Supporting Information

Highly porous α-alumina powders prepared with the self-assembly of an asymmetric PS-*b*-PEO diblock copolymer

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Fig. S1 TEM images of aerosol-assisted alumina powders obtained with the self-assembly of PS₃₅₀₀₀-*b*-PEO₁₇₀₀₀ followed by calcination at 400 °C, 1000 °C and 1300 °C.



Fig. S2 (a, c, e) SEM images and (b, d, f) XRD patterns of aerosol-assisted Al₂O₃ powders obtained using Pluronic P123 followed by calcination at (a, b) 1000 °C for 3 hr, (c, d) 1000 °C for 9 hr and (e, f) 1300 °C for 3 hr.



Fig. S3 TEM images of aerosol-assisted alumina powders obtained with the self-assembly of Pluronic P123 followed by calcination at 400 °C, 1000 °C and 1300 °C.



Fig. S4 Variation in surface density with condensation, crystallization and transformation in frameworks starting from sol-gel derivative amorphous metal oxide species by considering the surface curvature of various surfactant-assisted pores.