

Supporting Information

**Influence of Monomer Connectivity, Network Flexibility and Hydrophobicity on the Hydrothermal Stability of Organosilicas**

*A. Petra Dral,<sup>a</sup> Caroline Lievens,<sup>b</sup> Johan E. ten Elshof<sup>a,\*</sup>*

<sup>a</sup> *MESA+ Institute for Nanotechnology, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands.*

<sup>b</sup> *Faculty of Geo-Information Science and Earth Observation, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands.*

*\*Corresponding author: j.e.tenelshof@utwente.nl.*

Some Q and T peaks were fitted with multiple components. The presence of multiple types of Q<sup>x</sup> and T<sup>x</sup> nuclei is plausible because the amorphous networks are poorly defined and the magnetization of Si is sensitive to subtle changes in the chemical environment.

Table S1. Peak locations and areas fitted to the <sup>29</sup>Si CP-MAS-NMR spectra of (organo)silica materials.

		peak 1	peak 2	peak 3	peak 4	peak 5	peak 6
TEOS	ppm	-111.2	-104.1	-101.5	-93.3		
	area	24.0	30.5	35.0	3.6		
BTESM	ppm	-70.9	-67.6	-60.8	-50.9		
	area	114.3	98.2	260.4	29.5		
BTESE	ppm	-66.8	-63.1	-57.9	-48.7		
	area	240.4	105.6	344.5	18.3		
BTMSH	ppm	-67.4	-59.8	-57.6	-48.6		
	area	543.7	182.7	228.3	12.2		
BTESO	ppm	-67.2	-60.0	-57.5	-48.7		
	area	373.6	90.2	219.7	14.2		
BTESB	ppm	-80.8	-71.4	-62.0			
	area	98.5	124.9	16.9			
MTMS	ppm	-67.0	-65.1	-56.3			
	area	473.5	244.2	51.5			
PTMS	ppm	-68.5	-66.6	-61.3	-59.4	-57.0	-54.8
	area	149.6	179.5	37.8	45.5	81.2	14.1
CHTMS	ppm	-70.9	-68.4	-62.2	-59.6	-51.2	
	area	17.3	9.9	69.5	97.7	30.9	
PHTMS	ppm	-79.1	-77.2	-72.3	-69.0		
	area	95.5	18.0	47.1	65.3		
BMDESE	ppm	-20.5	-14.3				
	area	706.0	384.7				
DPDMS	ppm	-13.5	-3.6				
	area	1004.1	37.4				

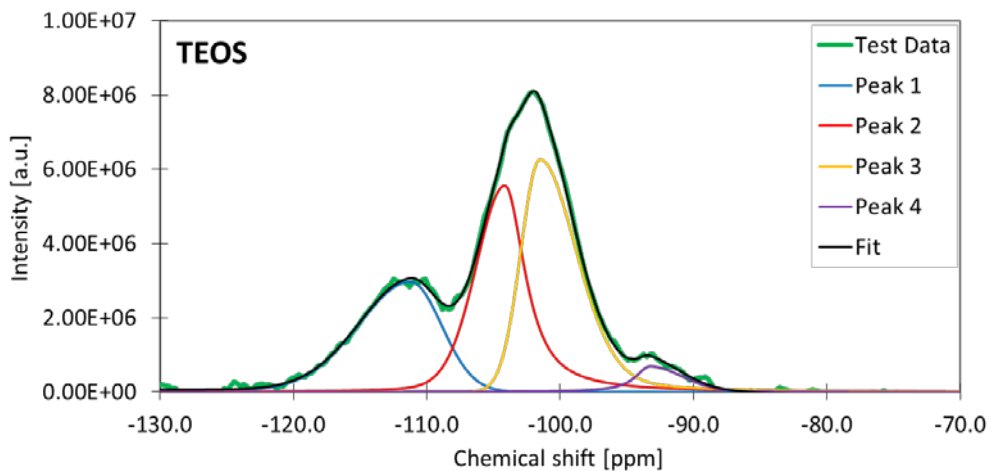


Figure S1.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of TEOS-derived material.

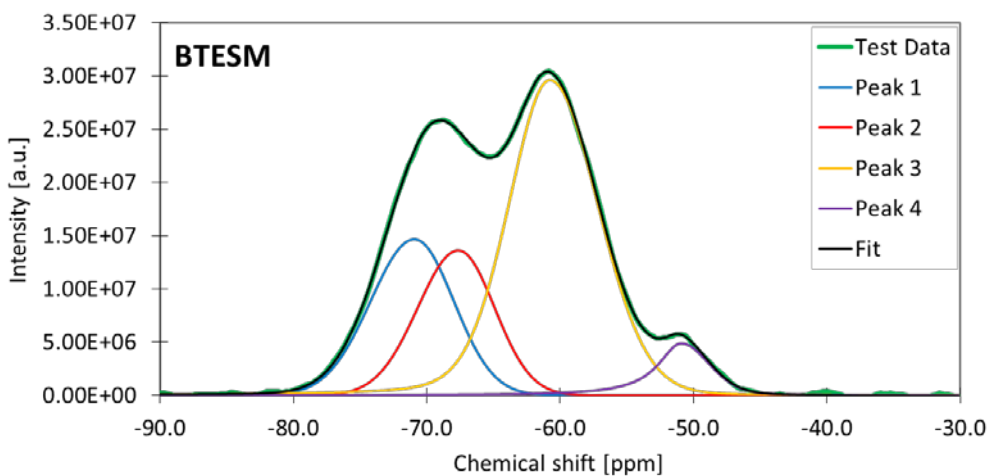


Figure S2.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BTESM-derived material.

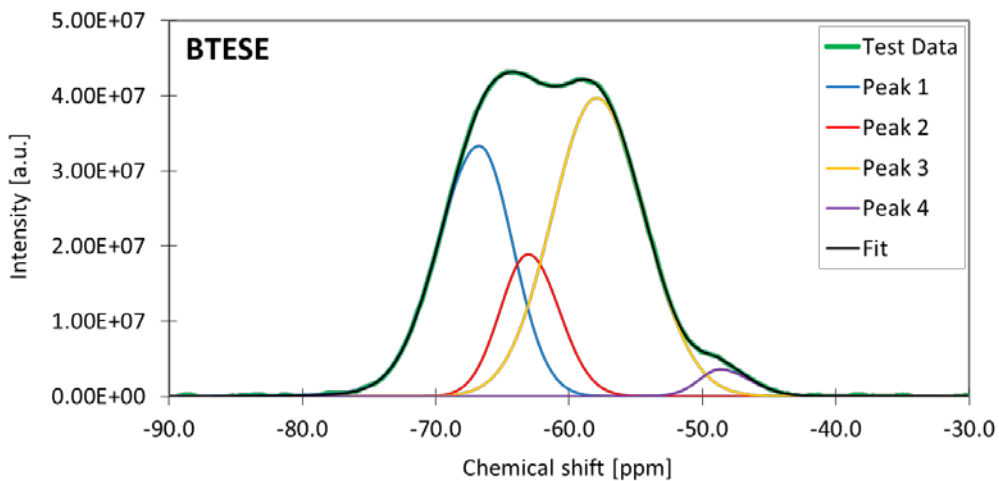


Figure S3.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BTESE-derived material.

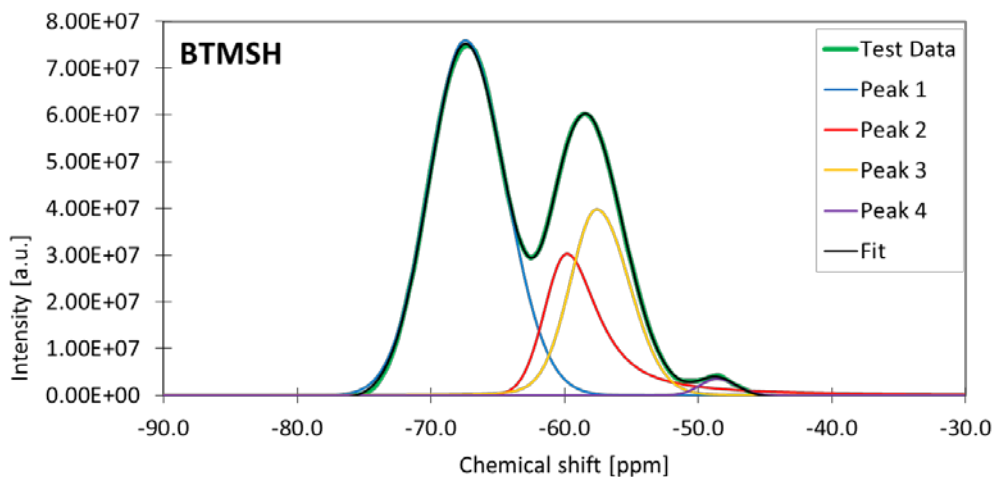


Figure S4.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BTMSH-derived material.

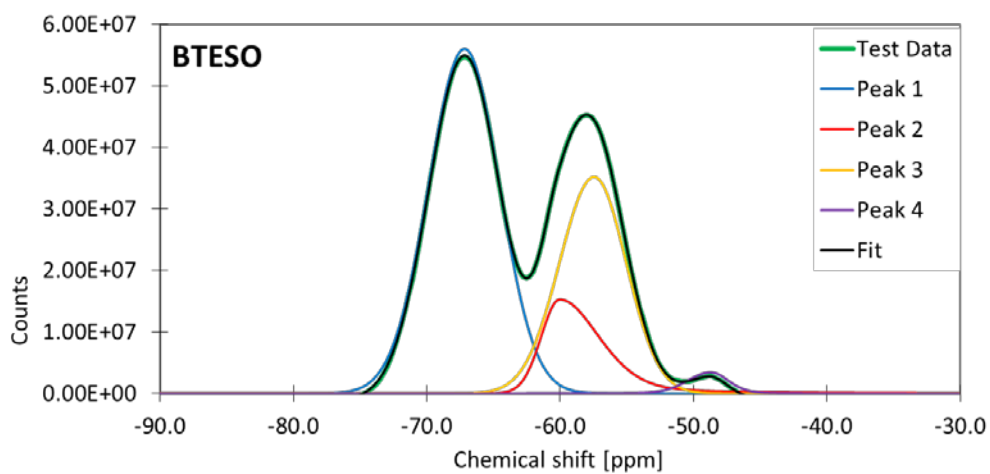


Figure S5.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BTESO-derived material.

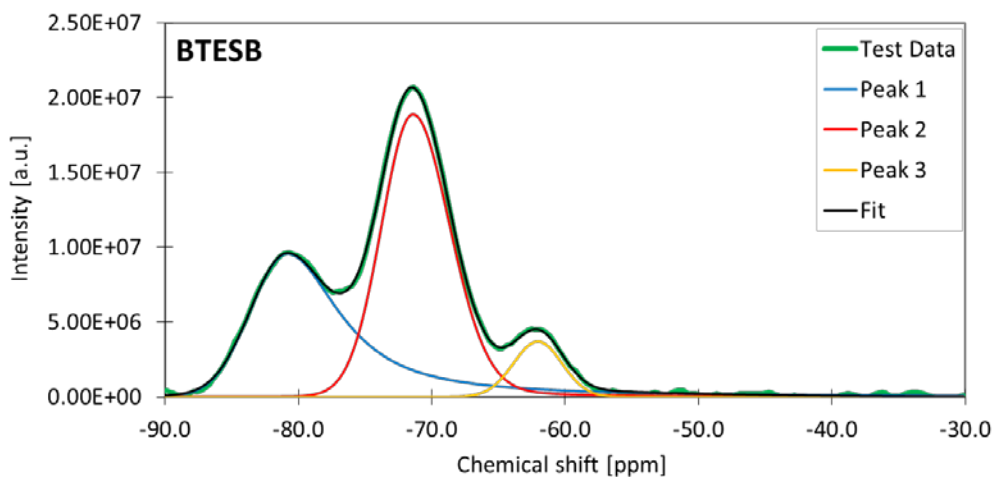


Figure S6.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BTESB-derived material.

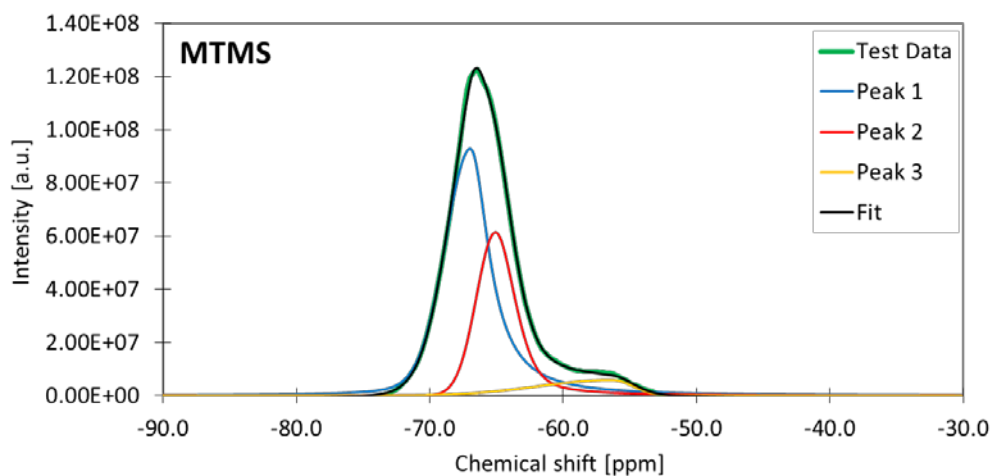


Figure S7.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of MTMS-derived material.

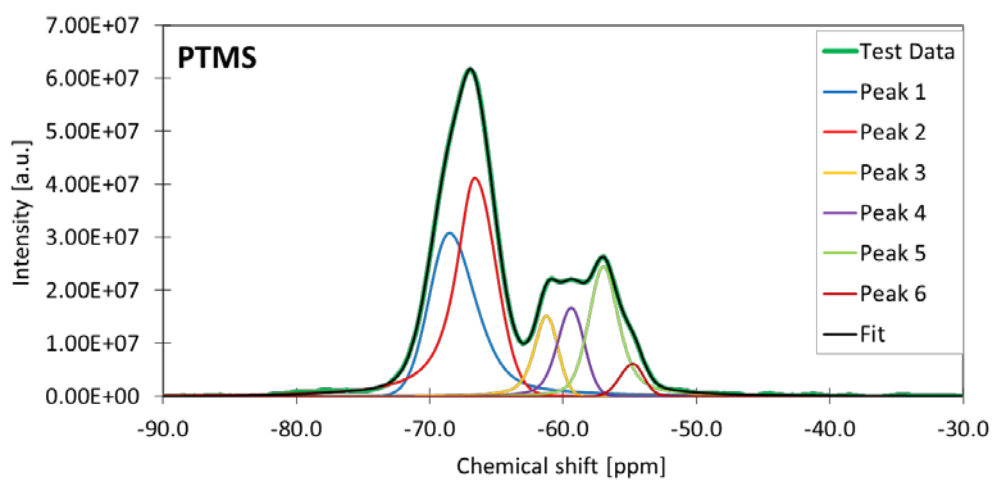


Figure S8.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of PTMS-derived material.

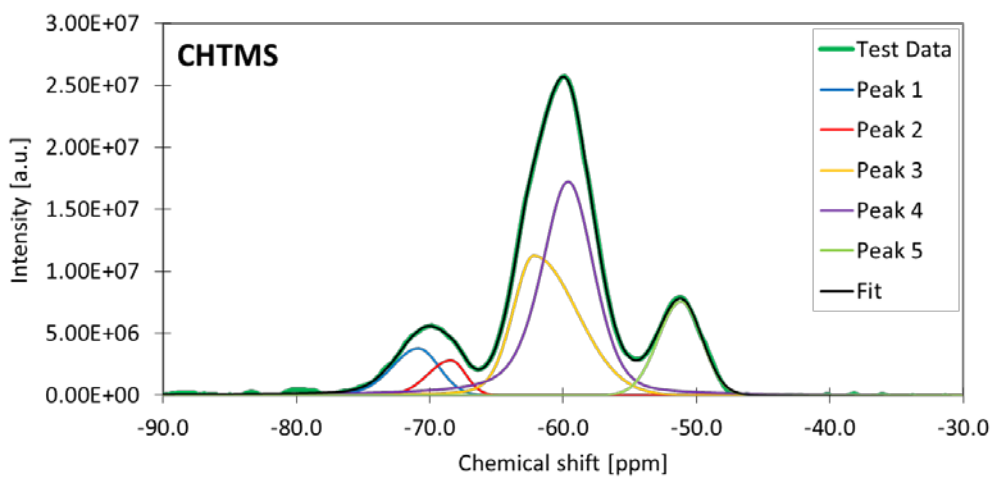


Figure S9.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of CHTMS-derived material.

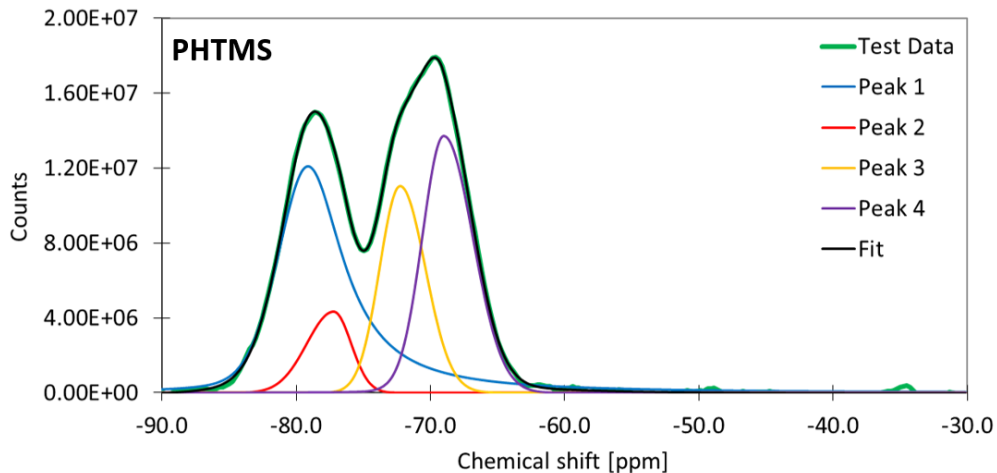


Figure S10.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of PHTMS-derived material.

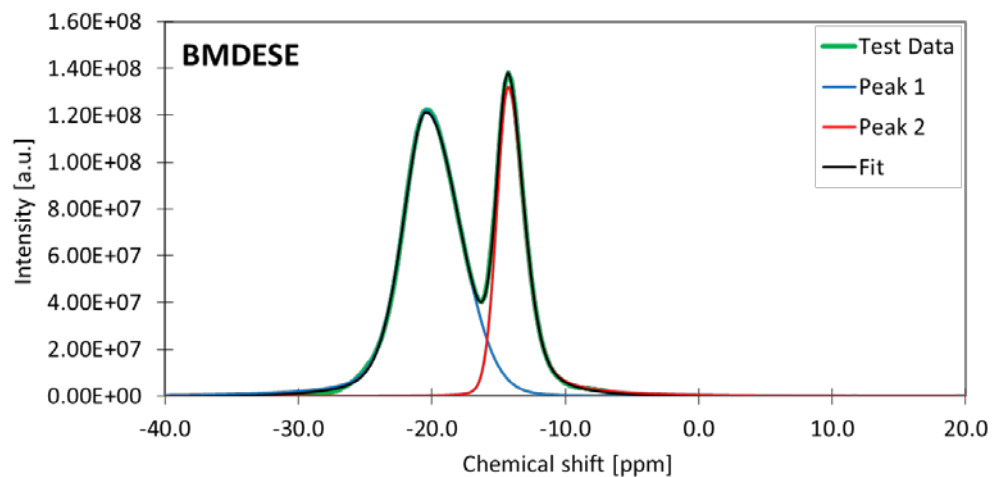


Figure S11.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of BMDESE-derived material.

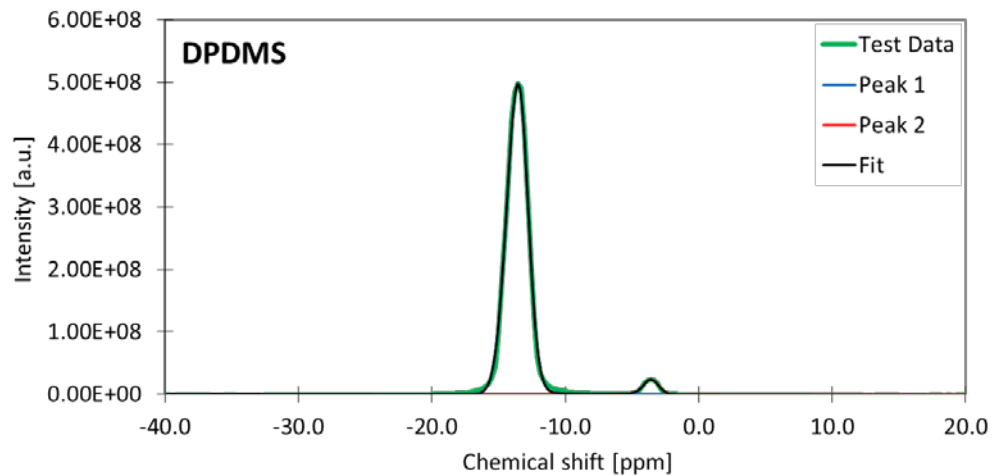


Figure S12.  $^{29}\text{Si}$  CP-MAS-NMR spectrum and fit components of DPDMS-derived material.