

Direct Synthesis of Controlled Size Nanospheres Inside Nanocavities of Self-Organized Photo-Polymerizing Soft-Oxometalate [PW₁₂O₄₀]_n (n=1100-7500)

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Unusual self-assembly of [PW₁₂O₄₀]_n (n=1100-7500) soft-oxometalate (SOM)¹ with controlled size and a hollow nanocavity is exploited for photo-chemical synthesis of polymeric nanospheres within the SOM's nanocavity.² The self-assembly and stabilization of this soft-oxometalate vesicle has been shown to be by counter-ion condensation. The activity of SOM as a recoverable ball-shell kit in this photo-polymerizing pathway is also shown.³ Direct evidences show that the SOM behaves as a model heterogeneous catalytic system.

References:

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