

## 元素の行動に関する海洋化学的研究 1

浦戸湾の潮目附近における底土の鉄  
およびマンガンについて\*

今 井 嘉 彦\*\*

### Oceanographical Studies on the Behaviour of Chemical Elements I.

On Iron and Manganese in the Sediments Around  
"Shiome" (current rips) in Urado Bay

Yoshihiko IMAI

**Abstract:** As a step to investigate the chemical characteristics of "Shiome" in Urado Bay, the author has studied the distribution of iron and manganese in sediments collected from the Bay of Urado, Kochi Pref., Shikoku. On the basis of the results obtained by a number of chemical analyses on them, the following conclusions have been deduced.

1. The concentration of total iron in dry sediments was 30.90~58.72 mg/g and of, total manganese was 0.524~0.911 mg/g. The ratio of total manganese to total iron tends to be higher around the current rips; the greater the distance from "Shiome", the smaller the ratio.

2. The fraction of ferrous iron in total iron extracted from wet sediments by using buffer solutions of sodium acetate-acetic acid (at pH 4.0), was 20~89 %, and the ratio of total manganese to total iron was 0.026~0.274.

3. The fraction of ferrous iron in the total iron decreases as the location of the sampling shifts from the inner end of the bay towards the mouth. This shows the tendency of oxidation of ferrous iron into ferric state towards the mouth of the bay. Manganese tends to decrease as ferrous iron increases.

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\*\* 高知大学教育学部化学教室, Chemistry Institute,  
Faculty of Education, Kochi University.