

**POLYCYCLIC AROMATIC HYDROCARBONS IN THE AMBIENT AIR  
OF THE GREEK TOWNS IN RELATION TO OTHER ATMOSPHERIC  
POLLUTANTS**

**A. PAPAGEORGOPOULOU<sup>a</sup>, E. MANOLI<sup>a</sup>, E. TOULOUMI<sup>b</sup> and C.  
SAMARA<sup>a</sup>**

<sup>a</sup>Environmental Pollution Control Laboratory, Dept. of Chemistry, Aristotle  
University of Thessaloniki, 540 06 Thessaloniki, Greece

<sup>b</sup>Ministry of Macedonia-Thrace, Dept. of Environmental Protection, Division of Air  
Pollution, 546 35 Thessaloniki, Greece

**ABSTRACT**

Polycyclic aromatic hydrocarbons (PAHs) were determined in the ambient air of six towns in N. Greece. In the warm months PAHs were significantly correlated with vehicular pollutants thus suggesting traffic as the major PAH emitting source. The same was also deduced from the comparison of the ambient PAH profiles to the profiles of particular sources. The contribution of residential heating was significant in most towns during winter. The risk associated with the inhalation of carcinogenic PAHs in each town was estimated and compared to the risk from more urbanized/industrialized sites in N. Greece.