

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) IN SEMIPERMEABLE MEMBRANE DEVICES (SPMDs) EXPOSED TO AIR AND AQUATIC PLANTS IN THAILAND

Project reference

Project:

Pilot project in the Bangkok region of Thailand

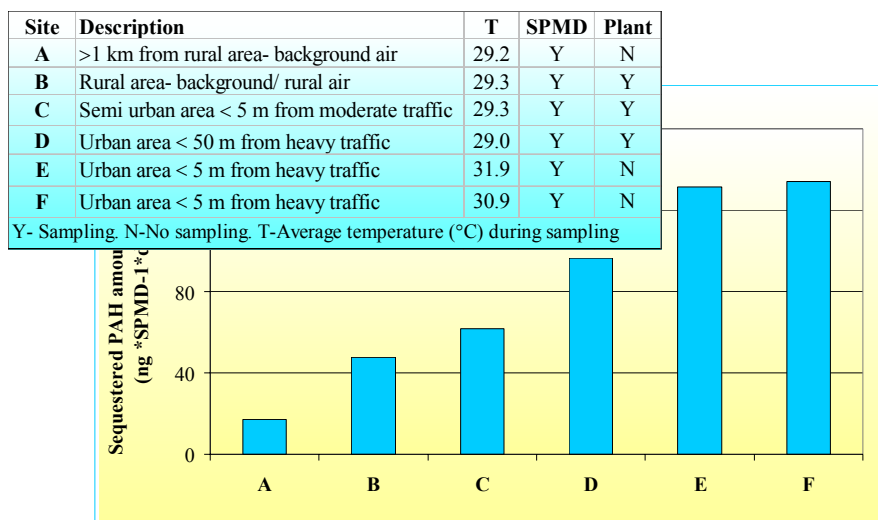
Project period

2000

Nature of task:

- investigation of the air pollution and the connection between ambient air and aquatic plant concentrations of PAHs in the Bangkok region of Thailand
- contribution of traffic to atmospheric and plant concentrations of PAH

Summary



Sequestered amounts of the 15 EPA PAHs (naphthalene excluded) in SPMDs at sites A-F

The detected amount of 15 EPA PAHs in SPMDs were correlated with the assumed air pollution at the sampling sites (see picture).

The individual PAH compounds phenanthrene, 1-methylphenanthrene, fluoranthene and pyrene were predominant in all samples indicating that traffic probably contributed to the high PAH concentrations in the urban air.

Different PAH profiles were detected in SPMD and plant samples. SPMDs mainly sampled lighter PAHs in the gas phase while heavier PAHs in the gas phase and particle bounded PAHs were also accumulated in the plants.

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