Supplementary Material (ESI) for *PCCP*

Spectroscopic evidence of thermally induced metamorphosis in ethenylene-bridged periodic mesoporous organosilicas

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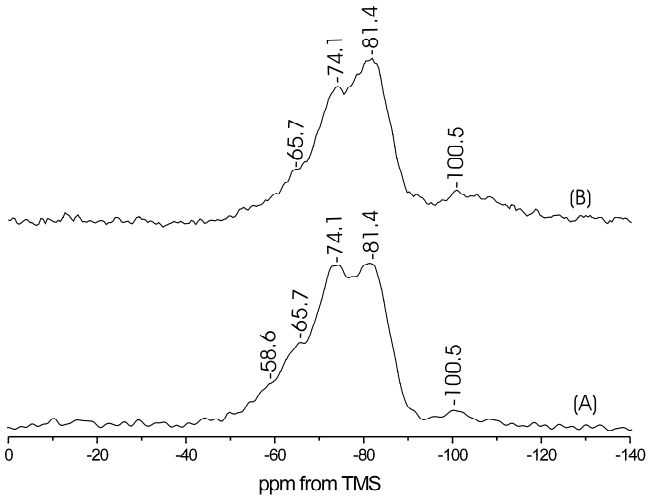

Figure ESI-1. (A) ^{1}H-^{29}Si CP/MAS (A) and $^{29}Si\{^{1}H\}$ MAS NMR (B) spectra of -CH=CH-PMO after thermal treatment.

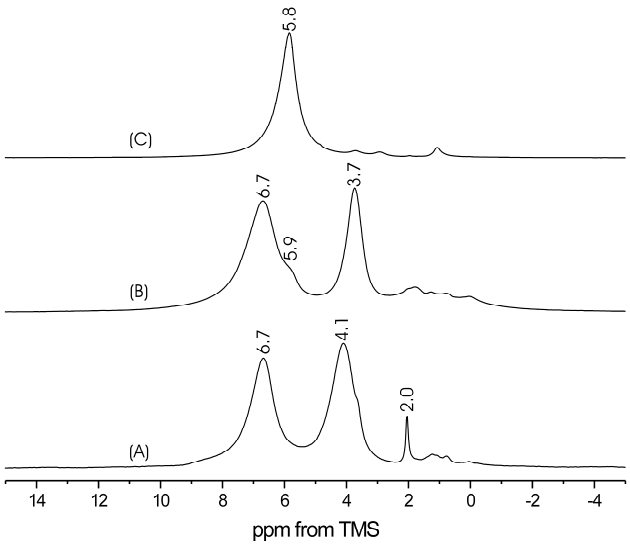

Figure ESI-2. ^{1}H MAS NMR spectra of (A) -CH=CH-PMO before thermal treatment, (B) -CH=CH-PMO after thermal treatment and (C) pure vinylsilica.

^{1}H MAS NMR

^{1}H MAS NMR spectra confirm observations derived from the ^{13}C and ^{29}Si NMR experiments. It is clear that after the thermal treatment, the solid displays the presence of vinyl protons and a small proportion of aliphatic resonances.

Experimental part

^{1}H Magic Angle Spinning (MAS) NMR spectra were acquired at 400.16 MHz using a bruker 2.5 mm ^{1}H/X probe with a ^{1}H $\pi/2$ pulse length of 2.5 μs at a MAS rate of 30.0 kHz and a recycle delay of 10 s. The position of the ^{1}H resonances is quoted in ppm from external TMS.