

**TITLE:****AUTHOR: Moacir Tavares Júnior****ABSTRACT**

The identification and quantification of PHA was accomplished in the city of Londrina, Paraná. The collection was carried out in the downtown bus station. The samples were collected within a period of 24 hours, for 14 days in January 2002. The PHAs present in gaseous phase were collected using a cartridge packed with XAD2 adsorbent resin, then extracted under sonication and analyzed by gas chromatograph, using a flame ionization detector. 10 compounds of the 16 researched PHAs were found (naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene e chrysene). The concentrations ranged from  $1.4 \text{ ng.m}^{-3}$  for benzo(a)anthracene to  $348 \text{ ng.m}^{-3}$  for phenanthrene. The species for which the higher concentrations were found are, respectively, phenanthrene ( $348,0 \text{ ng.m}^{-3}$ ), fluorene ( $97,7 \text{ ng.m}^{-3}$ ) and naphthalene ( $\text{ng.m}^{-3}$ ). The PHAs' concentrations were lower on the weekends than on the workdays, which agrees with the reduction of bus traffic in the bus station and consequently indicates that the burn of diesel is the main source of emission.