

Pure Sciences

Poster

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Seasonal influences on the levels of particulate Cd, Cr and Pb in Kuantan River, Pahang

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Introduction: Temporal and spatial variations of selected toxic element distributions were studied in the Kuantan River waters. **Methods:** Water samples from 9 sampling stations were taken from downstream of the estuary towards the upstream of the Kuantan River during the rainy and dry season. Particulate Cd, Cr and Pb were filtered, dried, weighed and analyzed using Teflon Bomb digestion processes. **Results:** The concentration of particulate Cd, Cr and Pb were in the range of ND to 14.480 mg L⁻¹, 6.047 to 271.497 mg L⁻¹ and 0.646 to 174.859 mg L⁻¹, respectively. The distribution of the elements in suspended particulate matter was found influenced by the rainy season and dry season. Particulate metals obtained mostly higher in May 2012 (dry season) while Cd and Cr were found above the limits authorize by the International Commission for the Protection of the Rhine against Pollution (ICPR). **Conclusions:** Correlation matrix between various parameters revealed that most of the parameters were found to bear a statistically significant correlation with each other.

KEYWORDS: Suspended particulate matter, River water, Cadmium, Chromium, Lead