

Morphology of ultradisperse and disperse silver particles stabilized by co-oligomer on the basis of acrylic acid and acrylamide

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Abstract

Method of electronic scanning microscopy of high-resolution has been used to investigate ultradisperse and disperse silver particles, synthesized in aqueous solutions of co-oligomers of acrylic acid and acrylamide. It has been established that after evaporation of solutions the disperse particles of silver are observed only in the cavities of polymer and are fastened to their surface by nano-sized particles. It seems to be possible by changing concentration of acrylamide in co-oligomer to regulate the content of ultradisperse and disperse particles formed in the process of photochemical reduction of silver cations in Ag₂O.