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## **Quantification of Thiamin in Natural Fresh Water**

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### **ABSTRACT:**

The objectives of this study were (1) to quantify thiamin (vitamin B<sub>1</sub>) from natural freshwater systems and (2) to evaluate whether decomposing plant matter releases detectable levels of this vitamin into the ambient water. Thiamin was present in city water both at SUNY Brockport and the University of Vermont ranging from 342 to 709 pmol/L (pM). Thiamin was also detected in natural water collected from lakes Ontario and Champlain as well as in Shelburne pond, a eutrophic lake in Vermont. The results of our initial decomposition experiment seem to contradict our null hypothesis that thiamin concentrations should be higher in water in which decomposing plant matter is present. However, these results are based on a single experiment without taking in consideration any seasonal changes in the chemical characteristics of different organic matter.