

Preparation of ellipsoidal silica particles in W/O emulsion

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The ellipsoidal silica particles were fabricated in W/O emulsion. W/O emulsion consists of water and n-octanol. TEOS was used as silica sources. Hydroxypropyl cellulose(HPC) and oil-soluble surfactant(AOT or Span80) was added to the oil phase as stabilizers. Pluronic p123(triblock copolymer) was added to the water phase and played an important role on making ellipsoidal silica morphology. Also, surface of silica particles synthesized in the presence of AOT is smoother than Span80. Silica particles were observed by Scanning Electron Microscope (SEM).