Removal of Some Toxic Metals Using Organic Resin Impregnated with Inorganic Material

Surface water are exposed to pollution from the large quantities effluent that industry daily discharge into the rives ,sewage works ,etc. with ions of ono-ferrous toxic metals such as nickel ,cadmium ,zinc ,lead, chromium and cupper .Several techniques are available for the removal such ions from waste water ,including precipitation and separation on organic resins which are widely used in the industry .In recent years ,other processes have been developed with offer certain advantages among them the use double salts of polybasic acids with tetravalent metals .The advantages of these metals are due to their high radiation and thermal stabilities .This work had been done in an attempt to synthesize organic resin such as poly (acrylamide –acrylic acid)with impregnation by inorganic ion exchange metal such as silicon titanate that can be of help in the industrial waste pollution problem .This work is concerned with the preparation of poly (acrylamide – acrylic acid) silicon tiianate .Characterization of the synthesized metals using X-ray diffraction ,X-ray fluorescence and infrared spectroscopy was concerned Capacity ,equilibrium measurements and selectivity patterns for Cu2+ ,Ni2+ ,Zn2+ and Cd2+ ions were determined on P (AM-AA)-AiTi.