.015369	4.3311	27866.4	32411.4	203.920	31.15	42.76	.9348E+00	417
600.000	.15826E+01	.94993	.014633	4.5524	28526.7	33265.6	205.369	31.41	42.68	.9422E+00	426
620.000	.15213E+01	.95638	.013975	4.7680	29188.8	34118.9	206.768	31.69	42.66	.9487E+00	433
640.000	.14651E+01	.96199	.013383	4.9790	29853.6	34972.6	208.123	31.99	42.71	.9545E+00	441
660.000	.14135E+01	.96689	.012847	5.1858	30521.8	35827.7	209.439	32.29	42.81	.9596E+00	449
680.000	.13659E+01	.97120	.012357	5.3892	31194.1	36685.1	210.718	32.61	42.94	.9642E+00	456
700.000	.13217E+01	.97501	.011909	5.5895	31870.8	37545.5	211.965	32.93	43.10	.9684E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 8.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
189.283	.29244E+02	.17382	2.122932	42.9537	19.4	293.0	109.397	43.91	67.13	.3817E-02	1388
190.000	.29209E+02	.17338	2.113074	42.7443	66.4	340.3	109.651	43.91	67.18	.3996E-02	1385
200.000	.28713E+02	.16755	1.980184	39.8549	723.9	1002.5	113.111	43.85	67.72	.7284E-02	1343
210.000	.28214E+02	.16239	1.855178	37.0219	1388.7	1672.2	116.426	43.65	68.17	.1243E-01	1302
220.000	.27710E+02	.15783	1.737121	34.2428	2062.9	2351.6	119.606	43.30	68.55	.2010E-01	1261
230.000	.27199E+02	.15381	1.625184	31.5171	2747.1	3041.3	122.661	42.81	68.86	.3100E-01	1219
240.000	.26678E+02	.15027	1.518629	28.8459	3440.7	3740.6	125.597	42.17	69.13	.4594E-01	1177
250.000	.26145E+02	.14720	1.416784	26.2314	4141.5	4447.5	128.424	41.39	69.37	.6565E-01	1135
260.000	.25597E+02	.14458	1.319037	23.6771	4846.7	5159.2	131.150	40.46	69.62	.9078E-01	1093
270.000	.25030E+02	.14238	1.224812	21.1868	5552.9	5872.5	133.783	39.40	69.92	.1217E+00	1050
280.000	.24439E+02	.14061	1.133556	18.7644	6257.2	6584.5	136.332	38.21	70.31	.1586E+00	1006
290.000	.23819E+02	.13929	1.044717	16.4136	6957.6	7293.5	138.809	36.90	70.89	.2013E+00	961
300.000	.23163E+02	.13846	.957714	14.1377	7654.5	7999.9	141.225	35.49	71.76	.2490E+00	915
310.000	.22461E+02	.13819	.871895	11.9390	8351.5	8707.7	143.600	34.01	73.13	.3014E+00	867
320.000	.21697E+02	.13858	.786457	9.8183	9057.2	9425.9	145.953	32.50	75.32	.3577E+00	817
330.000	.20849E+02	.13985	.700296	7.7741	9787.8	10171.5	148.322	31.05	78.94	.4181E+00	761
340.000	.19878E+02	.14237	.611657	5.8013	10571.3	10973.7	150.764	29.83	85.33	.4834E+00	697
350.000	.18701E+02	.14700	.517125	3.8858	11459.0	11886.8	153.397	29.24	98.12	.5552E+00	618
360.000	.17083E+02	.15645	.407234	1.9847	12574.9	13043.2	156.555	30.60	133.67	.6353E+00	504
366.587	.15115E+02	.17360	.300224	.6062	13740.5	14269.8	159.906	36.10	274.75	.6854E+00	367
366.687	.55921E+01	.46922	.081568	.2388	18463.8	19894.3	175.245	48.81	375.50	.6854E+00	232
370.000	.49060E+01	.53006	.067336	.4845	19094.2	20724.9	177.490	42.55	186.42	.6973E+00	249
380.000	.40721E+01	.62180	.051390	.9431	20071.5	22036.1	180.990	37.10	101.28	.7254E+00	274
390.000	.36437E+01	.67708	.043707	1.2747	20725.0	22920.5	183.289	34.81	78.83	.7485E+00	291
400.000	.33521E+01	.71758	.038730	1.5493	21262.4	23649.0	185.134	33.45	67.92	.7686E+00	303
410.000	.31311E+01	.74950	.035118	1.7891	21738.0	24293.0	186.725	32.55	61.38	.7864E+00	314
420.000	.29534E+01	.77567	.032327	2.0047	22175.1	24883.8	188.148	31.93	57.03	.8023E+00	324
430.000	.28052E+01	.79768	.030081	2.2023	22585.9	25437.8	189.452	31.48	53.93	.8165E+00	332
440.000	.26782E+01	.81651	.028218	2.3861	22977.9	25965.0	190.665	31.16	51.63	.8294E+00	340
450.000	.25673E+01	.83286	.026640	2.5587	23356.0	26472.2	191.805	30.93	49.87	.8411E+00	347
460.000	.24690E+01	.84719	.025279	2.7221	23723.5	26963.7	192.885	30.77	48.49	.8518E+00	354
470.000	.23808E+01	.85986	.024089	2.8778	24082.7	27442.8	193.916	30.67	47.39	.8616E+00	361
480.000	.23010E+01	.87114	.023037	3.0271	24435.5	27912.1	194.904	30.61	46.50	.8706E+00	367
490.000	.22282E+01	.88125	.022098	3.1708	24783.1	28373.4	195.855	30.58	45.78	.8789E+00	373
500.000	.21613E+01	.89035	.021252	3.3096	25126.8	28828.2	196.773	30.58	45.19	.8866E+00	378
520.000	.20422E+01	.90605	.019786	3.5751	25805.2	29722.6	198.528	30.66	44.31	.9003E+00	389
540.000	.19387E+01	.91909	.018551	3.8273	26475.8	30602.4	200.188	30.79	43.71	.9120E+00	399
560.000	.18474E+01	.93005	.017493	4.0688	27142.1	31472.5	201.770	30.98	43.32	.9223E+00	408
580.000	.17660E+01	.93936	.016573	4.3015	27806.4	32336.4	203.286	31.21	43.08	.9312E+00	417
600.000	.16928E+01	.94733	.015761	4.5271	28470.6	33196.6	204.744	31.46	42.95	.9391E+00	425
620.000	.16264E+01	.95421	.015039	4.7466	29136.1	34055.0	206.152	31.74	42.91	.9460E+00	433
640.000	.15657E+01	.96019	.014391	4.9609	29803.8	34913.2	207.514	32.03	42.93	.9521E+00	441
660.000	.15101E+01	.96541	.013805	5.1709	30474.7	35772.4	208.836	32.33	43.00	.9576E+00	449
680.000	.14587E+01	.96999	.013271	5.3770	31149.3	36633.4	210.121	32.64	43.11	.9624E+00	456
700.000	.14112E+01	.97402	.012783	5.5797	31828.1	37497.1	211.373	32.96	43.26	.9668E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 8.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.385	.29251E+02	.18454	2.124660	43.0561	20.7	311.3	109.404	43.91	67.12	.3656E-02	1389
190.000	.29220E+02	.18414	2.116201	42.8765	61.0	351.9	109.622	43.91	67.16	.3802E-02	1387
200.000	.28726E+02	.17794	1.983317	39.9901	718.0	1013.9	113.081	43.85	67.69	.6928E-02	1345
210.000	.28228E+02	.17246	1.858332	37.1604	1382.2	1683.4	116.395	43.65	68.14	.1182E-01	1304
220.000	.27725E+02	.16761	1.740311	34.3849	2055.8	2362.4	119.573	43.30	68.51	.1910E-01	1263
230.000	.27215E+02	.16332	1.628426	31.6630	2739.3	3051.6	122.626	42.81	68.82	.2946E-01	1222
240.000	.26695E+02	.15956	1.521942	28.9957	3432.0	3750.4	125.560	42.17	69.08	.4364E-01	1180
250.000	.26164E+02	.15629	1.420189	26.3856	4131.9	4456.8	128.385	41.39	69.31	.6236E-01	1138
260.000	.25618E+02	.15348	1.322560	23.8359	4835.9	5167.7	131.108	40.47	69.54	.8622E-01	1096
270.000	.25053E+02	.15113	1.228484	21.3505	5540.8	5880.1	133.737	39.40	69.81	.1156E+00	1053
280.000	.24466E+02	.14923	1.137415	18.9334	6243.5	6590.9	136.282	38.21	70.18	.1506E+00	1010
290.000	.23850E+02	.14781	1.048814	16.5886	6941.9	7298.3	138.753	36.90	70.71	.1911E+00	965
300.000	.23198E+02	.14689	.962116	14.3193	7636.2	8002.6	141.163	35.49	71.53	.2364E+00	920
310.000	.22502E+02	.14655	.876698	12.1284	8329.9	8707.6	143.528	34.01	72.81	.2861E+00	872
320.000	.21747E+02	.14690	.791804	10.0170	9031.1	9422.0	145.869	32.50	74.85	.3396E+00	822
330.000	.20912E+02	.14814	.706419	7.9849	9755.2	10161.7	148.219	31.05	78.21	.3970E+00	768
340.000	.19962E+02	.15063	.618982	6.0286	10528.4	10954.2	150.633	29.83	84.06	.4590E+00	705
350.000	.18826E+02	.15516	.526605	4.1387	11397.3	11848.8	153.213	29.23	95.40	.5273E+00	629
360.000	.17318E+02	.16398	.422089	2.2890	12463.3	12954.1	156.227	30.53	123.96	.6038E+00	522
370.000	.14161E+02	.19511	.259089	.3149	14307.0	14907.2	161.417	44.58	437.95	.6845E+00	301
370.263	.13921E+02	.19833	.249318	.2458	14425.6	15036.1	161.892	46.11	529.30	.6759E+00	287
370.263	.66420E+01	.41569	.098918	.1143	17944.2	19223.9	173.202	53.86	772.44	.6759E+00	219
380.000	.46736E+01	.57563	.061085	.7261	19659.6	21478.4	179.219	38.97	128.36	.7080E+00	264
390.000	.40651E+01	.64484	.050101	1.1020	20440.7	22531.7	181.958	35.85	89.61	.7333E+00	284
400.000	.36911E+01	.69242	.043636	1.4026	21038.0	23340.9	184.008	34.16	74.02	.7550E+00	298
410.000	.34211E+01	.72885	.039153	1.6608	21549.8	24034.5	185.721	33.08	65.42	.7741E+00	310
420.000	.32102E+01	.75823	.035782	1.8906	22011.6	24659.4	187.227	32.35	59.94	.7910E+00	320
430.000	.30376E+01	.78267	.033117	2.0998	22440.7	25238.9	188.591	31.82	56.16	.8062E+00	329
440.000	.28919E+01	.80343	.030938	2.2932	22846.8	25786.1	189.849	31.44	53.40	.8199E+00	338
450.000	.27660E+01	.82134	.029111	2.4740	23236.2	26309.2	191.025	31.17	51.32	.8324E+00	345
460.000	.26553E+01	.83697	.027548	2.6446	23612.9	26814.0	192.135	30.98	49.70	.8437E+00	352
470.000	.25568E+01	.85074	.026192	2.8067	23979.9	27304.4	193.190	30.85	48.42	.8541E+00	359
480.000	.24680E+01	.86296	.025000	2.9616	24339.3	27783.3	194.198	30.77	47.40	.8636E+00	365
490.000	.23874E+01	.87388	.023940	3.1103	24692.7	28253.0	195.167	30.72	46.56	.8724E+00	371
500.000	.23137E+01	.88370	.022991	3.2538	25041.3	28715.1	196.100	30.71	45.88	.8806E+00	377
520.000	.21830E+01	.90059	.021352	3.5272	25728.1	29621.9	197.879	30.76	44.86	.8950E+00	388
540.000	.20700E+01	.91457	.019982	3.7861	26405.5	30511.7	199.558	30.88	44.17	.9075E+00	398
560.000	.19708E+01	.92630	.018813	4.0334	27077.2	31390.2	201.155	31.06	43.71	.9183E+00	408
580.000	.18827E+01	.93623	.017800	4.2712	27746.2	32261.1	202.684	31.27	43.41	.9277E+00	417
600.000	.18035E+01	.94473	.016910	4.5012	28414.4	33127.4	204.152	31.51	43.23	.9360E+00	425
620.000	.17319E+01	.95205	.016121	4.7246	29083.3	33991.1	205.568	31.78	43.15	.9433E+00	433
640.000	.16667E+01	.95839	.015414	4.9424	29754.1	34853.9	206.938	32.07	43.14	.9498E+00	441
660.000	.16069E+01	.96393	.014776	5.1554	30427.6	35717.2	208.266	32.37	43.19	.9555E+00	449
680.000	.15518E+01	.96878	.014197	5.3644	31104.6	36581.9	209.557	32.68	43.28	.9607E+00	456
700.000	.15009E+01	.97306	.013667	5.5697	31785.5	37448.8	210.813	32.99	43.41	.9652E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 8.96291 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.479	.29257E+02	.19446	2.126255	43.1509	21.9	328.3	109.411	43.91	67.11	.3523E-02	1390
190.000	.29231E+02	.19409	2.119091	42.9989	56.0	362.6	109.595	43.92	67.14	.3642E-02	1388
200.000	.28737E+02	.18756	1.986213	40.1152	712.6	1024.5	113.053	43.85	67.67	.6634E-02	1347
210.000	.28240E+02	.18177	1.861247	37.2885	1376.3	1693.7	116.366	43.65	68.11	.1132E-01	1306
220.000	.27738E+02	.17665	1.743257	34.5162	2049.2	2372.4	119.543	43.30	68.48	.1828E-01	1265
230.000	.27229E+02	.17213	1.631420	31.7977	2732.1	3061.3	122.594	42.81	68.78	.2819E-01	1224
240.000	.26711E+02	.16815	1.524999	29.1342	3424.1	3759.6	125.526	42.17	69.02	.4175E-01	1182
250.000	.26182E+02	.16469	1.423330	26.5280	4123.0	4465.4	128.349	41.39	69.24	.5965E-01	1141
260.000	.25637E+02	.16172	1.325808	23.9825	4826.0	5175.6	131.069	40.47	69.46	.8245E-01	1099
270.000	.25075E+02	.15923	1.231866	21.5016	5529.7	5887.1	133.695	39.41	69.71	.1105E+00	1056
280.000	.24490E+02	.15721	1.140968	19.0894	6230.9	6596.8	136.236	38.22	70.05	.1440E+00	1013
290.000	.23877E+02	.15568	1.052581	16.7498	6927.5	7302.8	138.702	36.90	70.55	.1827E+00	969
300.000	.23230E+02	.15468	.966158	14.4866	7619.5	8005.3	141.106	35.49	71.31	.2260E+00	924
310.000	.22540E+02	.15428	.881097	12.3026	8310.2	8707.8	143.462	34.01	72.52	.2735E+00	877
320.000	.21793E+02	.15458	.796685	10.1996	9007.4	9418.7	145.792	32.50	74.43	.3247E+00	827
330.000	.20970E+02	.15578	.711981	8.1780	9725.8	10153.2	148.127	31.06	77.57	.3795E+00	774
340.000	.20038E+02	.15823	.625577	6.2358	10490.2	10937.5	150.515	29.83	82.98	.4389E+00	713
350.000	.18934E+02	.16266	.534986	4.3671	11343.2	11816.6	153.051	29.22	93.20	.5043E+00	639
360.000	.17509E+02	.17102	.434495	2.5559	12371.6	12883.5	155.957	30.49	117.22	.5777E+00	537
370.000	.15069E+02	.19334	.299914	.7393	13905.3	14500.1	160.231	43.47	241.71	.6559E+00	347
380.000	.54285E+01	.52258	.073432	.5105	19162.7	20813.7	177.228	41.32	177.52	.6913E+00	253
390.000	.45201E+01	.61151	.057145	.9364	20140.3	22123.2	180.633	36.95	103.52	.7191E+00	277
400.000	.40386E+01	.66730	.048773	1.2633	20811.4	23030.7	182.933	34.88	81.06	.7424E+00	293
410.000	.37104E+01	.70860	.043265	1.5395	21364.2	23779.8	184.783	33.61	69.82	.7627E+00	306
420.000	.34623E+01	.74132	.039243	1.7829	21852.7	24441.5	186.378	32.75	63.01	.7806E+00	317
430.000	.32633E+01	.76822	.036124	2.0031	22300.9	25047.4	187.804	32.15	58.45	.7967E+00	326
440.000	.30977E+01	.79090	.033608	2.2055	22721.4	25614.8	189.109	31.71	55.20	.8112E+00	335
450.000	.29562E+01	.81035	.031520	2.3941	23122.2	26154.1	190.321	31.40	52.77	.8243E+00	343
460.000	.28328E+01	.82725	.029750	2.5715	23508.1	26672.1	191.460	31.18	50.91	.8362E+00	351
470.000	.27237E+01	.84209	.028223	2.7395	23882.8	27173.5	192.538	31.02	49.44	.8472E+00	357
480.000	.26260E+01	.85522	.026888	2.8997	24248.7	27661.9	193.566	30.92	48.27	.8572E+00	364
490.000	.25376E+01	.86693	.025707	3.0533	24607.7	28139.7	194.552	30.85	47.32	.8664E+00	370
500.000	.24571E+01	.87743	.024653	3.2010	24961.2	28608.9	195.499	30.83	46.55	.8750E+00	376
520.000	.23151E+01	.89546	.022844	3.4820	25656.1	29527.7	197.301	30.85	45.39	.8902E+00	387
540.000	.21929E+01	.91033	.021339	3.7472	26339.9	30427.2	198.999	30.96	44.60	.9033E+00	398
560.000	.20861E+01	.92278	.020062	4.0000	27017.0	31313.6	200.611	31.12	44.07	.9146E+00	407
580.000	.19914E+01	.93331	.018958	4.2425	27690.4	32191.2	202.151	31.33	43.72	.9245E+00	416
600.000	.19067E+01	.94230	.017993	4.4766	28362.3	33063.2	203.629	31.56	43.50	.9332E+00	425
620.000	.18301E+01	.95003	.017138	4.7037	29034.5	33931.9	205.053	31.83	43.38	.9409E+00	433
640.000	.17605E+01	.95673	.016375	4.9248	29708.1	34799.1	206.430	32.11	43.35	.9477E+00	441
660.000	.16968E+01	.96256	.015687	5.1408	30384.1	35666.2	207.764	32.40	43.37	.9537E+00	449
680.000	.16382E+01	.96767	.015064	5.3524	31063.3	36534.3	209.060	32.71	43.45	.9590E+00	456
700.000	.15841E+01	.97217	.014495	5.5601	31746.2	37404.4	210.321	33.02	43.56	.9638E+00	463

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 9.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.588	.29264E+02	.20594	2.128100	43.2606	23.3	348.0	109.419	43.92	67.09	.3386E-02	1392
190.000	.29244E+02	.20564	2.122438	43.1406	50.3	375.1	109.564	43.92	67.12	.3477E-02	1390
200.000	.28751E+02	.19871	1.989566	40.2600	706.3	1036.7	113.021	43.85	67.64	.6330E-02	1349
210.000	.28255E+02	.19257	1.864620	37.4368	1369.4	1705.6	116.332	43.65	68.08	.1079E-01	1308
220.000	.27754E+02	.18713	1.746667	34.6682	2041.7	2384.0	119.508	43.31	68.44	.1743E-01	1267
230.000	.27246E+02	.18233	1.634883	31.9538	2723.8	3072.4	122.557	42.81	68.73	.2687E-01	1226
240.000	.26730E+02	.17811	1.528535	29.2945	3414.9	3770.3	125.487	42.18	68.97	.3979E-01	1185
250.000	.26202E+02	.17443	1.426962	26.6928	4112.8	4475.4	128.307	41.39	69.17	.5683E-01	1144
260.000	.25660E+02	.17126	1.329560	24.1521	4814.6	5184.9	131.024	40.47	69.37	.7855E-01	1102
270.000	.25100E+02	.16850	1.235772	21.6763	5516.9	5895.4	133.645	39.41	69.60	.1053E+00	1059
280.000	.24518E+02	.16644	1.145065	19.2696	6216.4	6603.8	136.182	38.22	69.91	.1372E+00	1017
290.000	.23909E+02	.16479	1.056920	16.9362	6910.9	7308.2	138.643	36.91	70.37	.1739E+00	973
300.000	.23267E+02	.16369	.970806	14.6798	7600.3	8008.6	141.040	35.50	71.07	.2152E+00	928
310.000	.22583E+02	.16321	.886146	12.5035	8287.7	8708.3	143.387	34.02	72.19	.2604E+00	882
320.000	.21845E+02	.16345	.802269	10.4098	8980.4	9415.3	145.705	32.51	73.97	.3091E+00	833
330.000	.21034E+02	.16460	.718312	8.3997	9692.5	10144.1	148.022	31.06	76.87	.3614E+00	781
340.000	.20122E+02	.16701	.633023	6.4727	10447.2	10919.4	150.383	29.83	81.82	.4180E+00	721
350.000	.19054E+02	.17133	.544293	4.6260	11283.7	11782.3	152.872	29.21	90.95	.4805E+00	650
360.000	.17708E+02	.17924	.447664	2.8518	12275.7	12812.2	155.674	30.45	111.13	.5506E+00	552
370.000	.15649E+02	.19733	.328597	1.1300	13642.3	14249.3	159.459	43.08	187.46	.6259E+00	379
380.000	.59136E+01	.43491	.097541	.2436	18256.8	19630.9	173.881	45.72	356.25	.6709E+00	235
390.000	.51637E+01	.56737	.067256	.7398	19728.4	21568.2	178.924	38.46	127.89	.7021E+00	268
400.000	.44940E+01	.63562	.055630	1.0990	20520.4	22634.4	181.626	35.79	91.56	.7275E+00	287
410.000	.40766E+01	.68361	.048570	1.3966	21132.8	23463.2	183.673	34.25	75.92	.7493E+00	301
420.000	.37747E+01	.72070	.043619	1.6562	21658.0	24174.7	185.388	33.24	67.10	.7685E+00	313
430.000	.35394E+01	.75075	.039875	1.8892	22131.4	24815.5	186.897	32.54	61.43	.7856E+00	323
440.000	.33471E+01	.77583	.036906	2.1024	22570.7	25409.0	188.262	32.04	57.48	.8010E+00	332
450.000	.31850E+01	.79719	.034474	2.3001	22986.0	25968.7	189.520	31.67	54.59	.8149E+00	341
460.000	.30452E+01	.81566	.032432	2.4854	23383.6	26503.2	190.695	31.41	52.40	.8276E+00	348
470.000	.29226E+01	.83180	.030685	2.6604	23767.8	27018.3	191.803	31.22	50.70	.8392E+00	356
480.000	.28136E+01	.84604	.029168	2.8268	24141.8	27518.3	192.855	31.09	49.34	.8498E+00	362
490.000	.27155E+01	.85869	.027834	2.9859	24507.6	28006.0	193.861	31.01	48.25	.8596E+00	369
500.000	.26266E+01	.87002	.026649	3.1387	24867.1	28484.0	194.827	30.97	47.36	.8686E+00	375
520.000	.24705E+01	.88940	.024626	3.4285	25571.8	29417.1	196.657	30.97	46.04	.8846E+00	386
540.000	.23371E+01	.90535	.022955	3.7012	26263.3	30328.1	198.376	31.05	45.13	.8985E+00	397
560.000	.22210E+01	.91865	.021543	3.9604	26946.7	31224.0	200.005	31.20	44.50	.9104E+00	407
580.000	.21185E+01	.92989	.020330	4.2085	27625.3	32109.6	201.559	31.39	44.08	.9209E+00	416
600.000	.20270E+01	.93946	.019272	4.4475	28301.7	32988.4	203.049	31.62	43.82	.9300E+00	425
620.000	.19446E+01	.94768	.018338	4.6789	28977.7	33863.0	204.483	31.88	43.66	.9381E+00	433
640.000	.18698E+01	.95479	.017506	4.9039	29654.7	34735.4	205.868	32.15	43.59	.9452E+00	441
660.000	.18015E+01	.96097	.016759	5.1233	30333.6	35607.0	207.209	32.44	43.59	.9516E+00	449
680.000	.17387E+01	.96639	.016082	5.3380	31015.4	36479.2	208.511	32.74	43.64	.9572E+00	456
700.000	.16808E+01	.97114	.015466	5.5486	31700.7	37352.9	209.777	33.05	43.73	.9623E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 10.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.689	.29270E+02	.21662	2.129814	43.3627	24.7	366.3	109.426	43.92	67.08	.3273E-02	1394
190.000	.29255E+02	.21638	2.125548	43.2723	45.0	386.8	109.536	43.92	67.10	.3339E-02	1392
200.000	.28763E+02	.20907	1.992681	40.3947	700.5	1048.2	112.991	43.86	67.62	.6076E-02	1351
210.000	.28268E+02	.20260	1.867754	37.5746	1363.0	1716.8	116.301	43.65	68.05	.1036E-01	1311
220.000	.27768E+02	.19688	1.749833	34.8095	2034.7	2394.8	119.475	43.31	68.40	.1672E-01	1270
230.000	.27262E+02	.19181	1.638098	32.0987	2716.1	3082.9	122.522	42.82	68.69	.2577E-01	1229
240.000	.26747E+02	.18736	1.531816	29.4434	3406.3	3780.2	125.451	42.18	68.91	.3816E-01	1188
250.000	.26221E+02	.18348	1.430329	26.8459	4103.4	4484.8	128.268	41.40	69.11	.5449E-01	1146
260.000	.25680E+02	.18013	1.333038	24.3096	4804.1	5193.5	130.982	40.47	69.29	.7529E-01	1105
270.000	.25123E+02	.17731	1.239388	21.8385	5505.1	5903.1	133.601	39.41	69.50	.1009E+00	1063
280.000	.24544E+02	.17501	1.148856	19.4368	6203.0	6610.4	136.133	38.22	69.78	.1314E+00	1020
290.000	.23939E+02	.17325	1.060930	17.1089	6895.6	7313.4	138.589	36.91	70.20	.1667E+00	977
300.000	.23301E+02	.17205	.975094	14.8586	7582.7	8011.9	140.979	35.50	70.86	.2062E+00	932
310.000	.22623E+02	.17150	.890794	12.6894	8267.0	8709.1	143.318	34.02	71.90	.2495E+00	887
320.000	.21893E+02	.17168	.807395	10.6039	8955.7	9412.5	145.625	32.51	73.56	.2962E+00	839
330.000	.21093E+02	.17278	.724095	8.6039	9662.2	10136.3	147.926	31.06	76.26	.3463E+00	787
340.000	.20198E+02	.17514	.639772	6.6901	10408.6	10903.7	150.264	29.83	80.82	.4006E+00	729
350.000	.19159E+02	.17936	.552601	4.8617	11231.1	11753.1	152.714	29.21	89.10	.4606E+00	659
360.000	.17875E+02	.18690	.458994	3.1164	12194.5	12753.9	155.434	30.42	106.58	.5280E+00	566
370.000	.16037E+02	.20269	.349045	1.4526	13463.4	14086.9	158.935	42.89	163.55	.6007E+00	403
380.000	.10456E+02	.30271	.157418	.1255	16457.2	17413.6	167.888	50.42	736.71	.6495E+00	231
390.000	.59401E+01	.51917	.079543	.5577	19253.5	20937.0	177.074	40.14	165.54	.6859E+00	259
400.000	.49840E+01	.60329	.063123	.9459	20215.3	22221.7	180.330	36.72	104.55	.7135E+00	281
410.000	.44529E+01	.65878	.054122	1.2631	20899.2	23145.0	182.611	34.89	82.84	.7368E+00	296
420.000	.40880E+01	.70049	.048089	1.5375	21465.5	23911.7	184.459	33.72	71.52	.7572E+00	309
430.000	.38118E+01	.73378	.043647	1.7824	21966.1	24589.5	186.054	32.92	64.55	.7753E+00	320
440.000	.35906E+01	.76129	.040187	2.0054	22424.9	25210.0	187.481	32.34	59.83	.7916E+00	329
450.000	.34067E+01	.78455	.037389	2.2116	22855.1	25790.5	188.786	31.93	56.44	.8063E+00	338
460.000	.32498E+01	.80455	.035062	2.4043	23264.5	26341.6	189.998	31.63	53.90	.8196E+00	346
470.000	.31132E+01	.82196	.033087	2.5858	23658.3	26870.4	191.135	31.41	51.94	.8318E+00	354
480.000	.29926E+01	.83728	.031383	2.7580	24040.2	27381.8	192.212	31.26	50.40	.8429E+00	361
490.000	.28848E+01	.85085	.029892	2.9223	24412.9	27879.3	193.238	31.16	49.16	.8532E+00	367
500.000	.27874E+01	.86297	.028573	3.0798	24778.2	28365.7	194.220	31.10	48.16	.8627E+00	374
520.000	.26174E+01	.88366	.026336	3.3779	25492.3	29312.9	196.078	31.07	46.65	.8795E+00	385
540.000	.24730E+01	.90063	.024499	3.6576	26191.4	30235.1	197.819	31.14	45.63	.8940E+00	396
560.000	.23478E+01	.91476	.022955	3.9228	26880.9	31140.1	199.464	31.27	44.92	.9065E+00	406
580.000	.22378E+01	.92666	.021633	4.1761	27564.6	32033.3	201.032	31.46	44.43	.9175E+00	416
600.000	.21398E+01	.93678	.020484	4.4198	28245.2	32918.6	202.532	31.67	44.12	.9271E+00	425
620.000	.20518E+01	.94547	.019474	4.6552	28924.9	33798.7	203.975	31.92	43.92	.9355E+00	433
640.000	.19720E+01	.95297	.018576	4.8838	29605.0	34676.0	205.368	32.19	43.82	.9430E+00	441
660.000	.18992E+01	.95949	.017770	5.1066	30286.7	35552.0	206.715	32.48	43.79	.9496E+00	449
680.000	.18325E+01	.96518	.017042	5.3242	30971.0	36428.0	208.024	32.77	43.82	.9555E+00	457
700.000	.17710E+01	.97019	.016381	5.5374	31658.4	37305.1	209.295	33.08	43.90	.9608E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 10.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.791	.29277E+02	.22728	2.131522	43.4647	26.0	384.6	109.433	43.92	67.06	.3172E-02	1395
190.000	.29267E+02	.22710	2.128651	43.4039	39.6	398.4	109.507	43.92	67.08	.3214E-02	1394
200.000	.28775E+02	.21943	1.995790	40.5291	694.7	1059.6	112.961	43.86	67.60	.5848E-02	1353
210.000	.28281E+02	.21264	1.870880	37.7122	1356.7	1727.9	116.270	43.65	68.02	.9966E-02	1313
220.000	.27783E+02	.20661	1.752992	34.9505	2027.7	2405.6	119.443	43.31	68.37	.1608E-01	1272
230.000	.27277E+02	.20129	1.641304	32.2434	2708.4	3093.3	122.488	42.82	68.64	.2478E-01	1231
240.000	.26764E+02	.19661	1.535087	29.5919	3397.9	3790.2	125.414	42.18	68.86	.3668E-01	1190
250.000	.26239E+02	.19251	1.433684	26.9985	4094.0	4494.2	128.229	41.40	69.04	.5237E-01	1149
260.000	.25701E+02	.18899	1.336501	24.4666	4793.6	5202.2	130.940	40.48	69.21	.7236E-01	1107
270.000	.25145E+02	.18601	1.242988	22.0001	5493.3	5910.9	133.556	39.41	69.40	.9697E-01	1066
280.000	.24569E+02	.18357	1.152625	19.6035	6189.7	6617.1	136.084	38.22	69.66	.1263E+00	1023
290.000	.23968E+02	.18169	1.064913	17.2809	6880.5	7318.6	138.535	36.91	70.04	.1601E+00	980
300.000	.23335E+02	.18040	.979347	15.0366	7565.3	8015.3	140.919	35.50	70.65	.1981E+00	936
310.000	.22662E+02	.17976	.895395	12.8741	8246.7	8710.0	143.250	34.02	71.61	.2397E+00	891
320.000	.21939E+02	.17988	.812452	10.7966	8931.5	9410.1	145.546	32.51	73.16	.2845E+00	844
330.000	.21151E+02	.18093	.729778	8.8062	9632.6	10129.1	147.832	31.06	75.68	.3327E+00	793
340.000	.20272E+02	.18322	.646356	6.9046	10371.2	10889.1	150.149	29.83	79.89	.3849E+00	736
350.000	.19260E+02	.18734	.560605	5.0928	11180.9	11726.0	152.562	29.20	87.43	.4426E+00	668
360.000	.18029E+02	.19457	.469597	3.3723	12119.4	12701.8	155.212	30.39	102.82	.5076E+00	578
370.000	.16350E+02	.20875	.366246	1.7515	13317.8	13960.0	158.508	42.78	148.78	.5779E+00	422
380.000	.12951E+02	.25661	.220901	.3505	15353.7	16164.5	164.490	48.80	364.27	.6269E+00	277
390.000	.70107E+01	.46187	.096526	.3912	18639.1	20136.8	174.822	42.08	231.06	.6692E+00	251
400.000	.55596E+01	.55787	.072031	.7966	19868.1	21756.7	178.929	37.74	122.02	.6993E+00	274
410.000	.48710E+01	.63234	.060387	1.1312	20645.0	22800.6	181.509	35.56	91.27	.7242E+00	291
420.000	.44264E+01	.67929	.053000	1.4194	21260.7	23632.8	183.515	34.22	76.64	.7459E+00	305
430.000	.41011E+01	.71612	.047723	1.6757	21792.6	24352.9	185.210	33.30	68.05	.7650E+00	316
440.000	.38461E+01	.74624	.043691	1.9084	22273.4	25003.5	186.706	32.66	62.41	.7821E+00	327
450.000	.36374E+01	.77152	.040475	2.1229	22720.0	25606.6	188.062	32.19	58.44	.7976E+00	336
460.000	.34613E+01	.79314	.037828	2.3227	23142.1	26175.7	189.313	31.85	55.50	.8116E+00	344
470.000	.33095E+01	.81189	.035600	2.5107	23546.3	26719.0	190.482	31.60	53.26	.8244E+00	352
480.000	.31762E+01	.82832	.033690	2.6886	23936.7	27242.5	191.584	31.42	51.51	.8361E+00	359
490.000	.30578E+01	.84285	.032028	2.8581	24316.5	27750.4	192.631	31.30	50.11	.8469E+00	366
500.000	.29513E+01	.85579	.030565	3.0203	24687.9	28245.7	193.632	31.23	48.98	.8568E+00	372
520.000	.27666E+01	.87782	.028097	3.3267	25412.1	29207.4	195.518	31.18	47.30	.8744E+00	384
540.000	.26105E+01	.89584	.026084	3.6134	26118.9	30141.1	197.280	31.22	46.14	.8896E+00	395
560.000	.24759E+01	.91081	.024399	3.8846	26814.6	31055.5	198.943	31.34	45.34	.9027E+00	406
580.000	.23580E+01	.92339	.022963	4.1432	27503.5	31956.5	200.524	31.52	44.79	.9141E+00	415
600.000	.22533E+01	.93408	.021719	4.3915	28188.5	32848.4	202.036	31.73	44.42	.9242E+00	424
620.000	.21594E+01	.94324	.020628	4.6311	28871.9	33734.3	203.488	31.97	44.19	.9330E+00	433
640.000	.20746E+01	.95113	.019661	4.8633	29555.2	34616.5	204.889	32.23	44.05	.9408E+00	441
660.000	.19973E+01	.95799	.018795	5.0893	30239.8	35496.8	206.244	32.51	44.00	.9477E+00	449
680.000	.19265E+01	.96398	.018015	5.3100	30926.6	36376.7	207.557	32.81	44.00	.9539E+00	457
700.000	.18614E+01	.96923	.017306	5.5259	31616.2	37257.3	208.833	33.11	44.06	.9594E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 11.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.892	.29283E+02	.23792	2.133227	43.5665	27.3	403.0	109.440	43.92	67.05	.3080E-02	1396
190.000	.29278E+02	.23783	2.131750	43.5353	34.4	410.1	109.478	43.92	67.06	.3102E-02	1396
200.000	.28788E+02	.22978	1.998893	40.6634	688.9	1071.0	112.932	43.86	67.57	.5641E-02	1355
210.000	.28294E+02	.22266	1.874000	37.8496	1350.3	1739.1	116.239	43.66	67.99	.9610E-02	1315
220.000	.27797E+02	.21634	1.756143	35.0913	2020.8	2416.5	119.410	43.31	68.33	.1550E-01	1274
230.000	.27293E+02	.21076	1.644501	32.3878	2700.8	3103.8	122.454	42.82	68.60	.2389E-01	1233
240.000	.26781E+02	.20584	1.538347	29.7401	3389.5	3800.2	125.378	42.18	68.81	.3534E-01	1193
250.000	.26258E+02	.20154	1.437028	27.1508	4084.7	4503.6	128.191	41.40	68.98	.5045E-01	1152
260.000	.25721E+02	.19783	1.339951	24.6232	4783.3	5210.9	130.899	40.48	69.13	.6969E-01	1110
270.000	.25168E+02	.19469	1.246570	22.1613	5481.7	5918.8	133.511	39.42	69.31	.9338E-01	1069
280.000	.24595E+02	.19211	1.156373	19.7695	6176.6	6623.8	136.035	38.23	69.54	.1216E+00	1027
290.000	.23997E+02	.19011	1.068869	17.4522	6865.6	7324.0	138.481	36.92	69.89	.1542E+00	984
300.000	.23368E+02	.18872	.983565	15.2137	7548.1	8018.9	140.859	35.51	70.44	.1907E+00	941
310.000	.22701E+02	.18800	.899948	13.0578	8226.6	8711.2	143.183	34.02	71.34	.2308E+00	896
320.000	.21985E+02	.18805	.817445	10.9878	8907.7	9408.1	145.468	32.52	72.78	.2739E+00	849
330.000	.21207E+02	.18905	.735365	9.0066	9603.7	10122.4	147.741	31.07	75.12	.3203E+00	799
340.000	.20343E+02	.19128	.652789	7.1164	10334.8	10875.6	150.036	29.83	79.03	.3706E+00	743
350.000	.19356E+02	.19529	.568336	5.3198	11132.7	11701.0	152.417	29.20	85.92	.4262E+00	677
360.000	.18172E+02	.20223	.479595	3.6208	12049.5	12654.8	155.005	30.38	99.63	.4890E+00	590
370.000	.16615E+02	.21521	.381328	2.0335	13193.6	13855.7	158.144	42.69	138.54	.5571E+00	440
380.000	.13982E+02	.24900	.257380	.6495	14899.3	15686.0	163.133	48.04	246.29	.6055E+00	312
390.000	.85325E+01	.39757	.121362	.2897	17841.0	19130.2	172.075	43.83	316.18	.6517E+00	247
400.000	.62505E+01	.52915	.082832	.6578	19467.7	21227.6	177.393	38.81	145.60	.6848E+00	269
410.000	.53402E+01	.60424	.067515	1.0036	20366.8	22426.6	180.357	36.26	101.56	.7115E+00	287
420.000	.47939E+01	.65708	.058417	1.3037	21042.1	23336.7	182.551	34.73	82.57	.7345E+00	301
430.000	.44093E+01	.69778	.052136	1.5703	21610.3	24105.0	184.360	33.70	71.98	.7547E+00	313
440.000	.41150E+01	.73070	.047438	1.8121	22115.8	24788.9	185.933	32.98	65.25	.7727E+00	324
450.000	.38780E+01	.75812	.043745	2.0344	22580.4	25416.9	187.344	32.46	60.60	.7889E+00	333
460.000	.36805E+01	.78144	.040740	2.2413	23016.4	26005.2	188.638	32.07	57.22	.8036E+00	342
470.000	.35117E+01	.80158	.038231	2.4355	23431.6	26564.1	189.840	31.79	54.67	.8170E+00	350
480.000	.33647E+01	.81917	.036095	2.6190	23831.1	27100.4	190.969	31.59	52.68	.8293E+00	357
490.000	.32347E+01	.83469	.034247	2.7936	24218.5	27619.1	192.039	31.45	51.11	.8405E+00	364
500.000	.31185E+01	.84847	.032628	2.9605	24596.3	28123.6	193.058	31.36	49.84	.8509E+00	371
520.000	.29181E+01	.87188	.029912	3.2750	25330.9	29100.5	194.974	31.28	47.96	.8694E+00	383
540.000	.27498E+01	.89098	.027709	3.5687	26045.8	30046.1	196.759	31.31	46.68	.8852E+00	395
560.000	.26053E+01	.90680	.025877	3.8459	26748.0	30970.2	198.439	31.42	45.78	.8989E+00	405
580.000	.24791E+01	.92008	.024320	4.1098	27442.2	31879.2	200.034	31.58	45.16	.9108E+00	415
600.000	.23675E+01	.93135	.022977	4.3627	28131.7	32777.9	201.558	31.78	44.73	.9213E+00	424
620.000	.22677E+01	.94098	.021802	4.6064	28818.8	33669.6	203.020	32.02	44.46	.9305E+00	433
640.000	.21776E+01	.94928	.020762	4.8424	29505.5	34556.9	204.428	32.27	44.29	.9386E+00	441
660.000	.20957E+01	.95648	.019834	5.0717	30192.9	35441.6	205.790	32.55	44.20	.9458E+00	449
680.000	.20208E+01	.96276	.018999	5.2953	30882.2	36325.5	207.109	32.84	44.19	.9523E+00	457
700.000	.19519E+01	.96825	.018242	5.5140	31574.1	37209.6	208.390	33.14	44.23	.9580E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 11.50000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
189.994	.29290E+02	.24854	2.134927	43.6683	28.7	421.3	109.448	43.92	67.04	.2998E-02	1398
190.000	.29290E+02	.24854	2.134844	43.6665	29.1	421.7	109.450	43.92	67.04	.2999E-02	1398
200.000	.28800E+02	.24013	2.001990	40.7975	683.2	1082.5	112.902	43.86	67.55	.5452E-02	1357
210.000	.28308E+02	.23267	1.877113	37.9868	1344.0	1750.3	116.208	43.66	67.97	.9286E-02	1317
220.000	.27811E+02	.22606	1.759286	35.2318	2013.9	2427.4	119.378	43.31	68.30	.1498E-01	1276
230.000	.27308E+02	.22021	1.647689	32.5319	2693.2	3114.3	122.420	42.82	68.56	.2307E-01	1236
240.000	.26797E+02	.21506	1.541598	29.8880	3381.1	3810.2	125.342	42.18	68.76	.3412E-01	1195
250.000	.26276E+02	.21055	1.440359	27.3027	4075.4	4513.1	128.152	41.40	68.92	.4870E-01	1154
260.000	.25741E+02	.20646	1.343386	24.7793	4772.9	5219.7	130.858	40.48	69.06	.6726E-01	1113
270.000	.25191E+02	.20336	1.250135	22.3219	5470.1	5926.7	133.467	39.42	69.21	.9012E-01	1072
280.000	.24620E+02	.20064	1.160100	19.9349	6163.6	6630.7	135.988	38.23	69.42	.1173E+00	1030
290.000	.24025E+02	.19852	1.072798	17.6228	6850.8	7329.4	138.429	36.92	69.73	.1488E+00	988
300.000	.23400E+02	.19702	.987749	15.3900	7531.1	8022.6	140.800	35.51	70.24	.1840E+00	945
310.000	.22739E+02	.19622	.904457	13.2405	8206.9	8712.6	143.116	34.03	71.07	.2226E+00	900
320.000	.22030E+02	.19620	.822375	11.1778	8884.3	9406.3	145.392	32.52	72.41	.2643E+00	854
330.000	.21262E+02	.19713	.740861	9.2052	9575.4	10116.3	147.651	31.07	74.59	.3090E+00	805
340.000	.20412E+02	.19929	.659079	7.3258	10299.5	10862.9	149.927	29.83	78.22	.3576E+00	750
350.000	.19448E+02	.20320	.575820	5.5429	11086.5	11677.8	152.277	29.20	84.55	.4113E+00	686
360.000	.18306E+02	.20988	.489079	3.8629	11984.0	12612.2	154.810	30.36	96.88	.4721E+00	601
370.000	.16845E+02	.22191	.394892	2.3026	13084.5	13767.2	157.824	42.63	130.93	.5380E+00	455
380.000	.14618E+02	.24899	.283355	.9394	14615.2	15401.9	162.294	47.67	199.67	.5856E+00	339
390.000	.10224E+02	.34687	.152847	.3218	17032.8	18157.6	169.444	44.41	315.26	.6337E+00	258
400.000	.70902E+01	.48749	.096161	.5422	19004.8	20626.8	175.703	39.87	175.56	.6700E+00	264
410.000	.58711E+01	.57459	.075687	.8844	20061.1	22019.9	179.146	36.98	114.03	.6987E+00	282
420.000	.51950E+01	.63391	.064416	1.1922	20808.4	23022.1	181.563	35.25	89.41	.7230E+00	297
430.000	.47386E+01	.67880	.056925	1.4675	21418.4	23845.2	183.501	34.10	76.39	.7443E+00	310
440.000	.43984E+01	.71468	.051452	1.7173	21951.6	24566.1	185.159	33.30	68.36	.7632E+00	321
450.000	.41292E+01	.74436	.047215	1.9470	22436.0	25221.0	186.631	32.72	62.94	.7802E+00	331
460.000	.39077E+01	.76946	.043807	2.1605	22887.1	25830.1	187.970	32.30	59.06	.7956E+00	340
470.000	.37207E+01	.79104	.040987	2.3606	23314.2	26405.5	189.208	31.99	56.16	.8097E+00	348
480.000	.35581E+01	.80984	.038602	2.5496	23723.4	26955.4	190.366	31.76	53.92	.8225E+00	356
490.000	.34158E+01	.82637	.036551	2.7291	24118.7	27485.4	191.459	31.60	52.16	.8342E+00	363
500.000	.32892E+01	.84102	.034763	2.9005	24503.3	27999.7	192.498	31.49	50.74	.8451E+00	370
520.000	.30720E+01	.86585	.031780	3.2230	25248.8	28992.3	194.445	31.39	48.65	.8643E+00	382
540.000	.28908E+01	.88604	.029377	3.5236	25972.0	29950.2	196.253	31.40	47.23	.8808E+00	394
560.000	.27360E+01	.90274	.027388	3.8068	26680.9	30884.2	197.951	31.49	46.23	.8951E+00	404
580.000	.26013E+01	.91673	.025705	4.0759	27380.6	31801.4	199.561	31.64	45.54	.9075E+00	414
600.000	.24825E+01	.92858	.024257	4.3335	28074.6	32707.0	201.096	31.83	45.05	.9184E+00	424
620.000	.23765E+01	.93870	.022994	4.5813	28765.7	33604.6	202.568	32.06	44.73	.9280E+00	433
640.000	.22811E+01	.94741	.021880	4.8210	29455.6	34497.0	203.984	32.31	44.53	.9365E+00	441
660.000	.21945E+01	.95495	.020887	5.0537	30146.0	35386.3	205.353	32.58	44.42	.9440E+00	449
680.000	.21154E+01	.96153	.019995	5.2804	30837.8	36274.2	206.678	32.87	44.38	.9507E+00	457
700.000	.20427E+01	.96729	.019188	5.5018	31532.0	37161.8	207.964	33.17	44.40	.9567E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 12.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
190.095	.29296E+02	.25915	2.136623	43.7699	30.1	439.7	109.455	43.92	67.02	.2923E-02	1399
200.000	.28812E+02	.25046	2.005081	40.9313	677.4	1093.9	112.872	43.86	67.53	.5280E-02	1359
210.000	.28321E+02	.24267	1.880220	38.1237	1337.8	1761.5	116.177	43.66	67.94	.8989E-02	1319
220.000	.27825E+02	.23577	1.762421	35.3721	2007.0	2438.2	119.346	43.31	68.27	.1449E-01	1278
230.000	.27324E+02	.22966	1.650869	32.6757	2685.6	3124.8	122.386	42.82	68.52	.2232E-01	1238
240.000	.26814E+02	.22427	1.544838	30.0356	3372.8	3820.3	125.306	42.19	68.71	.3301E-01	1198
250.000	.26294E+02	.21956	1.443679	27.4543	4066.2	4522.5	128.114	41.41	68.86	.4710E-01	1157
260.000	.25761E+02	.21548	1.346807	24.9351	4762.7	5228.5	130.817	40.48	68.98	.6504E-01	1116
270.000	.25213E+02	.21201	1.253683	22.4821	5458.7	5934.6	133.423	39.42	69.12	.8713E-01	1075
280.000	.24645E+02	.20915	1.163807	20.0998	6150.7	6637.6	135.940	38.23	69.30	.1134E+00	1033
290.000	.24053E+02	.20691	1.076702	17.7928	6836.1	7335.0	138.376	36.92	69.58	.1438E+00	991
300.000	.23433E+02	.20531	.991900	15.5655	7514.3	8026.4	140.742	35.51	70.05	.1779E+00	949
310.000	.22776E+02	.20441	.908922	13.4221	8187.4	8714.2	143.050	34.03	70.81	.2152E+00	905
320.000	.22075E+02	.20431	.827246	11.3665	8861.3	9404.9	145.317	32.52	72.06	.2554E+00	859
330.000	.21316E+02	.20518	.746271	9.4022	9547.7	10110.7	147.563	31.07	74.09	.2987E+00	811
340.000	.20480E+02	.20727	.665237	7.5327	10265.2	10851.1	149.820	29.84	77.46	.3457E+00	757
350.000	.19536E+02	.21107	.583079	5.7626	11042.0	11656.3	152.142	29.19	83.30	.3977E+00	694
360.000	.18432E+02	.21751	.498120	4.0994	11922.2	12573.3	154.626	30.35	94.49	.4565E+00	611
370.000	.17051E+02	.22877	.407302	2.5615	12986.7	13690.4	157.537	42.58	125.00	.5206E+00	469
380.000	.15084E+02	.25179	.304145	1.2162	14404.2	15199.8	161.673	47.45	174.49	.5672E+00	362
390.000	.11591E+02	.31927	.184242	.4249	16415.5	17450.8	167.514	44.17	276.06	.6159E+00	279
400.000	.80873E+01	.44615	.112561	.4722	18486.1	19969.9	173.895	40.75	204.85	.6550E+00	263
410.000	.64740E+01	.54374	.085116	.7795	19725.6	21579.2	177.873	37.69	128.60	.6857E+00	279
420.000	.56342E+01	.60991	.071083	1.0879	20558.4	22688.2	180.548	35.77	97.23	.7115E+00	294
430.000	.50914E+01	.65923	.062134	1.3689	21216.3	23573.2	182.632	34.51	81.29	.7339E+00	307
440.000	.46977E+01	.69824	.055755	1.6253	21780.4	24334.9	184.383	33.63	71.76	.7538E+00	319
450.000	.43919E+01	.73027	.050900	1.8614	22286.7	25019.0	185.921	32.99	65.46	.7716E+00	329
460.000	.41435E+01	.75722	.047040	2.0809	22754.1	25650.2	187.309	32.53	61.02	.7877E+00	338
470.000	.39354E+01	.78029	.043974	2.2866	23194.0	26243.2	188.585	32.18	57.73	.8023E+00	346
480.000	.37570E+01	.80033	.041217	2.4807	23613.3	26807.4	189.773	31.93	55.22	.8157E+00	354
490.000	.36012E+01	.81790	.038945	2.6650	24017.2	27349.4	190.890	31.75	53.25	.8279E+00	362
500.000	.34633E+01	.83345	.036974	2.8407	24408.9	27873.8	191.950	31.62	51.68	.8393E+00	369
520.000	.32284E+01	.85972	.033706	3.1710	25165.6	28882.7	193.929	31.49	49.37	.8593E+00	381
540.000	.30336E+01	.88104	.031089	3.4784	25897.6	29853.3	195.760	31.48	47.79	.8765E+00	393
560.000	.28680E+01	.89863	.028933	3.7675	26613.3	30797.5	197.477	31.56	46.69	.8913E+00	404
580.000	.27245E+01	.91334	.027117	4.0418	27318.6	31723.1	199.102	31.70	45.92	.9043E+00	414
600.000	.25983E+01	.92578	.025560	4.3039	28017.3	32635.7	200.649	31.89	45.38	.9156E+00	423
620.000	.24860E+01	.93639	.024206	4.5559	28712.3	33539.4	202.130	32.11	45.01	.9255E+00	432
640.000	.23850E+01	.94551	.023014	4.7993	29405.7	34437.0	203.555	32.35	44.77	.9343E+00	441
660.000	.22936E+01	.95341	.021955	5.0353	30099.0	35330.9	204.931	32.62	44.63	.9422E+00	449
680.000	.22102E+01	.96029	.021004	5.2650	30793.4	36222.8	206.262	32.90	44.57	.9491E+00	457
700.000	.21337E+01	.96631	.020146	5.4892	31490.0	37114.0	207.554	33.20	44.57	.9553E+00	464

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 13.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
190.298	.29309E+02	.28033	2.140002	43.9729	32.8	476.3	109.470	43.93	67.00	.2792E-02	1402
200.000	.28837E+02	.27110	2.011244	41.1984	666.0	1116.8	112.814	43.86	67.48	.4976E-02	1363
210.000	.28347E+02	.26265	1.886413	38.3969	1325.3	1783.9	116.116	43.66	67.88	.8467E-02	1323
220.000	.27853E+02	.25516	1.768671	35.6518	1993.3	2460.1	119.282	43.32	68.20	.1365E-01	1283
230.000	.27354E+02	.24852	1.657203	32.9625	2670.6	3145.9	122.319	42.83	68.44	.2100E-01	1243
240.000	.26847E+02	.24266	1.551289	30.3298	3356.2	3840.5	125.235	42.19	68.61	.3104E-01	1203
250.000	.26330E+02	.23752	1.450285	27.7563	4047.9	4541.6	128.039	41.41	68.74	.4428E-01	1162
260.000	.25801E+02	.23307	1.353608	25.2453	4742.4	5246.2	130.736	40.49	68.83	.6113E-01	1122
270.000	.25257E+02	.22928	1.260730	22.8010	5436.0	5950.7	133.336	39.43	68.93	.8186E-01	1081
280.000	.24694E+02	.22613	1.171160	20.4279	6125.2	6651.6	135.845	38.24	69.07	.1065E+00	1040
290.000	.24109E+02	.22363	1.084435	18.1307	6807.2	7346.5	138.272	36.93	69.29	.1350E+00	999
300.000	.23496E+02	.22181	1.000107	15.9141	7481.3	8034.6	140.627	35.52	69.67	.1670E+00	957
310.000	.22850E+02	.22073	.917725	13.7825	8149.1	8718.1	142.921	34.04	70.32	.2020E+00	914
320.000	.22161E+02	.22048	.836816	11.7401	8816.4	9403.0	145.170	32.53	71.39	.2398E+00	869
330.000	.21420E+02	.22120	.756849	9.7912	9494.0	10100.9	147.391	31.08	73.16	.2805E+00	822
340.000	.20609E+02	.22314	.677188	7.9402	10199.1	10829.9	149.615	29.84	76.07	.3246E+00	770
350.000	.19704E+02	.22672	.596998	6.1926	10957.7	11617.5	151.885	29.19	81.08	.3736E+00	710
360.000	.18663E+02	.23272	.515083	4.5579	11808.1	12504.6	154.286	30.33	90.49	.4291E+00	631
370.000	.17408E+02	.24275	.429556	3.0551	12815.7	13562.5	157.034	42.52	116.26	.4897E+00	495
380.000	.15767E+02	.26096	.337319	1.7372	14090.6	14915.2	160.754	47.20	147.32	.5344E+00	398
390.000	.13332E+02	.30071	.236164	.7846	15642.8	16617.9	165.174	43.47	199.44	.5827E+00	325
400.000	.10171E+02	.38432	.151680	.5281	17485.4	18763.6	170.605	41.43	209.91	.6249E+00	280
410.000	.79007E+01	.48268	.108391	.6488	19977.8	20623.2	175.200	38.87	157.81	.6595E+00	278
420.000	.66402E+01	.56063	.086768	.9150	20008.2	21965.9	178.438	36.77	115.14	.6883E+00	289
430.000	.58753E+01	.61888	.073986	1.1922	20780.2	22992.8	180.856	35.30	92.50	.7131E+00	302
440.000	.53485E+01	.65438	.065333	1.4544	21416.5	23847.1	182.821	34.27	79.41	.7348E+00	314
450.000	.49543E+01	.70131	.058972	1.6993	21972.6	24596.5	184.505	33.53	71.05	.7543E+00	325
460.000	.46428E+01	.73209	.054041	1.9282	22476.6	25276.6	186.031	32.98	65.30	.7718E+00	334
470.000	.43872E+01	.75827	.050072	2.1433	22944.6	25907.8	187.358	32.57	61.14	.7877E+00	343
480.000	.41715E+01	.78087	.046790	2.3464	23386.4	26502.8	188.611	32.27	58.00	.8022E+00	351
490.000	.39856E+01	.80060	.044018	2.5392	23808.5	27070.2	189.782	32.04	55.58	.8154E+00	359
500.000	.38229E+01	.81798	.041635	2.7230	24215.5	27616.1	190.884	31.88	53.66	.8277E+00	366
520.000	.35490E+01	.84723	.037733	3.0679	24996.4	28659.4	192.931	31.70	50.86	.8493E+00	380
540.000	.33249E+01	.87084	.034648	3.3881	25746.6	29656.5	194.813	31.66	48.97	.8678E+00	392
560.000	.31362E+01	.89025	.032132	3.6886	26476.7	30621.8	196.558	31.71	47.64	.8839E+00	403
580.000	.29740E+01	.90643	.030030	3.9730	27193.6	31564.8	198.223	31.83	46.71	.8978E+00	413
600.000	.28323E+01	.92007	.028239	4.2442	27902.0	32492.0	199.795	31.99	46.05	.9100E+00	423
620.000	.27067E+01	.93169	.026690	4.5043	28605.1	33408.0	201.297	32.20	45.58	.9207E+00	432
640.000	.25944E+01	.94166	.025334	4.7550	29305.5	34316.3	202.739	32.44	45.27	.9302E+00	441
660.000	.24930E+01	.95027	.024133	4.9977	30004.9	35219.6	204.128	32.69	45.07	.9386E+00	449
680.000	.24007E+01	.95776	.023060	5.2334	30704.6	36119.7	205.472	32.97	44.96	.9460E+00	457
700.000	.23163E+01	.96430	.022093	5.4631	31405.9	37018.3	206.774	33.26	44.91	.9527E+00	465

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 14.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
190.501	.29322E+02	.30144	2.143363	44.1754	35.6	513.0	109.485	43.93	66.97	.2684E-02	1405
200.000	.28861E+02	.29171	2.017384	41.4648	654.7	1139.8	112.755	43.87	67.43	.4718E-02	1367
210.000	.28373E+02	.28260	1.892579	38.6693	1312.9	1806.4	116.055	43.67	67.83	.8023E-02	1327
220.000	.27881E+02	.27451	1.774890	35.9307	1979.8	2481.9	119.218	43.32	68.13	.1292E-01	1287
230.000	.27384E+02	.26734	1.663503	33.2481	2655.8	3167.0	122.252	42.83	68.36	.1988E-01	1247
240.000	.26880E+02	.26101	1.557702	30.6228	3339.9	3860.7	125.154	42.19	68.51	.2937E-01	1207
250.000	.26366E+02	.25545	1.456845	28.0569	4029.8	4560.8	127.963	41.41	68.62	.4187E-01	1167
260.000	.25841E+02	.25062	1.360356	25.5539	4722.3	5264.1	130.655	40.49	68.69	.5779E-01	1127
270.000	.25301E+02	.24649	1.267713	23.1181	5413.7	5967.0	133.250	39.43	68.75	.7736E-01	1087
280.000	.24743E+02	.24304	1.178435	20.7539	6100.1	6665.9	135.752	38.24	68.85	.1007E+00	1047
290.000	.24164E+02	.24029	1.092071	18.4661	6778.9	7358.3	138.170	36.93	69.01	.1276E+00	1006
300.000	.23558E+02	.23825	1.009191	16.2597	7449.0	8043.2	140.514	35.53	69.32	.1577E+00	964
310.000	.22921E+02	.23697	.926370	14.1391	8111.9	8722.7	142.795	34.04	69.86	.1908E+00	922
320.000	.22245E+02	.23654	.846172	12.1092	8772.9	9402.3	145.026	32.54	70.77	.2265E+00	879
330.000	.21520E+02	.23710	.767127	10.1743	9442.3	10092.8	147.226	31.08	72.30	.2649E+00	833
340.000	.20732E+02	.23888	.688696	8.3396	10136.2	10811.5	149.418	29.84	74.83	.3066E+00	783
350.000	.19860E+02	.24224	.610217	6.6115	10878.7	11583.7	151.644	29.19	79.17	.3530E+00	725
360.000	.18872E+02	.24784	.530818	4.9999	11704.2	12446.0	153.975	30.32	87.28	.4056E+00	649
370.000	.17712E+02	.25693	.449294	3.5237	12668.5	13459.0	156.601	42.47	110.04	.4632E+00	517
380.000	.16274E+02	.27229	.364057	2.2252	13854.3	14714.6	160.062	47.06	132.52	.5061E+00	428
390.000	.14350E+02	.30087	.274464	1.2154	15186.7	16162.3	163.821	43.07	160.46	.5533E+00	364
400.000	.11809E+02	.35648	.190922	.7203	16744.1	17929.6	168.293	41.24	186.41	.5963E+00	309
410.000	.94412E+01	.43496	.136500	.6772	18229.1	19712.0	172.696	39.44	165.99	.6335E+00	289
420.000	.78036E+01	.51374	.105915	.8228	19408.3	21202.3	176.289	37.55	131.59	.6651E+00	290
430.000	.67692E+01	.57857	.088009	1.0598	20304.7	22373.2	179.046	36.02	104.62	.6922E+00	300
440.000	.60738E+01	.63006	.076364	1.3115	21024.3	23329.2	181.245	34.88	87.91	.7159E+00	311
450.000	.55498E+01	.67180	.068084	1.5563	21637.8	24151.4	183.092	34.04	77.25	.7370E+00	321
460.000	.51815E+01	.70645	.061823	1.7893	22183.6	24885.5	184.707	33.42	70.02	.7560E+00	331
470.000	.48691E+01	.73577	.056881	2.0102	22683.3	25558.5	186.155	32.95	64.86	.7731E+00	340
480.000	.46097E+01	.76098	.052954	2.2199	23150.0	26187.0	187.478	32.60	61.02	.7887E+00	349
490.000	.43892E+01	.78291	.049493	2.4194	23592.3	26782.0	188.705	32.33	58.09	.8030E+00	357
500.000	.41981E+01	.80218	.046634	2.6098	24016.0	27350.8	189.854	32.14	55.78	.8162E+00	364
520.000	.38804E+01	.83447	.042006	2.9675	24822.9	28430.8	191.973	31.91	52.44	.8394E+00	378
540.000	.36240E+01	.86042	.038395	3.2993	25592.7	29455.8	193.907	31.83	50.20	.8593E+00	390
560.000	.34103E+01	.88169	.035479	3.6104	26338.0	30443.3	195.703	31.85	48.64	.8764E+00	402
580.000	.32279E+01	.89937	.033061	3.9044	27067.2	31404.3	197.390	31.95	47.53	.8914E+00	412
600.000	.30696E+01	.91425	.031015	4.1843	27785.6	32346.6	198.987	32.10	46.74	.9044E+00	422
620.000	.29300E+01	.92689	.029256	4.4523	28497.3	33275.4	200.510	32.29	46.18	.9159E+00	432
640.000	.28057E+01	.93772	.027722	4.7101	29204.8	34194.7	201.969	32.52	45.78	.9260E+00	441
660.000	.26938E+01	.94707	.026370	4.9593	29910.4	35107.5	203.374	32.76	45.52	.9350E+00	449
680.000	.25924E+01	.95518	.025166	5.2010	30615.7	36016.1	204.730	33.03	45.35	.9430E+00	457
700.000	.24998E+01	.96225	.024085	5.4361	31321.7	36922.2	206.044	33.31	45.27	.9501E+00	465

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 15.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
190.704	.29335E+02	.32249	2.146708	44.3775	38.4	549.7	109.500	43.93	66.94	.2592E-02	1408
200.000	.28885E+02	.31229	2.023501	41.7304	643.5	1162.8	112.697	43.87	67.39	.4496E-02	1371
210.000	.28399E+02	.30251	1.898720	38.9408	1300.7	1828.9	115.994	43.67	67.78	.7640E-02	1331
220.000	.27909E+02	.29382	1.781080	36.2085	1966.4	2503.8	119.154	43.32	68.07	.1230E-01	1292
230.000	.27414E+02	.28612	1.669771	33.5328	2641.1	3188.2	122.185	42.83	68.28	.1891E-01	1252
240.000	.26913E+02	.27931	1.564077	30.9145	3323.7	3881.1	125.094	42.20	68.42	.2793E-01	1212
250.000	.26402E+02	.27333	1.463361	28.3562	4012.0	4580.1	127.889	41.42	68.50	.3980E-01	1173
260.000	.25880E+02	.26812	1.367052	25.8610	4702.6	5282.2	130.577	40.50	68.55	.5491E-01	1133
270.000	.25344E+02	.26365	1.274635	23.4333	5391.6	5983.5	133.165	39.44	68.58	.7349E-01	1093
280.000	.24791E+02	.25990	1.185635	21.0777	6075.4	6680.5	135.660	38.25	68.63	.9560E-01	1053
290.000	.24217E+02	.25688	1.099614	18.7991	6751.1	7370.5	138.070	36.94	68.75	.1211E+00	1013
300.000	.23619E+02	.25461	1.016158	16.6023	7417.3	8052.4	140.404	35.53	68.98	.1497E+00	972
310.000	.22991E+02	.25312	.934864	14.4923	8075.6	8728.0	142.672	34.05	69.42	.1811E+00	931
320.000	.22327E+02	.25251	.855329	12.4738	8730.7	9402.5	144.887	32.54	70.19	.2150E+00	888
330.000	.21616E+02	.25290	.777131	10.5519	9392.4	10086.3	147.065	31.09	71.51	.2515E+00	843
340.000	.20849E+02	.25450	.699810	8.7319	10076.1	10795.6	149.230	29.85	73.72	.2911E+00	795
350.000	.20007E+02	.25764	.622833	7.0207	10804.4	11554.2	151.417	29.19	77.51	.3352E+00	739
360.000	.19064E+02	.26287	.545555	5.4284	11608.6	12395.4	153.688	30.31	84.62	.3853E+00	666
370.000	.17979E+02	.27120	.467193	3.9727	12538.5	13372.8	156.217	42.44	105.33	.4403E+00	537
380.000	.16682E+02	.28460	.386920	2.6887	13661.8	14561.0	159.498	46.97	123.01	.4816E+00	454
390.000	.15052E+02	.30731	.304777	1.6526	14866.9	15863.4	162.880	42.84	139.60	.5273E+00	397
400.000	.12985E+02	.34733	.226038	1.0083	16218.4	17373.6	166.701	40.93	161.13	.5702E+00	341
410.000	.10792E+02	.40772	.165571	.8168	17605.4	18995.3	170.707	39.50	157.80	.6087E+00	309
420.000	.90183E+01	.47630	.127847	.8432	18816.1	20479.4	174.284	38.00	138.10	.6423E+00	299
430.000	.77477E+01	.54152	.104268	.9958	19806.6	21742.7	177.258	36.58	114.78	.6715E+00	302
440.000	.68696E+01	.59586	.088972	1.2113	20609.3	22792.9	179.674	35.41	96.34	.6971E+00	310
450.000	.62384E+01	.64264	.078332	1.4422	21284.6	23689.1	181.688	34.52	83.71	.7199E+00	320
460.000	.57604E+01	.68084	.070456	1.6712	21876.1	24480.1	183.427	33.83	75.01	.7402E+00	329
470.000	.53821E+01	.71319	.064348	1.8928	22410.5	25197.6	184.971	33.31	68.81	.7586E+00	338
480.000	.50725E+01	.74096	.059443	2.1054	22904.5	25861.6	186.369	32.92	64.22	.7753E+00	347
490.000	.48124E+01	.76507	.055398	2.3090	23368.7	26485.7	187.656	32.62	60.74	.7906E+00	355
500.000	.45893E+01	.78621	.051991	2.5042	23810.4	27078.9	188.854	32.39	58.02	.8047E+00	362
520.000	.42230E+01	.82154	.046539	2.8720	24645.3	28197.3	191.048	32.11	54.10	.8295E+00	376
540.000	.39311E+01	.84986	.042338	3.2138	25435.8	29251.5	193.038	32.00	51.49	.8507E+00	389
560.000	.36902E+01	.87300	.038979	3.5343	26197.2	30262.0	194.875	31.99	49.67	.8691E+00	401
580.000	.34863E+01	.89220	.036216	3.8371	26939.2	31241.8	196.595	32.07	48.38	.8850E+00	412
600.000	.33103E+01	.90833	.033893	4.1251	27668.2	32199.5	198.219	32.20	47.45	.8989E+00	422
620.000	.31559E+01	.92201	.031906	4.4005	28388.6	33141.5	199.764	32.38	46.78	.9112E+00	431
640.000	.30190E+01	.93371	.030182	4.6652	29103.6	34072.1	201.241	32.60	46.31	.9220E+00	440
660.000	.28962E+01	.94379	.028668	4.9206	29815.6	34994.8	202.661	32.84	45.98	.9315E+00	449
680.000	.27853E+01	.95253	.027324	5.1681	30526.5	35912.0	204.030	33.10	45.76	.9400E+00	457
700.000	.26842E+01	.96015	.026122	5.4086	31237.5	36825.7	205.354	33.37	45.63	.9476E+00	465

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 16.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
190.907	.29348E+02	.34347	2.150035	44.5792	41.2	586.4	109.515	43.93	66.92	.2514E-02	1411
200.000	.28909E+02	.33283	2.029594	41.9952	632.3	1185.8	112.639	43.87	67.35	.4304E-02	1375
210.000	.28424E+02	.32239	1.904835	39.2114	1288.5	1851.4	115.934	43.67	67.72	.7309E-02	1335
220.000	.27937E+02	.31310	1.787242	36.4854	1953.1	2525.8	119.091	43.33	68.01	.1176E-01	1296
230.000	.27444E+02	.30487	1.676006	33.8163	2626.5	3209.5	122.119	42.84	68.20	.1807E-01	1256
240.000	.26945E+02	.29758	1.570414	31.2051	3307.7	3901.5	125.025	42.20	68.33	.2667E-01	1217
250.000	.26437E+02	.29116	1.469834	28.6540	3994.3	4599.6	127.815	41.42	68.39	.3800E-01	1178
260.000	.25918E+02	.28557	1.373698	26.1666	4683.0	5300.4	130.498	40.50	68.41	.5240E-01	1138
270.000	.25386E+02	.28075	1.281496	23.7469	5369.9	6000.2	133.080	39.44	68.42	.7011E-01	1099
280.000	.24838E+02	.27670	1.192762	21.3996	6051.2	6695.3	135.569	38.25	68.43	.9119E-01	1059
290.000	.24270E+02	.27341	1.107068	19.1297	6723.8	7383.0	137.971	36.95	68.49	.1155E+00	1020
300.000	.23679E+02	.27090	1.024014	16.9422	7386.4	8062.1	140.295	35.54	68.65	.1428E+00	979
310.000	.23059E+02	.26920	.943216	14.8421	8040.1	8734.0	142.551	34.06	69.00	.1727E+00	939
320.000	.22406E+02	.26840	.864299	12.8344	8689.7	9403.8	144.751	32.55	69.65	.2050E+00	897
330.000	.21710E+02	.26861	.786883	10.9243	9344.3	10081.3	146.910	31.10	70.78	.2397E+00	854
340.000	.20961E+02	.27002	.710568	9.1175	10018.6	10782.0	149.049	29.85	72.71	.2776E+00	807
350.000	.20145E+02	.27293	.634922	7.4212	10734.1	11528.3	151.200	29.20	76.04	.3196E+00	753
360.000	.19241E+02	.27781	.559463	5.8452	11519.9	12351.4	153.421	30.31	82.37	.3675E+00	682
370.000	.18218E+02	.28548	.483676	4.4060	12421.6	13299.8	155.870	42.42	101.62	.4202E+00	556
380.000	.17026E+02	.29744	.407149	3.1330	13497.8	14437.6	159.017	46.91	116.28	.4600E+00	477
390.000	.15590E+02	.31650	.330215	2.0822	14618.9	15645.2	162.153	42.70	126.73	.5044E+00	425
400.000	.13842E+02	.34757	.256134	1.3500	15833.9	16989.9	165.556	40.69	142.14	.5467E+00	372
410.000	.11896E+02	.39456	.193990	1.0128	17107.5	18452.5	169.168	39.37	147.03	.5856E+00	333
420.000	.10137E+02	.45197	.150778	.9570	18292.8	19871.1	172.587	38.15	135.24	.6205E+00	315
430.000	.87489E+01	.51152	.122273	1.0162	19319.0	21147.8	175.592	36.93	119.58	.6513E+00	310
440.000	.77138E+01	.56697	.103093	1.1688	20185.3	22259.5	178.149	35.83	103.07	.6785E+00	314
450.000	.69522E+01	.61510	.089741	1.3677	20918.9	23220.4	180.308	34.92	89.74	.7029E+00	321
460.000	.63764E+01	.65607	.079977	1.5816	21557.0	24066.3	182.168	34.21	79.96	.7246E+00	329
470.000	.59249E+01	.69104	.072509	1.7967	22128.0	24828.4	183.808	33.65	72.83	.7442E+00	337
480.000	.55592E+01	.72115	.066586	2.0075	22650.8	25528.9	185.283	33.22	67.52	.7620E+00	346
490.000	.52551E+01	.74732	.061754	2.2118	23138.3	26183.0	186.632	32.88	63.48	.7783E+00	353
500.000	.49966E+01	.77027	.057722	2.4092	23599.2	26801.4	187.882	32.63	60.33	.7933E+00	361
520.000	.45768E+01	.80858	.051342	2.7836	24463.7	27959.7	190.154	32.31	55.82	.8197E+00	375
540.000	.42463E+01	.83923	.046485	3.1332	25276.1	29044.1	192.201	32.16	52.81	.8423E+00	388
560.000	.39761E+01	.86424	.042637	3.4617	26054.3	30078.3	194.082	32.13	50.73	.8618E+00	400
580.000	.37492E+01	.88496	.039497	3.7722	26809.7	31077.3	195.835	32.19	49.25	.8787E+00	411
600.000	.35544E+01	.90233	.036874	4.0675	27549.5	32051.0	197.486	32.30	48.18	.8935E+00	421
620.000	.33845E+01	.91706	.034642	4.3498	28279.0	33006.5	199.052	32.47	47.40	.9065E+00	431
640.000	.32344E+01	.92963	.032714	4.6209	29001.8	33948.6	200.548	32.67	46.84	.9179E+00	440
660.000	.31003E+01	.94046	.031027	4.8823	29720.4	34881.3	201.983	32.91	46.45	.9281E+00	449
680.000	.29794E+01	.94984	.029536	5.1353	30437.0	35807.3	203.365	33.16	46.17	.9371E+00	458
700.000	.28696E+01	.95800	.028205	5.3809	31153.1	36728.8	204.701	33.43	46.00	.9451E+00	466

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 18.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
191.312	.29373E+02	.38526	2.156639	44.9812	47.0	659.8	109.545	43.94	66.87	.2392E-02	1417
200.000	.28956E+02	.37382	2.041714	42.5227	610.2	1231.9	112.524	43.88	67.26	.3988E-02	1382
210.000	.28475E+02	.36204	1.916991	39.7503	1264.4	1896.6	115.815	43.68	67.62	.6764E-02	1343
220.000	.27991E+02	.35156	1.799481	37.0364	1926.8	2569.9	118.967	43.33	67.88	.1087E-01	1304
230.000	.27503E+02	.34224	1.688381	34.3803	2597.7	3252.2	121.988	42.84	68.06	.1668E-01	1265
240.000	.27008E+02	.33399	1.582982	31.7827	3276.2	3942.6	124.887	42.21	68.15	.2461E-01	1227
250.000	.26506E+02	.32670	1.482656	29.2459	3959.6	4638.7	127.670	41.43	68.18	.3503E-01	1188
260.000	.25994E+02	.32033	1.386844	26.7732	4644.7	5337.2	130.344	40.51	68.15	.4827E-01	1149
270.000	.25469E+02	.31482	1.295046	24.3688	5327.4	6034.1	132.915	39.45	68.10	.6455E-01	1110
280.000	.24930E+02	.31014	1.206809	22.0375	6003.7	6725.7	135.390	38.26	68.04	.8391E-01	1072
290.000	.24373E+02	.30629	1.121724	19.7841	6670.6	7409.1	137.777	36.96	68.01	.1062E+00	1033
300.000	.23795E+02	.30328	1.039412	17.6140	7326.3	8082.7	140.083	35.55	68.05	.1313E+00	994
310.000	.23191E+02	.30113	.959523	15.5323	7971.7	8747.8	142.317	34.07	68.24	.1587E+00	955
320.000	.22557E+02	.29992	.881725	13.5442	8611.0	9408.9	144.489	32.56	68.66	.1884E+00	915
330.000	.21887E+02	.29974	.805702	11.6553	9252.6	10075.0	146.613	31.11	69.48	.2203E+00	873
340.000	.21172E+02	.30075	.731146	9.8714	9910.3	10760.5	148.707	29.87	70.94	.2551E+00	829
350.000	.20401E+02	.30319	.657759	8.1997	10603.7	11486.0	150.798	29.20	73.57	.2939E+00	778
360.000	.19562E+02	.30741	.585263	6.6497	11359.0	12279.1	152.934	30.30	78.76	.3381E+00	712
370.000	.18634E+02	.31401	.513441	5.2351	12216.6	13182.6	155.260	42.40	96.06	.3870E+00	589
380.000	.17590E+02	.32388	.442262	3.9774	13225.8	14249.1	158.217	46.84	107.24	.4241E+00	516
390.000	.16398E+02	.33853	.372206	2.9107	14240.7	15338.4	161.046	42.54	111.58	.4660E+00	473
400.000	.15026E+02	.36019	.305002	2.0853	15294.2	16492.1	163.966	40.40	119.43	.5066E+00	425
410.000	.13495E+02	.39127	.244543	1.5519	16388.7	17722.5	167.004	39.06	125.81	.5451E+00	382
420.000	.11940E+02	.43170	.195726	1.3049	17474.3	18981.8	170.039	38.05	124.54	.5809E+00	353
430.000	.10544E+02	.47749	.159950	1.2483	18482.7	20189.8	172.882	37.14	116.41	.6135E+00	338
440.000	.93785E+01	.52463	.134284	1.2756	19387.6	21306.9	175.451	36.27	106.98	.6430E+00	332
450.000	.84327E+01	.57050	.115502	1.3695	20193.0	22327.5	177.744	35.47	97.11	.6699E+00	331
460.000	.76796E+01	.61283	.101532	1.5159	20907.3	23251.2	179.775	34.78	87.82	.6940E+00	335
470.000	.70792E+01	.65056	.090890	1.6911	21546.3	24089.0	181.577	34.20	80.02	.7159E+00	340
480.000	.65933E+01	.68406	.082556	1.8792	22126.7	24856.8	183.195	33.74	73.78	.7358E+00	347
490.000	.61923E+01	.71349	.075856	2.0714	22662.2	25569.1	184.654	33.36	68.86	.7540E+00	354
500.000	.58550E+01	.73950	.070345	2.2631	23163.2	26237.5	186.014	33.07	64.96	.7707E+00	361
520.000	.53159E+01	.78317	.061786	2.6371	24090.2	27476.3	188.444	32.68	59.32	.8002E+00	374
540.000	.48999E+01	.81820	.055409	2.9936	24948.8	28622.4	190.608	32.47	55.54	.8255E+00	387
560.000	.45653E+01	.84679	.050446	3.3322	25762.6	29705.4	192.578	32.39	52.91	.8473E+00	399
580.000	.42881E+01	.87046	.046452	3.6540	26546.2	30743.9	194.400	32.41	51.04	.8662E+00	410
600.000	.40528E+01	.89029	.043155	3.9609	27309.0	31750.4	196.106	32.50	49.68	.8827E+00	421
620.000	.38495E+01	.90707	.040378	4.2546	28057.5	32733.4	197.718	32.65	48.68	.8972E+00	431
640.000	.36713E+01	.92139	.038000	4.5368	28796.3	33694.2	199.252	32.83	47.94	.9099E+00	440
660.000	.35131E+01	.93370	.035935	4.8088	29528.7	34652.4	200.718	33.04	47.40	.9212E+00	449
680.000	.33713E+01	.94434	.034121	5.0718	30257.2	35596.4	202.127	33.28	47.02	.9313E+00	458
700.000	.32432E+01	.95361	.032512	5.3269	30983.7	36533.8	203.485	33.54	46.75	.9403E+00	466

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 20.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
191.717	.29398E+02	.42680	2.163176	45.3817	52.9	733.3	109.576	43.94	66.82	.2304E-02	1422
200.000	.29003E+02	.41469	2.053746	43.0473	588.5	1278.1	112.410	43.89	67.18	.3741E-02	1390
210.000	.28525E+02	.40156	1.929049	40.2859	1240.8	1941.9	115.695	43.68	67.52	.6337E-02	1351
220.000	.28045E+02	.38987	1.811612	37.5838	1901.0	2614.1	118.843	43.34	67.77	.1017E-01	1313
230.000	.27560E+02	.37947	1.700634	34.9402	2569.5	3295.2	121.859	42.85	67.92	.1560E-01	1274
240.000	.27071E+02	.37024	1.595410	32.3558	3245.2	3984.1	124.752	42.22	67.98	.2298E-01	1236
250.000	.26574E+02	.36208	1.495317	29.8326	3925.7	4678.3	127.527	41.44	67.97	.3269E-01	1198
260.000	.26067E+02	.35491	1.399803	27.3741	4607.3	5374.5	130.192	40.52	67.91	.4502E-01	1160
270.000	.25550E+02	.34869	1.308376	24.9843	5286.0	6068.7	132.753	39.46	67.80	.6016E-01	1122
280.000	.25019E+02	.34337	1.220595	22.6680	5957.7	6757.1	135.215	38.28	67.67	.7816E-01	1084
290.000	.24472E+02	.33894	1.136063	20.4301	6619.1	7436.4	137.589	36.97	67.56	.9892E-01	1046
300.000	.23906E+02	.33540	1.054421	18.2760	7268.5	8105.1	139.878	35.56	67.50	.1222E+00	1008
310.000	.23317E+02	.33278	.975344	16.2109	7906.2	8763.9	142.091	34.08	67.54	.1477E+00	970
320.000	.22701E+02	.33113	.898533	14.2402	8536.2	9417.2	144.239	32.58	67.78	.1753E+00	932
330.000	.22053E+02	.33053	.823714	12.3695	9166.4	10073.3	146.332	31.12	68.34	.2050E+00	892
340.000	.21367E+02	.33111	.750643	10.6048	9809.7	10745.8	148.387	29.88	69.45	.2374E+00	850
350.000	.20635E+02	.33306	.679103	8.9529	10484.6	11453.8	150.427	29.21	71.55	.2735E+00	802
360.000	.19846E+02	.33668	.608928	7.4225	11215.4	12223.2	152.496	30.31	75.96	.3148E+00	738
370.000	.18989E+02	.34236	.540040	6.0251	12039.9	13093.1	154.731	42.39	92.06	.3605E+00	619
380.000	.18048E+02	.35074	.472539	4.7770	13002.7	14110.8	157.558	46.81	101.34	.3955E+00	550
390.000	.17005E+02	.36271	.406883	3.7010	13951.4	15127.5	160.199	42.46	102.79	.4351E+00	512
400.000	.15846E+02	.37949	.344191	2.8273	14913.1	16175.3	162.850	40.25	106.99	.4740E+00	469
410.000	.14578E+02	.40245	.286559	2.1863	15895.9	17267.9	165.548	38.85	111.31	.5115E+00	428
420.000	.13252E+02	.43219	.236782	1.7879	16882.9	18392.1	168.257	37.86	112.86	.5471E+00	395
430.000	.11966E+02	.46751	.196814	1.5974	17838.2	19509.6	170.888	37.07	109.89	.5802E+00	372
440.000	.10809E+02	.50579	.166301	1.5439	18729.3	20579.7	173.348	36.35	103.82	.6109E+00	359
450.000	.98120E+01	.54478	.143202	1.5591	19546.0	21584.3	175.605	35.69	97.17	.6393E+00	352
460.000	.89668E+01	.58318	.125416	1.6199	20293.1	22523.5	177.670	35.10	90.65	.6652E+00	350
470.000	.82592E+01	.61974	.111531	1.7262	20975.8	23397.7	179.550	34.57	84.23	.6889E+00	351
480.000	.76675E+01	.65358	.100545	1.8653	21601.6	24210.1	181.261	34.12	78.37	.7106E+00	354
490.000	.71731E+01	.68437	.091707	2.0243	22179.6	24967.7	182.824	33.74	73.31	.7305E+00	359
500.000	.67554E+01	.71215	.084471	2.1940	22718.4	25679.0	184.261	33.44	69.07	.7488E+00	364
520.000	.60895E+01	.75965	.073347	2.5448	23707.7	26992.1	186.837	33.00	62.64	.7812E+00	376
540.000	.55802E+01	.79827	.065185	2.8938	24613.9	28198.0	189.114	32.75	58.21	.8090E+00	388
560.000	.51752E+01	.82999	.058919	3.2325	25464.7	29329.3	191.171	32.64	55.09	.8330E+00	400
580.000	.48430E+01	.85635	.053938	3.5587	26277.8	30407.4	193.063	32.63	52.84	.8539E+00	411
600.000	.45637E+01	.87846	.049870	3.8720	27064.5	31446.9	194.825	32.69	51.19	.8720E+00	421
620.000	.43243E+01	.89720	.046474	4.1733	27832.9	32458.0	196.483	32.81	49.97	.8880E+00	431
640.000	.41158E+01	.91319	.043588	4.4635	28588.5	33447.8	198.055	32.98	49.06	.9021E+00	441
660.000	.39319E+01	.92693	.041099	4.7437	29335.2	34421.8	199.553	33.17	48.38	.9145E+00	450
680.000	.37679E+01	.93882	.038927	5.0149	30076.0	35384.0	200.989	33.40	47.87	.9257E+00	459
700.000	.36204E+01	.94916	.037010	5.2779	30813.4	36337.6	202.372	33.65	47.51	.9355E+00	467

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 22.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
192.122	.29422E+02	.46809	2.169649	45.7805	59.0	806.7	109.607	43.95	66.77	.2241E-02	1428
200.000	.29049E+02	.45543	2.065690	43.5691	567.1	1324.4	112.297	43.89	67.10	.3545E-02	1398
210.000	.28574E+02	.44095	1.941012	40.8183	1217.4	1987.4	115.579	43.69	67.43	.5997E-02	1359
220.000	.28097E+02	.42805	1.823638	38.1277	1875.6	2658.6	118.722	43.35	67.65	.9614E-02	1321
230.000	.27617E+02	.41656	1.712769	35.4963	2541.8	3338.4	121.732	42.86	67.78	.1473E-01	1283
240.000	.27132E+02	.40635	1.607704	32.9245	3214.9	4025.8	124.618	42.23	67.82	.2168E-01	1245
250.000	.26640E+02	.39729	1.507825	30.4145	3892.4	4718.3	127.386	41.45	67.78	.3081E-01	1208
260.000	.26140E+02	.38932	1.412584	27.9695	4570.7	5412.3	130.042	40.53	67.68	.4240E-01	1170
270.000	.25629E+02	.38237	1.321498	25.5936	5245.6	6104.0	132.594	39.47	67.52	.5662E-01	1133
280.000	.25106E+02	.37640	1.234134	23.2915	5913.0	6789.3	135.046	38.29	67.33	.7353E-01	1096
290.000	.24569E+02	.37137	1.150107	21.0681	6569.4	7464.8	137.406	36.98	67.14	.9302E-01	1059
300.000	.24014E+02	.36729	1.069073	18.9288	7212.7	8128.9	139.679	35.58	66.99	.1149E+00	1022
310.000	.23438E+02	.36417	.990724	16.8789	7843.4	8782.1	141.874	34.10	66.91	.1388E+00	985
320.000	.22838E+02	.36205	.914786	14.9237	8465.0	9428.3	143.999	32.59	66.99	.1647E+00	948
330.000	.22211E+02	.36101	.841019	13.0690	9085.0	10075.5	146.065	31.14	67.34	.1926E+00	910
340.000	.21550E+02	.36114	.769218	11.3204	9715.7	10736.6	148.085	29.89	68.16	.2230E+00	870
350.000	.20849E+02	.36260	.699218	9.6846	10374.7	11429.9	150.083	29.22	69.87	.2571E+00	824
360.000	.20103E+02	.36562	.630916	8.1695	11085.4	12179.7	152.097	30.31	73.72	.2959E+00	763
370.000	.19302E+02	.37050	.564299	6.7846	11883.6	13023.4	154.260	42.39	89.00	.3390E+00	646
380.000	.18436E+02	.37769	.499509	5.5426	12811.8	14005.1	156.991	46.79	97.12	.3722E+00	581
390.000	.17496E+02	.38777	.436942	4.4598	13714.5	14971.9	159.502	42.42	96.96	.4100E+00	546
400.000	.16475E+02	.40150	.377393	3.5557	14616.3	15951.6	161.982	40.16	99.19	.4473E+00	507
410.000	.15377E+02	.41968	.322170	2.8492	15526.6	16957.3	164.465	38.72	101.89	.4835E+00	469
420.000	.14227E+02	.44283	.272971	2.3493	16439.4	17985.8	166.943	37.72	103.53	.5185E+00	435
430.000	.13074E+02	.47066	.231278	2.0427	17337.2	19019.9	169.378	36.95	102.82	.5516E+00	408
440.000	.11982E+02	.50189	.197534	1.8905	18197.6	20033.7	171.709	36.31	99.57	.5827E+00	390
450.000	.10994E+02	.53482	.170936	1.8417	19005.1	21006.2	173.893	35.74	94.81	.6118E+00	378
460.000	.10126E+02	.56807	.150020	1.8513	19756.2	21928.9	175.922	35.23	89.77	.6388E+00	372
470.000	.93695E+01	.60086	.133351	1.8948	20454.6	22802.7	177.801	34.77	85.01	.6637E+00	368
480.000	.87149E+01	.63253	.119892	1.9742	21105.1	23629.5	179.543	34.36	80.37	.6868E+00	368
490.000	.81510E+01	.66249	.108915	2.0844	21712.0	24411.0	181.155	34.01	75.98	.7081E+00	369
500.000	.76656E+01	.69036	.099866	2.2169	22280.5	25150.5	182.648	33.71	71.99	.7278E+00	372
520.000	.69811E+01	.73948	.085939	2.5203	23324.5	26521.7	185.339	33.27	65.45	.7628E+00	381
540.000	.62784E+01	.78045	.075778	2.8448	24276.0	27780.0	187.714	32.99	60.65	.7930E+00	391
560.000	.58005E+01	.81458	.068044	3.1720	25163.4	28956.2	189.853	32.86	57.15	.8190E+00	402
580.000	.54106E+01	.84316	.061952	3.4941	26006.1	30072.2	191.811	32.82	54.58	.8418E+00	412
600.000	.50849E+01	.86727	.057017	3.8076	26817.3	31143.9	193.629	32.86	52.68	.8616E+00	423
620.000	.48073E+01	.88775	.052929	4.1116	27606.1	32182.4	195.331	32.97	51.25	.8790E+00	433
640.000	.45669E+01	.90528	.049479	4.4062	28378.8	33196.0	196.940	33.12	50.16	.8944E+00	442
660.000	.43560E+01	.92036	.046522	4.6915	29140.2	34190.7	198.471	33.30	49.35	.9080E+00	451
680.000	.41687E+01	.93343	.043954	4.9684	29893.8	35171.2	199.934	33.51	48.73	.9201E+00	460
700.000	.40009E+01	.94479	.041700	5.2374	30642.2	36141.0	201.340	33.75	48.27	.9308E+00	468

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 25.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
192.729	.29459E+02	.52959	2.179239	46.3758	68.3	916.9	109.654	43.96	66.70	.2180E-02	1436
200.000	.29117E+02	.51633	2.083451	44.3466	535.5	1394.1	112.129	43.90	66.99	.3319E-02	1409
210.000	.28647E+02	.49981	1.958785	41.6113	1183.1	2055.8	115.406	43.70	67.30	.5604E-02	1371
220.000	.28175E+02	.48508	1.841487	38.9372	1838.2	2725.5	118.541	43.36	67.49	.8958E-02	1333
230.000	.27701E+02	.47194	1.730759	36.3232	2501.1	3403.6	121.544	42.87	67.59	.1372E-01	1296
240.000	.27222E+02	.46023	1.625905	33.7697	3170.5	4088.9	124.421	42.24	67.59	.2016E-01	1259
250.000	.26737E+02	.44983	1.526312	31.2785	3843.9	4778.9	127.179	41.46	67.51	.2862E-01	1222
260.000	.26245E+02	.44063	1.431441	28.8529	4517.4	5470.0	129.824	40.54	67.35	.3934E-01	1185
270.000	.25744E+02	.43257	1.340816	26.4966	5187.0	6158.1	132.361	39.49	67.13	.5249E-01	1149
280.000	.25233E+02	.42558	1.254013	24.2144	5848.2	6839.0	134.798	38.30	66.86	.6811E-01	1113
290.000	.24708E+02	.41963	1.170663	22.0112	6497.5	7509.3	137.139	37.00	66.57	.8610E-01	1078
300.000	.24168E+02	.41470	1.090436	19.8921	7132.7	8167.1	139.391	35.59	66.29	.1063E+00	1042
310.000	.23611E+02	.41080	1.013048	17.8626	7753.8	8812.7	141.561	34.12	66.06	.1284E+00	1007
320.000	.23033E+02	.40795	.938248	15.9280	8364.1	9449.5	143.656	32.61	65.95	.1522E+00	972
330.000	.22431E+02	.40619	.865828	14.0936	8970.5	10085.0	145.687	31.16	66.04	.1780E+00	936
340.000	.21803E+02	.40561	.795620	12.3652	9584.9	10731.5	147.664	29.91	66.53	.2061E+00	898
350.000	.21143E+02	.40632	.727505	10.7486	10223.9	11406.4	149.608	29.24	67.79	.2376E+00	855
360.000	.20448E+02	.40847	.661423	9.2505	10910.0	12132.6	151.556	30.33	71.05	.2736E+00	797
370.000	.19711E+02	.41227	.597401	7.8786	11677.5	12945.8	153.635	42.39	85.53	.3137E+00	682
380.000	.18930E+02	.41800	.535579	6.6418	12567.0	13887.7	156.260	46.79	92.59	.3447E+00	621
390.000	.18097E+02	.42601	.476262	5.5504	13421.2	14802.6	158.636	42.39	91.05	.3800E+00	591
400.000	.17213E+02	.43670	.419969	4.6157	14263.0	15715.3	160.946	40.10	91.69	.4152E+00	556
410.000	.16280E+02	.45047	.367453	3.8475	15102.6	16638.2	163.225	38.62	92.91	.4498E+00	521
420.000	.15309E+02	.46764	.319638	3.2506	15939.6	17572.7	165.477	37.58	93.91	.4836E+00	488
430.000	.14323E+02	.48821	.277406	2.8203	16767.9	18513.3	167.691	36.81	94.00	.5160E+00	459
440.000	.13353E+02	.51177	.241273	2.5386	17576.2	19448.4	169.841	36.20	92.79	.5470E+00	436
450.000	.12432E+02	.53748	.211173	2.3773	18353.8	20364.8	171.899	35.69	90.31	.5765E+00	420
460.000	.11582E+02	.56437	.186491	2.3037	19093.4	21252.0	173.850	35.26	87.03	.6042E+00	408
470.000	.10814E+02	.59160	.166325	2.2886	19792.6	22104.4	175.683	34.87	83.45	.6303E+00	400
480.000	.10127E+02	.61857	.149753	2.3092	20452.7	22921.4	177.404	34.53	79.98	.6546E+00	396
490.000	.95141E+01	.64497	.135981	2.3529	21077.4	23705.0	179.020	34.22	76.77	.6773E+00	393
500.000	.89688E+01	.67050	.124423	2.4214	21669.8	24457.3	180.540	33.96	73.70	.6986E+00	392
520.000	.80541E+01	.71793	.106320	2.6234	22769.9	25873.9	183.319	33.55	68.09	.7368E+00	395
540.000	.73303E+01	.75961	.092983	2.8824	23776.9	27187.4	185.793	33.28	63.43	.7700E+00	401
560.000	.67494E+01	.79552	.082842	3.1697	24713.6	28417.6	188.036	33.13	59.75	.7989E+00	409
580.000	.62743E+01	.82624	.074899	3.4682	25598.4	29582.9	190.080	33.07	56.90	.8242E+00	418
600.000	.58781E+01	.85253	.068514	3.7689	26445.1	30698.2	191.971	33.09	54.72	.8463E+00	427
620.000	.55419E+01	.87509	.063266	4.0668	27264.1	31775.1	193.737	33.18	53.05	.8658E+00	436
640.000	.52521E+01	.89452	.058871	4.3597	28062.6	32822.6	195.400	33.31	51.75	.8830E+00	445
660.000	.49990E+01	.91133	.055131	4.6463	28846.2	33847.2	196.977	33.48	50.75	.8983E+00	454
680.000	.47754E+01	.92594	.051906	4.9265	29619.1	34854.2	198.480	33.68	49.98	.9119E+00	463
700.000	.45760E+01	.93868	.049092	5.2000	30384.4	35847.7	199.920	33.90	49.39	.9240E+00	471

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 30.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
193.739	.29518E+02	.63092	2.194913	47.3602	84.4	1100.7	109.734	43.97	66.59	.2145E-02	1450
200.000	.29228E+02	.61724	2.112650	45.6293	484.3	1510.7	111.855	43.92	66.82	.3067E-02	1427
210.000	.28765E+02	.59731	1.987968	42.9182	1127.6	2170.5	115.122	43.72	67.09	.5160E-02	1390
220.000	.28302E+02	.57950	1.870751	40.2702	1777.9	2837.9	118.247	43.38	67.25	.8233E-02	1353
230.000	.27836E+02	.56358	1.760205	37.6836	2435.6	3513.3	121.238	42.89	67.30	.1256E-01	1317
240.000	.27367E+02	.54935	1.655637	35.1585	3099.2	4195.4	124.101	42.26	67.24	.1842E-01	1281
250.000	.26894E+02	.53666	1.556443	32.6966	3766.1	4881.6	126.844	41.48	67.09	.2609E-01	1245
260.000	.26414E+02	.52538	1.462091	30.3007	4432.4	5568.1	129.471	40.57	66.86	.3580E-01	1210
270.000	.25928E+02	.51541	1.372114	27.9745	5093.8	6250.8	131.988	39.51	66.54	.4768E-01	1175
280.000	.25433E+02	.50668	1.286103	25.7224	5745.8	6925.4	134.402	38.33	66.16	.6178E-01	1141
290.000	.24927E+02	.49912	1.203699	23.5491	6384.6	7588.1	136.716	37.03	65.74	.7800E-01	1107
300.000	.24410E+02	.49271	1.124594	21.4597	7007.8	8236.8	138.937	35.62	65.30	.9616E-01	1074
310.000	.23879E+02	.48743	1.048521	19.4593	7615.0	8871.3	141.071	34.15	64.86	.1161E+00	1041
320.000	.23332E+02	.48327	.975256	17.5530	8209.1	9494.9	143.125	32.64	64.50	.1376E+00	1008
330.000	.22767E+02	.48025	.904615	15.7458	8796.7	10114.4	145.105	31.19	64.28	.1608E+00	975
340.000	.22182E+02	.47842	.836460	14.0429	9389.0	10741.5	147.025	29.95	64.38	.1862E+00	941
350.000	.21575E+02	.47783	.770700	12.4492	10001.9	11392.4	148.900	29.28	65.15	.2146E+00	901
360.000	.20943E+02	.47857	.707296	10.9700	10656.9	12089.3	150.765	30.36	67.79	.2472E+00	847
370.000	.20285E+02	.48075	.646273	9.6104	11387.3	12866.2	152.744	42.42	81.50	.2835E+00	736
380.000	.19598E+02	.48451	.587734	8.3760	12232.4	13763.2	155.250	46.80	87.60	.3118E+00	678
390.000	.18881E+02	.49000	.531865	7.2721	13033.9	14622.8	157.482	42.39	84.94	.3442E+00	653
400.000	.18135E+02	.49740	.478951	6.3036	13814.0	15468.2	159.622	40.07	84.33	.3767E+00	623
410.000	.17363E+02	.50686	.429362	5.4739	14583.6	16311.5	161.704	38.56	84.37	.4090E+00	592
420.000	.16569E+02	.51849	.383518	4.7837	15345.2	17155.8	163.738	37.49	84.53	.4408E+00	562
430.000	.15763E+02	.53233	.341827	4.2299	16098.1	18001.3	165.729	36.69	84.50	.4718E+00	534
440.000	.14957E+02	.54825	.304583	3.8039	16838.7	18844.4	167.668	36.08	84.04	.5019E+00	509
450.000	.14166E+02	.56599	.271884	3.4925	17562.6	19680.3	169.545	35.59	83.05	.5311E+00	489
460.000	.13405E+02	.58515	.243595	3.2786	18265.6	20503.6	171.355	35.20	81.53	.5589E+00	472
470.000	.12684E+02	.60526	.219370	3.1435	18944.3	21309.5	173.088	34.87	79.59	.5855E+00	458
480.000	.12011E+02	.62585	.198734	3.0694	19596.9	22094.6	174.742	34.58	77.40	.6108E+00	448
490.000	.11389E+02	.64654	.181162	3.0404	20223.2	22857.3	176.315	34.34	75.12	.6347E+00	441
500.000	.10819E+02	.66703	.166150	3.0437	20824.2	23597.2	177.809	34.13	72.88	.6574E+00	436
520.000	.98185E+01	.70670	.142084	3.1103	21957.6	25013.1	180.587	33.80	68.82	.6989E+00	431
540.000	.89813E+01	.74396	.123819	3.2366	23013.2	26353.5	183.116	33.58	65.29	.7357E+00	429
560.000	.82800E+01	.77815	.109650	3.4183	24004.2	27627.4	185.434	33.45	62.18	.7683E+00	431
580.000	.76906E+01	.80891	.098447	3.6395	24942.6	28843.5	187.567	33.39	59.50	.7971E+00	436
600.000	.71914E+01	.83622	.089424	3.8856	25838.9	30010.5	189.546	33.40	57.28	.8225E+00	442
620.000	.67646E+01	.86030	.082026	4.1459	26702.4	31137.2	191.394	33.47	55.45	.8451E+00	448
640.000	.63958E+01	.88147	.075862	4.4133	27540.5	32231.0	193.130	33.58	53.98	.8651E+00	456
660.000	.60738E+01	.90008	.070649	4.6834	28359.1	33298.4	194.773	33.73	52.80	.8829E+00	463
680.000	.57899E+01	.91645	.066184	4.9534	29163.1	34344.5	196.333	33.91	51.85	.8989E+00	471
700.000	.55374E+01	.93086	.062314	5.2214	29955.9	35373.7	197.825	34.12	51.10	.9131E+00	479

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 35.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
194.748	.29576E+02	.73083	2.210215	48.3354	101.2	1284.6	109.816	43.98	66.48	.2166E-02	1464
200.000	.29336E+02	.71746	2.141372	46.8963	434.8	1627.8	111.587	43.93	66.66	.2913E-02	1444
210.000	.28880E+02	.69409	2.016633	44.2079	1074.0	2285.9	114.845	43.74	66.90	.4884E-02	1408
220.000	.28424E+02	.67318	1.899447	41.5841	1719.9	2951.2	117.961	43.39	67.02	.7770E-02	1372
230.000	.27966E+02	.65444	1.789023	39.0229	2372.7	3624.2	120.941	42.91	67.03	.1182E-01	1337
240.000	.27506E+02	.63766	1.684671	36.5241	3030.9	4303.3	123.792	42.28	66.93	.1730E-01	1302
250.000	.27043E+02	.62263	1.585791	34.0891	3691.9	4986.1	126.520	41.51	66.72	.2445E-01	1268
260.000	.26576E+02	.60922	1.491855	31.7204	4351.6	5668.6	129.132	40.59	66.42	.3348E-01	1234
270.000	.26102E+02	.59730	1.402402	29.4214	5005.7	6346.6	131.631	39.54	66.03	.4452E-01	1200
280.000	.25622E+02	.58676	1.317031	27.1961	5649.5	7015.6	134.024	38.36	65.56	.5760E-01	1167
290.000	.25133E+02	.57754	1.235393	25.0492	6279.1	7671.7	136.316	37.06	65.03	.7263E-01	1135
300.000	.24635E+02	.56958	1.157185	22.9853	6891.8	8312.6	138.510	35.65	64.45	.8945E-01	1104
310.000	.24126E+02	.56284	1.082154	21.0093	7487.2	8937.9	140.614	34.18	63.87	.1079E+00	1073
320.000	.23604E+02	.55730	1.010084	19.1260	8067.9	9550.7	142.633	32.68	63.32	.1278E+00	1042
330.000	.23069E+02	.55295	.940803	17.3401	8640.1	10157.3	144.574	31.23	62.88	.1492E+00	1012
340.000	.22519E+02	.54980	.874181	15.6560	9214.8	10769.0	146.448	29.98	62.71	.1727E+00	980
350.000	.21952E+02	.54788	.810130	14.0781	9807.5	11401.8	148.270	29.31	63.17	.1990E+00	943
360.000	.21368E+02	.54723	.748606	12.6104	10439.1	12077.1	150.074	30.39	65.44	.2293E+00	892
370.000	.20765E+02	.54791	.689617	11.2567	11142.7	12828.3	151.983	42.45	78.71	.2630E+00	782
380.000	.20142E+02	.54997	.633220	10.0206	11957.3	13694.9	154.408	46.83	84.31	.2894E+00	727
390.000	.19501E+02	.55350	.579526	8.9050	12723.9	14518.7	156.548	42.41	81.09	.3197E+00	706
400.000	.18841E+02	.55855	.528697	7.9119	13465.1	15322.7	158.582	40.08	79.89	.3502E+00	680
410.000	.18165E+02	.56520	.480934	7.0423	14191.9	16118.7	160.548	38.56	79.37	.3807E+00	652
420.000	.17477E+02	.57349	.436458	6.2949	14908.0	16910.7	162.456	37.47	79.08	.4109E+00	624
430.000	.16781E+02	.58339	.395476	5.6665	15614.5	17700.3	164.315	36.66	78.80	.4406E+00	597
440.000	.16083E+02	.59485	.358144	5.1508	16310.2	18486.4	166.123	36.03	78.39	.4698E+00	573
450.000	.15393E+02	.60773	.324523	4.7391	16993.4	19267.2	167.876	35.54	77.75	.4982E+00	551
460.000	.14716E+02	.62183	.294566	4.4206	17662.1	20040.4	169.576	35.15	76.84	.5257E+00	532
470.000	.14062E+02	.63691	.268107	4.1828	18314.3	20803.3	171.217	34.84	75.68	.5522E+00	516
480.000	.13436E+02	.65270	.244889	4.0132	18948.5	21553.4	172.796	34.58	74.31	.5776E+00	503
490.000	.12843E+02	.66892	.224592	3.8995	19563.7	22289.0	174.313	34.36	72.79	.6019E+00	492
500.000	.12285E+02	.68532	.206871	3.8307	20159.9	23008.9	175.768	34.18	71.19	.6252E+00	483
520.000	.11276E+02	.71789	.177817	3.7908	21297.0	24400.9	178.498	33.91	68.02	.6684E+00	472
540.000	.10404E+02	.74928	.155337	3.8351	22367.5	25731.6	181.010	33.73	65.12	.7074E+00	466
560.000	.96499E+01	.77897	.137611	3.9270	23381.5	27008.5	183.332	33.63	62.63	.7424E+00	463
580.000	.89968E+01	.80671	.123371	4.0597	24348.7	28238.9	185.491	33.59	60.46	.7737E+00	463
600.000	.84298E+01	.83227	.111760	4.2297	25276.6	29428.5	187.508	33.61	58.55	.8017E+00	464
620.000	.79358E+01	.85556	.102168	4.4285	26172.1	30582.5	189.400	33.68	56.89	.8267E+00	468
640.000	.75034E+01	.87659	.094144	4.6477	27041.0	31705.6	191.183	33.79	55.47	.8491E+00	473
660.000	.71225E+01	.89548	.087352	4.8805	27888.7	32802.7	192.871	33.93	54.27	.8691E+00	478
680.000	.67849E+01	.91239	.081537	5.1220	28719.4	33877.9	194.475	34.11	53.28	.8871E+00	484
700.000	.64837E+01	.92750	.076508	5.3686	29536.9	34935.1	196.008	34.31	52.46	.9031E+00	490

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 40.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
195.755	.29633E+02	.82934	2.225161	49.3017	118.7	1468.5	109.899	43.99	66.38	.2229E-02	1477
200.000	.29442E+02	.81702	2.169643	48.1486	386.8	1745.4	111.325	43.95	66.51	.2823E-02	1462
210.000	.28992E+02	.79019	2.044811	45.4813	1022.2	2401.9	114.575	43.75	66.72	.4718E-02	1426
220.000	.28542E+02	.76615	1.927614	42.8800	1663.9	3065.3	117.682	43.41	66.81	.7484E-02	1391
230.000	.28092E+02	.74458	1.817260	40.3425	2312.2	3736.0	120.652	42.93	66.79	.1135E-01	1357
240.000	.27641E+02	.72521	1.713063	37.8681	2965.5	4412.6	123.492	42.30	66.64	.1658E-01	1323
250.000	.27187E+02	.70782	1.614423	35.4580	3621.0	5092.3	126.207	41.53	66.39	.2338E-01	1289
260.000	.26730E+02	.69223	1.520817	33.1143	4274.7	5771.2	128.804	40.61	66.03	.3195E-01	1256
270.000	.26268E+02	.67831	1.431786	30.8401	4922.2	6444.9	131.288	39.56	65.57	.4242E-01	1224
280.000	.25801E+02	.66593	1.346933	28.6392	5558.6	7109.0	133.663	38.38	65.03	.5479E-01	1193
290.000	.25327E+02	.65499	1.265914	26.5157	6180.0	7759.3	135.934	37.08	64.41	.6900E-01	1162
300.000	.24846E+02	.64543	1.188431	24.4742	6783.6	8393.5	138.107	35.68	63.73	.8487E-01	1132
310.000	.24356E+02	.63718	1.114233	22.5191	7368.8	9011.1	140.185	34.21	63.02	.1022E+00	1103
320.000	.23856E+02	.63020	1.043109	20.6550	7937.9	9614.7	142.175	32.71	62.33	.1210E+00	1074
330.000	.23345E+02	.62447	.974889	18.8862	8497.3	10210.7	144.083	31.26	61.73	.1412E+00	1046
340.000	.22823E+02	.61997	.909443	17.2166	9057.4	10810.0	145.920	30.02	61.38	.1634E+00	1016
350.000	.22289E+02	.61670	.846676	15.6499	9633.8	11428.4	147.700	29.35	61.62	.1882E+00	981
360.000	.21741E+02	.61467	.786536	14.1895	10247.2	12087.0	149.457	30.43	63.64	.2168E+00	933
370.000	.21180E+02	.61390	.729005	12.8382	10930.3	12818.9	151.314	42.49	76.63	.2487E+00	824
380.000	.20605E+02	.61441	.674108	11.5983	11722.0	13663.2	153.679	46.86	81.93	.2737E+00	771
390.000	.20018E+02	.61623	.621900	10.4715	12463.4	14461.7	155.753	42.44	78.39	.3024E+00	753
400.000	.19418E+02	.61938	.572473	9.4584	13177.1	15237.0	157.715	40.11	76.87	.3315E+00	729
410.000	.18808E+02	.62388	.525935	8.5586	13874.4	16001.2	159.602	38.58	76.04	.3606E+00	703
420.000	.18190E+02	.62971	.482408	7.7702	14559.5	16758.5	161.426	37.48	75.50	.3896E+00	677
430.000	.17568E+02	.63686	.441998	7.0897	15234.5	17511.4	163.199	36.66	75.05	.4183E+00	652
440.000	.16945E+02	.64527	.404784	6.5119	15899.0	18259.6	164.920	36.03	74.59	.4465E+00	628
450.000	.16326E+02	.65484	.370789	6.0299	16552.6	19002.7	166.588	35.53	74.03	.4743E+00	607
460.000	.15716E+02	.66544	.339977	5.6353	17194.5	19739.6	168.208	35.14	73.34	.5012E+00	587
470.000	.15121E+02	.67694	.312242	5.3190	17823.6	20469.0	169.777	34.83	72.51	.5274E+00	570
480.000	.14544E+02	.68914	.287417	5.0714	18439.0	21189.3	171.294	34.57	71.54	.5527E+00	554
490.000	.13988E+02	.70187	.265288	4.8830	19039.9	21899.4	172.758	34.37	70.46	.5771E+00	541
500.000	.13458E+02	.71495	.245613	4.7447	19626.1	22598.3	174.170	34.20	69.30	.6006E+00	531
520.000	.12476E+02	.74154	.212612	4.5864	20754.3	23960.4	176.842	33.96	66.89	.6446E+00	514
540.000	.11603E+02	.76784	.186478	4.5416	21826.8	25274.3	179.321	33.82	64.53	.6849E+00	504
560.000	.10831E+02	.79318	.165569	4.5706	22849.7	26542.9	181.629	33.74	62.37	.7214E+00	497
580.000	.10150E+02	.81722	.148609	4.6459	23830.0	27771.0	183.783	33.72	60.49	.7544E+00	494
600.000	.95474E+01	.83982	.134646	4.7516	24774.6	28964.3	185.806	33.76	58.87	.7843E+00	493
620.000	.90131E+01	.86091	.123001	4.8870	25689.3	30127.3	187.714	33.84	57.46	.8112E+00	493
640.000	.85379E+01	.88043	.113183	5.0494	26579.0	31264.0	189.518	33.95	56.22	.8354E+00	495
660.000	.81140E+01	.89835	.104826	5.2336	27447.6	32377.4	191.232	34.10	55.14	.8572E+00	498
680.000	.77345E+01	.91470	.097646	5.4344	28299.1	33470.7	192.863	34.27	54.21	.8769E+00	502
700.000	.73934E+01	.92957	.091425	5.6475	29136.5	34546.7	194.422	34.46	53.41	.8945E+00	506

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 45.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
196.761	.29688E+02	.92651	2.239764	50.2595	136.8	1652.5	109.984	44.00	66.28	.2325E-02	1490
200.000	.29544E+02	.91596	2.197486	49.3868	340.3	1863.5	111.067	43.97	66.37	.2779E-02	1479
210.000	.29100E+02	.88565	2.072530	46.7393	972.1	2518.4	114.311	43.77	66.56	.4629E-02	1444
220.000	.28657E+02	.85847	1.955284	44.1591	1609.9	3180.2	117.409	43.43	66.63	.7320E-02	1409
230.000	.28214E+02	.83403	1.844957	41.6437	2253.9	3848.8	120.370	42.95	66.57	.1108E-01	1376
240.000	.27771E+02	.81204	1.740861	39.1921	2902.6	4523.0	123.200	42.32	66.39	.1613E-01	1343
250.000	.27326E+02	.79226	1.642400	36.8051	3553.0	5199.9	125.904	41.55	66.09	.2270E-01	1310
260.000	.26878E+02	.77448	1.549049	34.4845	4201.3	5875.6	128.488	40.64	65.68	.3096E-01	1278
270.000	.26427E+02	.75852	1.460355	32.2331	4842.7	6545.5	130.958	39.59	65.17	.4103E-01	1247
280.000	.25971E+02	.74426	1.375920	30.0543	5472.5	7205.2	133.317	38.41	64.56	.5292E-01	1217
290.000	.25511E+02	.73156	1.295402	27.9520	6086.6	7850.5	135.571	37.11	63.86	.6654E-01	1188
300.000	.25044E+02	.72035	1.218505	25.9303	6682.0	8478.8	137.723	35.71	63.10	.8175E-01	1159
310.000	.24571E+02	.71055	1.144978	23.9936	7258.2	9089.6	139.779	34.24	62.30	.9838E-01	1131
320.000	.24090E+02	.70210	1.074610	22.1459	7817.4	9685.5	141.744	32.74	61.50	.1163E+00	1104
330.000	.23600E+02	.69494	1.007231	20.3912	8365.8	10272.5	143.625	31.30	60.77	.1357E+00	1077
340.000	.23102E+02	.68906	.942703	18.7331	8913.7	10861.6	145.431	30.06	60.28	.1569E+00	1049
350.000	.22593E+02	.68442	.880926	17.1747	9476.5	11468.3	147.178	29.39	60.37	.1806E+00	1017
360.000	.22076E+02	.68102	.821833	15.7189	10075.0	12113.4	148.897	30.47	62.21	.2080E+00	970
370.000	.21548E+02	.67885	.765389	14.3679	10741.7	12830.1	150.711	42.53	75.02	.2385E+00	862
380.000	.21010E+02	.67789	.711587	13.1232	11515.5	13657.3	153.031	46.90	80.12	.2625E+00	811
390.000	.20464E+02	.67816	.660447	11.9856	12237.6	14436.6	155.055	42.47	76.37	.2901E+00	795
400.000	.19909E+02	.67963	.612013	10.9552	12930.5	15190.8	156.964	40.14	74.65	.3181E+00	773
410.000	.19347E+02	.68231	.566339	10.0308	13605.9	15931.8	158.794	38.61	73.63	.3461E+00	749
420.000	.18780E+02	.68616	.523486	9.2101	14268.2	16664.3	160.558	37.51	72.94	.3742E+00	724
430.000	.18211E+02	.69115	.483504	8.4898	14920.0	17391.0	162.269	36.68	72.38	.4020E+00	701
440.000	.17642E+02	.69722	.446425	7.8650	15561.5	18112.2	163.928	36.04	71.87	.4295E+00	678
450.000	.17077E+02	.70430	.412248	7.3298	16193.0	18828.1	165.535	35.55	71.32	.4567E+00	656
460.000	.16518E+02	.71228	.380931	6.8774	16814.2	19538.4	167.097	35.15	70.72	.4831E+00	637
470.000	.15970E+02	.72106	.352392	6.5003	17424.6	20242.3	168.611	34.84	70.04	.5090E+00	619
480.000	.15435E+02	.73051	.326504	6.1906	18023.6	20939.0	170.078	34.59	69.28	.5341E+00	603
490.000	.14916E+02	.74050	.303109	5.9404	18610.8	21627.7	171.498	34.39	68.45	.5584E+00	589
500.000	.14415E+02	.75090	.282024	5.7422	19186.1	22307.8	172.872	34.23	67.55	.5820E+00	576
520.000	.13474E+02	.77245	.245991	5.4740	20300.4	23640.1	175.485	34.00	65.66	.6264E+00	556
540.000	.12619E+02	.79427	.216832	5.3368	21368.0	24934.1	177.927	33.87	63.75	.6674E+00	542
560.000	.11848E+02	.81573	.193119	5.2921	22392.6	26190.7	180.213	33.82	61.93	.7049E+00	533
580.000	.11157E+02	.83640	.173665	5.3114	23379.0	27412.5	182.356	33.82	60.28	.7392E+00	527
600.000	.10537E+02	.85605	.157530	5.3742	24332.6	28603.1	184.375	33.86	58.82	.7703E+00	523
620.000	.99814E+01	.87457	.143994	5.4659	25258.2	29766.6	186.282	33.95	57.56	.7986E+00	521
640.000	.94810E+01	.89195	.132511	5.5799	26160.4	30906.7	188.092	34.07	56.48	.8242E+00	520
660.000	.90294E+01	.90818	.122676	5.7164	27042.9	32026.6	189.816	34.22	55.53	.8474E+00	521
680.000	.86208E+01	.92325	.114184	5.8734	27908.9	33128.8	191.460	34.40	54.71	.8685E+00	523
700.000	.82502E+01	.93716	.106795	6.0474	28761.2	34215.6	193.035	34.59	53.99	.8875E+00	526

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 50.00000 MPA

T K	DEN MOL/L	Z	DP/DT MPA/K	DP/DD MPA-L/MOL	E J/MOL	H J/MOL	S J/MOL/K	CV J/MOL/K	CP J/MOL/K	F/P	W M/SEC
197.765	.29742E+02	1.02237	2.254038	51.2091	155.5	1836.6	110.071	44.01	66.19	.2452E-02	1503
200.000	.29644E+02	1.01430	2.224923	50.5117	295.3	1981.9	110.815	43.99	66.25	.2768E-02	1495
210.000	.29206E+02	.98050	2.099816	47.9827	923.5	2635.5	114.052	43.79	66.41	.4596E-02	1461
220.000	.28769E+02	.95015	1.982487	45.4223	1557.7	3295.7	117.143	43.45	66.45	.7246E-02	1427
230.000	.28332E+02	.92283	1.872147	42.9275	2197.7	3962.4	120.095	42.97	66.36	.1093E-01	1394
240.000	.27896E+02	.89821	1.768108	40.4973	2842.1	4634.4	122.915	42.34	66.15	.1588E-01	1362
250.000	.27459E+02	.87601	1.669771	38.1318	3487.9	5308.8	125.609	41.57	65.82	.2230E-01	1330
260.000	.27020E+02	.85600	1.576616	35.8327	4131.0	5981.5	128.182	40.66	65.36	.3036E-01	1300
270.000	.26579E+02	.83798	1.488185	33.6023	4766.9	6648.1	130.639	39.61	64.80	.4016E-01	1270
280.000	.26134E+02	.82181	1.404084	31.4438	5390.6	7303.9	132.984	38.43	64.14	.5172E-01	1240
290.000	.25685E+02	.80733	1.323970	29.3608	5998.1	7944.7	135.222	37.14	63.38	.6494E-01	1212
300.000	.25232E+02	.79444	1.247546	27.3571	6586.2	8567.9	137.357	35.74	62.55	.7968E-01	1185
310.000	.24773E+02	.78305	1.174561	25.4366	7154.5	9172.8	139.393	34.27	61.67	.9578E-01	1158
320.000	.24308E+02	.77309	1.104802	23.6032	7705.0	9761.9	141.337	32.78	60.78	.1131E+00	1133
330.000	.23837E+02	.76449	1.038094	21.8605	8243.7	10341.3	143.195	31.33	59.96	.1319E+00	1107
340.000	.23358E+02	.75720	.974293	20.2117	8781.2	10921.7	144.975	30.09	59.36	.1523E+00	1081
350.000	.22873E+02	.75119	.913292	18.6597	9332.6	11518.6	146.693	29.42	59.33	.1753E+00	1050
360.000	.22379E+02	.74642	.855009	17.2068	9918.6	12152.8	148.381	30.51	61.05	.2018E+00	1005
370.000	.21879E+02	.74286	.799392	15.8548	10571.8	12857.1	150.162	42.57	73.72	.2314E+00	897
380.000	.21371E+02	.74049	.746415	14.6047	11331.1	13670.7	152.445	46.94	78.68	.2546E+00	847
390.000	.20857E+02	.73929	.696068	13.4570	12037.6	14434.9	154.430	42.51	74.79	.2813E+00	833
400.000	.20337E+02	.73924	.648361	12.4110	12714.1	15172.6	156.297	40.18	72.94	.3085E+00	813
410.000	.19813E+02	.74030	.603314	11.4655	13372.3	15896.0	158.084	38.64	71.80	.3357E+00	790
420.000	.19285E+02	.74244	.560948	10.6180	14017.0	16609.6	159.803	37.54	71.01	.3631E+00	767
430.000	.18757E+02	.74561	.521279	9.8652	14650.9	17316.6	161.467	36.71	70.38	.3902E+00	744
440.000	.18229E+02	.74975	.484309	9.2026	15274.6	18017.5	163.079	36.07	69.82	.4172E+00	722
450.000	.17705E+02	.75479	.450019	8.6251	15888.9	18712.9	164.640	35.57	69.28	.4438E+00	702
460.000	.17186E+02	.76056	.418363	8.1266	16493.7	19403.0	166.158	35.18	68.72	.4699E+00	682
470.000	.16676E+02	.76726	.389265	7.7006	17088.9	20087.2	167.629	34.86	68.12	.4954E+00	664
480.000	.16176E+02	.77449	.362621	7.3403	17674.2	20765.1	169.057	34.61	67.47	.5203E+00	647
490.000	.15689E+02	.78226	.338303	7.0391	18249.4	21436.4	170.441	34.41	66.78	.5445E+00	633
500.000	.15216E+02	.79046	.316164	6.7903	18814.5	22100.6	171.783	34.25	66.05	.5680E+00	619
520.000	.14317E+02	.80775	.277775	6.4255	19913.8	23406.2	174.344	34.04	64.50	.6127E+00	597
540.000	.13488E+02	.82566	.246143	6.2016	20973.3	24680.4	176.748	33.92	62.92	.6541E+00	580
560.000	.12729E+02	.84361	.220027	6.0826	21995.3	25923.3	179.008	33.88	61.38	.6923E+00	568
580.000	.12040E+02	.86118	.198343	6.0405	22983.4	27136.4	181.137	33.89	59.95	.7275E+00	559
600.000	.11414E+02	.87810	.180201	6.0540	23941.6	28322.1	183.147	33.95	58.65	.7596E+00	553
620.000	.10847E+02	.89420	.164885	6.1074	24873.8	29483.4	185.051	34.04	57.50	.7889E+00	550
640.000	.10332E+02	.90942	.151836	6.1891	25783.9	30623.2	186.861	34.17	56.50	.8156E+00	547
660.000	.98637E+01	.92374	.140615	6.2906	26675.4	31744.5	188.586	34.33	55.65	.8399E+00	547
680.000	.94364E+01	.93717	.130884	6.4098	27551.2	32849.9	190.235	34.50	54.91	.8622E+00	547
700.000	.90455E+01	.94973	.122383	6.5456	28414.0	33941.6	191.818	34.70	54.27	.8823E+00	548

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 55.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
198.768	.29795E+02	1.11695	2.267997	52.1509	174.9	2020.8	110.158	44.02	66.10	.2607E-02	1515
200.000	.29742E+02	1.11206	2.251973	51.8240	251.5	2100.8	110.567	44.00	66.13	.2785E-02	1511
210.000	.29309E+02	1.07477	2.126690	49.2123	876.5	2753.1	113.798	43.81	66.28	.4608E-02	1478
220.000	.28877E+02	1.04123	2.009250	46.6704	1507.1	3411.7	116.882	43.47	66.29	.7242E-02	1445
230.000	.28447E+02	1.01102	1.898963	44.1951	2143.4	4076.8	119.826	42.99	66.18	.1090E-01	1412
240.000	.28018E+02	.98375	1.794840	41.7848	2783.7	4746.8	122.638	42.36	65.94	.1579E-01	1381
250.000	.27588E+02	.95911	1.696582	39.4395	3425.2	5418.8	125.323	41.60	65.57	.2213E-01	1350
260.000	.27157E+02	.93685	1.603567	37.1604	4063.7	6088.9	127.885	40.68	65.08	.3006E-01	1320
270.000	.26725E+02	.91675	1.515340	34.9497	4694.4	6752.4	130.331	39.64	64.48	.3969E-01	1291
280.000	.26290E+02	.89863	1.431502	32.8100	5312.6	7404.7	132.663	38.46	63.76	.5103E-01	1263
290.000	.25852E+02	.88234	1.351711	30.7446	5914.0	8041.5	134.887	37.17	62.95	.6398E-01	1236
300.000	.25410E+02	.86776	1.275669	28.7572	6495.6	8660.1	137.006	35.77	62.06	.7841E-01	1209
310.000	.24964E+02	.85476	1.203122	26.8514	7056.7	9259.9	139.026	34.30	61.12	.9414E-01	1184
320.000	.24514E+02	.84326	1.133854	25.0306	7599.5	9843.1	140.951	32.81	60.16	.1111E+00	1160
330.000	.24058E+02	.83320	1.067684	23.2982	8129.8	10415.9	142.788	31.36	59.26	.1294E+00	1136
340.000	.23597E+02	.82449	1.004464	21.6573	8658.1	10988.9	144.546	30.13	58.57	.1493E+00	1111
350.000	.23131E+02	.81709	.944076	20.1102	9199.7	11577.5	146.240	29.46	58.45	.1717E+00	1082
360.000	.22658E+02	.81095	.886428	18.6591	9775.0	12202.4	147.902	30.54	60.07	.1975E+00	1037
370.000	.22181E+02	.80603	.831453	17.3053	10416.9	12896.5	149.655	42.60	72.65	.2264E+00	930
380.000	.21698E+02	.80229	.779107	16.0497	11164.0	13698.8	151.908	46.98	77.51	.2491E+00	881
390.000	.21210E+02	.79969	.729360	14.8922	11857.7	14450.9	153.862	42.55	73.52	.2752E+00	868
400.000	.20718E+02	.79820	.682199	13.8322	12520.8	15175.4	155.695	40.22	71.57	.3017E+00	849
410.000	.20224E+02	.79777	.637615	12.8681	13165.1	15884.6	157.447	38.68	70.35	.3284E+00	828
420.000	.19728E+02	.79836	.595605	11.9975	13795.5	16583.5	159.130	37.58	69.49	.3552E+00	806
430.000	.19232E+02	.79991	.556162	11.2171	14415.1	17275.0	160.759	36.75	68.81	.3819E+00	785
440.000	.18737E+02	.80238	.519267	10.5229	15024.6	17960.0	162.334	36.11	68.22	.4083E+00	763
450.000	.18245E+02	.80568	.484888	9.9100	15624.9	18639.4	163.859	35.61	67.68	.4346E+00	743
460.000	.17759E+02	.80976	.452974	9.3732	16216.5	19313.5	165.341	35.21	67.14	.4603E+00	724
470.000	.17279E+02	.81452	.423455	8.9065	16799.2	19982.1	166.779	34.89	66.58	.4856E+00	706
480.000	.16809E+02	.81989	.396237	8.5041	17373.0	20645.1	168.175	34.64	66.01	.5104E+00	689
490.000	.16348E+02	.82578	.371210	8.1600	17937.9	21302.2	169.530	34.44	65.40	.5345E+00	674
500.000	.15899E+02	.83212	.348250	7.8681	18493.8	21953.1	170.845	34.29	64.77	.5579E+00	660
520.000	.15041E+02	.84577	.307984	7.4192	19578.9	23235.6	173.361	34.07	63.46	.6026E+00	636
540.000	.14240E+02	.86024	.274313	7.1170	20629.0	24491.4	175.730	33.96	62.12	.6444E+00	618
560.000	.13499E+02	.87503	.246145	6.9278	21646.3	25720.5	177.966	33.93	60.80	.6831E+00	603
580.000	.12818E+02	.88975	.222498	6.8246	22633.2	26924.0	180.077	33.95	59.56	.7189E+00	592
600.000	.12194E+02	.90411	.202535	6.7863	23593.1	28103.4	182.077	34.02	58.41	.7517E+00	584
620.000	.11623E+02	.91794	.185566	6.7965	24529.1	29261.0	183.975	34.12	57.37	.7818E+00	579
640.000	.11101E+02	.93112	.171032	6.8431	25444.4	30399.1	185.781	34.25	56.46	.8094E+00	575
660.000	.10622E+02	.94359	.158488	6.9165	26342.0	31520.0	187.506	34.41	55.66	.8346E+00	572
680.000	.10182E+02	.95535	.147579	7.0097	27224.7	32626.1	189.155	34.59	54.97	.8577E+00	571
700.000	.97783E+01	.96642	.138021	7.1176	28094.8	33719.5	190.741	34.79	54.38	.8787E+00	571

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 60.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
199.769	.29847E+02	1.21028	2.281652	53.0850	194.8	2205.0	110.247	44.03	66.02	.2790E-02	1528
200.000	.29837E+02	1.20928	2.278655	53.0242	209.0	2219.9	110.323	44.02	66.02	.2824E-02	1527
210.000	.29409E+02	1.16847	2.153174	50.4288	830.9	2871.1	113.548	43.83	66.15	.4656E-02	1494
220.000	.28983E+02	1.13175	2.035598	47.9044	1458.2	3528.4	116.625	43.49	66.15	.7297E-02	1462
230.000	.28559E+02	1.09862	1.925133	45.4472	2090.9	4191.8	119.564	43.01	66.01	.1095E-01	1430
240.000	.28136E+02	1.06868	1.821091	43.0557	2727.4	4860.0	122.368	42.39	65.74	.1583E-01	1399
250.000	.27713E+02	1.04159	1.722872	40.7293	3364.8	5529.9	125.044	41.62	65.34	.2213E-01	1369
260.000	.27289E+02	1.01707	1.629952	38.4690	3998.9	6197.6	127.597	40.71	64.82	.3000E-01	1340
270.000	.26865E+02	.99487	1.541874	36.2765	4624.9	6858.3	130.032	39.66	64.18	.3954E-01	1312
280.000	.26439E+02	.97479	1.458240	34.1543	5238.0	7507.4	132.352	38.49	63.43	.5075E-01	1285
290.000	.26011E+02	.95667	1.378704	32.1054	5833.9	8140.6	134.564	37.19	62.57	.6354E-01	1258
300.000	.25580E+02	.94036	1.302968	30.1330	6409.6	8755.2	136.669	35.80	61.63	.7775E-01	1233
310.000	.25146E+02	.92573	1.230773	28.2404	6964.3	9350.3	138.674	34.33	60.63	.9324E-01	1209
320.000	.24708E+02	.91269	1.161900	26.4310	7500.1	9928.4	140.583	32.84	59.61	.1099E+00	1186
330.000	.24267E+02	.90114	1.096163	24.7078	8022.9	10495.4	142.402	31.40	58.65	.1279E+00	1163
340.000	.23821E+02	.89100	1.033408	23.0735	8543.2	11062.0	144.141	30.16	57.89	.1475E+00	1139
350.000	.23371E+02	.88221	.973508	21.5304	9076.1	11643.4	145.814	29.50	57.70	.1695E+00	1111
360.000	.22917E+02	.87471	.916362	20.0803	9642.3	12260.4	147.454	30.58	59.25	.1949E+00	1068
370.000	.22458E+02	.86843	.861890	18.7243	10274.3	12945.9	149.183	42.64	71.75	.2232E+00	961
380.000	.21996E+02	.86335	.810033	17.4631	11011.1	13738.9	151.411	47.02	76.53	.2454E+00	913
390.000	.21531E+02	.85939	.760747	16.2965	11694.0	14480.7	153.338	42.59	72.47	.2712E+00	902
400.000	.21063E+02	.85652	.713997	15.2236	12345.8	15194.4	155.144	40.26	70.45	.2972E+00	884
410.000	.20593E+02	.85469	.669760	14.2428	12978.6	15892.2	156.868	38.72	69.17	.3235E+00	864
420.000	.20123E+02	.85385	.628011	13.3517	13597.2	16578.9	158.522	37.62	68.26	.3499E+00	843
430.000	.19653E+02	.85393	.588726	12.5473	14204.9	17257.9	160.121	36.79	67.54	.3761E+00	822
440.000	.19185E+02	.85488	.551873	11.8257	14802.7	17930.2	161.667	36.15	66.94	.4023E+00	801
450.000	.18720E+02	.85664	.517411	11.1825	15391.6	18596.7	163.163	35.64	66.39	.4282E+00	781
460.000	.19260E+02	.85913	.485285	10.6128	15972.1	19258.0	164.617	35.25	65.86	.4537E+00	762
470.000	.17806E+02	.86229	.455426	10.1114	16544.3	19913.9	166.028	34.93	65.34	.4788E+00	744
480.000	.17359E+02	.86604	.427747	9.6729	17108.3	20564.7	167.398	34.68	64.81	.5034E+00	728
490.000	.16922E+02	.87031	.402151	9.2918	17664.3	21210.0	168.729	34.48	64.26	.5274E+00	712
500.000	.16494E+02	.87501	.378528	8.9627	18212.2	21849.9	170.022	34.32	63.70	.5508E+00	698
520.000	.15672E+02	.88547	.336722	8.4401	19284.1	23112.5	172.498	34.11	62.55	.5956E+00	673
540.000	.14900E+02	.89690	.301342	8.0678	20325.0	24351.9	174.837	34.01	61.39	.6376E+00	653
560.000	.14179E+02	.90884	.271414	7.8139	21336.4	25568.1	177.043	33.98	60.24	.6767E+00	637
580.000	.13510E+02	.92093	.246040	7.6526	22320.7	26761.8	179.143	34.00	59.14	.7129E+00	624
600.000	.12892E+02	.93291	.224441	7.5631	23280.2	27934.3	181.130	34.08	58.12	.7464E+00	615
620.000	.12322E+02	.94458	.205953	7.5291	24217.9	29087.2	183.021	34.19	57.19	.7772E+00	607
640.000	.11797E+02	.95581	.190032	7.5379	25136.4	30222.6	184.823	34.32	56.36	.8054E+00	602
660.000	.11312E+02	.96653	.176232	7.5795	26038.3	31342.2	186.546	34.49	55.62	.8313E+00	598
680.000	.10865E+02	.97669	.164189	7.6463	26925.9	32448.0	188.195	34.67	54.98	.8552E+00	596
700.000	.10452E+02	.98629	.153613	7.7324	27801.6	33541.9	189.781	34.87	54.42	.8769E+00	595

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 65.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	E/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
200.769	.29898E+02	1.30239	2.295014	54.0118	215.1	2389.2	110.337	44.03	65.94	.3001E-02	1540
210.000	.29507E+02	1.26164	2.179287	51.6328	786.6	2989.4	113.304	43.85	66.03	.4737E-02	1510
220.000	.29086E+02	1.22171	2.061551	49.1247	1410.7	3645.5	116.375	43.51	66.01	.7400E-02	1478
230.000	.28667E+02	1.18567	1.950983	46.6848	2040.1	4307.5	119.307	43.03	65.85	.1107E-01	1447
240.000	.28250E+02	1.15305	1.846892	44.3109	2673.1	4973.9	122.104	42.41	65.56	.1597E-01	1417
250.000	.27834E+02	1.12349	1.748676	42.0024	3306.6	5641.9	124.772	41.64	65.13	.2227E-01	1388
260.000	.27417E+02	1.09668	1.655810	39.7597	3936.6	6307.4	127.316	40.73	64.58	.3014E-01	1360
270.000	.27000E+02	1.07237	1.567836	37.5843	4558.2	6965.6	129.741	39.69	63.91	.3964E-01	1332
280.000	.26583E+02	1.05032	1.484354	35.4784	5166.6	7611.8	132.052	38.51	63.12	.5080E-01	1306
290.000	.26163E+02	1.03035	1.405016	33.4448	5757.4	8241.8	134.251	37.22	62.23	.6350E-01	1280
300.000	.25742E+02	1.01230	1.329521	31.4862	6327.7	8852.7	136.345	35.83	61.24	.7760E-01	1256
310.000	.25319E+02	.99603	1.257607	29.6059	6876.5	9443.7	138.336	34.36	60.20	.9295E-01	1233
320.000	.24893E+02	.98142	1.189050	27.8068	7406.0	10017.2	140.230	32.87	59.13	.1094E+00	1211
330.000	.24464E+02	.96838	1.123661	26.0918	7922.2	10579.2	142.034	31.43	58.11	.1272E+00	1189
340.000	.24031E+02	.95680	1.061278	24.4633	8435.3	11140.1	143.756	30.19	57.30	.1466E+00	1167
350.000	.23596E+02	.94661	1.001768	22.9235	8960.6	11715.3	145.411	29.53	57.05	.1683E+00	1139
360.000	.23157E+02	.93775	.945019	21.4739	9518.6	12325.5	147.032	30.62	58.54	.1934E+00	1097
370.000	.22716E+02	.93014	.890944	20.1156	10142.2	13003.6	148.741	42.68	70.98	.2214E+00	990
380.000	.22272E+02	.92372	.839468	18.8489	10870.0	13788.5	150.948	47.06	75.70	.2434E+00	943
390.000	.21825E+02	.91845	.790537	17.6736	11543.6	14521.8	152.852	42.63	71.58	.2687E+00	933
400.000	.21377E+02	.91425	.744101	16.5888	12185.8	15226.4	154.635	40.30	69.52	.2945E+00	916
410.000	.20928E+02	.91108	.700121	15.5928	12808.7	15914.5	156.335	38.76	68.19	.3205E+00	897
420.000	.20480E+02	.90888	.658561	14.6834	13417.3	16591.2	157.955	37.66	67.24	.3466E+00	877
430.000	.20032E+02	.90759	.619383	13.8575	14015.1	17259.9	159.540	36.83	66.50	.3726E+00	856
440.000	.19586E+02	.90715	.582545	13.1117	14603.0	17921.6	161.051	36.19	65.88	.3985E+00	836
450.000	.19144E+02	.90749	.547999	12.4419	15182.1	18577.5	162.534	35.69	65.32	.4242E+00	817
460.000	.18706E+02	.90855	.515686	11.8434	15753.2	19228.2	163.964	35.29	64.81	.4495E+00	798
470.000	.18273E+02	.91026	.485537	11.3116	16316.5	19873.7	165.353	34.97	64.30	.4745E+00	781
480.000	.17847E+02	.91256	.457472	10.8415	16872.2	20514.2	166.701	34.72	63.81	.4990E+00	764
490.000	.17430E+02	.91537	.431401	10.4280	17420.5	21149.8	168.012	34.52	63.31	.5229E+00	749
500.000	.17020E+02	.91863	.407224	10.0661	17961.4	21780.3	169.286	34.36	62.80	.5463E+00	734
520.000	.16231E+02	.92624	.364124	9.4784	19021.3	23026.0	171.729	34.16	61.77	.5911E+00	709
540.000	.15485E+02	.93492	.327287	9.0431	20053.3	24250.9	174.040	34.05	60.73	.6333E+00	687
560.000	.14784E+02	.94427	.295831	8.7302	21058.6	25455.2	176.230	34.03	59.71	.6727E+00	670
580.000	.14129E+02	.95395	.268933	8.5147	22039.2	26639.6	178.308	34.06	58.73	.7094E+00	656
600.000	.13520E+02	.96370	.245862	8.3762	22997.4	27805.0	180.284	34.13	57.82	.7433E+00	645
620.000	.12955E+02	.97333	.225987	8.2987	23935.4	28952.9	182.166	34.25	56.98	.7746E+00	636
640.000	.12430E+02	.98271	.208779	8.2692	24855.6	30084.8	183.963	34.39	56.22	.8034E+00	629
660.000	.11944E+02	.99173	.193795	8.2775	25760.2	31202.4	185.683	34.55	55.55	.8299E+00	624
680.000	.11493E+02	1.00035	.180674	8.3157	26651.4	32307.3	187.331	34.74	54.95	.8544E+00	621
700.000	.11074E+02	1.00853	.169119	8.3772	27531.2	33401.0	188.916	34.94	54.43	.8767E+00	618

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 70.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
201.768	.29947E+02	1.39332	2.308094	54.9315	236.0	2573.5	110.428	44.04	65.86	.3242E-02	1552
210.000	.29603E+02	1.35429	2.205046	52.8249	743.5	3108.2	113.064	43.87	65.93	.4846E-02	1526
220.000	.29187E+02	1.31116	2.087131	50.3322	1364.7	3763.0	116.130	43.53	65.89	.7547E-02	1495
230.000	.28773E+02	1.27218	1.976435	47.9085	1990.8	4423.7	119.055	43.05	65.71	.1126E-01	1464
240.000	.28361E+02	1.23687	1.872267	45.5512	2620.4	5088.6	121.846	42.43	65.39	.1620E-01	1435
250.000	.27951E+02	1.20484	1.774024	43.2595	3250.4	5754.8	124.506	41.66	64.94	.2254E-01	1406
260.000	.27541E+02	1.17574	1.681177	41.0334	3876.6	6418.2	127.043	40.76	64.37	.3044E-01	1378
270.000	.27131E+02	1.14929	1.593268	38.8742	4494.1	7074.1	129.459	39.71	63.66	.3997E-01	1352
280.000	.26721E+02	1.12525	1.509894	36.7837	5098.1	7717.8	131.760	38.54	62.84	.5113E-01	1326
290.000	.26310E+02	1.10342	1.430704	34.7643	5684.2	8344.8	133.949	37.25	61.92	.6381E-01	1302
300.000	.25898E+02	1.08362	1.355395	32.8187	6249.5	8952.4	136.032	35.86	60.90	.7788E-01	1278
310.000	.25484E+02	1.06569	1.283702	30.9497	6792.9	9539.8	138.011	34.39	59.81	.9316E-01	1256
320.000	.25068E+02	1.04951	1.215398	29.1601	7316.8	10109.2	139.892	32.90	58.70	.1096E+00	1235
330.000	.24650E+02	1.03496	1.150285	27.4526	7826.9	10666.6	141.682	31.46	57.64	.1272E+00	1214
340.000	.24230E+02	1.02194	1.088199	25.8293	8333.5	11222.5	143.389	30.23	56.78	.1465E+00	1193
350.000	.23808E+02	1.01036	1.028998	24.2923	8852.0	11792.2	145.028	29.57	56.48	.1681E+00	1166
360.000	.23383E+02	1.00013	.972565	22.8429	9402.9	12396.5	146.633	30.65	57.92	.1929E+00	1125
370.000	.22956E+02	.99119	.918801	21.4821	10018.9	13068.2	148.324	42.72	70.31	.2208E+00	1018
380.000	.22528E+02	.98347	.867623	20.2101	10738.9	13846.2	150.512	47.09	74.98	.2425E+00	971
390.000	.22098E+02	.97689	.818965	19.0266	11404.4	14572.1	152.398	42.67	70.82	.2677E+00	962
400.000	.21667E+02	.97141	.772766	17.9307	12038.2	15268.9	154.161	40.34	68.72	.2933E+00	946
410.000	.21236E+02	.96695	.728978	16.9208	12652.6	15948.9	155.840	38.81	67.36	.3190E+00	928
420.000	.20806E+02	.96345	.687551	15.9947	13252.7	16617.1	157.459	37.70	66.38	.3449E+00	909
430.000	.20377E+02	.96086	.648439	15.1495	13841.8	17277.1	159.004	36.87	65.61	.3707E+00	889
440.000	.19950E+02	.95911	.611593	14.3820	14421.2	17929.9	160.505	36.23	64.98	.3965E+00	870
450.000	.19527E+02	.95813	.576957	13.6883	14992.0	18576.8	161.958	35.73	64.43	.4221E+00	851
460.000	.19107E+02	.95787	.544472	13.0642	15555.1	19218.6	163.369	35.33	63.92	.4473E+00	832
470.000	.18693E+02	.95825	.514069	12.5053	16110.7	19855.3	164.738	35.01	63.43	.4722E+00	815
480.000	.18285E+02	.95921	.485669	12.0071	16659.1	20487.3	166.069	34.76	62.96	.4966E+00	798
490.000	.17885E+02	.96070	.459189	11.5647	17200.5	21114.5	167.362	34.56	62.49	.5205E+00	783
500.000	.17492E+02	.96264	.434537	11.1735	17735.2	21737.1	168.620	34.41	62.02	.5439E+00	768
520.000	.16732E+02	.96766	.390324	10.5274	18784.4	22968.2	171.034	34.20	61.08	.5888E+00	742
540.000	.16010E+02	.97384	.352223	10.0353	19808.0	24180.4	173.322	34.10	60.14	.6311E+00	720
560.000	.15328E+02	.98081	.319426	9.6684	20807.2	25374.0	175.493	34.07	59.23	.6708E+00	702
580.000	.14688E+02	.98825	.291172	9.4025	21783.9	26549.7	177.555	34.11	58.35	.7078E+00	687
600.000	.14089E+02	.99592	.266773	9.2179	22739.9	27708.3	179.519	34.19	57.52	.7422E+00	674
620.000	.13530E+02	1.00363	.245631	9.0986	23677.3	28851.0	181.393	34.30	56.76	.7739E+00	664
640.000	.13009E+02	1.01124	.227230	9.0315	24598.2	29979.2	183.184	34.45	56.07	.8032E+00	656
660.000	.12523E+02	1.01863	.211139	9.0065	25504.5	31094.3	184.900	34.62	55.45	.8303E+00	650
680.000	.12070E+02	1.02576	.196998	9.0151	26398.2	32197.7	186.546	34.81	54.90	.8552E+00	645
700.000	.11648E+02	1.03257	.184505	9.0509	27281.0	33290.7	188.130	35.01	54.42	.8780E+00	642

Table 14. Continued.

HYDROGEN SULFIDE ISOBAR AT P = 75.00000 MPA

T	DEN	Z	DP/DT	DP/DD	E	H	S	CV	CP	F/P	W
K	MOL/L		MPA/K	MPA-L/MOL	J/MOL	J/MOL	J/MOL/K	J/MOL/K	J/MOL/K		M/SEC
202.765	.29996E+02	1.48310	2.320901	55.8443	257.5	2757.8	110.520	44.04	65.78	.3515E-02	1564
210.000	.29696E+02	1.44646	2.230467	54.0056	701.6	3227.2	112.827	43.89	65.83	.4982E-02	1541
220.000	.29285E+02	1.40011	2.112355	51.5275	1319.9	3881.0	115.889	43.55	65.77	.7735E-02	1510
230.000	.28876E+02	1.35818	2.001511	49.1190	1943.1	4540.4	118.809	43.08	65.57	.1151E-01	1481
240.000	.28470E+02	1.32018	1.897243	46.7775	2569.5	5203.9	121.593	42.45	65.24	.1651E-01	1452
250.000	.28065E+02	1.28565	1.798944	44.5016	3196.1	5868.4	124.247	41.69	64.77	.2293E-01	1424
260.000	.27661E+02	1.25425	1.706086	42.2912	3818.6	6530.0	126.776	40.78	64.17	.3089E-01	1397
270.000	.27258E+02	1.22566	1.618206	40.1472	4432.3	7183.8	129.184	39.74	63.44	.4049E-01	1371
280.000	.26855E+02	1.19963	1.534901	38.0712	5032.2	7825.0	131.477	38.57	62.59	.5170E-01	1346
290.000	.26451E+02	1.17593	1.455819	36.0653	5614.0	8449.4	133.657	37.28	61.63	.6443E-01	1322
300.000	.26047E+02	1.15436	1.380649	34.1318	6174.6	9054.0	135.729	35.89	60.58	.7852E-01	1300
310.000	.25642E+02	1.13477	1.309127	32.2734	6713.2	9638.1	137.697	34.42	59.46	.9380E-01	1278
320.000	.25236E+02	1.11701	1.241018	30.4926	7231.8	10203.8	139.567	32.93	58.31	.1102E+00	1258
330.000	.24828E+02	1.10095	1.176124	28.7919	7736.4	10757.2	141.344	31.49	57.21	.1278E+00	1238
340.000	.24419E+02	1.08648	1.114273	27.1734	8237.2	11308.6	143.038	30.26	56.31	.1470E+00	1218
350.000	.24008E+02	1.07350	1.055317	25.6388	8749.6	11873.5	144.663	29.60	55.98	.1685E+00	1192
360.000	.23596E+02	1.06191	.999131	24.1895	9294.1	12472.6	146.253	30.69	57.37	.1934E+00	1151
370.000	.23182E+02	1.05165	.945610	22.8262	9903.4	13138.6	147.928	42.75	69.73	.2211E+00	1045
380.000	.22767E+02	1.04263	.894664	21.5491	10616.4	13910.6	150.101	47.13	74.36	.2427E+00	998
390.000	.22352E+02	1.03478	.846214	20.3579	11274.7	14630.1	151.970	42.71	70.17	.2678E+00	990
400.000	.21936E+02	1.02803	.800194	19.2518	11901.2	15320.2	153.716	40.38	68.03	.2932E+00	975
410.000	.21521E+02	1.02231	.756543	18.2290	12508.1	15993.1	155.378	38.85	66.64	.3189E+00	957
420.000	.21106E+02	1.01757	.715206	17.2875	13100.7	16654.1	156.970	37.74	65.64	.3447E+00	939
430.000	.20694E+02	1.01373	.676128	16.4247	13682.3	17306.6	158.505	36.91	64.86	.3704E+00	920
440.000	.20283E+02	1.01073	.639254	15.6375	14254.2	17951.9	159.990	36.27	64.22	.3961E+00	901
450.000	.19876E+02	1.00851	.604524	14.9222	14817.8	18591.2	161.425	35.77	63.67	.4216E+00	882
460.000	.19473E+02	1.00700	.571876	14.2749	15373.9	19225.3	162.820	35.37	63.16	.4468E+00	864
470.000	.19075E+02	1.00614	.541241	13.6916	15922.7	19854.5	164.173	35.05	62.69	.4716E+00	847
480.000	.18683E+02	1.00586	.512544	13.1679	16464.8	20479.1	165.488	34.80	62.24	.4960E+00	831
490.000	.18297E+02	1.00612	.485704	12.6995	17000.2	21099.2	166.767	34.60	61.79	.5199E+00	815
500.000	.17918E+02	1.00694	.460634	12.2819	17529.3	21715.0	168.011	34.45	61.35	.5433E+00	801
520.000	.17184E+02	1.00947	.415446	11.5827	18568.8	22933.3	170.401	34.24	60.48	.5883E+00	774
540.000	.16485E+02	1.01334	.376231	11.0388	19584.6	24134.3	172.667	34.14	59.62	.6309E+00	752
560.000	.15821E+02	1.01810	.342243	10.6223	20578.0	25318.4	174.820	34.12	58.79	.6708E+00	732
580.000	.15196E+02	1.02346	.312772	10.3099	21550.6	26486.1	176.869	34.16	57.99	.7081E+00	716
600.000	.14608E+02	1.02918	.287171	10.0820	22504.1	27638.3	178.822	34.24	57.24	.7428E+00	703
620.000	.14056E+02	1.03507	.264866	9.9229	23440.3	28776.0	180.687	34.36	56.54	.7749E+00	692
640.000	.13539E+02	1.04098	.245361	9.8197	24361.1	29900.5	182.472	34.50	55.91	.8047E+00	683
660.000	.13056E+02	1.04682	.228235	9.7619	25268.3	31012.8	184.184	34.68	55.34	.8321E+00	676
680.000	.12604E+02	1.05250	.213130	9.7412	26163.6	32114.4	185.827	34.87	54.83	.8575E+00	670
700.000	.12180E+02	1.05798	.199747	9.7507	27048.7	33206.3	187.410	35.07	54.38	.8808E+00	666

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11. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here)

Thermophysical properties of hydrogen sulfide are derived from physical properties data by using our nonanalytic equation of state, and are tabulated along isobars at integral temperatures. Results include vapor pressures, orthobaric densities, the second virial coefficient, the equation of state, the ideal gas state functions, compressibility factors, densities, derivatives of the $P(\rho,T)$ surface, heats of vaporization, internal energies, enthalpies, entropies, specific heats, fugacity coefficients, speeds of sound, and the Joule-Thomson inversion. Thermofunctions by another author are compared with present results.

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densities; enthalpies; entropies; equation of state; fugacities; heats of vaporization; hydrogen sulfide; isobars; isochores; isotherms; Joule-Thomson inversion; orthobaric densities; specific heats; speeds of sound; vapor pressures; virial equation.

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