

# **Bioaccumulation and elimination of tributyltin and triphenyltin in oysters and rock shells in Taiwan.**

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## **Abstract**

The present study was undertaken to evaluate the toxicity of tributyltin (TBT) on oysters (*Crassostrea gigas*) and bioaccumulation of TBT and triphenyltin (TPhT) on oysters and rock shells (*Thais clavigera*) from mariculture areas of Taiwan. When treated with concentrations of 0.08, 0.40, 2.00, 10.00 and 50.00 microg TBT/L, the 48-, 72-, 96- and 120-h LC50s of oysters were 44.6, 18.4, 17.9 and 14.3 microg TBT/L, respectively. In the bioaccumulation experiments, oysters and rock shells were exposed to various concentrations of organotins, i.e. A: control, B: 0.40 microg TBT/L, C: 0.40 microg TPhT/L, and D: 0.20 microg TBT/L + 0.20 microg TPhT/L. In general, TPhT was faster accumulated than TBT in both oysters and rock shells and oysters had a higher elimination capability than rock shells. Additionally, greater bioaccumulation and elimination rates had been observed in female oysters than males. To rock shells, the bioaccumulation rate of organotins in imposex females was greater than males and females.