

- 601 Air Pollution Study. S. Carne. Proc. Roy. Soc. Med. 56, 620-624 (July, 1964).

The Medical Officers of Health of the London boroughs, in association with the Department of Science and Industrial Research (DSIR), approached the Research Committee of the College of General Practitioners, suggesting a study of the effects of air pollution on respiratory illness in the population of London. Only through the general practitioner could the whole family be studied. The survey was undertaken during the winter of 1962-1963. It was found that there were two peaks of respiratory illnesses coinciding with the fog at the beginning of December and the freeze-up from the end of December until the beginning of March.

-- APCA Absts.

- 602 Los Angeles Air Pollution and Respiratory Symptoms. Relationship During a Selected 28-Day Period. D.I. Hammer, et al.
Arch. Environmental Health 10, 475-480 (March, 1965).

Two populations of student nurses, one in Los Angeles and one in Santa Barbara, reported selected respiratory symptoms by means of daily symptom diaries. The prevalence of these symptoms and their relationship to a single air pollutant during a 28-day period is described. These data are part of a 32-month study ending in June, 1964. A time-associated relationship between daily oxidant levels and the mean daily frequency of eye discomfort in the Los Angeles group was observed during the study period. This relationship was not observed for any of the other symptoms. The mean 28-day frequencies of all symptoms reported by the Los Angeles student nurses were equal to, or greater than, those reported by the Santa Barbara student nurses.

-- Authors' summary

- 603 Some Laboratory and Epidemiological Aspects of Air Pollution Carcinogenesis.
E. L. Wynder and D. Hoffmann. J. Air Poll. Control Assn. 15, 155-159 (April, 1965).

Chemical, analytical and biological studies were completed on the organic matter of large air pollution samples from Detroit. The high tumor response observed on mouse skin when the organic matter was applied in 12.5% concentration can be partially explained by the presence of polynuclear aromatic hydrocarbons (PAH) as tumor initiators and certain acidic components as tumor promoters. Certain polaric neutral components of still unknown nature are indicated also to act as tumor promoters. The concentrations of PAH in various locations in Detroit and New York during different seasonal, meteorologic and traffic conditions are compared. The relative importance of carcinogenic air pollutants in man's environment is discussed in line with epidemiological evidence.

-- Authors' abstr

- 604 Meteorology of Air Pollution. D. H. Pack. Science 146, 1119-1128 (Nov. 27, 1964).

The current status of the whole field of air pollution meteorology is summarized. It is stated that the need to preserve our air resources challenges our understanding of the atmosphere's capacities. The characteristics of point, line, and area pollutant sources are described with emphasis on the city, or the almost continuous strip city (the "megapolis" or "megapolitan area") along the Eastern seaboard of the United States, as an area source. Also, mention is made of the ways cities modify local meteorological conditions. Vertical turbulent diffusion, horizontal turbulent diffusion, atmospheric transport, applications of air pollution meteorology, urban air pollution, and future problems are discussed. Special attention is given to urban meteorology, in particular to the general absence over cities of surface-based temperature inversions typical of rural areas; to the use of a nearly constant-volume balloon with a lightweight radar beacon system as a meteorological tracer; to the Weather Bureau "Air Pollution Potential Forecast" program for the United States; and to the development of mathematical multiple-source diffusion models for computer solution of pollution concentration problems for urban areas.

-- Cond. from Public Health Eng. Absts.

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