

- 452 The Measurement of the Resistivity of Power Station Flue Dust. L. Cohen and R. W. Dickinson. J. Sci. Instr. 40, 72-75 (Feb. 1963).

The difficulties in obtaining realistic values of the resistivity of power station flue dust are outlined. The principle of operation of the site apparatus described is to sample the dust laden flue gases by a suction probe and to extract the dust in a small, high efficiency, cyclone. The results obtained show that the resistivity of flue dust undergoes a rapid change with time after its removal from the flue gas stream. Measurements of dust resistivity in the laboratory can be misleading and only the values measured on site should be considered for design purposes. -- APCA Absts.

- 453 A Simple Method of Studying the Behaviour of Dust Particles Flowing Past Obstacles. W. Walkenhorst. Staub 22, 255-259 (July 1962). German.

A laminar stream of dusty air is drawn down a verticle tube having an internal diameter of 1.5 cm. The air flows through a membrane filter which covers the lower end of the tube. If an obstacle such as a wire gauze is placed in the tube a shadow pattern, produced by dust stain, develops on the upper surface of the filter. Ordinary filter papers do not give sharp patterns; only membrane filters are satisfactory. This method makes it possible to demonstrate clearly convection patterns and the dust-free space round heated obstacles. Dust-free spaces due to evaporation of alcohol could also be shown. -- Bull. Hyg.

- 454 New Way to Sample Industrial Gas Streams. E. A. Wolfe. Air Eng. 4, 24-29 (Dec. 1962).

To determine the amount of particulate matter in an industrial gas stream for purposes of determining dust loading, design of a dust collector system, etc., the most important single piece of apparatus is the filter medium. The filter media used today for gas stream testing have, however, various drawbacks, and it is the purpose of this article to review the problems associated with the use of these filters and to outline the use of a new type of filter that largely eliminates these problems. -- Author's summary

- 455 A New Tool for Air Pollution Control: The Aerosol Particle Counter. W. R. Zinky. J. Air Poll. Control Assn. 12, 578-583 (Dec. 1962).

Air pollution control now includes workers in many scientific disciplines. In the fields of medicine, space instrumentation, industrial hygiene, environmental control, chemical warfare, and urban air pollution control, there is a common requirement for better instrumentation and labor saving devices to analyze the contents of the air and other gases. Some of the parameters that are of particular interest in each of these fields are enumerated.

-- Public Health Eng. Absts.

- 456 Airborne Dust in Foundries. R. Schardt. Zentr. Arbeitsmed. u. Arbeitsschutz 12, 157-161 (July 1962). German.

Mechanization of the larger iron foundries has resulted in greater productivity and a corresponding increase in dust in spite of the employment of various methods of dust suppression. A series of measurements of dust concentration, with a konimeter-HS, revealed concentrations of dust far above the accepted maximum allowable values; in general, only about 5% of the particles counted were larger than 5 microns so that most of the dust measured represented a genuine respiratory hazard. Modern, well-planned plants were the worst offenders in this respect. Local exhaust, enclosure and special attention to troublesome sources of dust, such as sand-blasting and conveyors, are given as likely targets for new steps in dust suppression.

-- Bull. Hyg.

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