

Review on Adsorption and Desorption of Heavy Metals on Natural Low-Cost Adsorbents

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Abstract: Adsorption and desorption studies on different types of adsorbents, including natural materials Agricultural Waste, Nigerian bentonite (UAB) coffee wastes, waste from coconut milk, Delonix regia biomass & pods for removal of Ni(II), Mn(II), Cu(II), Cd(II), Pb(II), Zn(II) metal ions are summarized. The kinetics, thermodynamics, sorption/desorption mechanism of different metal ions on different adsorbents under different experimental conditions are discussed. It is found that different eluants are useful for desorbing the metal ions. All the metal ions are desorbed using eluants like distilled water, KI, HCl, H₂SO₄, EDTA and NaCl in most of the cases.

Keywords: Adsorption, desorption, heavy metals, eluant.

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