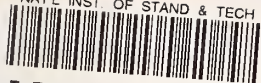


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OXIDATION OF SULFITE ION BY OXYGEN IN AQUEOUS SOLUTION

- A BIBLIOGRAPHY -

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A list of references is provided for published papers and reports containing rate constants or mechanisms for the oxidation of S(IV) by oxygen in aqueous solution, with or without catalysts. Three hundred and twenty papers are listed, the period covered extending from 1897 to 1981.

Key words: aqueous solution; bibliography; bisulfite ion; chemical kinetics; oxidation; oxygen; sulfite ion; sulfur dioxide.

INTRODUCTION

This bibliography lists papers and reports on the aqueous solution kinetics of sulfite oxidation, with or without catalysts, as well as other closely related papers.

The oxidation of sodium sulfite in solution has wide applications in various fields such as scrubber chemistry, photography, enzymology, biology, photochemistry, polarography, atmospheric chemistry, and the chemistry of aerosols and fog droplets. The first study on the oxidation of sodium sulfite in solution was performed by W. P. Jorissen in 1897 on the basis of an observation stated by Friederich Mohr in 1855 that a solution of sodium arsenite containing an excess of NaHCO_3 is quickly oxidized by O_2 if a small amount of sulfite is added to the solution. Jorissen's study was followed by the works of Eigelow (1898), Haber and Bran (1900), Young (1902), Titoff (1903), Lumiere, et al. (1905), and Pinow (1912). With the exception of the periods 1914 - 1918 (World War I) and 1942 - 1944 (World War II), the study of sulfite oxidation in aqueous solution has continued without interruption from 1912 through today. The present bibliography includes 320 papers dealing with sulfite oxidation in solution or closely related papers.

The list is arranged chronologically by year, then within the same year alphabetically by author(s). For each paper there is a full reference including the names of the authors, the title of the paper and the name of the journal. On the left side of each reference is the so-called "short reference," which includes the last two digits of the publication year, followed by the first three letters of author's name. If the paper has more than one author, the first three letters of the second author's name are also given. A slash separates the first three letters of the first author from the first three letters of the second author. The full reference format is demonstrated below:

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