

Encapsulation of Silica Aerogel with Silica shell through Interfacial Hydrolysis and Polycondensation in Miniemulsion

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Encapsulation of Silica aerogel with silica shell was performed by interfacial hydrolysis and polycondensation of tetraethyl orthosilicate in miniemulsion. The influences of the amount of the mass ratio of Silica aerogel and tetraethyl orthosilicate on the encapsulation performance were systematically investigated. The chemical structure and morphology were characterized by Fourier transform infrared spectroscopy and scanning electron microscopy. The results showed that silica aerogel successfully encapsulate with silica shell.