

*Supporting Information*

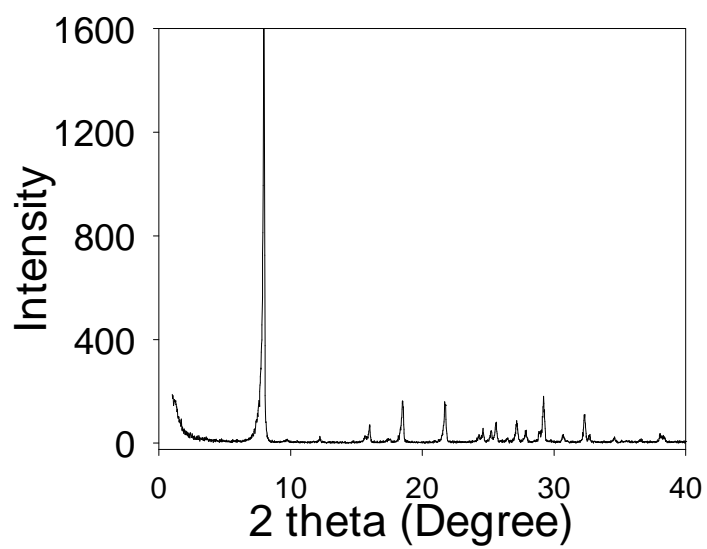
**Strongly acidic mesoporous aluminosilicates prepared via  
hydrothermal restructuring of a crystalline layered silicate**

Nurul Alam and Robert Mokaya

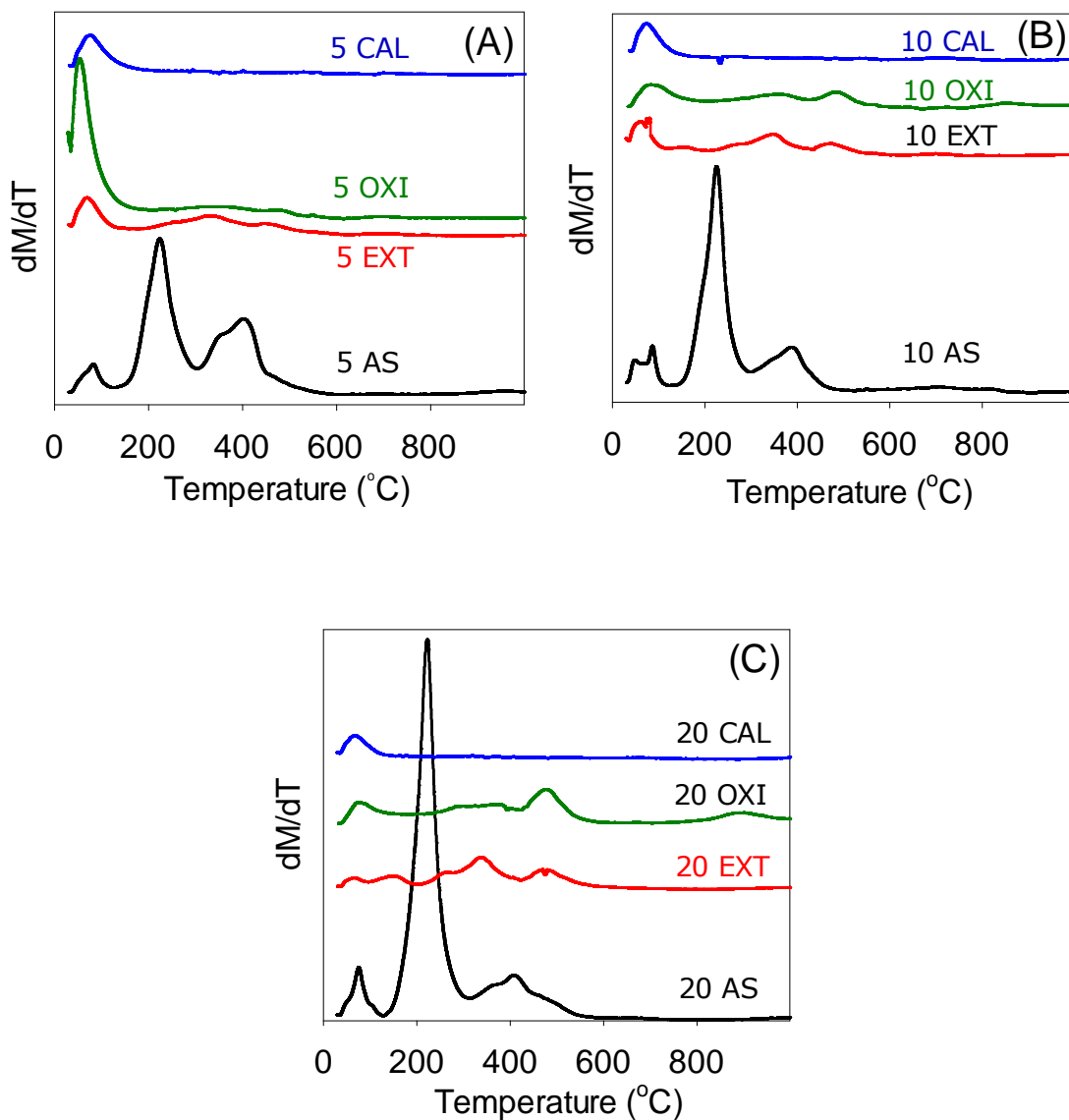
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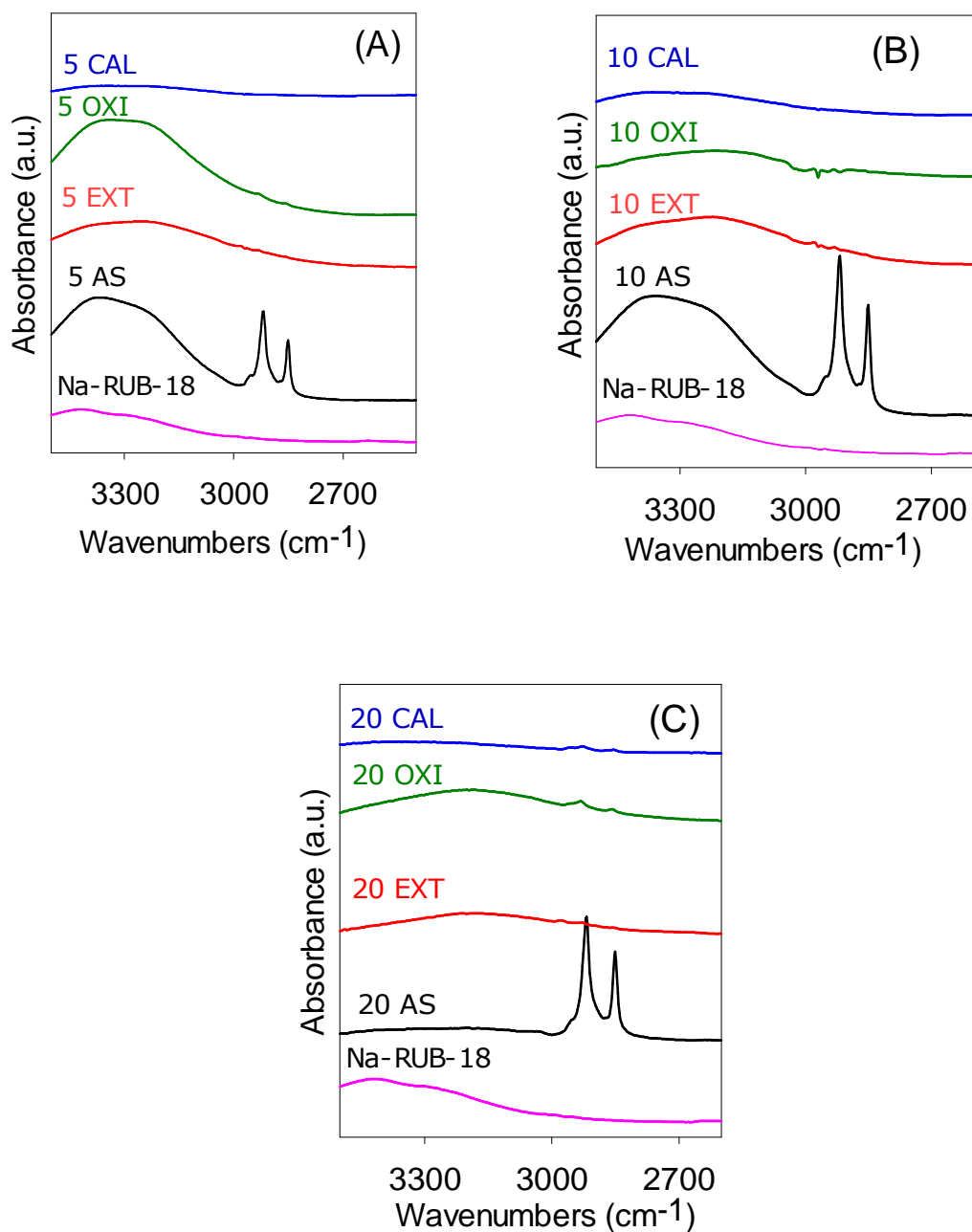
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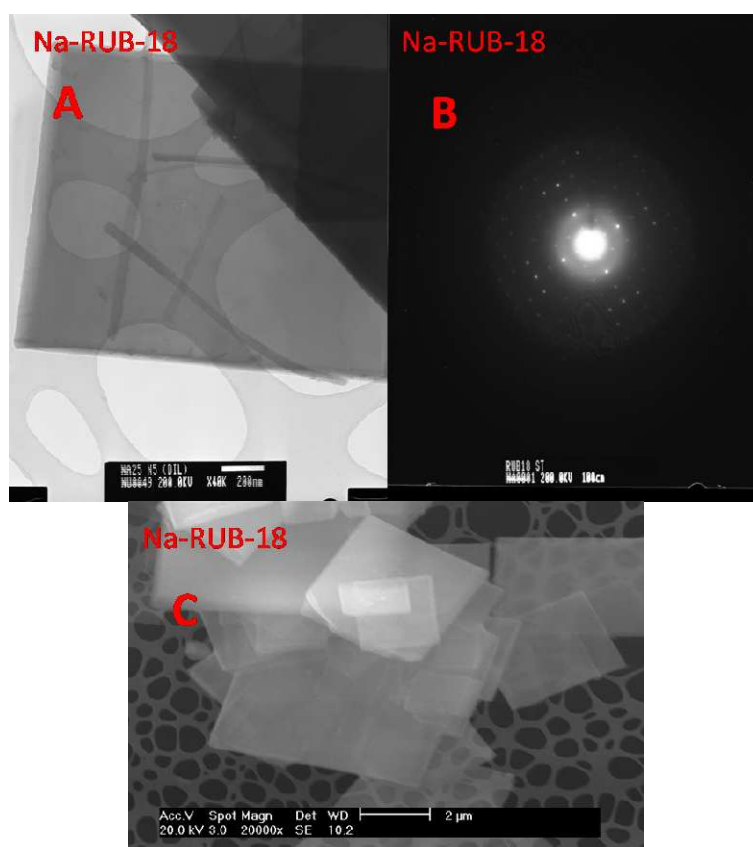
**Supporting Figure S1.** Powder XRD pattern of layered silicate Na-RUB-18.



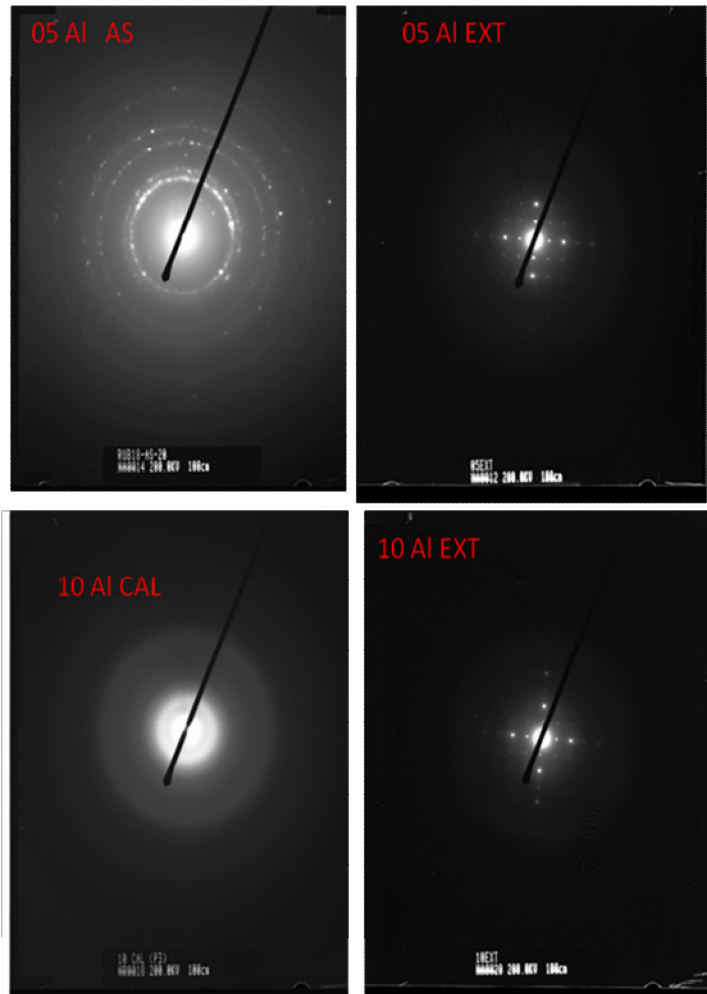
**Supporting Figure S2.** Differential thermogravimetric (DTG) profiles of aluminosilicate samples prepared at Si/Al ratio of; (A) 5; (B) 10 or (C) 20, before (AS) and after surfactant removal via extraction (EXT), oxidation (OXI) or calcination (CAL).



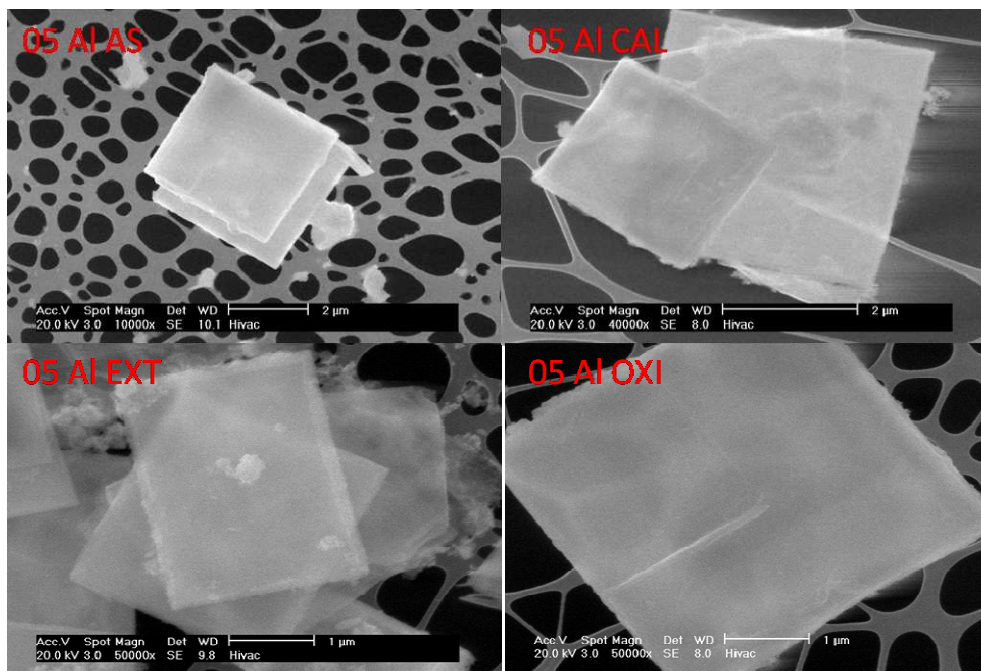
**Supporting Figure S3.** Infrared spectra of Na-RUB-18 and aluminosilicate samples prepared at Si/Al ratio of; (A) 5; (B) 10; (C) 20, before (AS) and after surfactant removal via extraction (EXT), oxidation (OXI) or calcination (CAL).



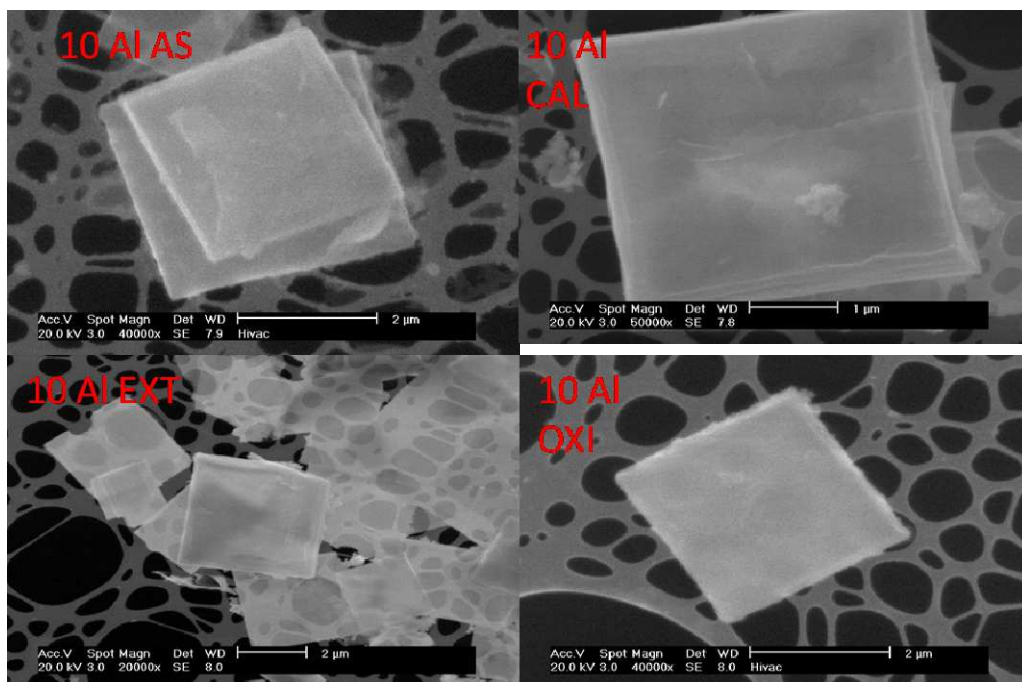
**Supporting Figure S4.** TEM image (A), selected area electron diffraction (SAED) pattern (B) and (C) SEM image of Na-RUB-18.



**Supporting Figure S5.** Selected area electron diffraction (SAED) patterns of aluminosilicate samples prepared at Si/Al ratio of 5 (top) and 10 (bottom), before (AS) and after surfactant removal via calcination (CAL) or extraction (EXT).

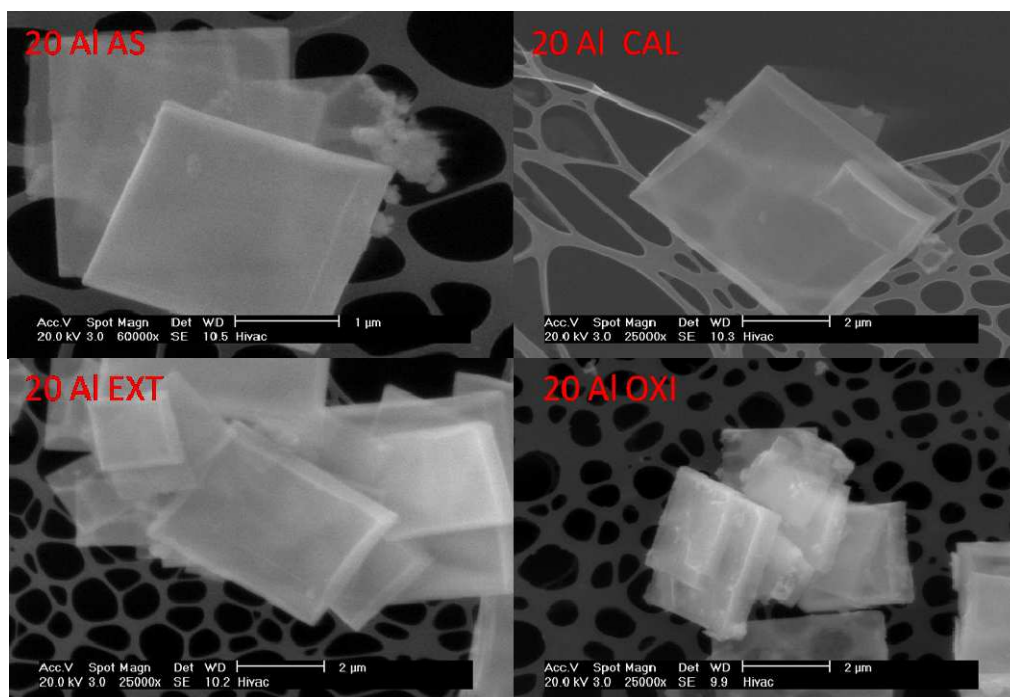


**Supporting Figure S6.** SEM images of aluminosilicate sample prepared at Si/Al ratio of 5, before (AS) and after surfactant removal via calcination (CAL), oxidation (OXI) or extraction (EXT).

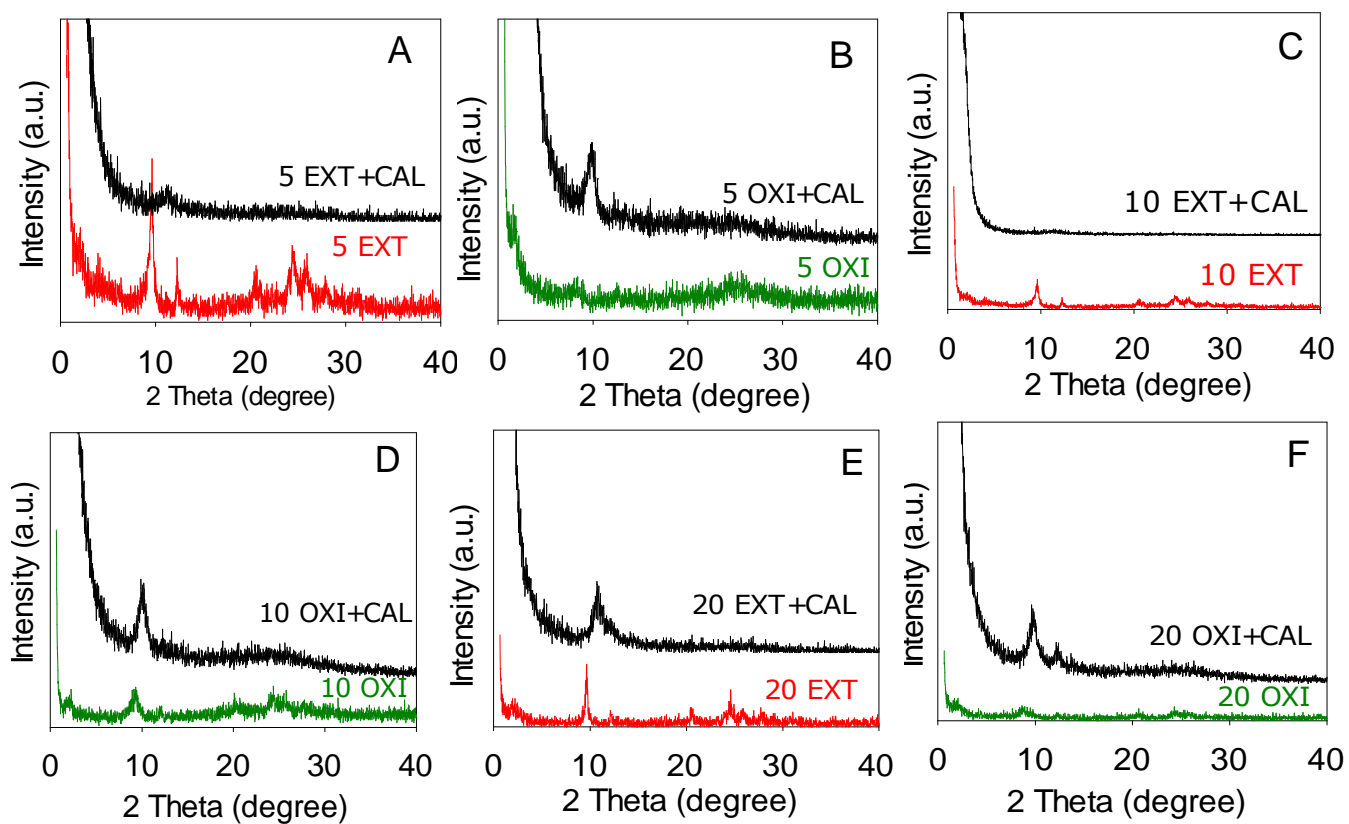


**Supporting Figure S7.** SEM images of aluminosilicate sample prepared at Si/Al ratio of 10, before (AS) and after surfactant removal via calcination (CAL), oxidation (OXI) or extraction (EXT).

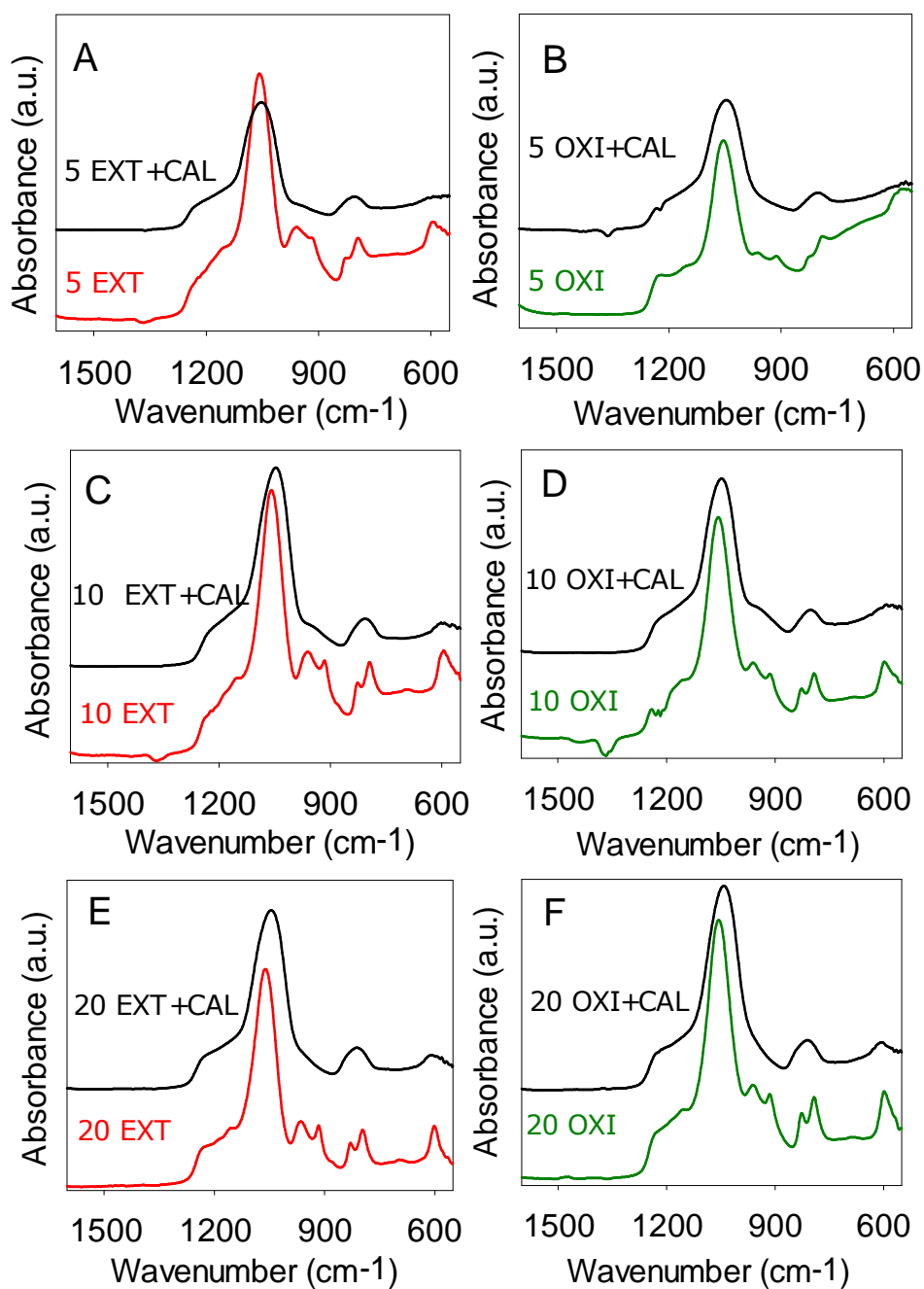




**Supporting Figure S8.** SEM images of aluminosilicate sample prepared at Si/Al ratio of 20, before (AS) and after surfactant removal via calcination (CAL), oxidation (OXI) or extraction (EXT).



**Supporting Figure S9.** Powder XRD patterns of extracted (A,C,E) or oxidized (B,D,F) aluminosilicate samples before and after calcination.



**Supporting Figure S10.** IR spectra of extracted (left) or oxidized (right) aluminosilicate samples before and after calcination.