

## Comparative geochemistry of bottom sediments of Isahaya Bay before and after the dike for reclamation in Ariake Sea, Japan

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The Isahaya Bay was the largest intertidal zone in Japan. In 1997 April, the bay was closed and isolated by the dyke from the Ariake Sea due to the reclamation, which resulted in the formation of stagnant and deteriorated condition for this bay, especially in the inner side of the dyke. The core samples from the inner side confirm the abrupt changes in lithology, disappearance of shells and varied geochemical compositions from the lower part to the overlying upper part. Mud samples of the upper part which were deposited after the closure, show higher concentrations in Pb, Zn, Cu, P<sub>2</sub>O<sub>5</sub>, TOC and TN suggesting their accumulation in sediments under reducing conditions and the enrichment may be related a disappearance of ecosystem previously having an outstanding effect of bioremediation.