

Synthesis and study polyheteroorganylsiloxanes containing molybdenum in high oxidation states

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Ключевые слова: *polymolybdenum (V,VI) organylsiloxanes, hydrolytic polycondensation.*

Abstract

Polymolybdenum(V,VI) organylsiloxanes (where organyl is vinyl, phenyl, β -tolylethyl) have been obtained using different methods (ion exchange, hydrolytic condensation), in different conditions (in anhydrous solvents, at the phase boundary: water – solvent). It is shown that the exchange reaction of chlorine on silanol-ion at the atom of metal proceeds better than the chlorine substitution reaction of molybdate-ion atom of silicon in the anhydrous solvents. Polycondensation hydrolytic reaction of organylsiloxanes with molybdate-ion at the phase boundary water – solvent proceeds at a significant loss of molybdate ions in the form of sludge, which were not included in the siloxane chain, and with the production of water-soluble molybdenum organyl siloxane. It is shown that the methods of preparation and reaction conditions are significantly affected by the density and size of inter-chain distances in polymers.