

Abstract Submitted  
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**Magnetic fluorescent particles with polypeptide shell** SREELATHA S. BALAMURUGAN, PAUL S. RUSSO, Department of Chemistry, Louisiana State University, Baton Rouge, DR. PAUL S.RUSSO TEAM — Magnetic fluorescent particles with a hydrophobic polypeptide shell were synthesized and characterized. The first step was the preparation of an iron oxide magnetic core from ferric chloride and ferrous chloride in presence of ammonium hydroxide. A silica shell was grown on this central nougat by the Stöber method. In order to introduce fluorescence, a mixture of tetraethoxy silane, a complex of fluorescein isothiocyanate (FITC) with 3-aminopropyl triethoxy silane (APTES), ammonia, and ethanol were added. These particles were further functionalized to place amine groups on the surface. Polypeptide chains were grown from the amine initiators by ring opening polymerization of the N-carboxyanhydride of the glutamate. These particles were characterized by light scattering, transmission electron microscopy, x-ray photoelectron spectroscopy, infrared spectroscopy and fluorescence spectroscopy.

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