

BASIC KNOWLEDGE IN MARINE SCIENCES

Edited by

Normawaty Mohammd-Noor



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Introduction

A heavy metal is a member of a loosely-defined subset of elements that exhibit metallic properties. Living organisms require varying amounts of "heavy metals". Iron, cobalt, copper, manganese, molybdenum, and zinc are required by humans. Excessive levels can be damaging to the organism. Other heavy metals such as mercury, plutonium, and lead are toxic metals that have no known vital or beneficial effect on organisms and their accumulation over time in the bodies of animals can cause serious illness. Certain elements that are normally toxic are, for certain organisms or under certain conditions, beneficial. Examples include vanadium, tungsten, and even cadmium. It has been well documented that the bottom sediments are the sinking grounds of all the heavy metals originates from natural and anthropogenic sources. Hence the knowledge on the heavy metal level in the sediment will give clear insight on their interaction with the benthic biota and the quality of the environment itself.

Sample collection

Sample should be collected by using standard procedures such as by using grab (eg, van Veen Grab), cores, Scoops and Dredges depending upon the nature of samples. The samples should be labeled properly and transported in iced condition to the laboratory for further analysis.

Preparation of Solutions