

POLYCYCLIC AROMATIC HYDROCARBONS IN PM1, PM2.5, PM10 AND TSP IN  
THE UPPER SILESIAN AGGLOMERATION, POLAND

KRZYSZTOF KLEJNOWSKI, BARBARA KOZIELSKA, ANDRZEJ KRASA,  
WIOLETTA ROGULA-KOZŁOWSKA

**Abstract:** Polycyclic aromatic hydrocarbons (PAHs) are persistent organic pollutants, ubiquitous in the whole environment. They are relatively well known and are still of interest due to their well documented carcinogenic and mutagenic properties. In ambient air of urban regions they mostly occur as adsorbed to particles of suspended dust. The richest in these compounds and therefore most hazardous to humans, fraction of dust is the fraction of the finest particles. The paper presents results of investigations of dust sampled with use of an impactor Dekati PM10 in Zabrze, a site typical of Upper Silesian conditions. While sampling, the impactor segregates sampled particles into four fractions by their aerodynamic diameters. Sixteen PAHs were determined in each fraction chromatographically. PAH content in the fraction of the finest particles, i.e. in PM1, was of particular interest.