ENVIRONMENTAL MEASUREMENTS

797 An Automatic and Instantaneous Method of Determining Carbon Monoxide in Blood. P. Giacomo, M. Guillot, and P. Jacquinot. Compt. rend. 243, 985-987 (1956). French.

Low or high carbon monoxide in blood can be determined on one drop of blood in a few seconds within ± 0.5% by projecting and registering the absorption spectra on a photographic film, and the maximum determined by a registering microphotometer. -- Chem. Absts.

798 The Determination of Mercury in Air. G. A. Sergeant, B. E. Dixon, and R. G. Lidzey. Analyst 82, 27-33 (Jan. 1957).

A method is described for the determination of all forms of mercury in air at concentrations in the neighborhood of 100 micrograms per cubic meter. Mercury vapor is adsorbed by iodized active carbon, and mercury-bearing dust is trapped in a mineral-wool filter. On heating in a specially constructed ignition tube, the mercury is transferred as vapor to a selenium sulfide test paper, giving a stain that is compared with a set of standards.

799 The Preparation and Assessment of Size-Graded Mineral Samples. J. Cartwright. Research Rept. No. 128, Safety in Mines Research Establishment, Portobello St., Sheffield, England. 59 pp. (Aug. 1956). 4s. 6d.

This is a long monograph of 6 chapters and 4 appendices describing methods used at the Safety in Mines Research Establishment for measuring the size of dust particles. It is less a critical review of available techniques than a description of a few selected ones, with practical comments on their manipulation. The first chapter deals with the separation of dust into size ranges by settlement, gravitational for particles over 2 microns and centrifugal below. A chapter on visual counting and sizing follows. Particles greater than 2 microns can be graded under the optical microscope, but the electron microscope is used for smaller particles. The third chapter deals with the preparation of samples for microscopy. In considering the preparation of results the importance is stressed of either showing original data or else giving confidence limits. The remainder of the report is an extensive mathematical and theoretical discussion of various methods of presentation of results showing errors that can arise in the use of each method. It includes discussion of the relationship of the Stokes and projected area diameters. -- Cond. from Bull. Hyg.

PREVENTIVE ENGINEERING

800 Cleaning of Industrial Effluents. J. M. Kane. Heat. Pip. Air Cond. 29, 166, 167 (Apr. 1957).

With continued efforts by industry toward optimum in-plant environment and good public relations, it appears to the author: (1) that the cleaning of industrial effluents from stacks will involve increasing application of industrial air cleaning equipment; (2) that the demand will be toward designs with the highest order of efficiency; (3) that recirculation of cleaned air to working space is practical for many of industry's problems; and (4) that recirculation will be used much more extensively in the near future. -- Author's summary

11 206 1052