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787-92. **The problem of dispersion of hot gases in the atmosphere.** O. G. Sutton (Military Coll. Sci., Shrivenham, Engl.). *Ibid.* 793-801. **Stack meterology as related to power plants.** Ward F. Davidson (Consolidated Edison Co. of N.Y., New York, N.Y.). *Ibid.* 802-06. **Air pollution and fog properties.** Hans Neuberger (State College, Pa.). *Ibid.* 807-11.—The role of particles of combustion products as nuclei for fog formation was detd. experimentally. **The micrometeorological installation of the University of Washington.** Phil E. Church (Univ. of Washington, Seattle). *Ibid.* 812-14. **The diffusion problem in hilly terrain.** Joshua Z. Holland (U.S. Weather Bur., Oak Ridge, Tenn.). *Ibid.* 815-21. **The application of meteorological control to atmospheric pollution problems.** Maynard E. Smith (Brookhaven Natl. Lab., Upton, N.Y.). *Ibid.* 822-4. **Discussion.** *Ibid.* 824-39. R. W. Ryan

Atmospheric pollution. A group of contributions. *Meterol. Monographs* No. 4, 55 pp.(1951). **Enforcement principles and standards.** J. H. Carter. *Ibid.* 1-3.—A discussion of various American cities. **Meteorology applied to air-pollution abatement.** C. A. Gosline. *Ibid.* 4-5.—Meterological control is not usually economical, is applicable only to single plants in isolated areas, cannot be applied to continuous operations, and is subject to forecast errors. **Meteorological influences and their application to control at the source.** E. Wendell Hewson (Massachusetts Inst. of Technol., Cambridge). *Ibid.* 5-6.—A brief summary is given of methods used at Trail, British Columbia, for control of smelter fumes. **Climatology and its part in pollution.** Helmut E. Landsberg (Air Force Cambridge Research Center, Boston, Mass.). *Ibid.* 7-8.—A discussion. **Diffusion of stack gases in very stable atmospheres.** Morton L. Barad (New York Univ., New York, N.Y.). *Ibid.* 9-14.—Dispersion is nonisotropic, in that the vertical dispersion is not as extensive as the horizontal and that there is a rapid initial diln. of effluents in the first few meters after leaving the stack, followed by a slower dispersion (with a const. exchange coeff. only during stable atm. conditions). The source must be treated as an area source of finite concn., instead of the classical treatment as a point source of infinite concn., if concns. within 1 or 2 km. are to be detd. **Statistical theory of diffusion by turbulent eddies.** Glenn W. Brier (U.S. Weather Bur., Washington, D.C.). *Ibid.* 15-19. **Instruments for air-pollution measurement.** W. C. L. Hemeon (Ind. Hyg. Foundation, Pittsburgh, Pa.). *Ibid.* 20-3.—Included are instruments for measurement of particle size, light-obscuring effect, soiling effect, and acid-corrosion effect on materials. **Microclimate factors in smoke pollution from tall stacks.** Philip H. Lowry (Brookhaven Natl. Lab., Upton, N.Y.). *Ibid.* 24-9.—An analysis of the no. of smoke hrs. by wind direction, speed, and gustiness. **Ground-level measurements of oil-fog emitted from a hundred-meter chimney.** P. H. Lowry, D. A. Mazarella, and M. E. Smith (Brookhaven Natl. Lab., Upton, N.Y.). *Ibid.* 30-5. **Gustiness profiles in the lower layers of the atmosphere.** H. F. Poppendiek (Univ. of California, Los Angeles). *Ibid.* 36-8. **Air-tunnel studies of diffusion in urban areas.** Hunter Rouse (State Univ. of Iowa, Iowa City). *Ibid.* 39-41.—Results are given of diffusion studies over model cities and buildings. **Analyzing winds for frequency and duration.** R. H. Sherlock (Univ. of Michigan, Ann Arbor). *Ibid.* 42-9. **The forecasting of micrometeorological variables.** Maynard E. Smith (Brookhaven Natl. Lab., Upton, N.Y.). *Ibid.* 50-5. Malcolm Rigby

Stacks for pollution control. R. S. Steinbock. *Chem. Eng.* 59, No. 5, 290(1952).—Corrections and revisions are presented for an article, *C.A.* 46, 4155*a*. J. C. Tallman

Carcinoma and asbestosis of the lung: report of a case. T. K. Owen (Roy. Victoria Hosp., Bournemouth, Engl.). *Brit. J. Cancer* 5, 382-3(1951).—Asbestosis of the lung was found 20 years after the patient had worked in an asbestos factory for 1 year. E. K. Weisburger

Some notes on testing industrial solvents. C. Marsden. *Chem. Products* 15, 92-5(1952).—A discussion of the problems assocd. with analytical testing. Allen Kent

Protein denaturation in soybean meal during processing. Paul A. Belter and Allan K. Smith (Northern Regional Research Lab., Peoria, Ill.). *J. Am. Oil Chemists' Soc.* 29, 170-4(1952).—The effect of various steps in com. processing of soybeans on the denaturation of the meal proteins was detd. Dehulling, conditioning, flaking, and solvent (hydrocarbon) extn. did not significantly affect dispersibility of the protein. Major denaturation occurred in the final meal-treating steps, deodorization and toasting, or in "Schneckens" type desolventizing. The data is pertinent to production of proteins for industrial uses, such as for adhesives, fiber spinning, etc., where water dispersibility is important. M. M. Piskur

The storage and handling of acids and cyanides. H. Saenger. *J. Electrodepositors' Tech. Soc.* 27, 23-33(1951). Robert Seegmiller

Compound helix as a catalyst carrier. N. Z. Kotelkov (Saratov Agr. Inst.). *J. Applied Chem. U.S.S.R.* 24, 223-6(1951)(Engl. translation).—Compd. helixes of Cu, Fe, Al, and nichrome were coated with Pt, Pd, Al_2O_3, and various clays in an effort to increase the active area of the catalyst per unit mass. The efficiency of catalysis with this technique in the tested processes (dehydrogenation of cyclohexane, oxidation of H, dehydration of isopropyl alc.) is increased many fold over the same catalyst in pelleted form or deposited on asbestos. It is quite advantageous to use the nichrome helix, especially in research studies, since it can be heated by passing an elec. current through the wire itself. James C. Eubanks

Nonyellowing triethanolamine and its applications. W. Wolff (Anorgana U.S. Admin., Gendorf/Obb., Ger.). *Fette u. Seifen* 54, 142-3(1952).—The addn. of 1-2% H_2SO_3 to triethanolamine prevents discoloration on storage. Edward H. Sheers

Key to savings in painting costs. Robert R. Pierce (Pennsylvania Salt Manufg. Co., Philadelphia). *Chem. Eng.* 59, No. 5, 149-53(1952).—A comprehensive evaluation of costs for protective coatings in industrial plants is presented. It is concluded that a three-coat painting system resulting in a 5-mil minimum total thickness gives the required corrosion protection most economically. (Cf. *C.A.* 46, 1265*d*.) J. C. Tallman

Economic aspects of glycerol purification by ion-exchange methods. E. Schlenker. *Fette u. Seifen* 54, 165-7(1952).—A review. Edward H. Sheers

Magnetic and electric properties of ferroxcube materials. J. J. Went and E. W. Gorter (N. V. Philips' Gloeilampenfabrieken, Eindhoven, Netherlands). *Philips Tech. Rev.* 13, 181-93(1952).—Ferroxcube materials are ferromagnetic oxidic materials specially developed for use at high frequencies. Their suitability for such applications lies in the fact that owing to their high resistivity eddy-current losses do not as a rule occur. As regards the chem. compn. these materials belong to the group of ferrites crystg. with the spinel structure. The satn. magnetization of ferrites is closely related to their crystallographic structure. Values of the satn. magnetization found experimentally can be explained by assuming that an interaction exists between magnetic moments on crystallographically nonequiv. lattice sites, which tends to give those moments an antiparallel orientation. Although eddy-current losses do not usually occur in ferroxcube, residual losses, given by the expression $\tan \delta/\mu$, may under certain conditions be considerable. It is, therefore, highly important to know the behavior of μ' and $\tan \delta$, or of the real and the imaginary parts of the complex permeability $\mu = \mu' - j\mu''$, for all possible values of induction and of frequency. In this paper the behavior of these quantities as a function of frequency is considered both for very small and for somewhat larger values of the induction. Further, the temp. dependence of the initial permeability is discussed. The behavior of the imaginary part of the initial permeability at high frequencies is shown to bear a relationship to the ferromagnetic resonance absorption; this relationship and the behavior of the permeability in the presence of stronger fields leads to the conclusion that the magnetization process in ferrites differs from that taking place in metallic ferromagnetic materials. Finally attention is drawn to the remarkable dielec. properties of ferrites and the extra losses apt to arise therefrom (dimensional resonance). A. George Stern

Ferroxdure, a class of permanent magnetic materials. J. J. Went, G. W. Rathenau, E. W. Gorter, and G. W. van Oosterhout (N.V. Philips' Gloeilampenfabrieken, Eindhoven, Netherlands). *Philips Tech. Rev.* 13, 194-208(1952).—The material manufd. at present under the name of Ferroxdure is an oxidic ceramic material of the approx. compn. $BaFe_{12}O_{19}$. It is a magnetically hard material which does not contain any Co or Ni and which thus offers great economic advantages. It is characterized by possessing an extremely high value of the coercive force and rather low remanence and satn. magnetization. The extremely