

these data to appropriate filtration results. Most fibers have an electric charge. With a homogeneous uncharged aerosol under conditions described, a maximum per cent penetration occurs at approximately 0.05 micron, depending on the air velocity through the filter. In a normal heterogeneous aerosol, the peak in penetration versus particle radius curves appears at larger various values of the radius, depending on the net electric charge per unit length of the fibers and the electric charge distribution of the test aerosol. Some unexplained filtration results may be due to some of the particles escaping capture on contact. No attempt was made to assess the part played by electric forces in ensuring adhesion on contact.

-- Cond. from Atm. Poll. Bull.

COMMUNITY AIR HYGIENE

- 285 An Aerometric Survey of the Los Angeles Basin, August-November, 1954.
Air Pollution Foundation (Los Angeles) Rept. No. 9, 333 pp. (1955).

Further evidence was obtained on the importance of photochemical reactions in the production of smog. The chemical substances measured in the air in various parts of the Los Angeles Basin included oxidant, aldehydes, hydrocarbons, nitrogen oxides, carbon dioxide, sulfur dioxide, and particulate matter.

-- Chem. Absts.

- 286 Air Pollution Corrective Measures Complicating Water Pollution Control Problems. W. H. Lang.
Sewage and Ind. Wastes 27, 957-961 (Aug. 1955).

In spite of apparent differences between these two, there is a direct relationship between air pollution control and water pollution control. Scrubbing, to control air pollution, results in a liquid effluent which must be treated before the problem is fully solved. Therefore the study should show whether this effluent can be handled in existing facilities or if additions to the water pollution control facilities must be provided. Regeneration of the scrubbing medium is one way of handling this. There are a few cases where water pollution control results in liquid wastes which are odor producing and therefore air pollution.

-- Public Health Eng. Absts.

- 287 Particulate Atmospheric Carbon. A Method for Determination of Sources. G. D. Clayton,
J. R. Arnold, and F. A. Patty. Am. Ind. Hyg. Assn. Quart. 16, 293-295 (Dec. 1955).

The determination of the carbon 14 content of atmospheric carbon gives an unequivocal distinction between that produced by combustion of fossil fuels such as coal, oil, and natural gas, and that from biological sources of all kinds, including trash burning, pollen, forest fires, etc. In two tests in Los Angeles approximately 25% of the particulate carbon was found to be of contemporary origin, and similar but inconclusive results were obtained in Detroit. The tests proved the effectiveness of the technique used, and reveal that the procedure is a useful tool in distinguishing whether the atmospheric particulate carbon is newly formed or aged. A few tests for beryllium 7, which is produced by cosmic rays, indicate that the method can be used as a measure of the rate of subsidence of the atmosphere in Los Angeles when sufficient results are obtained.

- 288 Wind Tunnel Scale Model Studies of Air Pollution from Industrial Plants. G. H. Strom.
Ind. Wastes 1, 1-4 (Sept.-Oct.); 55-59 (Nov.-Dec. 1955).

In the first paper the author describes the wind tunnel scale model studies made to determine the causative factors in air pollution and some means of abatement suggested by these studies. Emphasis is placed on those aspects of air pollution problems important to individual plants. Attention is confined to gaseous pollutants, because additional problems are involved in the study of particulate matter. The important factors are: (1) environmental