

### Morphology control of mesoporous alumina

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Micelle-templated synthesis of mesoporous alumina results in lamellar, hexagonal, wormhole, and fibrous type of morphology. Desired morphology can be achieved by selecting Al-precursor, surfactant, amount of water, reaction medium, and reaction conditions. Stoichiometric amount of water in organic solvent gives preferentially wormhole structure, increased amount of water gives fibrous materials, but synthesis in aqueous medium using homogeneous hydrolysis gives lamellar to hexagonal morphologies.