Supporting Information

for

Grafting Going Green: Towards a Sustainable Preparation of Organic-Inorganic Hybrid Materials

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Concentration graphs of grafting reactions

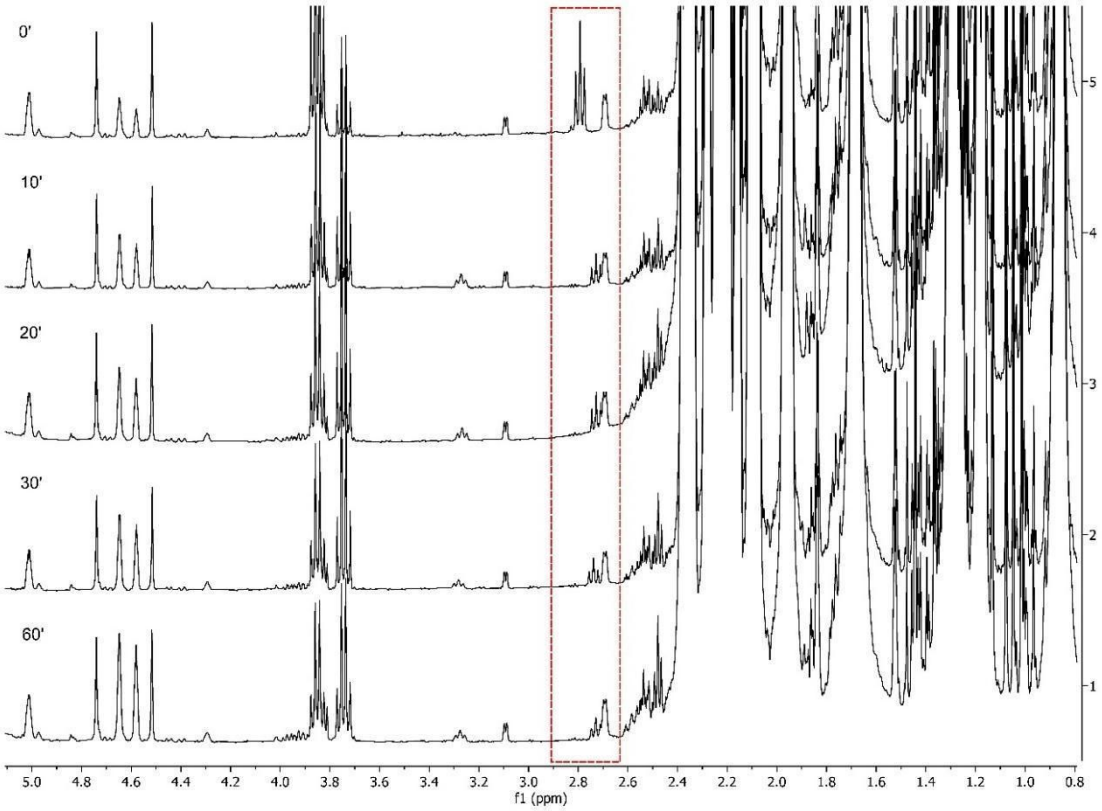

Figure S1. Concentration graph of grafting reaction in α-pinene.

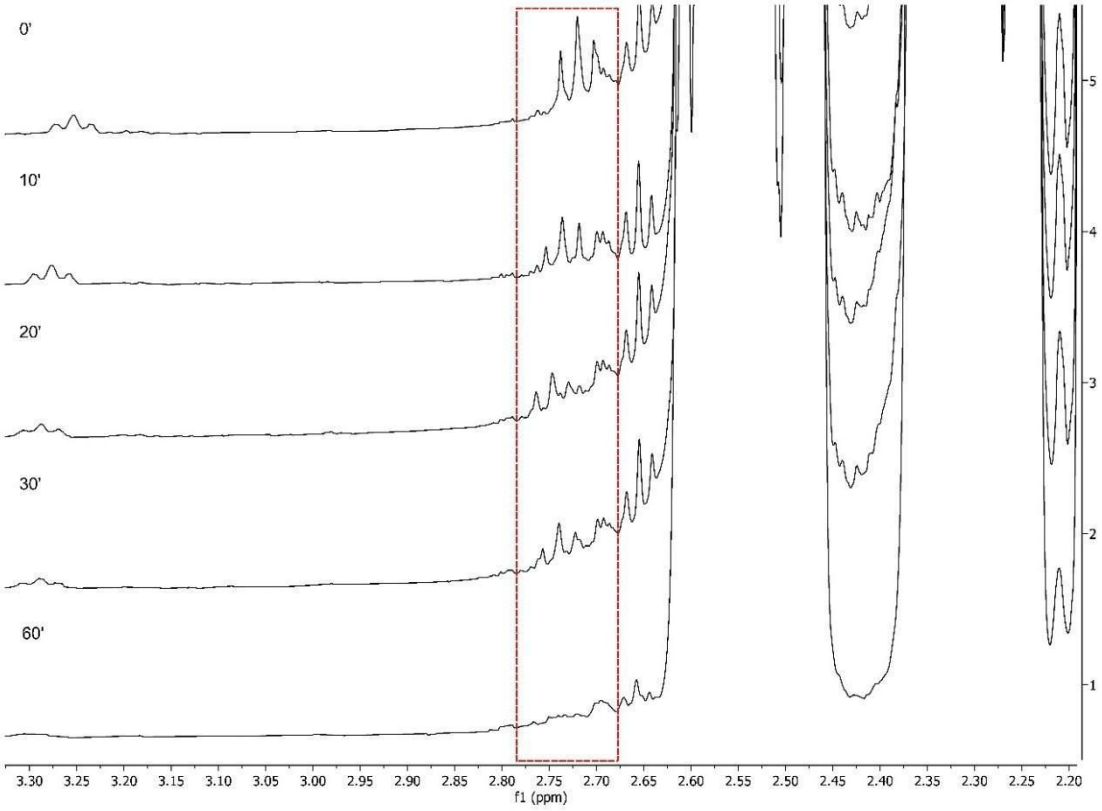

Figure S2. Concentration graph of grafting reaction in β-pinene.

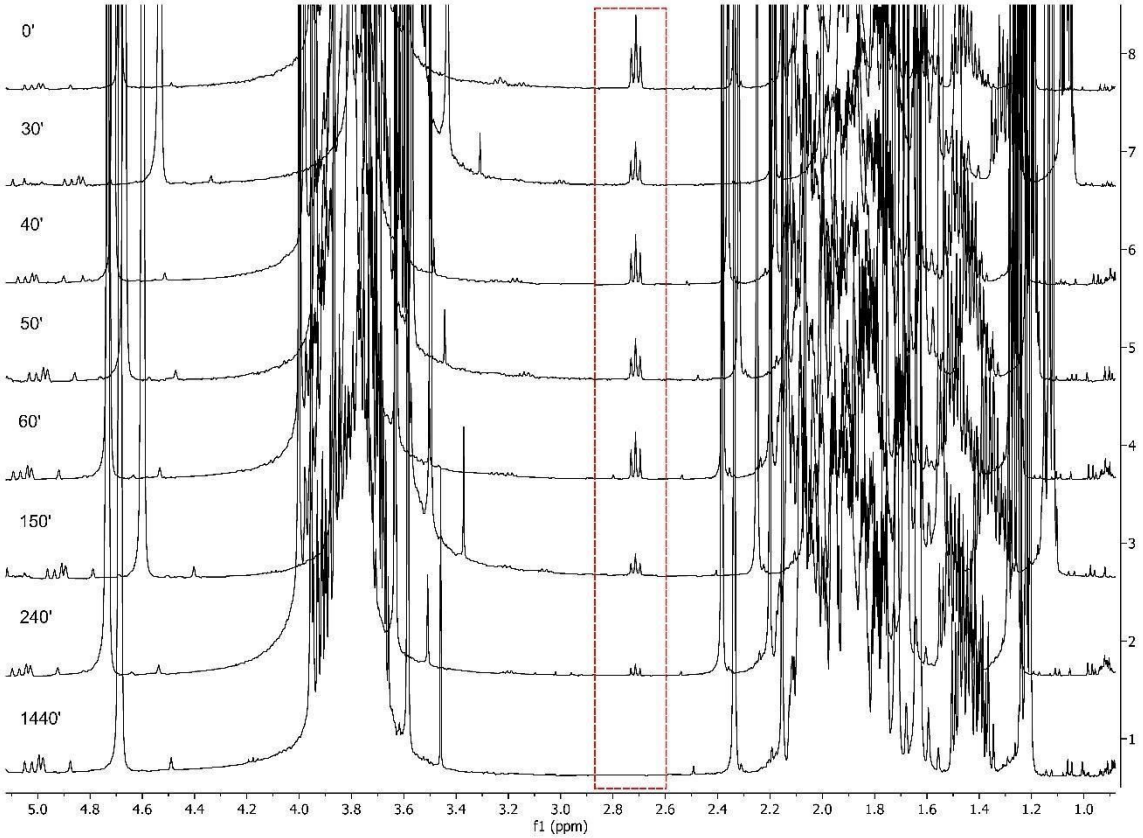

Figure S3. Concentration graph of grafting reaction in dimethyl carbonate.

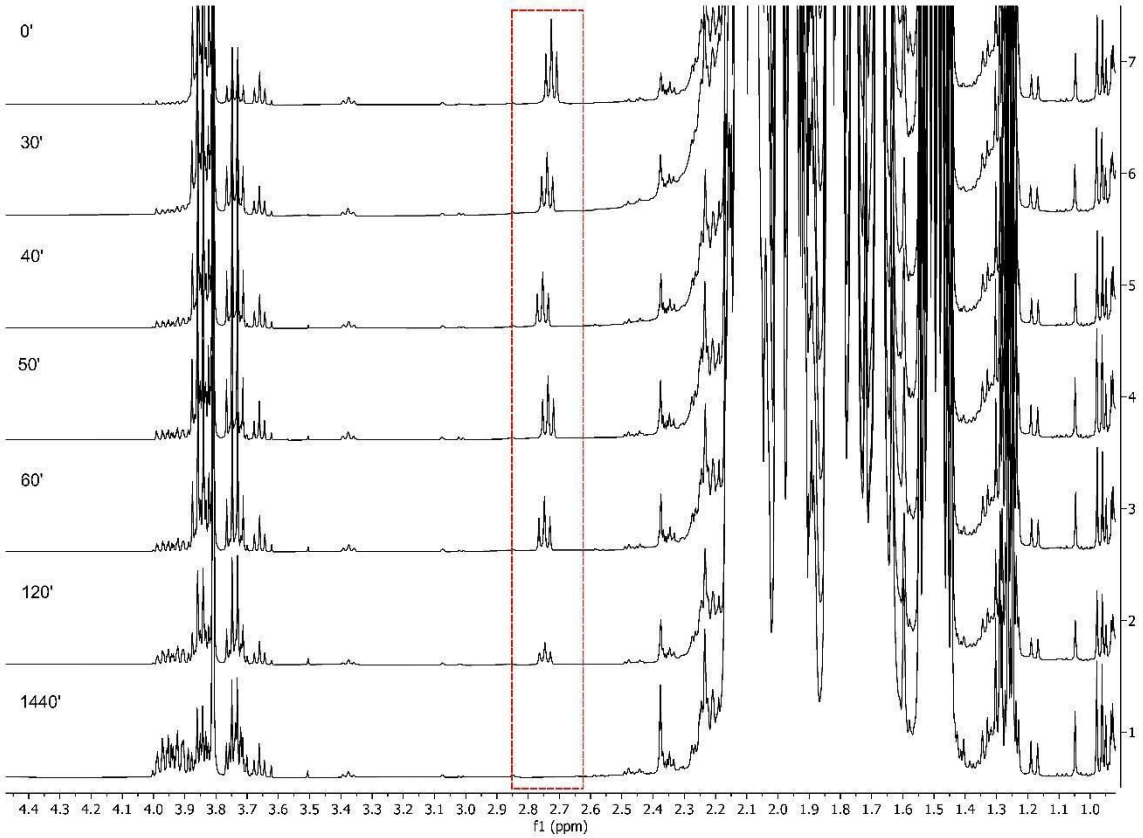

Figure S4. Concentration graph of grafting reaction in (+)-limonene.

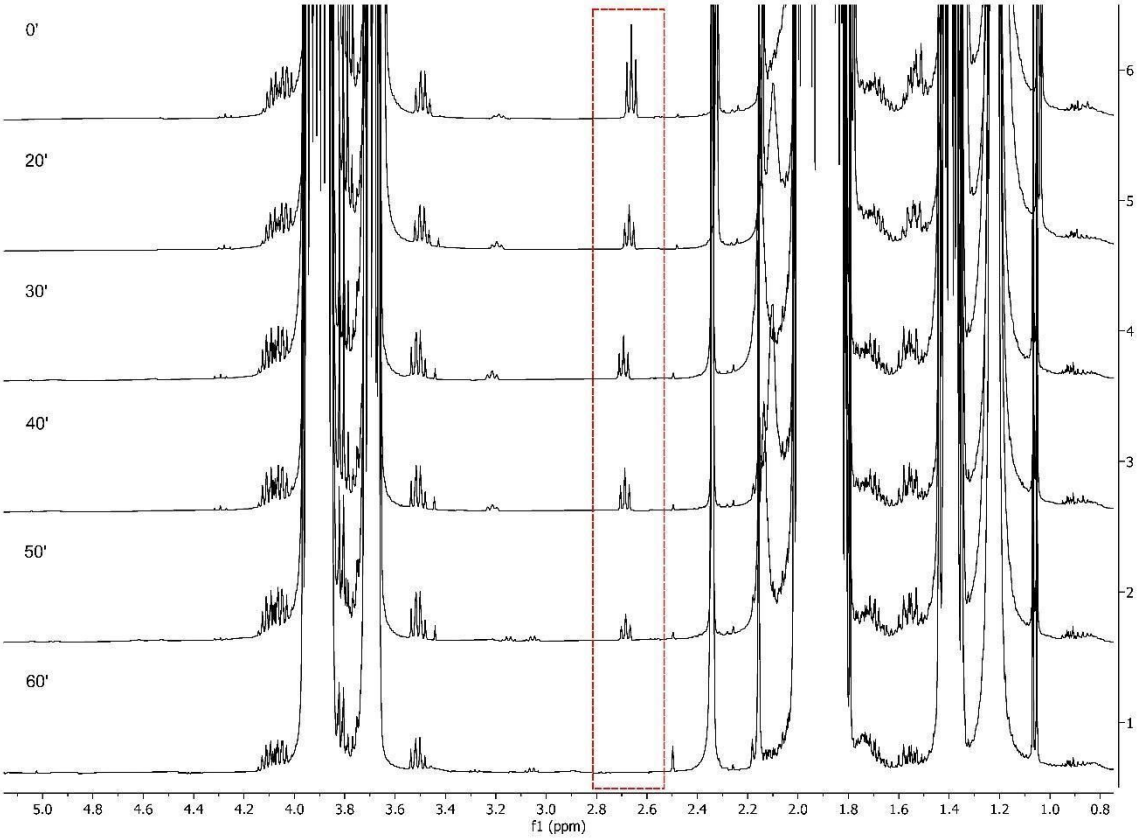

Figure S5. Concentration graph of grafting reaction in 2-methyltetrahydrofuran.

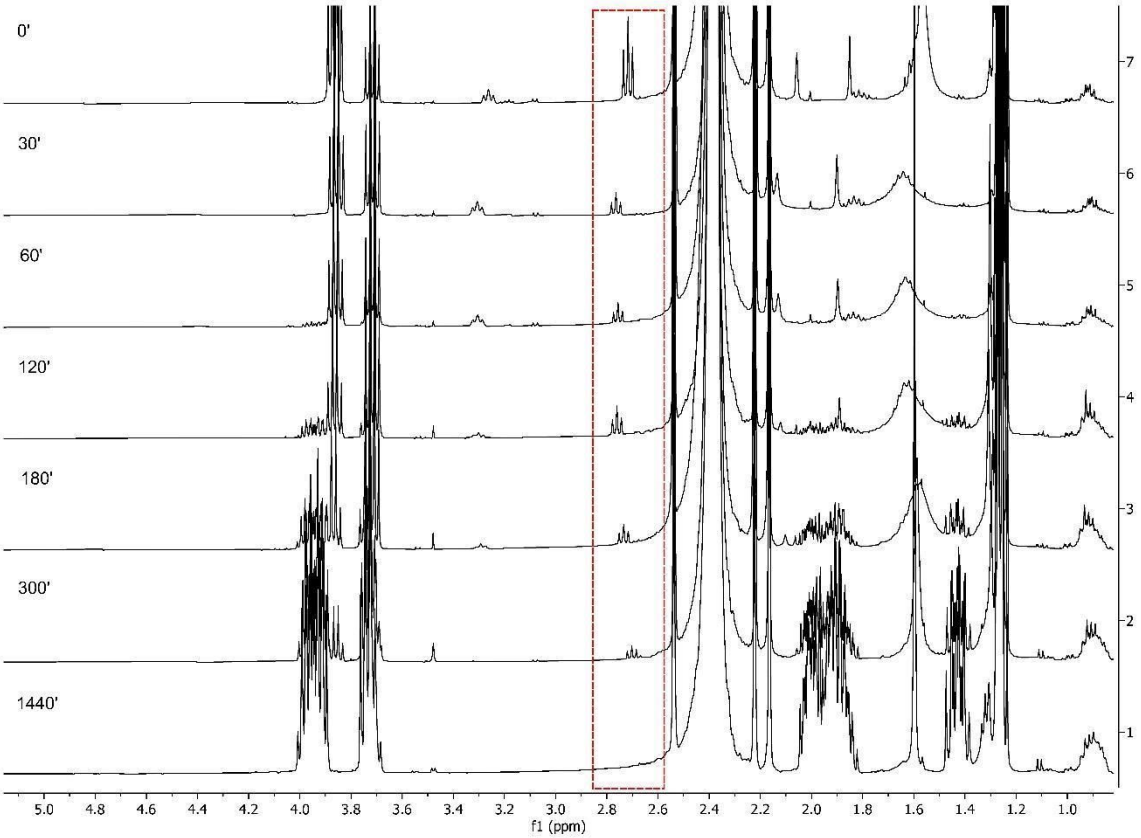

Figure S6. Concentration graph of grafting reaction in toluene.

$$C_{APTES} = \frac{I_{APTS}}{I_{pyrazine}} \cdot \frac{N_{pyrazine}}{N_{APTS}} \cdot 0.05\, M_{pyrazine}$$

Equation S1. *C* = concentration, *I* = integral and *N* = number of nuclei.

Kinetics of grafting reactions

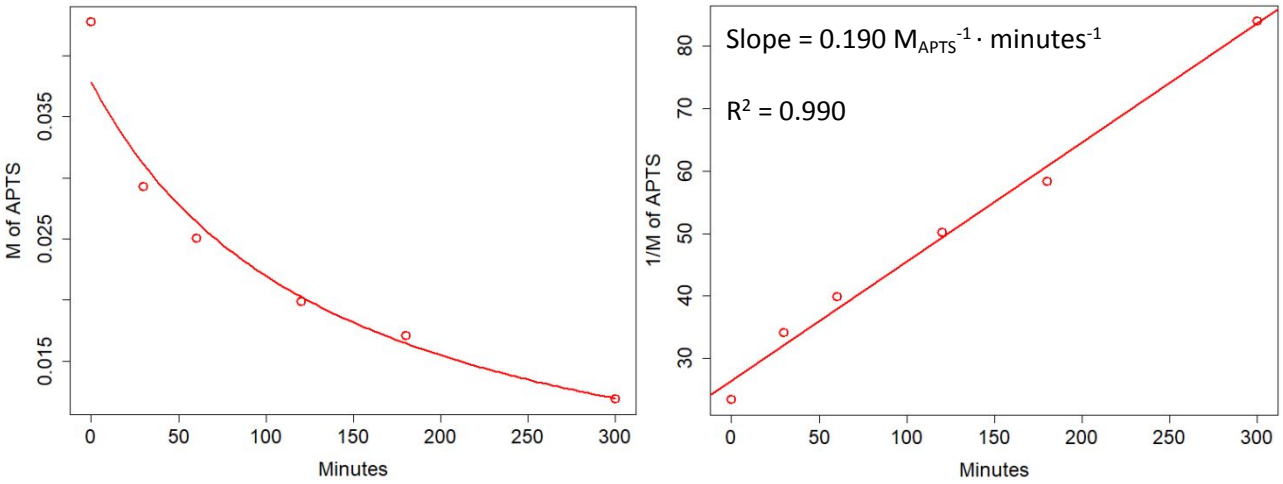

Figure S7. M of APTS consumed over time by grafting reaction in toluene.

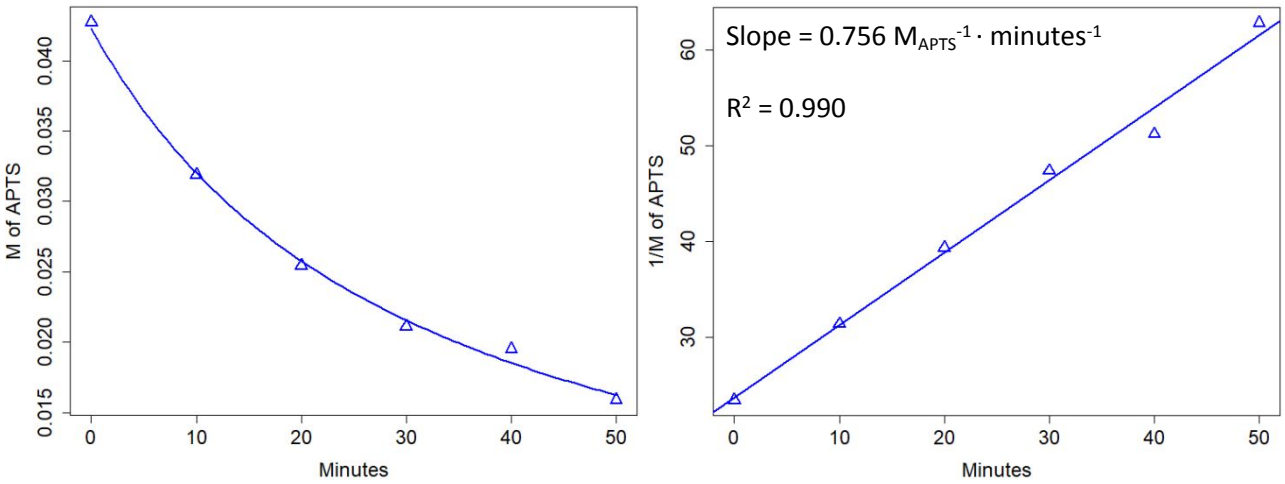

Figure S8. M of APTS consumed over time by grafting reaction in 2-methyltetrahydrofuran.

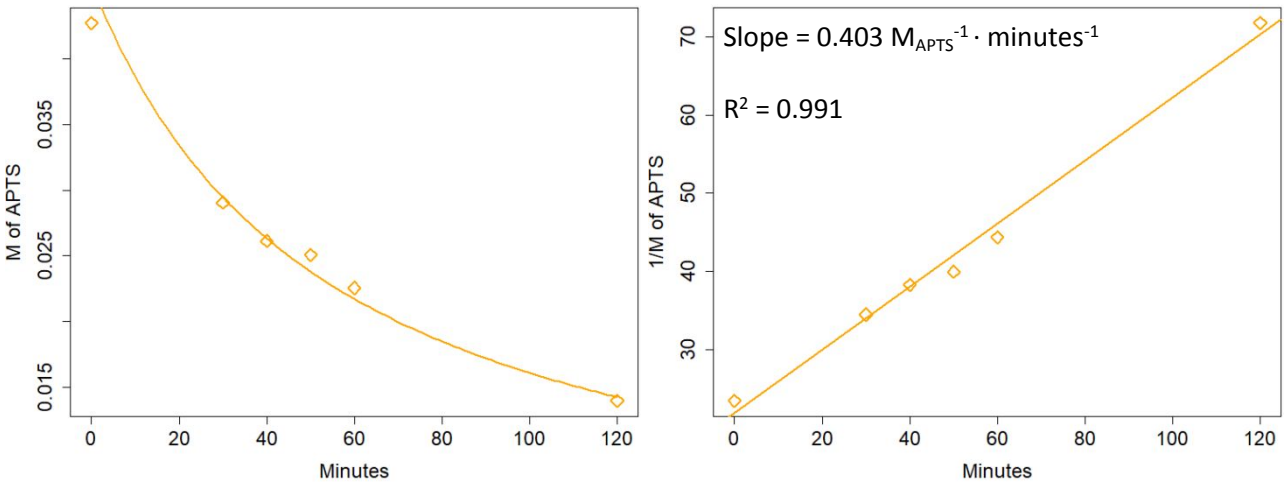

Figure S9. M of APTS consumed over time by grafting reaction in (+)-limonene.

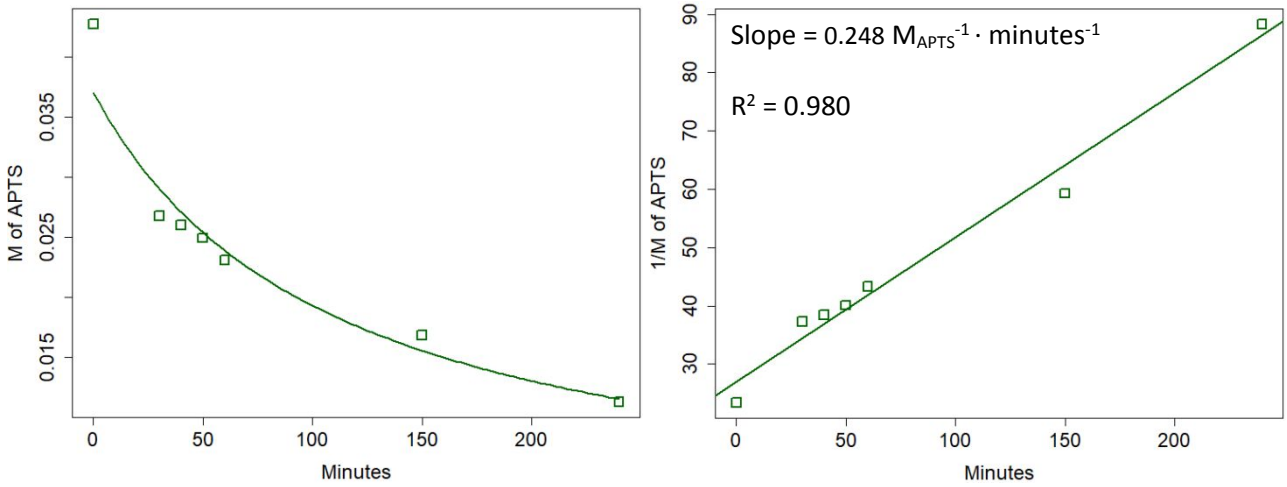

Figure S10. M of APTS consumed over time by grafting reaction in dimethyl carbonate.

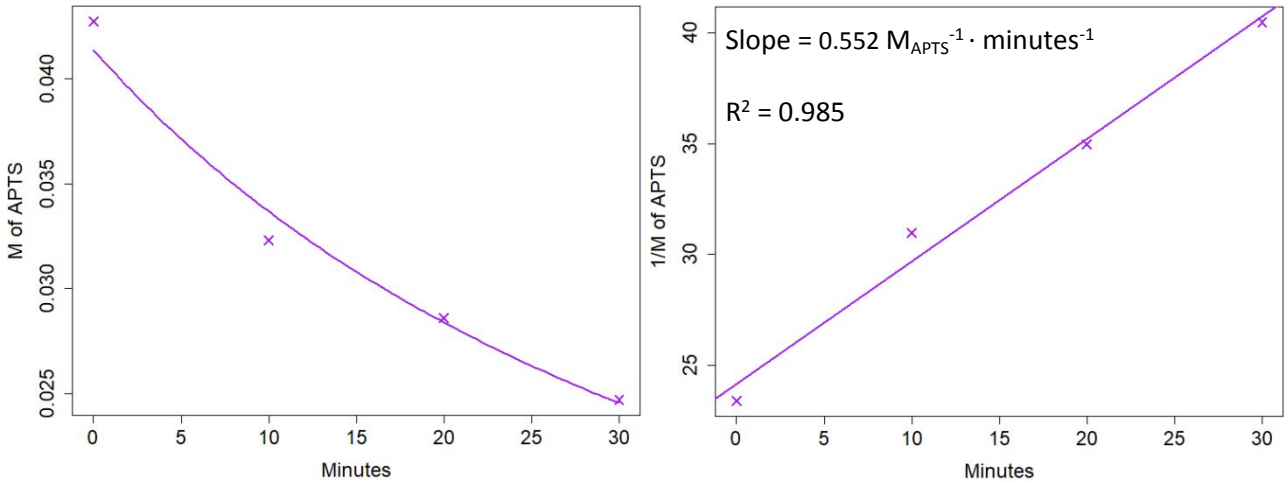

Figure S11. M of APTS consumed over time by grafting reaction in β-pinene.

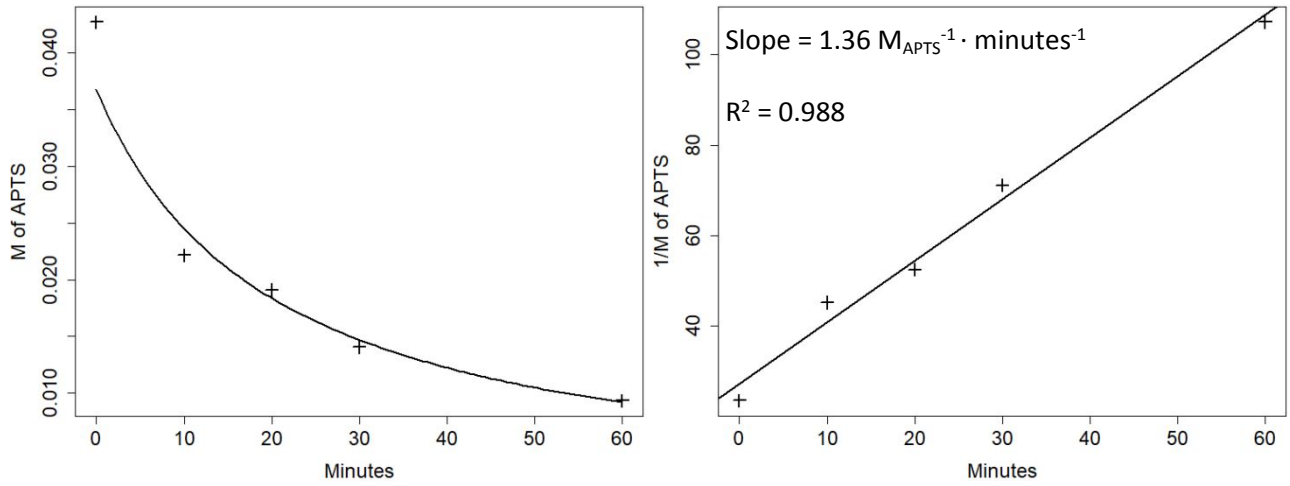

Figure S12. M of APTS consumed over time by grafting reaction in α-pinene.

FT-IR spectroscopy

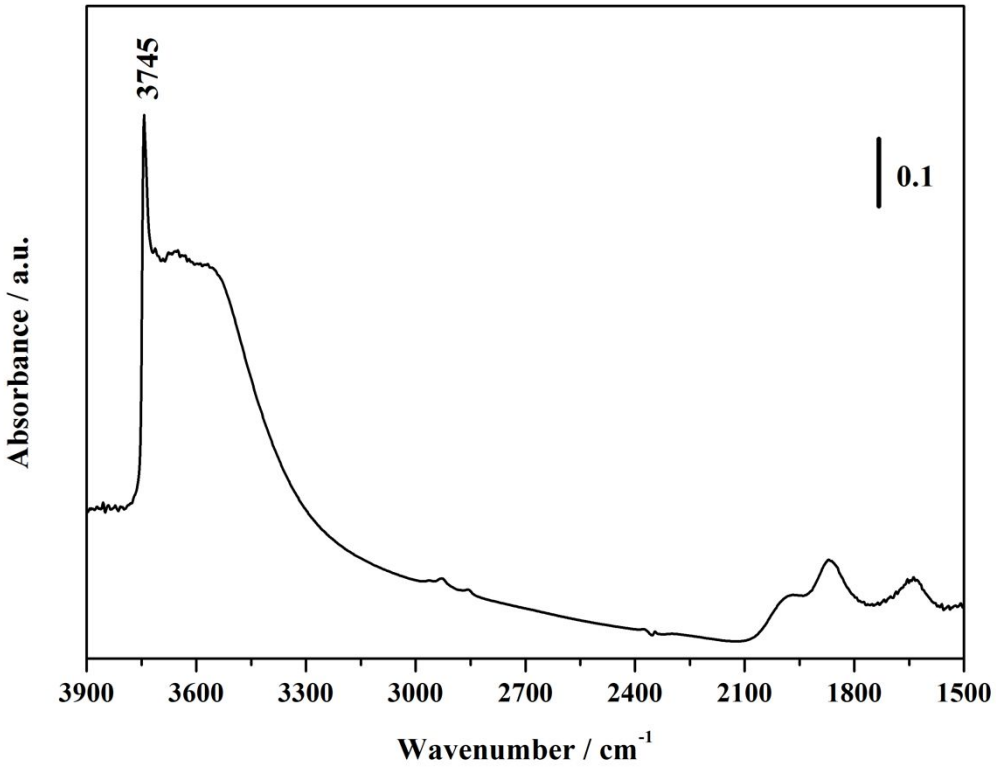

Figure S13. FTIR spectrum of MCM-41 upon treatment for 1 hour at 180°C to remove physisorbed water.