

THE POSSIBLE CHANGES IN ORGANO-METAL COMPLEXES ON COASTAL SUSPENDED PARTICULATE MATTER DURING EXPOSURE TO RAINFALL

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ABSTRACT

The investigation aimed to assess the possible effect of rainfall on heavy metal levels in suspended particulate matters (SPM) around the sea of Pun Wa Peninsula during August-November, 1981. SPM samples were trapped in 3-liter jars and were analysed for heavy metal levels in SPM loads. Similar SPM samples were collected and reacted with filtered rainwater for 48 hours as the rain water treated SPM prior to heavy metal analysis. The results show the concentration ranges for cadmium, copper, lead and zinc to be 1.80-2.40, 13.20-19.80, 28.20-55.00 and 201.00-252.00 $\mu\text{g/g}$ dry SPM load respectively. After treatment with rain water, the levels in all heavy metals decreased 13.4-29.8% due to the desorption of metal from organo-metal complex under lower pH values. Zn was the exception as it varied greatly over time. In contrast, the levels in heavy metals in sediments were relatively lower than those in SPM.