

Synthesis and characterization of resins with ligands containing guanidine derivatives. Cu(II) sorption and coordination properties.

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Streszczenie

A new modification direction of acrylonitrile, vinyl acetate and divinylbenzene terpolymers (A, B) are presented. The aminolysis of nitrile groups of the terpolymers using ethylenediamine or hydroxylamine hydrochloride was a first stage of the modification. The resulting amine groups reacted with dicyandiamide (DCDA), cyanamide (CA) and sodium dicyanimide (SDC) in order to obtain the biguanidyl, guanidyl or nitrilguanidyl derivatives in the polymer side chain, respectively. The properties of all obtained resin such as water regain, nitrogen content, amine and carboxyl group concentration and sorption properties towards Cu(II) from nitric acid solutions were determined. The studies of IR spectra of all the resins were performed. Structures of ligand complexes with Cu(II) were studied using electron paramagnetic resonance spectroscopy.

Adres publiczny

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