

Turkish Journal of Chemistry

Turkish Journal

of

Chemistry

**Heavy Metal Removal from Aquatic
Systems by Northern Anatolian
Smectites**

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Abstract: Competitive adsorption of the heavy metal ions Cu(II), Cd(II) and Pb(II) from aqueous media onto northern Anatolian smectites with a mean particle diameter of 200 μm , was investigated. The adsorption rate and capacity of the smectite for the selected heavy metal ions, containing different amounts of these ions (5-900 mg/L) at values ranging from pH 1.0 to 7.0 were studied. Very high adsorption rates were observed at the beginning, and adsorption equilibria were then gradually achieved in about 30 minutes. The maximum adsorption of metal ions onto the smectite were found to be 41.46 mg Cd(II),