

**Characteristics of riverine
constituents relating to aggregation
and insolubilization caused in
estuarine areas of Shirakawa and
Midorikawa rivers, Kumamoto,
Japan**

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Aggregation, insolubilization and sedimentation behaviors of organic matters and metals caused by mixing of riverine water and seawater were investigated by taking into account of their dissolved, insoluble and colloidal forms. Riverine fresh water samples were collected from Shirakawa and Midorikawa rivers, Kumamoto, Japan and examined for the behaviors of their constituents when experiencing seawater-mixing, shaking shear stress, material separations by filtration and centrifugation. Formation of insoluble materials from filtrated soluble materials was evident even without seawater-mixing. Besides, insoluble materials produced under seawater-mixing condition were somewhat stable against shaking shear stress. The required materials for aggregation were deduced to be insoluble materials and low density soluble materials presumably such as organic matters. The original river water, which includes insoluble materials, did not always showed complete rapid insolubilization. On the other hand, almost complete insolubilization was observed after removal of originally existing insoluble materials.