

DISTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS  
(PAHs) IN SHAH ALAM INDUSTRIAL AREA WATER SYSTEM

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## ABSTRACT

### DISTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) IN SHAH ALAM INDUSTRIAL AREA WATER SYSTEM

Organic substances such as PAHs are the major pollutants in water. PAHs give harmful effect to human health such as cancer. Shah Alam's industrial area was selected as study area because of the industrial activities. Industrial activities may contribute to the presence of PAHs through the discharge from the factories into drains and rivers. In view of this situation, a study was carried out to know the presence, quantity and distribution of PAHs in Shah Alam's industrial area water system. The samples at 10 sampling points were taken during dry and rainy seasons. The samples were analysed for PAHs by using GCMS after extraction process. From the overall results, it was indicated that concentration of total identified PAHs during first sampling falls in the range of 2.651 ug/mL to 1.750 ug/mL. For the second sampling, the concentration of total identified PAHs were in the range of 1.856 ug/mL to 7.490 ug/mL. The highest concentration of PAHs was obtained at Station 1, which was 7.490 ug/mL, while Station 5 showed the lowest concentration of total identified PAHs, which was 1.856 ug/mL. Limit for PAHs that is permitted by "Jabatan Alam Sekitar" (JAS) is between 5.5 – 9.0 ppm. So, from the overall results showed that the concentration of PAHs in these study areas was low.