

Preparation of Monodispersed Nanoparticles by Living Radical Emulsion Polymerization

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Monodisperse PS and PMMA nanoparticles were prepared via living radical emulsion polymerization. 4-diethylthiocarbonylsulfanylmethyl - benzoic acid (DTBA), sur-iniferter was first synthesized from 4-(bromomethyl)benzoic acid and N,N'-dithiodicarbamic sodium salt for the preparation of PS nanoparticles. Particle shape and sizes were analyzed using scanning electron microscope and dynamic light scattering, respectively. Particle sizes were monodispersely decreased from 100nm to 200nm with increasing sur-iniferter concentrations.