

CONCENTRATIONS OF PM_{2.5}, PM_{2.5-10} AND PM-RELATED ELEMENTS AT TWO
HEIGHTS IN AN URBAN BACKGROUND AREA IN ZABRZE (POLAND)

WIOLETTA ROGULA-KOZŁOWSKA, BARBARA BŁASZCZAK,
KRZYSZTOF KLEJNOWSKI

Abstract: Concentrations and elemental composition of fine (PM_{2.5}) and coarse (PM_{2.5-10}) ambient particles, at two sampling points located at the same urban background sites, were investigated. The points were 20 m distant from each other and at various heights (2 and 6 m) above the ground. A dichotomous sampler, equipped with a virtual impactor, and a cascade impactor were used to sample the dust. An X-ray fluorescence spectrometer was used in the elemental analyses. The investigations revealed heterogeneity of the spatial distribution and the elemental composition of suspended dust at the investigated urban background site. Coarse dust, whose concentration at 2.0 m above the ground was affected by secondary emission from roads, soil and other local low-level sources in some periods, appeared more heterogeneous.