Supplementary Materials: The Preparation and Chemical Structure Analysis of Novel POSS-Based Porous Materials

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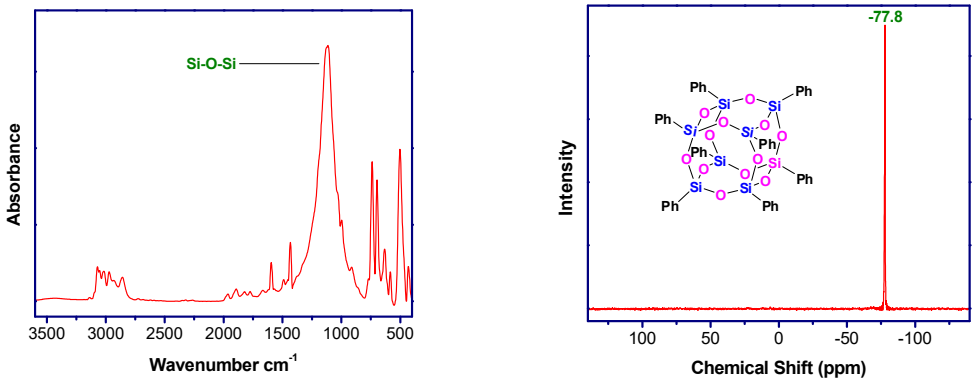


Figure S1. (**a**) FTIR spectrum and (**b**) ^{29}Si NMR spectrum of Octaphenylsilsesquioxanes.

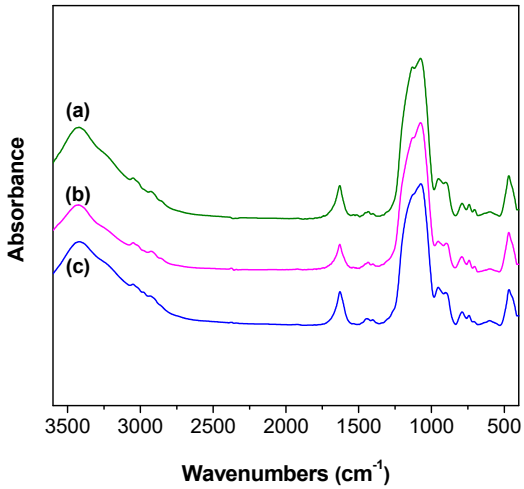
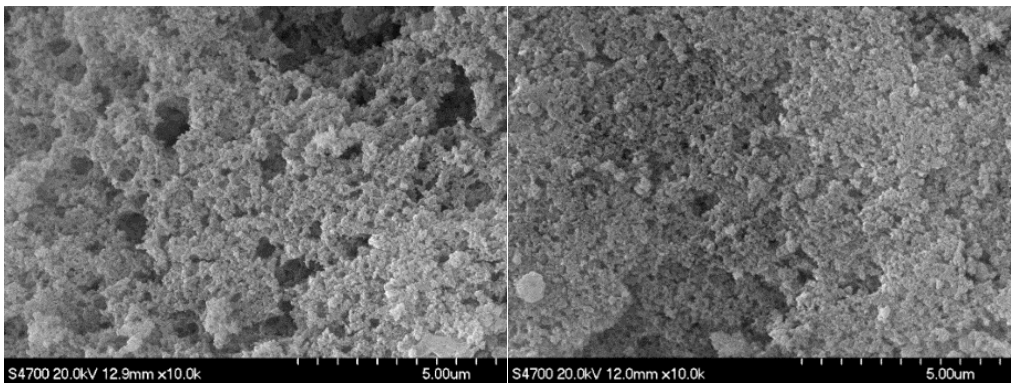
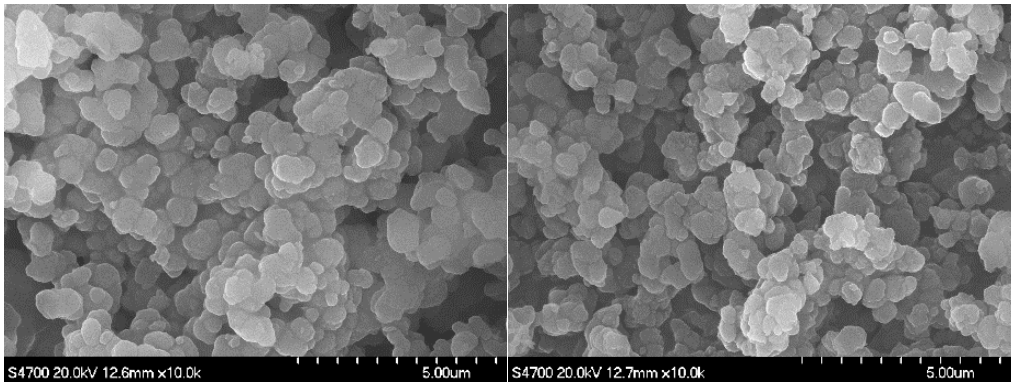


Figure S2. Full FTIR spectra of (**a**) sample A, (**b**) sample B and (**c**) sample C.



(**a**) (**b**)

Figure S3. SEM morphology of T_7-POSS based porous materials with different reaction time (**a**) 5 h and (**b**) 20 h.



(**a**) (**b**)

Figure S4. SEM morphology of OPS based porous materials with different reaction time (**a**) 5 h and (**b**) 20 h.

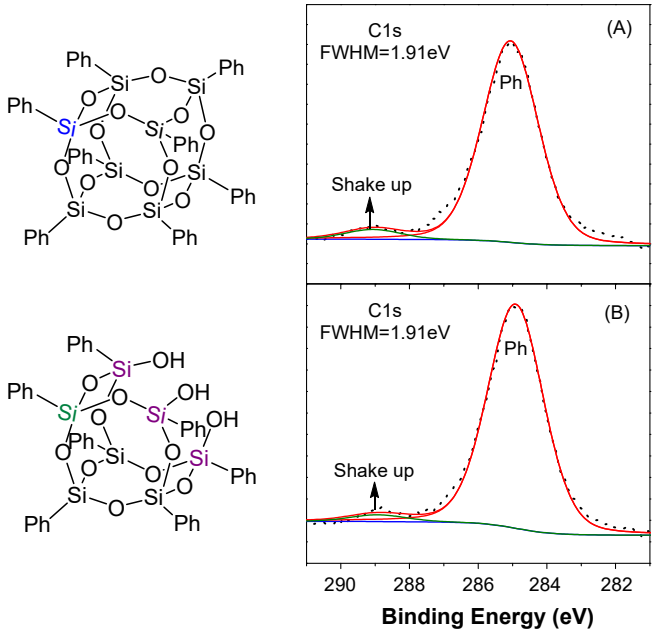


Figure S5. XPS C1s of (**A**) OPS and (**B**) T_7-POSS.

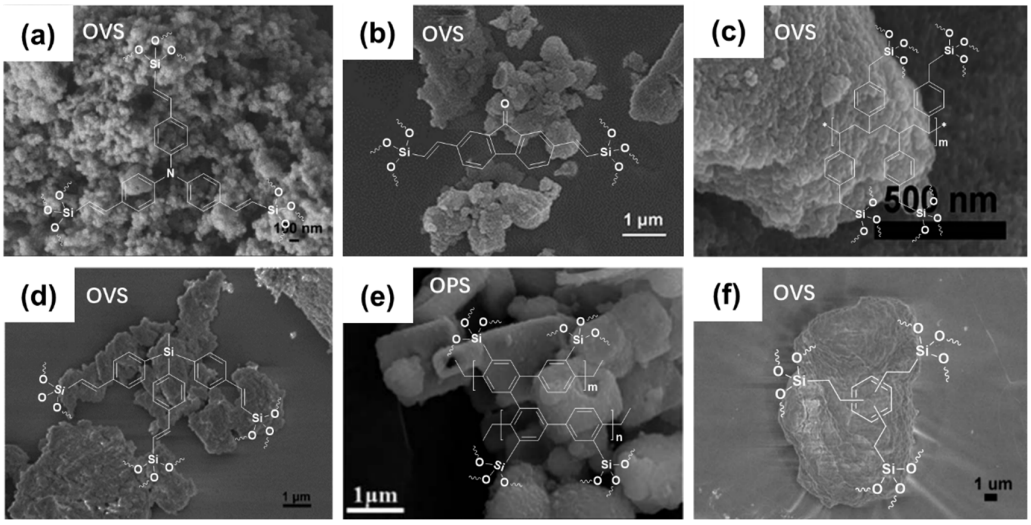
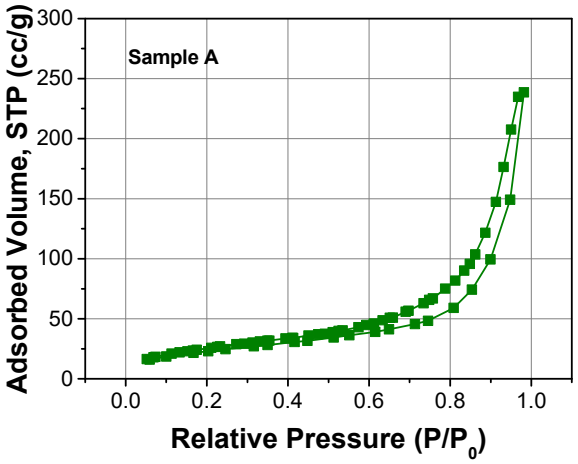
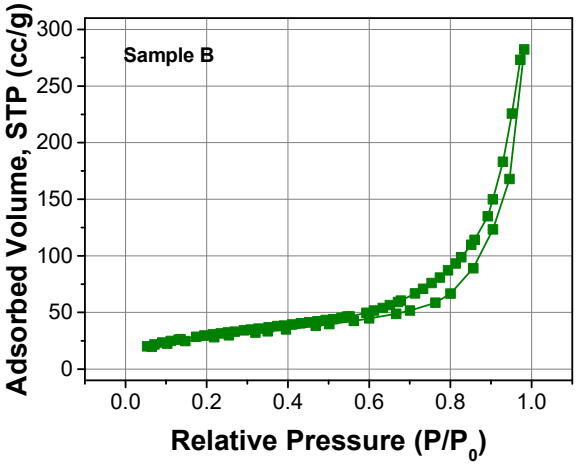


Figure S6. Morphology and corresponding chemical structures. (**a**) is redrawn from reference [1] Copyright (2014) Royal Society of Chemistry, (**b**) is redrawn from reference [2] Copyright (2016) Royal Society of Chemistry, (**c**) is redrawn from reference [3] Copyright (2015) Royal Society of Chemistry, (**d**) is redrawn from reference [4] Copyright (2013) Royal Society of Chemistry, (**e**) is redrawn from reference [5] Copyright (2015) Royal Society of Chemistry, and (**f**) is redrawn from reference [6] Copyright (2014) Royal Society of Chemistry.





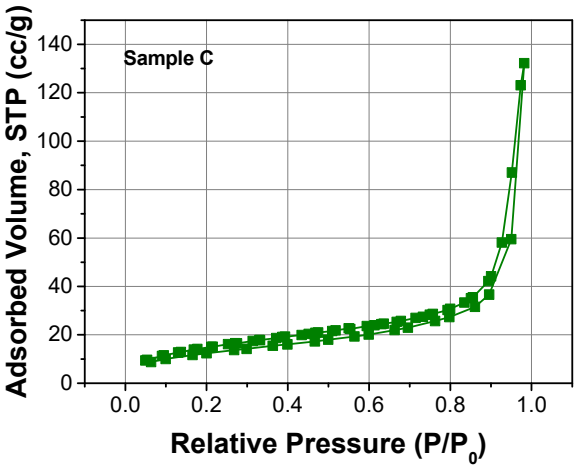


Figure S7. Nitrogen adsorption and desorption isotherms for sample A, sample B and sample C.

Table S1. Porosity data of sample A, sample B and sample C.

Sample No.	S_{BET} (m^2/g)	V_{total} (cc/g)	Pore Diameter (nm)
A	281.29	0.24	5.56
B	331.97	0.29	6.50
C	151.70	0.13	3.08

References

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