

Determination of Air-Borne Contaminants

PHOTOELECTRIC DETERMINATION OF ATMOSPHERIC SULFUR DIOXIDE. M. KATZ, *Analyt. Chem.* **22:1040** (Aug.) 1950.

Dilute solutions of starch-iodine have been found suitable for the continuous determination of low concentrations of sulfur dioxide in smelter areas where hydrogen sulfide is not likely to occur. The most effective concentration range of solution is from about 7×10^{-5} N to 2×10^{-5} N. The apparatus for the continuous recording of sulfur dioxide consists of a Thomas analyzer, two gas bubblers containing 100 ml. of solution mounted in a block with a light source between them, and two photoelectric cells. The output current is passed through a standard resistance box, and the voltage drop across the 0 to 500 ohm terminals is measured by a potentiometer with a scale range of 0 to 500 mv. The instrument has a range of less than 0.01 to 1.00 ppm or more, depending on the size of the gas sample and the volume of solution used in the absorbers. It has been used for several seasons to determine the sulfur dioxide content of the air at a location in the Sudbury smelting district. Comparative tests of the $I_2-H_2O_2$ conductivity methods have been made with a portable apparatus on simultaneous samples of air in the path of the smelter fumes. The results indicate that a substantial fraction of the smelter smoke during a fumigation may consist of sulfur trioxide, sulfuric acid or sulfate.

ANALYT. CHEM. SUMMARY.

TRANSACTIONS OF THE TWELFTH ANNUAL MEETING OF THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, Chicago, April 22-25, 1950. Published by Federal Security Agency, United States Public Health Service, Division of Industrial Hygiene, 1950.

This is a mimeographed record, of 100 pages.

THE DENSIMETER P.R.U.: A NEW APPARATUS FOR MEASURING DUST CONTENT OF THE AIR. GIUSEPPE MONTESANO, *Med. d. lavoro* **41:230** (Aug.-Sept.) 1950.

The apparatus was recently introduced to measure the density of dusts in industrial plants. It is based on the obstacle presented by a sample of dust to the passage of light, registering this change on a photocell. The apparatus, although not permitting very precise work, is useful in checking industrial premises already studied by more exhaustive means. The speed with which samples may be taken and read are the advantages of the densimeter.

ADAPTATION OF ENGLISH SUMMARY.

Medicine and Surgery

INFLUENCES OF THE UNUSUAL ON PLANT MEDICAL ACTIVITIES. R. E. ARNDT, *Indust. Med. & Surg.* **19:384** (Aug.) 1950.

The incidence of dispensary visits was compared with the number of departments working in a small plant, and the effects of layoff, rumors, holidays and managerial change were demonstrated by graph.

FROM AUTHOR'S SUMMARY.

GENERAL MOTORS MEDICAL CONFERENCE. *Indust. Med. & Surg.* **19:397-430** (Sept.) 1950.

The following papers were read:

"The Experience of General Motors in Selection, Placement and Follow-Up of Employees," by G. A. Jacoby.

"Selective Placement in Industry," by M. R. Burnell.

"Interviewing Techniques," by A. A. Hendrix.

"Employment Testing," by O. L. Crissey.

"The Foreman's Role in Selecting New Employees and Employee Performance Rating," by P. J. Pfisterer.

"Evaluation of the Employee's Attitude," by W. H. Harvey.

"Antihistamine Chemicals in the Treatment of the Common Cold," by W. L. Baughn.

"Adaptation of Intravenous Procaine to Industrial Medicine," by M. V. Shelanski.

"Instruments and Devices Displayed at Conference" (illustrated).