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ABSTRACT

With the aid of amino acid, various Ag nanostructures were successfully synthesized via the reaction between silver nitrate and hydrazinehydrate at room temperature. The as-prepared products were characterized by X-ray diffraction and scanning electron microscopy. It was found that the morphology of the as-prepared Ag products depended on the sorts of amino acid and solvents. The uniform Ag nanosponges could be obtained in glycol with aid of glycine. Using rhodamine 6G (R6G) as probe, the surface-enhanced Raman scattering (SERS) performance was also investigated, which showed that the uniform Ag nanosponges exhibited an intensive and enhanced Raman scattering. Pazufloxacin mesilate (PM) were detected conveniently using this uniform nanosponges as SERS substrates. The present work might afford some guidance for the rationally controllable synthesis of other metal

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