

Industrial Hygiene Digest

INDUSTRIAL HEALTH NEWS

LITERATURE ABSTRACTS

MEDICAL

ENGINEERING

CHEMICAL

TOXICOLOGICAL

LEGAL --- decisions and trends

ARMED FORCES
JAN 5 1955
LIBRARY

DECEMBER, 1954
(Vol. 18, No. 12)

INDUSTRIAL HYGIENE FOUNDATION
MELLON INSTITUTE
4400 FIFTH AVENUE -:- PITTSBURGH 13, PA.

PLAINTIFF'S EXHIBIT
tabbies
01339.46

PLAINTIFF'S EXHIBIT
tabbies
WV-000451

FOUNDATION FACTS

Foundation Facts is a monthly news-letter issued to industrial concerns holding membership in Industrial Hygiene Foundation. The Foundation is a nonprofit association of industries for the advancement of healthful working conditions.

lume 16 | December, 1954 | No. 12

DR. WEIDLEIN HONORED

. Edward R. Weidlein, President of Mellon Institute, is the recipient of the first tional Presidential Citation by the Air Pollution Control Association. The award was de in recognition of Dr. Weidlein's interest and dynamic leadership in the field of air llution control since 1916.

ARMED FORCES
JAN 5 1955
MEDICAL LIBRARY

NEW FOUNDATION MEMBERS

ght companies have become members of Industrial Hygiene Foundation during the last rter of the year. They are:

Commonwealth Sanitation Company
Mechanical Industries, Inc.
Olin Mathieson Corporation
Pilot Chemical Company
Pittsburgh Steel Company
Radio Corporation of America
I. L. Stiles & Sons Brick Company
Wyandotte Chemicals Corporation

REPRINTS OF TECHNICAL LITERATURE AVAILABLE

e following reprints by Foundation staff members are available upon request:

nvironmental Medicine in Industry" by Dr. C. Richard Walmer, published in the June, 54 issue of Public Health Reports.

Current Conceptions on Air Pollution" by W. C. L. Hemeon, presented at the Philadelphia egional Technical Meeting of American Iron and Steel Institute, October 6, 1954, and at e San Francisco Regional Technical Meeting, November 5, 1954.

wo reprints on principles of industrial ventilation by W. C. L. Hemeon, entitled: "Exhaust r Hot Processes," and "Theoretically Required Exhaust Rates for Dust Control in Bulk aterial Handling Systems". The papers are based on two chapters in the author's forthoming book, Plant and Process Ventilation, which will be released by the Industrial Press January, 1955.

reprint combining two papers on stack dust sampling by W. C. L. Hemeon and George F. aines, Jr., entitled "The Magnitude of Errors in Stack Dust Sampling," and "A New ethod for Stack Dust Sampling." These papers were presented at the semi-annual meetg of the American Society of Mechanical Engineers, held in Pittsburgh, Pa., on June 22, 954, and published in the November, 1954 issue of Air Repair.

Principles of New Plant Design for Health Protection" by Theodore Hatch. Reprinted om the Transactions of the Technical Conferences of the Eighteenth Annual Meeting of dustrial Hygiene Foundation.

ions on the surface irregularities produced by removal of alumina and other impurities. The presence of these ions enables the silica surface to attract a greater number of hydroxyl ions from the solvent medium, with the subsequent formation of highly soluble silicic acid. -- Cond. from authors' conclusions

297 Physicochemical Studies on Dusts. 8. Some Sorption Properties of Siliceous Dusts. J. G. Gibb and P. D. Ritchie. J. Appl. Chem. 4, 483-487 (Sept. 1954).

Rock crystal, Lochaline sand, and vitreous silica (Vitreosil) dusts all show reduced affinity for a dyestuff cation on removal of the disturbed outer layer from the particle surfaces. This layer of amorphous silica is therefore more reactive than the underlying core in sorption processes, just as in solution processes. In the case of vitreous silica, there is probably a physical difference between the outer amorphous layer and the nominally amorphous core, such as a more open structure. Heat treatment and repeated acid extraction have the same effect in both sorption and solution experiments. Alteration of the surface is probably responsible in both cases. -- Cond. from authors' conclusions

298 The Effect of Quartz Dust and Aluminum Phosphate on Certain Enzymes. B. Helferich and Erika Schmitz. Beitr. Silikose-Forsch. No. 24, 1-20 (1953). German.

This paper describes initial results on the inhibition of enzyme reactions by quartz dusts. It was found that potato phosphatase was adsorbed on quartz dust to an extent depending on the specific surface of the quartz, but that in the adsorbed state the enzyme was still nearly 100% active. Aluminum phosphate and aluminum silicate also adsorbed the enzyme. A search for phosphatase in a fresh sample of silicotic lung tissue gave negative results. The work will be continued with other enzymes. -- Cond. from Bull. Hyg.

299 Early Diagnosis of Asbestosis by Enlarged Radiographs. J. Krausler and R. Seyss. Z. Unfallmed. u. Berufskrankh. 47, 59-64 (Mar. 15, 1954). German.

After a brief description of asbestosis and the changes in the lung tissue in the early stages, the authors describe a radiographic technique with a fine focus. Of 16 asbestos workers, with 1 to 18 year's exposure, eight showed changes in the lung tissue with the enlargement technique; two of these showed no change by normal technique, and in the other six cases the degree of change shown was minimal. -- Cond. from Bull. Hyg.

300 Pneumoconiosis in a Feldspar Worker. W. Rotter and H. Gartner. Zentralbl. Arbeitsmed. u. Arbeitsschutz 4, 35-40 (Mar. 1954). German.

The authors describe a fatal case of lung disease in a feldspar worker, which they regard as modified silicosis. The dust contained 27.1% potassium