

- (19) Geoffroy, C.-J., "Mittel, den Weingeist gefrieren zu machen, und den fetten Oelen einige Eigenschaften der wesentlichen Oele zu geben," *Crell's Neues chem. Archiv*, 4 (1785), 229-232; *Hist. de l'acad. roy. des Sciences* (Paris) (1741).
- (20) Chevreul, M.-E., "Recherches chimiques sur les corps gras," *Ann. chim. phys.* (1), 94 (May 31, 1815), 113-144; *Ibid.* (1), 94 (June 30, 1815), 225-280; *Ibid.* (1) 95 (July 31, 1815), 5-50; *Ibid.* (2), 2 (August 1816), 339-372; *Ibid.* (2), 7 (1818), 155-181, 264-275, 367-382.
- (21) Matagrín, A., "Chevreul et la bougie stéarique," *L'Industrie Chimique*, 12 (1925), 400-402.
- (22) Thomson, Thomas, "Account of the improvements in physical science during the year 1815," *Annals of Philos.*, 7 (January 1816), 58-59.
- (23) Cuvier, M. le Chevalier, "Royal Institute of France. Chemistry," *Ibid.* 7 (March 1816), 232.
- (24) Fourcroy, A.-F., "Système des connaissances chimiques," Baudouin, Paris (Brumaire, An IX), 9 (1800), pages 33, 61, 250, 255, 296; Vol. 10, pp. 43, 56, 83, 302.
- (25) Carpenter, W. L., "A treatise on the manufacture of soap and candles," E. and F. N. Spon, London (1885), pages 253-4.
- (26) Riemer, H., "Hundert Jahre Fettsäure-Industrie," *Z. deutschen Öl- und Fett-Industrie*, 45 (1925), 576-578, 590-592.
- (27) Hofmann, A. W. von, "M.-E. Chevreul," *Ber. d. deutschen chem. Ges.*, 22 (May 13, 1889), 1163-1169.
- (28) Chevreul, M.-E., "Considérations générales sur l'analyse organique et sur ses applications," F. G. Levrault, Paris, 256 pages (1824).
- (29) Berzelius, J. J., "Lehrbuch der Chemie," Arnoldische Buchhandlung, Dresden and Leipzig, 4th Edition, 9 (1840), 87-88.
- (30) Havard and Vachon, "Les manufactures nationales. Les Gobelins, la Savonnerie, Sèvres, Beauvais," Georges Decaux, Paris (1889), pages 291-304.
- (31) Chevreul, M.-E., "Mémoire sur l'influence que deux couleurs peuvent avoir l'une sur l'autre quand on les voit séparément," *Quarterly J. Sci.*, 1 (1830), 409-410; *Mém. Acad. Sci.* (Paris), 11 (1832), 447-520.
- (32) Chevreul, M.-E., "Leçons de chimie appliquée à la teinture," Pichon et Didier, Paris, 3 Vols. (1829-1830).
- (33) "Creatin, eine neue im Muskelfleisch enthaltene Substanz," *Liebig's Annalen*, 4 (1832), 293-294.
- (34) Chevreul, M.-E., "Recherches sur la teinture," *Compt. rend.*, 2 (1836), 20-22, 292-296; 4 (1837), 2-12; 5 (1837), 167-177, 881-892; 10 (1840), 121-124, 631-640; 14 (1842), 783-785; 23 (1846), 954-956; 36 (1853), 981-987; 52 (1861), 327-332, 762-771, 825-833, 885-890, 937-942; 53 (1861), 981-985; 54 (1862), 877-880; 57 (1863), 133-141, 173-181.
- (35) Chevreul, M.-E., "De la loi du contraste simultané des couleurs, et de l'assortiment des objets colorés . . .," Pitois-Levrault, Paris (1839), 735 pages; "The principles of harmony and contrast of colours and their applications to the arts," George Bell and Sons, London, 3rd Edition (1889), 450 pages.
- (36) Anon., "Foreign honorary members. M.-E. Chevreul," *Proc. Am. Acad. Arts and Sciences*, 24 (1889), 452-457.
- (37) Chevreul, M.-E., "Traité de la baguette divinatoire, du pendule dit explorateur et des tables tournantes," Mallet-Bachelier, Paris (1854), 258 pages; "Sur une classe particulière de mouvements musculaires," *Compt. rend.*, 23 (December 14, 1846), 1093-1096.
- (38) Jastrow, J., "Chevreul as a psychologist," *Sci. Mo.*, 46 (June 1937), 487-496.
- (39) Chevreul, M.-E., "Histoire des connaissances chimiques," Gide et Guérin, Paris (1866), 479 pages.
- (40) Chevreul, M.-E., "Résumé d'une histoire de la matière depuis les philosophes grecs jusqu'à Lavoisier inclusivement," Didot, Paris (1878); *Mém. Acad. Sci.* (Paris), 39 (1877), 322-757.
- (41) Metzger, Hélène, "Eugène Chevreul. Historien de la chimie," *Archeion*, 14 (January-March 1932), 6-11.
- (42) Chevreul, M.-E., "Sur l'explication de nombreux phénomènes qui sont une conséquence de la vieillesse," *Compt. rend.*, 80 (June 14, 1875), 1414-1419; *Ibid.*, 80, 1542-6 (June 28, 1875); 81, 5 (July 5, 1875); 81 (July 12, 1875), 61-64.

Book Reviews

Industrial Solvents, by IBERT MELLAN, M.Sc. Reinhold Publishing Company, 330 West 42nd St., New York, N. Y., 1939. 480 pages, 291 figures. Price, \$11.00.

Beginning with a brief discussion of theories and facts in connection with solvent action, vapor pressure and evaporation, viscosity, plasticity, inflammability and toxicity, the author presents extensive data concerning the common as well as the lesser known solvents. Classification of solvents is made according to their chemical constitution, *i. e.*, hydrocarbons and hydrogenated derivatives, halogenated hydrocarbons, alcohols, aldehydes, acids, ketones,

ethers, esters; the properties, uses and other technical data are given for individual solvents under the foregoing classification. Inclusion of 126 tables and 291 charts, graphs and figures showing the properties of solvents and mixtures of solvents provides for a ready comparison of these substances under varying conditions. A chapter on plasticizers, giving their properties and uses, is also presented. The last of the 17 chapters of the book deals with methods of graphical expression and interpretation, particularly as these apply to the subject of solvents. Abundant literature references are given at the close of each chapter. Chemists and others who are concerned with solvents will find a wealth of information which may well make the book indispensable to them.—ARTHUR OSOL.