

Study of Stabilization of Sulfide and Determination of Sulfide in Estuaries along Osaka Bay

Aoki, Toyoaki., Nakano, Daisuke.

Graduate School of Engineering, Osaka Prefecture University, Sakai, Japan

Hydrogen sulfide in effluent from factory and so on, has been regulated by offensive odor control law in Japan. Recently, hydrogen sulfide in sea water was observed in Tokyo Bay¹⁾. We intended to determine sulfide in estuaries along Osaka Bay.

Firstly, we investigate to stabilize sulfide in water. Sulfide in sample solution reacted with zinc acetate to produce zinc sulfide, which was stable for three hours. After going back to laboratory, zinc sulfide was converted to sodium sulfide with a convert equipment. We determined sulfide by methylene blue method²⁾.

Table 1 shows the results obtained from application of the present method to estuaries along Osaka Bay. In symposium, we would like to show the data in detail.

Table 1 Concentrations of sulfide in various samples in estuaries

Site	River	Day	Time	Concn. of sulfide (μ M)
Ohamabashi	Doi	2/13/97	11:40	7.2
Asahibashi	Doi	2/13/97	12:26	7.0
Taiyobashi	Ishizu	3/17/97	11:25	37.6
Ishizukou		3/17/97	12:31	6.1
Asaka	Yamato	4/20/97	10:00	2.3
Orionobashi	Yamato	4/20/97	10:54	4.1

References

- 1) K.Otsubo et al. (1991) *Marine Pollution Bulletin*, **23**, 51-55.
- 2) APHA AWWA WPCF (1985) "Standard Methods for the Examination of Water and Seawater", 16th ed., 445pp..

