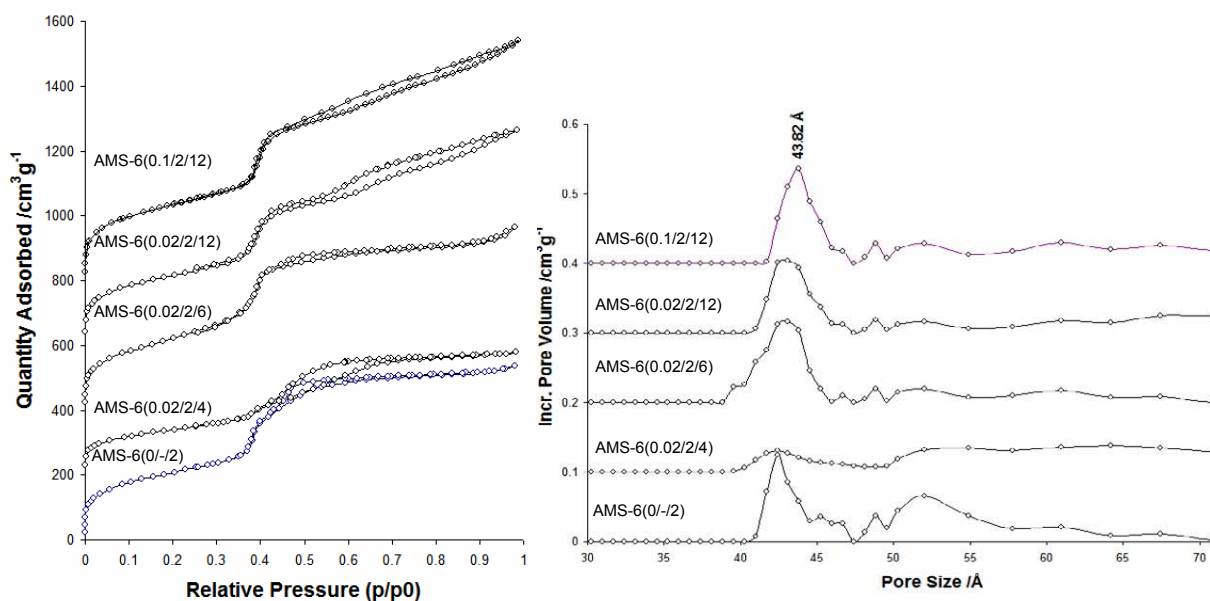


## On the use of polymeric dispersant P123 in the synthesis of bicontinuous cubic mesoporous AMS-6

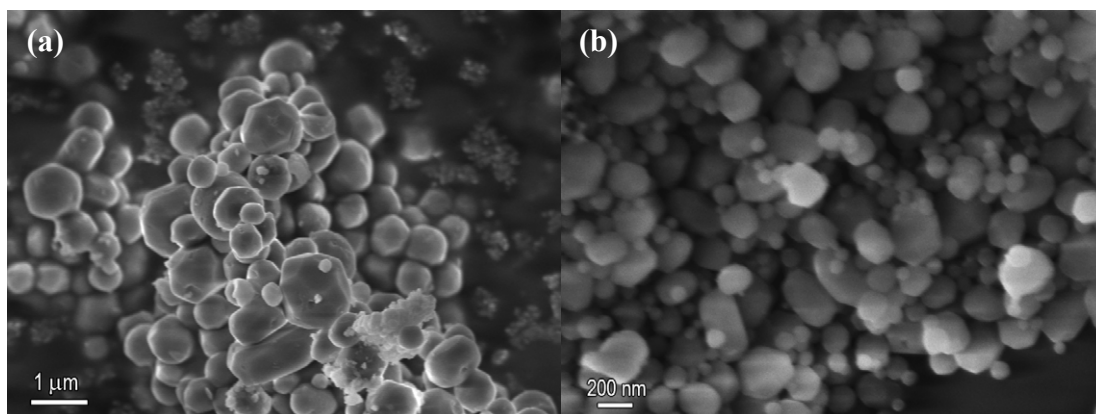
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*Electronic Supplementary Information*

- (1) Nitrogen adsorption/desorption isotherms and PSD curves of samples AMS-6(0/-/2), AMS-6(0.02/2/4), AMS-6(0.02/2/6), AMS-6(0.02/2/12) and AMS-6(0.1/2/12).



- (2) Scanning electron micrographs of AMS-6 samples (a) AMS-6(0.02/2/6), where the polymeric dispersant has been added two minutes after and (b) AMS-6(0.02/-/2/6), 2 minutes before the co-structure directing agent APMS. Particle sizes are considerably smaller (250nm) when the P123 dispersant was added prior to APMS, compared to samples of AMS-6 (650nm) with later additions of APMS.



Computer simulations, where slices parallel with the (211) plane have been cut. Dark areas correspond to pore area and the wall occupancy is the ratio between the silica wall and the entire surface. “Cutting” slices along [211] orientation results in a high value of the wall occupancy, which in analogy to inorganic metallic systems can be associated with the low surface force required to delaminate two layers with closely packed spheres and hence facilitates and facet formation parallel to this plane. The gap between two dark areas, *i.e.* the silica wall, exactly corresponds to the distance between two planes  $d_{211}$ .

