Abstract Submitted
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Synthesis of composite polymer nanoparticles .[1] EDWARD VAN KEUREN, MAKI NISHIDA, Georgetown University, Dept. of Physics — We have been developing composite nanoparticles using the reprecipitation method or miniemulsion polymerization. These methods enable the combination of multiple functional components, such as large metal or metal oxide clusters and molecular species such as fluorophores, into polymer nanoparticles. The incorporation of these into the polymer or monomer precursors requires a detailed understanding of the mutual solubility of the components. We present fluorescence correlation spectroscopy measurements of molecular solubility and results from dynamic light scattering, electron microscopy and Raman spectroscopy that reveal the morphology and composition of these particles.

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