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Interaction of aluminium oxide nanopowders with aqueous and organic mediums

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Abstract

The charge and electro-kinetic potential of aluminium oxide nanoparticles, obtained by low-temperature glycine-nitrate method, depending on pH of aqueous solution and concentration of a disperse phase in a system are determined by the method of macro-electrophoresis. The value of electro-kinetic potential of Al_2O_3 particles depending on conditions is in limits of from 87-197 mV. According to IR-spectroscopy of aluminium oxide nanoparticles in aqueous and organic disperse mediums their phase–medium adsorption interaction character is educed.