Facile fabrication of urchin-like hollow boehmite and alumina microspheres with hierarchical structure via Triton X-100 assisted hydrothermal synthesis

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Supporting Information

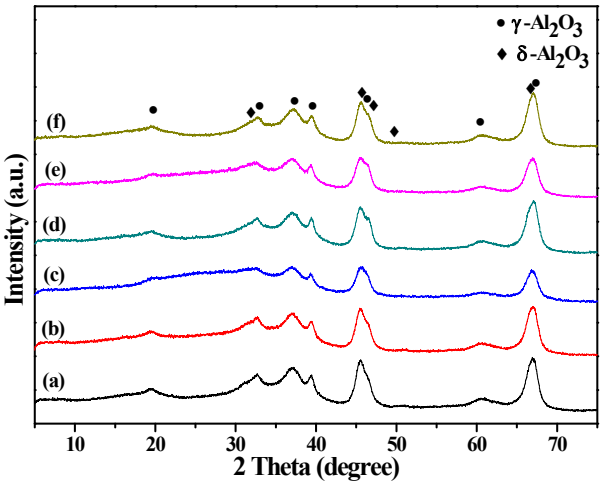

Figure S1. XRD patterns of alumina obtained by calcination at 800 ^{o}C for 6 h of corresponding γ-AlOOH synthesized by varying C_{TX}: (a) 0.008, (b) 0.03, (c) 0.065, (d) 0.1 and (e) 0.13 M.

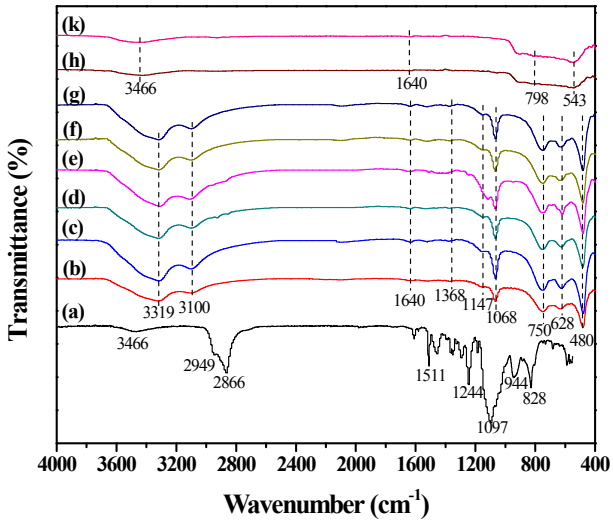

Figure S2. FT-IR spectra of pure Trtiton X-100(a), as-synthesized γ-AlOOH samples (b-g) synthesized at C_{TX}=0, 0.008, 0.03, 0.065, 0.10, 0.13 M; (h, k) Al_2O_3 synthesized at C_{TX}=0, 0.065 M.

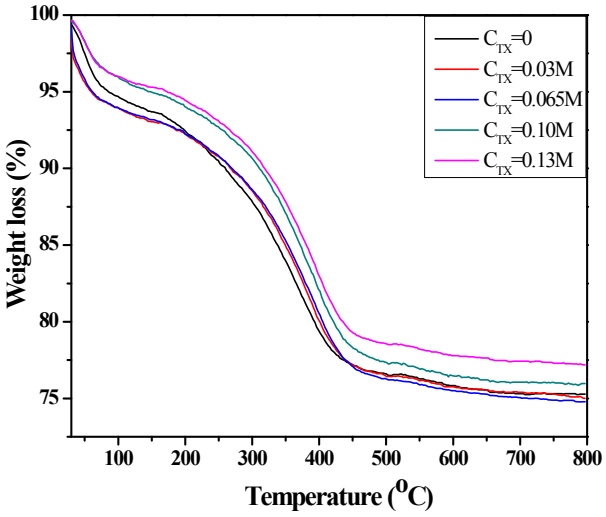

Figure S3. TG curves of γ-AlOOH synthesized by varying C_{TX}.

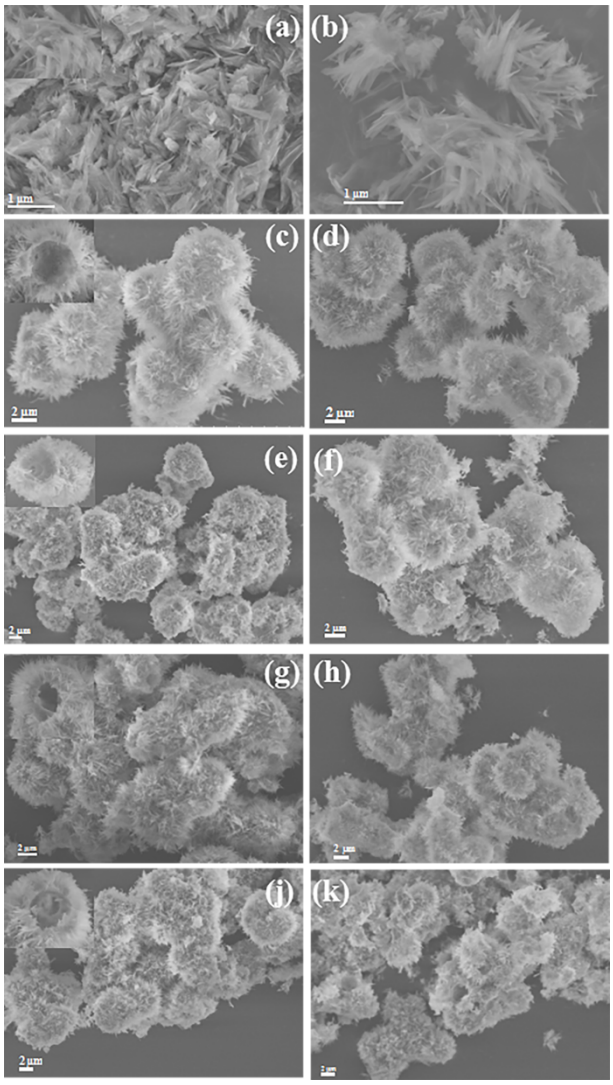

Figure S4. SEM images of γ-AlOOH and corresponding alumina synthesized by varying C_{TX}: (a, b) 0, (c, d) 0.008, (e, f) 0.03, (g, h) 0.1 and (j, k) 0.13 M.

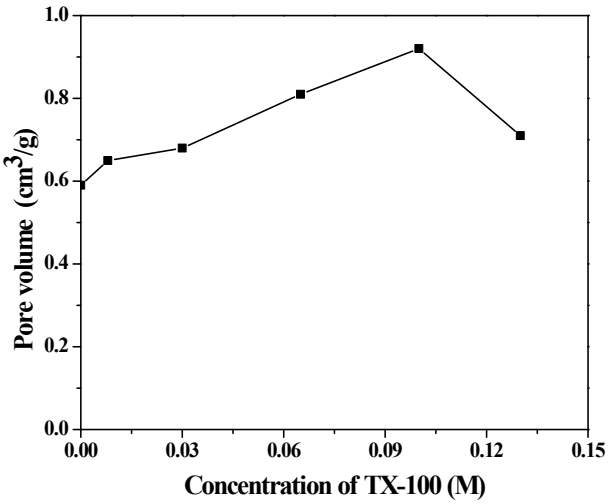

Figure S5. Pore volumes of alumina change with concentrations of TX-100.