

Adsorption characteristics of Cd, Cu, Pb and Zn onto Mongolian natural zeolite

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The batch removal characteristics of Cd, Cu, Pb and Zn from aqueous model solution have been investigated using 5 different Mongolian natural zeolites. The adsorption kinetics and adsorption isotherms have been studied. The adsorption of metals onto zeolites reached to plateau value within 6 hours. The adsorption kinetic data were fitted with adsorption kinetic models. The equilibrium adsorption capacity of the zeolites used for metals was measured and fitted using Langmuir and Freundlich isotherm models. The order of adsorption capacity was $Pb > Cd > Cu > Zn$ in mass base. The order of adsorption capacity did not follow the order of cationic exchange capacity.