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Oriental Journal of Chemistry
Volume 30, Issue 2, 2014, Pages 479-484

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Distributions of dissolved toxic elements during seasonal variation in Kuantan River, Pahang, Malaysia (Article)

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Abstract

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The concentrations of toxic metals were determined in estuary and freshwater zones from Kuantan River basin. Water samples were collected from the surface and bottom layers of nine sampling stations, from the downstream of the estuary towards the upstream along the mainstream drainage channel, traversing past the city center and industries of Kuantan city. The general physico-chemical parameters (salinity, temperature, pH and dissolved oxygen) and concentration of total dissolved metals, Cadmium (Cd), Chromium (Cr) and Lead (Pb) were measured during dry season (May and June 2012) and wet season (September and October 2012). Metal concentration was determined using Inductively Coupled Plasma Mass Spectrometry (ICP-MS). Metal concentrations ranged from 0.299 - 1.815 µg/L for Cr, undetectable to 0.034 µg/L for Cd and 4.697 - 16.017 µg/L for Pb, respectively. The present measurements can be used as a baseline data for any future monitoring and comparison of trace metals distribution in the Kuantan River.

Author keywords

[Kuantan river](#) [Malaysia](#) [Seasonal variation](#) [Toxic elements](#)


ISSN: 0970020X
CODEN: OJCHE
Source Type: Journal
Original language: English

DOI: 10.13005/ojc/300210
Document Type: Article
Publisher: Oriental Scientific Publishing Company

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