Competitive Adsorption and Transport of Heavy Metals in Two Different Soils. (S01-dychung075447-Poster)

Authors:

- D.Y.Chung - *Chungnam National University*
- S.H.Lee - *Chungnam National University*
- H.H.Noh* - *Chungnam National University*
- J.E.Yang - *Kangwon National University*

Abstract:

This investigation was to observe the distribution patterns and fates of the heavy metals by studying adsorption isotherms for mono-, bi-, and tertiary-ionic species with silt loam and silty clay loam soils collected from the experimental farm located at Chungnam National University, Korea. For the adsorption, heavy metals showed a similar pattern that the amount of the heavy metals adsorbed increased with increasing equilibrium concentrations, while the maximum adsorptions of the heavy metals were higher in silt loam soil than those in silt clay loam due to low pH. The maximum amounts of adsorption and equilibrium concentrations were different among metals and soils. And the competition for the sorption sites among the heavy metals was influenced by the concentrations of individual ionic species and number of the heavy metals. Transport of the heavy metals in soils can be influenced by the presence of the competing cations for sorption sites.

Corresponding Author Information:

Jae Yang
Kangwon National University
Dept. Ag. Chem. Col. of Agri. Kangwon Nat'l Univ.192-1 Hyoja 2 dong
Chunchun 200-701
Korea

phone: 8233-250-6446
fax: 8233-241-3696
e-mail: dychung@cnu.ac.kr

Presentation Information:

Presentation Date: Monday, November 11, 2002
Presentation Time: 10:00 am-12:00 pm
Poster Board Number: 2127

Keywords:

Adsorption, Transport, Heavy metals, Soil Texture