

purpose of comparing or relating the data to data from similar measurements. The metal measurements of the National Air Sampling Network are estimates used for relative comparisons, and, therefore, are affected greatly by changes in filter composition. Similarly, the growing number of state and community networks (New York, Massachusetts, Texas, Washington, and Maryland) means that the sampling agency has the responsibility of determining analytical characteristics of the filters being used. This is of fundamental importance, if samples are likely to be analyzed at a later date or if the metal data are to be compared with national, state, local, or special study data. All media evaluated in this paper possess analytical characteristics suitable for most sampling programs. The differences between various suppliers' brands of the glass fiber filters make it mandatory for the user to maintain some form of quality control over the filter medium. The quality control program required may be very simple or very complex. This will be dictated however by the extent of the sampling program and the complexity of the expected analyses. -- Cond. from authors' summary

- 746 Dust Measurements in the Austrian Hard Metal Industry. W. Kitzler.
Staub 21, 530-532 (Dec. 15, 1961).

Two factories handling tungsten, cobalt, titanium, tantalum and niobium were studied by means of a Gothe filter apparatus for weight concentration and a kohlometer for number of particles. The former indicated the presence in the atmosphere of up to 46 mg./cu.m., mainly tungsten, and the latter up to 10,000 particles per cu.m. The results of the sampling are compared with data from other countries with unfavorable conclusions regarding conditions in the Austrian establishments. -- Bull. Hyg.

- 747 Cloth Filtration of Fine Aerosols. F. H. H. Valentin
Brit. Chem. Eng. 7, 268-271 (Apr. 1962).

This study deals with the influence of various structural parameters of a cloth on retention efficiency and pressure drop with respect to a fine (1.0 micron) homogeneous ammonium chloride aerosol. A total of 24 different cloths was tested. The material used was cotton. Wool, terylene, and silicone-impregnated glass cloth were also tested, but no significant differences were found between these materials. All effects could be ascribed to the cloth and fiber properties and not to the chemical nature of the fiber. All fibers simply acted as solid cylinders, which was expected in view of the electrically conducting nature of the aerosol. -- APCA Abstrs.

- 748 Pulmonary Disease of Ferroalloy Workers. F. Princi, L. H. Miller, A. Davis and J. Cholak.
J. Occ. Med. 4, 301-310 (June 1962).

A pulmonary disease of occupational origin has been described that the authors have not found in the published literature. It is characterized by recurring bouts of acute pneumonitis with cough, wheezing, anorexia, loss of weight, increased sedimentation rate, linear and nodular fibrosis in the chest roentgenogram, and ventilatory impairment, and is associated with exposure to high concentrations of metallic silicide fumes. Free crystalline silica, either as dust or vapor, was not found in either the atmosphere or the pulmonary tissue. The entire natural history of the disease is not clear, but it is suggested that it probably has occurred among employees in other ferroalloy plants and has not been recognized. -- Authors' summary

- 749 Dust Control in the Cement Industry. N. Pilpel. Brit. Chem. Eng. 7, 258-263 (Apr. 1962).

There are several stages in the manufacture of cement during which considerable amounts of dust are generated. It is produced during the crushing of the raw ingredients, in the firing kilns, in the cement grinding mills, when powdered materials are being conveyed from one point to another and when the finished cement is packed into bags for shipping. The amount of dust can be reduced other than by installing dust collecting equipment at the points where milling, firing, and clinker grinding are being carried out. One of these is the granulation of the raw meal with water prior to firing; another method is to reduce to a minimum the amount of disturbance occasioned when the raw ingredients and finished cement are conveyed to