Journal of Applied Geochemistry
Vol. 24, No. 2 (2022). pp. 100-113

DISTRIBUTION OF MAJOR AND MINOR ELEMENTS IN THE SEDIMENTS OF KRISHNA RIVER CHANNEL, EAST COAST OF INDIA

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Abstract

A total of five sediment samples were collected from the Krishna River Channel to understand the role of prevailing physicochemical and biological conditions in controlling the fixation and migration of chemical constituents of the sediments during pre-monsoon (April) and post-monsoon (December) seasons of 2016. For analysis of the geochemical elements, ICP-MS-Inductively Coupled Plasma-Mass Spectrometry methods have been adopted. In the present study, three major elements viz., Fe, Mn, and Al, and eighteen minor elements viz., Li, Be, V, Cr, Co, Ni, Cu, Zn, As, Rs, Sr, Ag, Cd, Cs, Ba, Pb, Ti, and U were determined. Concentrations in their source rocks, transportation, and sediments and their applications are discussed in terms of provenance, diagenesis of the sediments, effects of environmental pollution thus explaining the palaeo-depositional environments and palaeo-climate as pollution indicators.

Keywords: Geochemical elements, major and minor elements, River Channel, provenance, palaeoenvironments, palaeo-climate, sorption, CIA.