

MEASUREMENTS OF AEROSOL SIZE DISTRIBUTION IN URBAN AREAS OF UPPER SILESIA

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Abstract: Deposition of aerosols in the respiratory tracts depends on their size distribution. Investigation of such distribution has therefore great meaning for appropriate assessment of risk caused by hazardous pollutants that appear in environment both as a result of human activities like industry, emission from motor vehicles, municipal emission due to house furnaces and natural phenomena. The results of screening measurements of size distribution performed in several places located on highly populated areas in Upper Silesia, Poland are described in this paper. The applied equipment makes it possible to cover the range from several nanometers up to 20 μm , practically all particles that belong to the respirable class. Obtained results prove that a lot of particles having a size of the order of submicrons are produced close to high density traffic roads. This concentration strongly changed in time.