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CONTENT

Volume II	
Organic Physical Chemistry	
Material Science	55.
Physical Chemistry of Condensed Phases, Solid State and Fluids	583
Macromolecular Physical Chemistry	709 731
Environmental Protection, Forensic Sciences, Geophysical Chemistry,	761
Radiochemistry, Nuclear Chemistry	701
Phase Boundaries, Colloids, Liquid Crystals, Surface-Active Substances	857
Complex Compounds	879
General Physical Chemistry	907
Pharmaceutical Physical Chemistry	921
Education, History	991
Food Physical Chemistry	1005
Physico-Chemical Analysis	1039
INDEX	1057

GREEN SYNTHESIS OF L-METHIONINE CAPPED SILVER AND GOLD NANOPARTICLES

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ABSTRACT

In this work, we present a simple green method for Ag and Au nanoparticles (NPs) synthesis in an aqueous medium. Ag and Au NPs were synthesized by chemical reduction method, using amino acid L-Methionine as reducing as well as a stabilizing agent. The size of Ag and Au NPs was controlled by changing the pH values of the reaction mixture. They were characterized by UV-Vis spectroscopy, FTIR spectroscopy, and measurement of electrophoretic properties. The size of NPs was determined by atomic force microscopy (AFM) and dynamic light scattering (DLS) measurement.