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**Synthesis of Functional Nanoparticles by Amphiphilic Star-like Block Copolymer as Template** XINCHANG PANG, ZHIQUN LIN, NANOFM TEAM — New strategies for materials fabrication are of fundamental importance in the advancement of science and technology. Organometallic and other organic solution phase synthetic routes have enabled the synthesis of functional inorganic nanoparticles (NPs). However, much research needs to be done to find a simple and unified approach to synthesize nanoparticles with different chemistry and properties. Here we report a novel approach to produce a variety of nanoparticles with different chemistry, properties and controllable diameters, including metallic NPs, ferroelectric NPs, superparamagnetic ion oxide nanoparticle (SPION), semiconducting NPs. These NPs capped with polymer as surface ligand are synthesized using a series of amphiphilic star-like diblock copolymer (forming single component NPs) and triblock copolymer (forming core/shell NPs) as templates.

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