Supplementary Material (ESI) for Journal of Materials Chemistry

Supplementary Information

Crystalline mesoporous silicates from layered precursors

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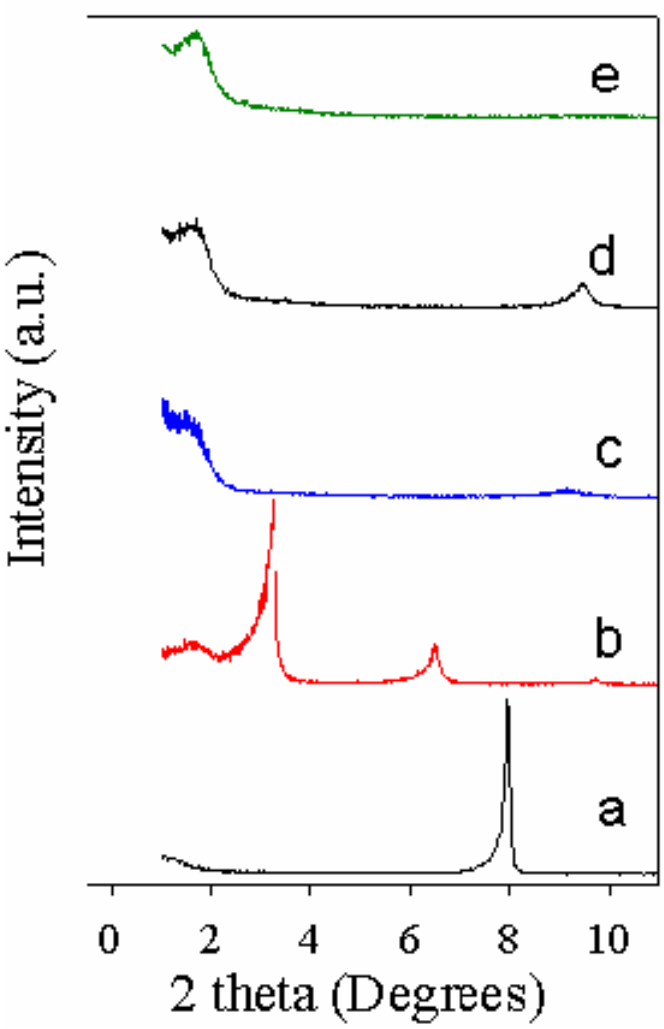

Figure S1. Low angle XRD pattern of (a) layered silicate NA-RUB-18, (b) as-synthesised CTA-RUB-18 mesophase (48 h synthesis), and after surfactant removal via (c) oxidation (d) extraction and (e) calcination.

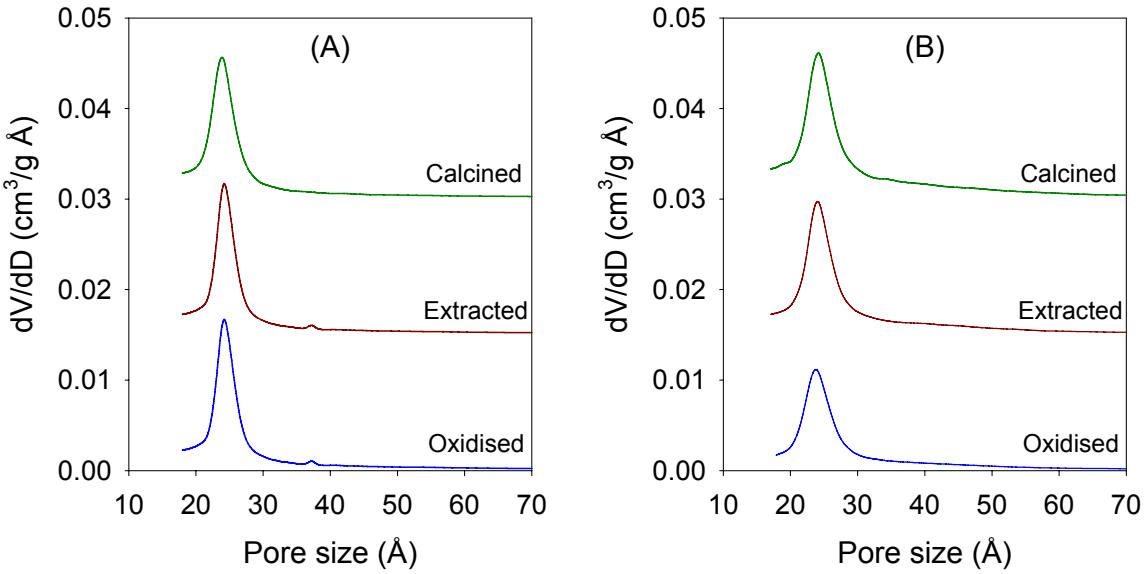

Figure S2. Pore size distribution curves of mesoporous silicas after surfactant removal via oxidation, extraction, and calcination; (A) 48 h synthesis, (B) 120 h synthesis.

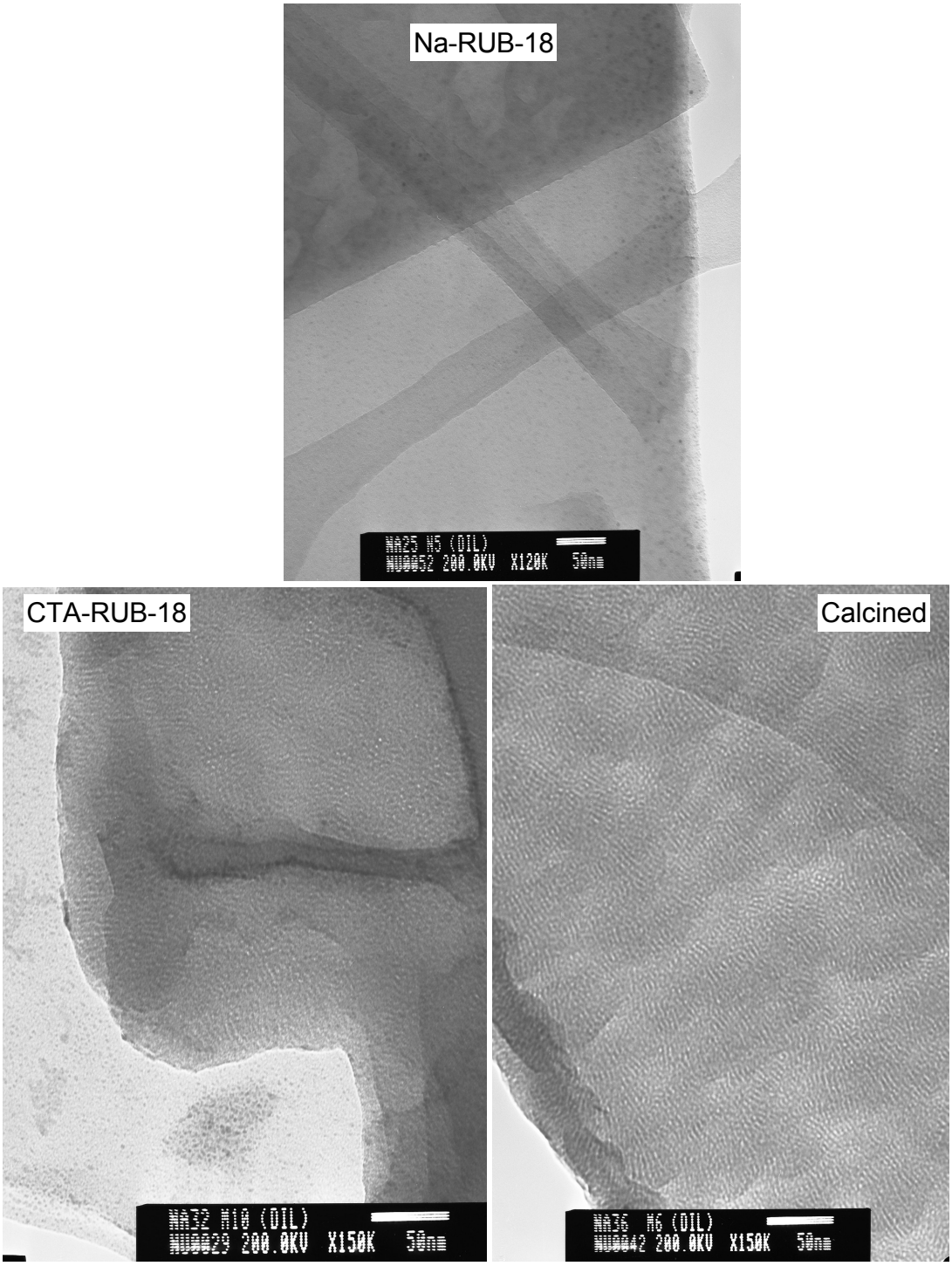

Figure S3. TEM images of layered silicate NA-RUB-18 (which shows no ordering at the applied magnification), CTA-RUB-18 mesophase (48 h synthesis), and after calcination.

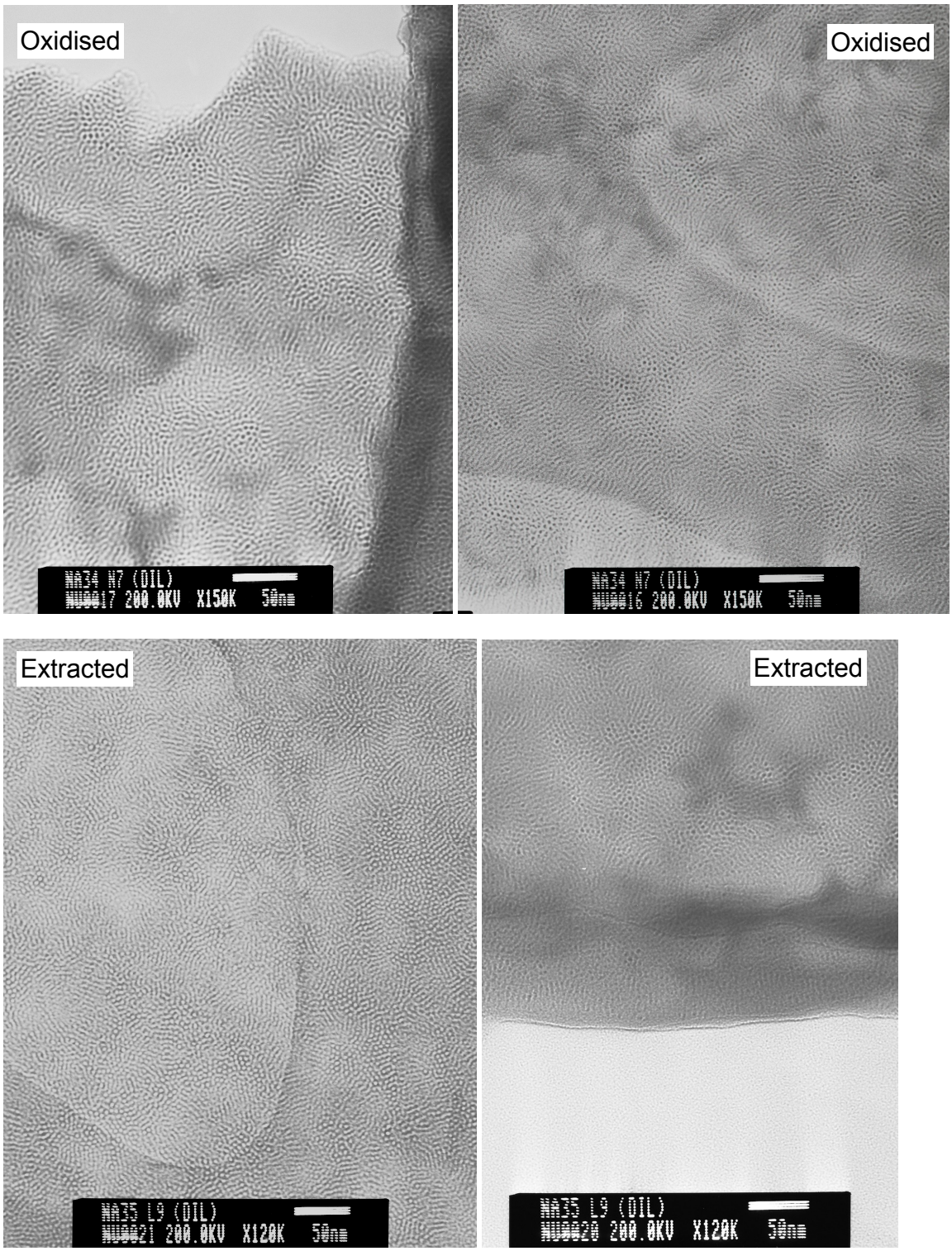

Figure S4. TEM images of mesoporous silica obtained from CTA-RUB-18 mesophase (48 h synthesis) after surfactant removal via oxidation and extraction.

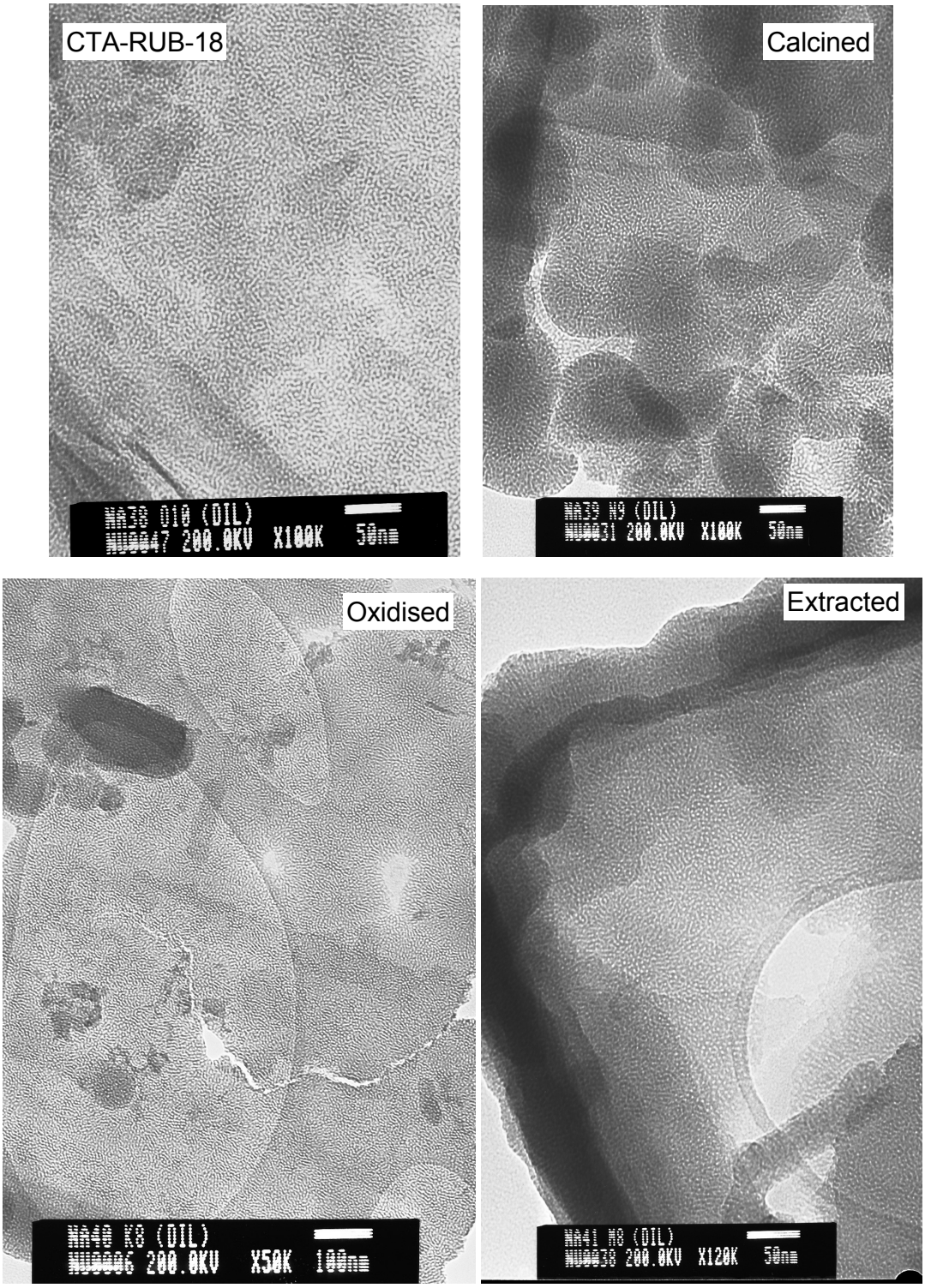

Figure S5. TEM images of CTA-RUB-18 mesophase (120 h synthesis), and after surfactant removal via calcination, oxidation and extraction.

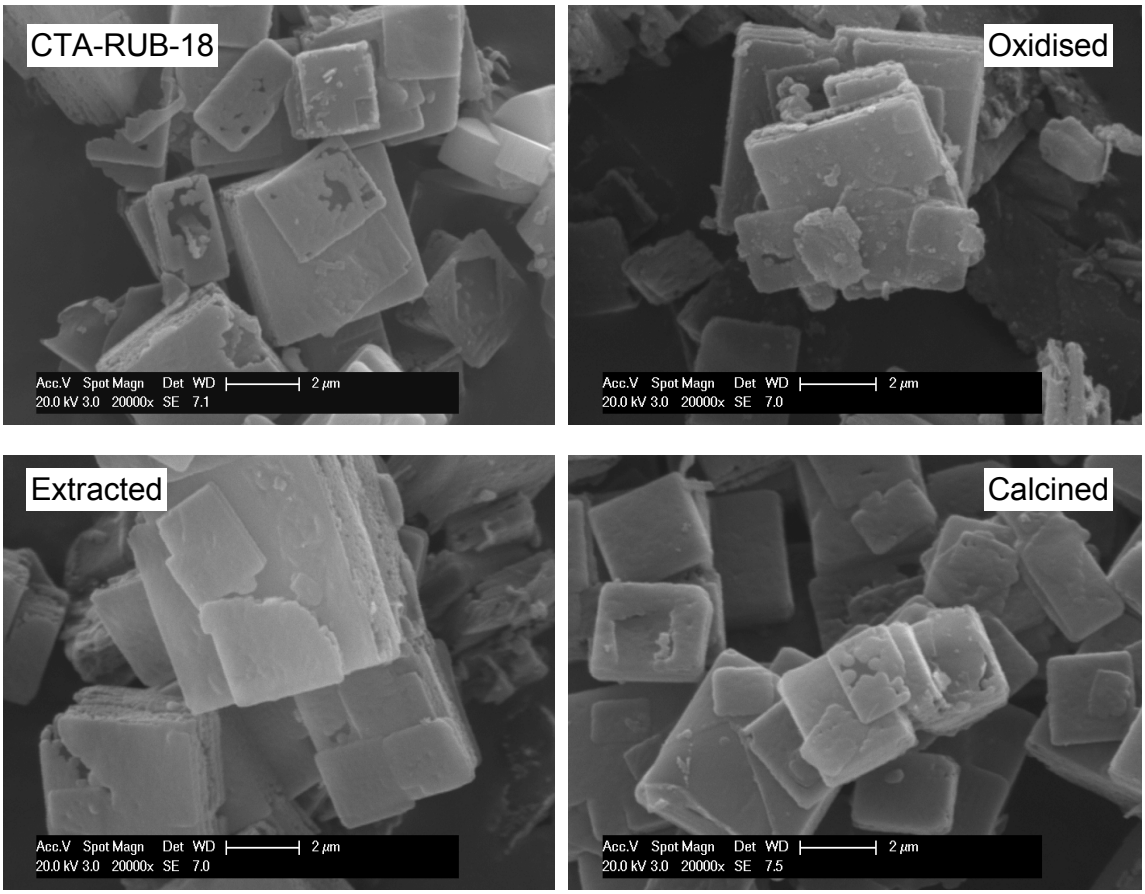

Figure S6. Representative SEM images of CTA-RUB-18 mesophase (120 h synthesis), and after surfactant removal via oxidation, extraction and calcination.

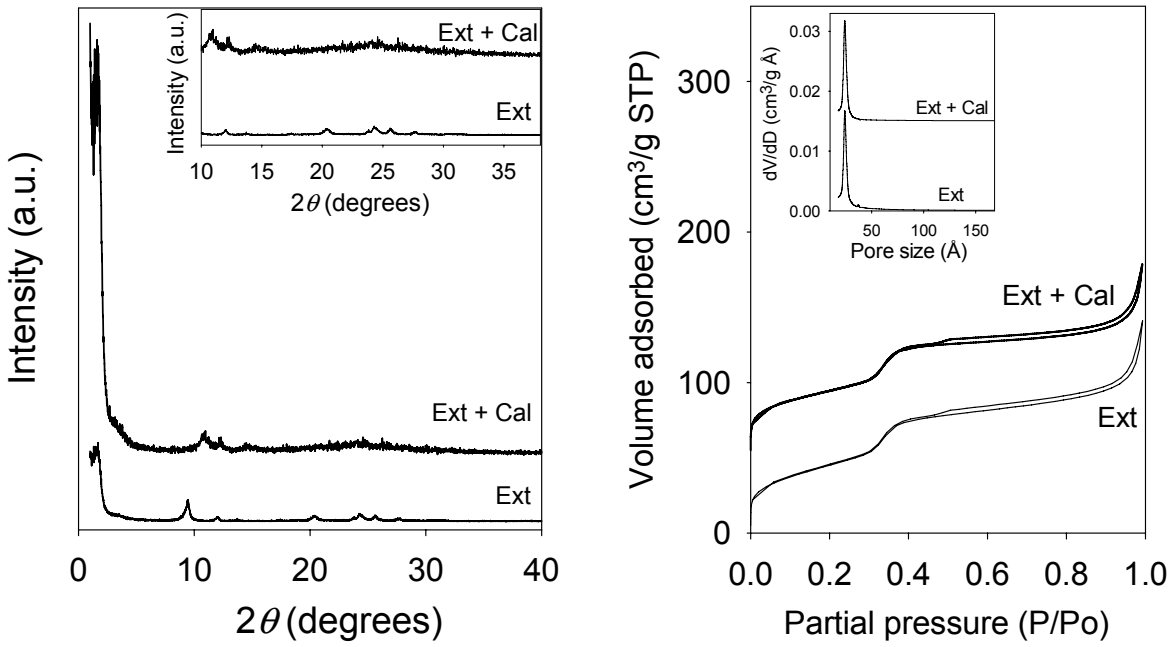

Figure S7. Powder XRD patterns (left) and nitrogen sorption isotherms (right) of *extracted* mesoporous silica (48 h synthesis), before (Ext) and after (Ext + Cal) calcination. The insets show; high angle region of XRD pattern (left), and pore size distribution curves (right).