MLTM:JFM:MLC
I-5

(July 5, 1929)

Letter
Circular
LC 269

SELECTED BIBLIOGRAPHY ON NEON AND ITS USES IN SIGN LIGHTING, AVIATION, AND MISCELLANEOUS APPLICATIONS

I. Properties of Neon

1896

Ramsay, W. "The gases of the atmosphere, the history of their discovery." London, Macmillan and Co., - 4th edition 1915.

1910

Burt, F. P. Compressibilities of helium and neon. Faraday Soc., Trans., 6, p. 19 and p. 25.

Watson, H. E. Densities and molecular weights of neon and helium. Chem. Soc., J., 97, p. 810.

1912

Coblentz, W. W. Special energy distribution of neon and helium. El. World, 59, p. 365. (Chem.Abs.,6, p. 1100).

Priest, I. G. Wave lengths of neon. Bureau of Standards Bulletin, 8, p. 539. S.P. 179.

Ramsay, W. Monatomicity of neon, krypton and zenon. Roy. Soc., Proc., A, 86, p. 100.

1913

Coblentz, W. W. Selective radiation from various substances. IV. Bureau of Standards, Bulletin, 9, p. 81, S. P.191.

1914

(Anon.) Liquid air and neon lighting. Illum. Eng., London, 7, p. 478.

1918

Burns, K., Meggers, W. F., Merrill, P. W. Measurements of wave lengths in the spectrum of neon. Bureau of Standards, Bulletin, 14, p. 765, S. P. 329.

Valle, G. Uber die charakteristischen kurven der glimmentladung. Akad. Wiss. Wien, Ber. 127, p. 1339.(Fortschritte der Physik 74 (2), p. 39).

Watson, H. E., Paranjpe, G. R. The kathode fall, I. In neon and helium. Indian Journ. Phys., 2, p. 143. (Chem.Abs. 14, p.3562, 1920)

1919

Greenwood, H. C. "Industrial gases." D.Van Nostrand Co., N.Y.C., Chapter 4 - The rare gases of the atmosphere.

Weber, S. The thermal conductivity of neon. K. Akad. Amsterdam. Proc., 21, p. 342. (Sci.Abs.A,22, No.313).

1923

Lande', A. Zur struktur des neonspektrums. Zeits. f. Physik, 17, p.292. (Sci.Abs.A,27, No. 97, 1924)

1924

Holm, R. Der gegenwärtige stand der theorie des glimmstroms. Phys. Zeits., 25, p. 497, (Sci.Abs.A, 28, No. 639, 1925)

1925

Güntherschulze, A. Der mechanismus der glimmentladung. Zeits. f. techn. Physik, 6, p. 446, (Sci.Abs.A, 28, No. 2739).

Holm, R. Der gegenwärtige stand der theorie des glimmstromes, Phys. Zeits., 26, p. 412, (Sci. Abs. A, 28, No. 2335).

McCallum, S. P., Focken, C. M. Electrical properties of neon, hydrogen and nitrogen. Phil. Mag., 49, p. 1309.

1926

Penning, F. M. Über die intermittierende glimmentladung in neon. Phys. Zeits., 27, p. 187, (Sci. Abs. A, 29, No.1630).

Rutherford, E. The rare gases of the atmosphere. Engineering, 121, p. 388.

1927

Mellor, J. W. "A comprehensive treatise on inorganic and theoretical chemistry,"Chapter 48 - Inert gases. Longmans, Green and Co.

1928

Baxter, G. P., Starkweather, H. W. Density, compressibility and atomic weight of neon. Nat. Acad. Sci., Proc., 14, p. 50.

Ganesan, A. S. Spark spectrum of neon. Phys. Rev., 32, p. 580.

Russell, H. N., Compton, K. T., Boyce, J. C. Spark spectrum of neon. Nat. Acad. Sci., Proc., 14, p. 280.

Ryde, J. W., Jacob, L., Gossling, B. S. New type of discharge in neon tubes. Nature, 121, p. 794.

Townsend, J. S., MacCallum, S. P. Electrical properties of neon. Phil. Mag., 6, p. 857.

II. Neon Tubes as Lamps

1. General

1910

Claude, G. Sur les tubes luminescents au néon. Comptes Rendus, 151, p. 1122; Rev.Elect., 14, p. 466, (Sci.Abs. B, 14, No. 119, 1911).

1911

Claude, G. L'eclairage au néon. Soc. Int. des Electriciens, Bull., 1, p. 505.

Claude, G. Sur les tubes luminescents au néon. Comptes Rendus, 152, p. 1377, (Sic. Abs. B, 14, No. 1048).

1913

Claude, G. Sur L'absorption du néon par les électrodes des tubes luminescents. Comptes Rendus, 156, p. 1317, (Sci. Abs. B, 16, No. 782).

Claude, G. L'Influence du diàmetre sur la différence de potential aux bornes des tubes luminescents au néon. Comptes Rendus, 157, p. 432, (Sci. Abs. A, 16, No. 1994).

Claude, G. Neon tube lighting. Am. Illum. Eng. Soc., Trans., 8, p. 371.

1914

Claude, G. L'Influence due diamètre sur la différence de potential aux bornes des tubes au néon. Comptes Rendus, 158, p. 692, (Sci. Abs., B, 17, No. 726).

Claude, G. Sur le rendement lumineux des tubes au néon en function de leur diametre. Comptes Rendus, 158, p. 692, (Sci. Abs. B, 17, No. 726.)

1918

Schröter, F. Eine neonbogenlampe für gleichstrom. Zeits. f. Elektrochem., 24, p. 132; Phys. Zeits., 19, p. 431, (Sci. Abs. B, 22, No. 151, 1919.)

1920

Moore, D. M. Gaseous conduction light from low-voltage circuits. A.I.E.E., Trans., 39, p. 2021; Gen. El. Rev., 23, p. 577; A.I.E.E. J., 39, p. 733.

Skaupy, F. Über edelgaslichtbogenlampen. Zeits. f. techn. Physik., 1, p. 189, (Sci. Abs. B, 24, No. 187, 1921).

1921

(Anon.) The Phillips night lamp. Electrician, 87, p. 25.

Moore, D. M. A low-voltage, self-starting, neon-tungsten arc-incandescent lamp. Am. Illum. Eng. Soc., Trans., 16, p.346.

Macgregor-Morris, J. T., Dowty, M.J., Privett, B. J. Neon glow-discharge lamps on d.c. circuits. Electrician,89, p. 626.

Skaupy, F. Einiges über die glimmlampe und über neue typen derselben. Zeits. f. techn. Physik., 3, p. 61, (Engineering Index, p. 219.)

1923

(Anon.) New neon lamps. Sci. Am., 128, p. 37.

Brockbank, R. A., Ryall, L. E. Neon glow discharge lamp on a.c. circuits. Electrician, 90, p. 4.

Moore, D. M. The first low voltage gas filament lamp. Am. Electrochem. Soc., Trans., 44, p. 175.

1924

Karrer, E., Poritsky, A. The distribution of luminosity throughout a potential cycle in a neon glow discharge lamp. Frank. Inst. J., 198, p. 93.

Karrer, E., Poritsky, A. Some electrical and optical properties of neon glow lamps. J.O.S.A. and R.S.I., 9, p. 323.

Oschwald, U. A., Tarrant, A. G. Notes on some electrical properties of the neon lamp. Phys. Soc., Proc. (London), 36, p. 262.

Shaxby, J. H., Evans, J. C. On certain properties of the "osglim" neon-filled lamp. Phys. Soc. (London(, Proc., 36, p. 263.

1925

Claude, G. La rectification de la lumiére des tubes au néon. Genie Civil, 86, p. 343, (Ind. Arts Index, p.549,1924-25)

Claude, G. Light emitted by tubes containing both neon and mercury vapor, along with the liquid metal. Frank. Inst., J. 199, p. 861.

Sellerio, A. Osservazioni fotometriche sulle lampadine a neon e considerazioni generali sulle scariche elettriche. Elettrotecnica, 12, p. 881, (Sci. Abs. B, 29, No.598,1926).

1926

Lohman, R. W. Methods of manufacture of neon illuminating tubes. Am. Illum. Eng. Soc., Trans. 21, p. 478.

Moore, D. M., Porter, L. C. Recent development of Moore gaseous conductor lamps. Am.Illum.Eng.Soc., Trans. 21, p. 176.

Rudy, R. Efficiency of neon light. Frank. Inst., J. 202, p. 374.

1927

(Anon.) Die neonleuchtröhre. E. u. M. (Lichttechnik) 45, p.43, (Sci. Abs. B, 30, No. 1198).

(Anon.) Neon lighting. Electrician, 99, p. 680.

Foulke, T. E. Electrodeless discharge lamp. A.I.E.E., J. 46, p. 139.

1927 (continued)

Pechèux, H. Fonctionnement et proprietes de la lampe luminescente au néon. R.G.E., 21, p. 624, (Sci. Abs. B, 30, No. 1364.)

Schröter, F. "Die glimmlampe." Hachmeister & Thal., Leipzig,

Skaupy, F. Neue lichtquellen. Zeits. f. techn. Physik., 8, p. 558, (Sci. Abs. A, 31, No. 605, 1928.)

1928

Alterthum, H., Reger, M., Seeliger, R. Untersuchungen über die zündspannung der glimmentladung. Zeits. f. techn. Physik. 9, p. 161, (Sci. Abs. A, 31, No. 2166.)

Found, C. G., Forney, J. D. Hot cathode neon arcs. A.I.E.E. Trans., 47, p. 747; Am.Illum.Eng.Soc.,Trans., 24, p. 76, 1929; El. World, 91, p. 1132 and 92, p. 225.

Handbuch der Physik - Band, 19. Herstellung und messung des lichts - Kapitel 15, p. 379.

1929

Fabry, C., Roux, L., Perrin, E. Étalon de lumière pour la mesure des lampes au néon. Rev. d'Optique, 8, p. 1.

McMillan, F. O., Starr, E. C. High-voltage gaseous-conductor lamps. A.I.E.E., Trans., 48, p. 11; A.I.E.E., J., 47 p. 901, 1928.

Miller, G. M. Neon lighting. Public Service Management, 46, p. 95.

2. Sign lighting

1925

Curchod, A. Les applications de l'électricité aux enseignes lumineuses. R.G.E., 18, p. 744 and p. 786, (Sci. Abs. B, 29, No. 436, 1926)

1927

(Anon.) Neon electric signs. El. Rev. (London), 100, p. 865.

(Anon.) Signs which use neon gas-filled tubes provide service in daylight. El. Record, 42, p. 725.

1927 (continued)

Bragdon, H. E. Neon signs, the aristocrats of the night. Advertising and Selling, 10, p. 34.

1928

(Anon.) Luminous tube behind the glow worms of the sky. Dun's International Review, 50, p. 59.

Harris, J. W. Neon lighting adaptable to many advertising uses. Elec. West., 60, p. 40.

Schad, Dr. Reklamebeleuchtröhen mit edelgasfüllung. Helios, 34, p. 289.

Schlögl, H. Hochspannungs-leuchtröhrenanlagen in Wien. E. u. M. (Lichttechnik), 46, p. 5, (Sci. Abs. B, 31, No. 662.)

1929

Cook, H. A. Survey of neon signs. Am. Illum. Eng. Soc., Trans., 24, p. 133; El. World, 92, p. 888, 1928).

O'Neil, J. H. Highly developed technique required to purify gases for "neon" signs. Chem. and Met. Eng., 36, p. 143.

Püchler, M. Die verwendung von röhrenlicht in der lichtreklame. Licht u. Lampe, 18, p. 103.

3. Aviation Lighting

1926

(Anon.) Night flying experiments in Europe. Aviation, 20, p. 182.

Biddlecombe, C. H. The lighting of the London continental airway. Aviation, 20, p. 550.

1927

Bassett, P. R., Cost, R. W., Leinroth, E. A., Ritchie, H. C. Aeronautical lighting in the United States. Am. Illum. Eng. Soc., Trans., 22, p. 979.

Born, F. Die nächtliche kennzeichnung der flugstrecken und landungsplätze. Licht u. Lampe, 16, p. 538 and p. 593.

Foulke, T. E. (Communicated discussion - aeronautical lighting papers and fog penetration). Am. Illum.Eng.Soc., Trans., 22, p. 1019.

1927 (continued)

Green, H. N. Artificial light as an aid to aerial navigation. Illum. Eng., (London), 20, p. 101 and p. 133.

Porter, L. C. (Discussion - aeronautical lighting papers and fog penetration.) Am. Illum. Eng. Soc., Trans., 22, p. 1003.

1928

(Anon.) New neon light for aviation. Sci. Am., 138, p. 352.

Morris, M. Neon beacons provide most suitable airport illumination. Signs of the Times, p. 45, Nov. 1928.

Neageli, Signalanlagen für den luftverkehr. E.T.Z., 49, p.1497.

Airport and airway lighting in Europe (France, Germany, Great Britain). Information Bulletin No. 23, Jan. 2, 1928, Aeronautics Branch, Dept. of Commerce.

1929

Breckenridge, F. C. Nolan, J. E. Relative visibility of luminous flashes from neon lamps and incandescent lamps with and without red filters. Bureau of Standards, Jour. of Research, 3, p. 11; Bur. of Stds. Tech. News Bull. No. 139, p. 156, Nov. 1928.

Foulke, T. E. Transmission of visible radiation through the atmosphere under hazy conditions. Am. Illum. Eng. Soc., Trans., 24, p. 384,

III. Miscellaneous Uses of Neon Tubes (not including television)

1918

Schaller, O. Glimmlichtlampe von geringem gesamtwattverbrauch fur signal-und kontrollzwerke. Zeits. f. Elektrochem. 24, p. 131. (Chem. Abs., 13, p. 286, 1919)

1919

Aston, F. W. Neon lamps for stroboscopic work. Cambridge Phil. Soc., Trans., 19, p. 300.

1919 (continued)

Schröter, F. Die technik der entladungsröhen. E.T.Z., 40, p. 685. (Sci. Abs. A, 23, No. 610, 1920).

1920

Schröter, F. Die bedeutung der edelgase für die elektrotechnik. Die Naturwissenschaften, 8, p. 627, (Physik. Berichte, 1, p. 1431.)

1921

Schröter, F. Anwendungen der Pintsch-glimmlampe in der schaltungstecknik. E.T.Z., 42, p. 121, (Sci. Abs. B, 24, No. 415.)

1922

Pearson, S. O., Anson, H. St. G. Demonstration of some electrical properties of neon-filled lamps. Phys. Soc., Proc. (London), 34, p. 175.

Pearson, S. O., Anson, H. St. G. The neon tube as a means of producing intermittent currents. Phys. Soc., Proc. (London), 34, p. 204.

Starr, B. V. The photographic uses of the "osglim" lamp. Phot. J., 62, p. 271.

1923

(Anon.) Photographic safety of neon lamp compared with wratten series No. 0 safelight. Eastman Kodak Research Lab., Bull.,9, p. 321, Report 1704.

Coursey, P. R. Electrical properties of neon lamps. Wireless World and Radio Rev., 12, p. 700, Discussion p. 778.

Hogg, F. L. Rectification by neon tube. Wireless World and Radio Rev., 13, p. 106.

Hopwood, F. L. The ondoscope. Röntgen Soc., J., 19, p. 33.

Kastalski, A. Anwendungen der glimmlampe. E.T.Z., 44, p. 715; El. World, 82, p. 550.

Robinson, E. H. Neon lamps and their use for wireless purposes. Experimental Wireless, 1, p. 12.

Ryde, J. W. Rare gas discharge lamps. Nature, 112, p. 944.

1923 (continued)

Schröter, F. Über edelgas-vakuumsicherungen. Zeits. f. techn. Physik, 4, p. 208, (Sci. Abs., B, 26, No. 1227.

Schröter, F. Über edelgas-ventilröhen. E.u.M., 41, (Sci. Abs. B, 26, No. 1463.)

Schröter, F. Glimmlicht-gleichrichter. Zeits. f. Fernmeldetechn, 4, p. 67.

Schröter, F., Vieweg, R. Über die verwendung der glimmlampe zu drehzahl und schlüpfungsmessungen. Arch. f. Elektrot., 12, p. 358, (Sci. Abs., B, 27, No. 162, 1924.)

Skaupy, F. Fortschritte auf dem gebiete der elektrischen leuchtröhren. Licht u. Lampe, 12, p. 233.

1924

Baeyer, O., Kutzuer, W. Versuche mit der glimmlampe als zahlkammer. Zeits. f. Physik., 21, p. 46, (Sci. Abs. A, 27, No. 1275.)

Geffcken, H., Richter, H. Eine technische anwendung des glimmrelais Zeits. f. techn. Physik., 5, p. 511, (Physik. Berichte, 6, p. 466.)

Lorenz, K. Die verwendbarkeit von edelgas-gleichrichtern in der schwachstromtechnik. E.u.M., 42, p. 157, (Sci. Abs. B, 27, No. 1021.)

Taylor, J., Clarkson, W. A critical resistance for flashing of the low voltage neon discharge tube. Phys. Soc., Proc. (London), 36, p. 269.

Taylor, J., Clarkson, W. The application of the neon lamp to the comparison of capacities and high resistances. Journ. Sci. Instruments, 1, p. 173.

Treach, C. S. Neon - a new gas for electrical use. Railway Review, 74, p. 855.

1925

Ghose, B. N. On some properties of neon tubes. Phys. Rev., 25, p. 66.

Taylor, J., Stephenson, W. Relay control - an application of the neon lamp. Electrician, 94, p. 145.

1926

Bertrand, A. Stroboscope à corde vibrante à guillet et lampe à néon. Soc. Franc. Elect., Bull., 6, p. 377; R.G.E., 19, p. 811, (Sci. Abs. B, 29, No. 1260.)

Eccles, W. H., Leyshon, W. A. Mechanical and electrical vibrations.- Their maintenance by a neon lamp, etc. Electrician, 97, p. 65.

Kniepkamp, H. Über die anwendbarkeit von entladungsröhren mit edelgasfüllung als photometer. Zeits. f. Physik., 40, p. 12, (Sci. Abs. A, 30, No. 1349, 1927.)

1927

Leyshon, W. A. Control of the frequency of flashing of a neon tube by a maintained mechanical vibrator. Phil. Mag., 4, p. 305.

Meserve, W. E., Ramadanoff, D. Simple method for determining slip of induction motors and torque-angle of synchronous motors by means of a neon lamp. Sibley Journ. of Eng., 41, p. 172.

Nimmo, R. R. Relighting of a neon lamp at voltages below the striking potential. Phys. Soc., Proc., 39, p. 238.

Porter, L. C., Prideaux, G. F. The gaseous conductor lamp. Gen. El. Rev., 30, p. 149.

Skaupy, F. Der elektrische lichtbogen zwischen wolframelektroden und seine technische anwendung. E.T.Z., 48, p. 1797, (Sci. Abs. B, 31, No. 488, 1929.)

1928

Bedeau, F., de Mare, J. Stabilisation des oscillations de relation. Comptes Rendus, 187, p. 209, (Sci. Abs. A, 31, No. 3295.)

Knowles, D. D. Grid glow tube relay. Elect. J., 25, p. 176.

1928 (continued)

Nelson, C. C. Stroboscopic neon lamp method for measuring the slip of induction motors. Elect. J., 25, p. 163.

Poole, J. H. J. Photoelectric photometer. Roy. Dublin Soc., Proc., 19, p. 17, (Sci. Abs. A, 32, No. 113, 1929.)

Reich, H. J. Effect in glow-discharge tubes. J.O.S.A. and R.S.I., 17, p. 271.

Schad, Dr. Die glimmlampe und ihre verwendungsmöglichkeiten. Electrotechnisher Anzeiger. p. 849, Sept. 5, 1928.)

Steinert, E. E. Neon-electric stroboscope. Gen. El. Rev., 31, p. 136.

Wilkins, T. R., Friend, F. B. Further uses for the neon grid-glow tube. J.O.S.A.and R.S.I., 16, p. 370.

1929

Breisky, J. V., Erickson, E. O. Some photoelectric and glow-discharge devices and their applications to industry. A.I.E.E., Trans., 48, p. 283.