

**POLYCYCLIC AROMATIC HYDROCARBONS (PAH) AND THEIR  
NITRATED DERIVATIVES (NITRO-PAH) IN THE URBAN ATMOSPHERE**

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**ABSTRACT**

Polycyclic aromatic hydrocarbons (PAH) and their nitrated derivatives (nitro-PAH) are suspected carcinogens and their presence in the environment is indeed a matter of concern. A major goal of scientific research for the last two decades has been the development of appropriate sampling methods and analytical procedures for the determination of both PAH and nitro-PAH in the atmosphere as well as in emission sources. Sampling campaigns were undertaken at urban sites in Birmingham, UK and Damascus, Syria to study the gas/particle distribution of these compounds. Analytical techniques have been developed based upon HPLC with UV-visible and fluorescence detection, for the determination of PAH, and GC/NICIMS for the determination of nitro-PAH. Concentrations were broadly comparable with those measured at other urban sites across the world.