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Pb Distribution and Sources in Jiaozhou Bay, East China

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ABSTRACT

We studied the distribution, seasonal change, translocation, and source of heavy metal Pb based on the surface and bottom water sampling in Jiaozhou Bay in 1980 in order to know the condition of Pb before the industrial and agricultural development and to probe the distribution and translocation process of Pb. The results show that the range of Pb content in the surface in the whole bay was 0.07-2.71 µg/L, being below Grade II of the China's national water quality benchmark (5.00 µg/L). No Pb pollution was detected in the inner bay, while in the outer bay and the mouth, light Pb pollution. The Pb pollution in the bay waters was area sources. Horizontal and vertical distribution, and seasonal change indicated the translocation of Pb in the waters. Pb entered the water body at marine surface and sank at the marine bottom. Understanding the variable process of Pb in the bay provided the scientific clues for controlling Pb pollution from the human activities.

KEYWORDS

Heavy Metal Pb, Distribution, Seasonal Change, Pollution Source, Jiaozhou Bay

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