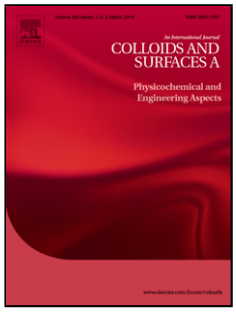

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Controllable silica morphology transition from tremella-like spheres to brush-like fibers induced by *β*-cyclodextrin

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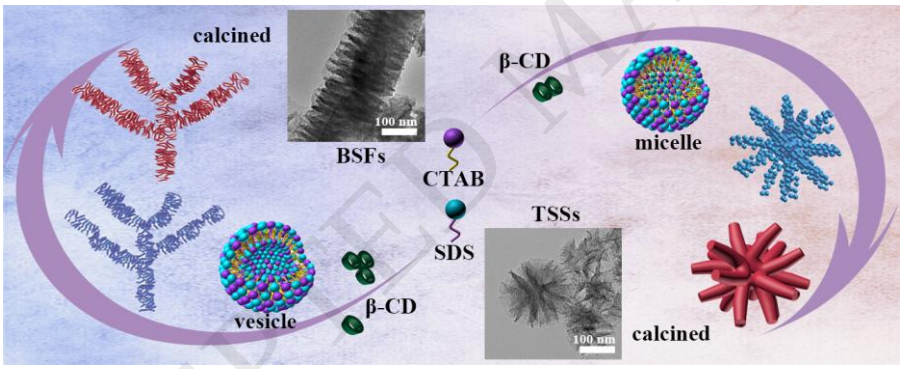
Graphical abstract



Abstract

Tremella-like silica spheres (TSSs) and brush-like silica fibers (BSFs) with well-defined structures were synthesized using cetyltrimethylammonium bromide and sodium dodecyl sulfate aggregate as structure-directing agent and *β*-cyclodextrin (*β*-CD) as inducing agent. By controlling the amount of *β*-CD, the morphology of mesoporous silica was changed from TSSs to BSFs and then back to TSSs. The materials were characterized by using several techniques. The extraordinary