Dissolved Cd in the Jiulong River Estuary: Influences of Natural Versus Anthropgenic Influences

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Here we present data on the seasonal and spatial variation of dissolved Cd in the Jiulong River Estuary(JRE), and urban surbtropical estuary in South China. Two cruises were conducted in the JRE during high (August 2008) and low river flow (November 2008) conditions. The results demonstrated an active seasonal cycling and a spatial gradient of dissolved vanadium (V) in the Estuary. Dissolved Cd showed wit higher concentrations in August than November 2008. The positive coupling with phosphate provides a clear evidence that dissolved Cd was associated with phosphorus cycling in the estuary. In addition, correlation of dissolved Cd and silicate further suggests that dissolved Cd probably resulted from dissolution of siliceous minerals during high river flow conditions. The results observed in this study suggested that dissolved Cd was mainly influenced from natural and anthropogenic sources.