

عنوان مقاله:

A Survey upon Speciation of Molybdenum in Soil and Sludge in the Surrounding area of oman sea region

محل انتشار:

اولین همایش حفاظت از تالاب ها و اکوسیستم های آبی (سال: 1392)

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نویسندگان:

Kourosh Motevalli - Instructor, Applied Chemistry Department, Basic Sciences Faculty, Islamic Azad University, South

Zahra Yaghoubi - Asistant professor, Industrial Faculty, Islamic Azad University, South Tehran Branch, Tehran, Iran

خلاصه مقاله:

In this research ,The distribution and mobility of molybdenum in the soils and sludge surrounding an area was investigated to evaluate its vertical and lateral movement of operational speciation which was determined in six steps to fractionate the material in the soil and sludge into (i) water soluble, (ii) exchangeable, (iii) carbonate bound, (iv) reducible, (v) oxidizable, and (vi) residual phases. The present research, shows that about 63.7% of total molybdenum is mobilizable, and 36.3% of total molybdenum is nonbioavailable in soil, whereas about 30.2% of total molybdenum is mobilisable, and 69.8% of total molybdenum is nonbioavailable in sludge. In contaminated sites the concentration of molybdenum was found to be higher in the reducible phase in soils (31.3%) and oxidisable phases in sludge (56.3%) which act as the scavenger of molybdenum in polluted soils. These results also indicate that iron and manganese rich soil can hold molybdenum that will be bioavailable to plants and biota. Thus, results of this study can indicate the status of bioavailable of molybdenum in this area, using sequential extraction technique. So a suitable and proper management of handling sludge in the said area will be urgently needed to the surrounding environment as well as ecosystems

کلمات کلیدی:

molybdenum, fertility, ecosystems, environment, sludge

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