

Model Studies of the Solubility of Inorganic Mercury  
Discharged to Coastal Seawater by Some Plants

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The effluents from some plants at the coast of Adria still contain high levels of mercury. It is still assumed by many industrial chemists that metallic or inorganic mercury would simply sink to the bottom of the sea and remain there. However, the release of inorganic mercury into the environment followed by its alkylation and accumulation in fish could bring to chronic intoxication of the local population.

Experiments presented in this work on model systems as well as model calculation will show that mercury can be released from the sediments as elemental aqueous mercury,  $\text{Hg}^0(\text{aq})$ , which is in equilibrium with volatile  $\text{Hg}^0(\text{g})$ . Series of solubility experiments has been performed to emphasize the importance of the mercury pollution problem.

## DISCUSSION

## Questions and comments:

1. I would like to comment the importance of the control of local contamination of sea water by chlor-alkaline plants. In the bay of Kaštela, near Split, we have found extremely high mercury concentrations in mussels *Mytilus galloprovincialis*. According to our opinion, the concentrations 2 - 7 ppm which we have determined are due to local contamination of sea water with mercury, coming from PVC factory. These concentrations are much higher than permitted values. (P. Stegnar, Yugoslavia)
- Thank you very much for the comment. In the presented paper, I wanted to emphasize that mercury released by chloralkaline plant presents a localized, but still very serious environmental problem. I am really worried that nothing has been done yet with respect to preventing release of mercury and to recover mercury from waste waters, although purification methods exist long ago. Nothing has been done also with the sediments, which may be expected to release methylated mercury in the future. Also, the contaminated bodies of water should be given up for food production until the sea water is not recovered. The prediction obtained from model calculation seems to be nicely confirmed by your experimental results.