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Citation for final published version:

Jiao, Yilai, Adedigba, Abdul-Lateef, He, Qian, Miedziak, Peter J., Brett, Gemma Louise, Dummer, Nicholas F., Perdjon, Michal, Liu, Jinmin and Hutchings, Graham John 2018. Inter-connected and open pore hierarchical TS-1 with controlled framework titanium for catalytic cyclohexene epoxidation. *Catalysis Science and Technology* 8, pp. 2211-2217. 10.1039/C7CY02571H

Publishers page: <http://dx.doi.org/10.1039/C7CY02571H>

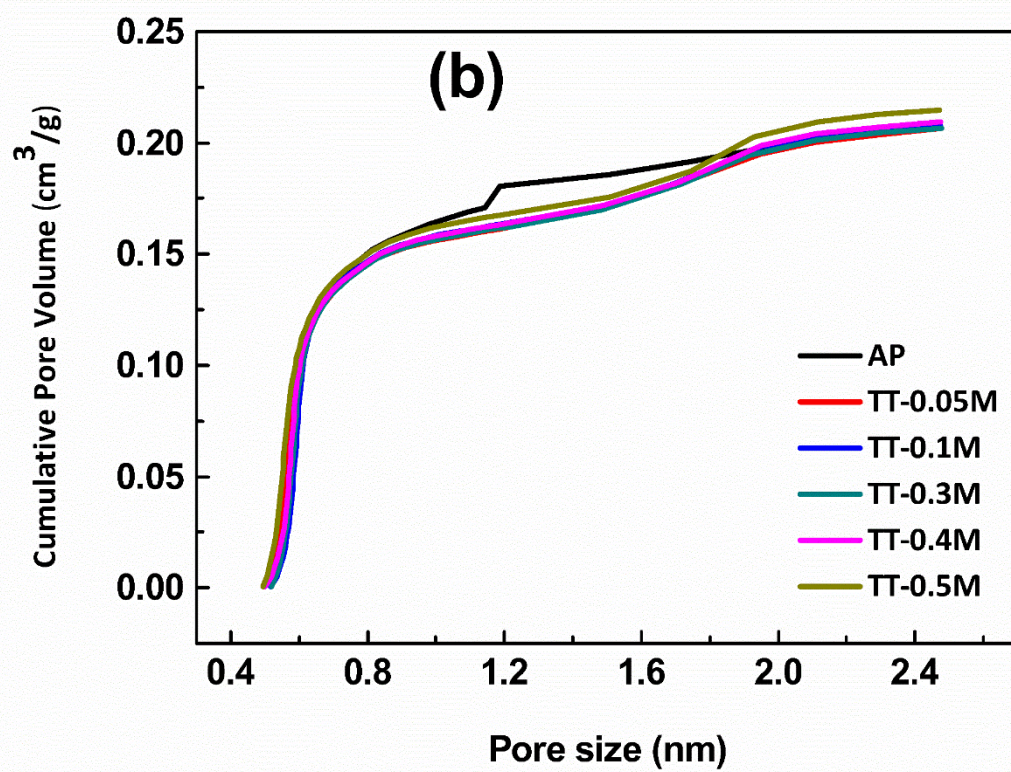
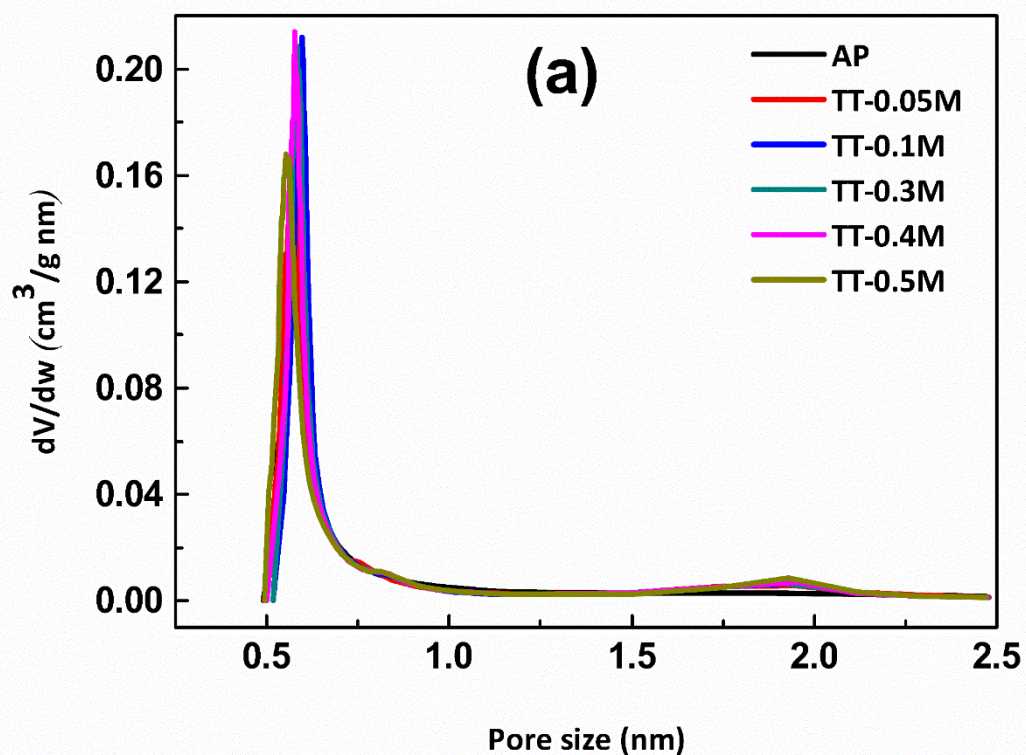
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Supporting Information



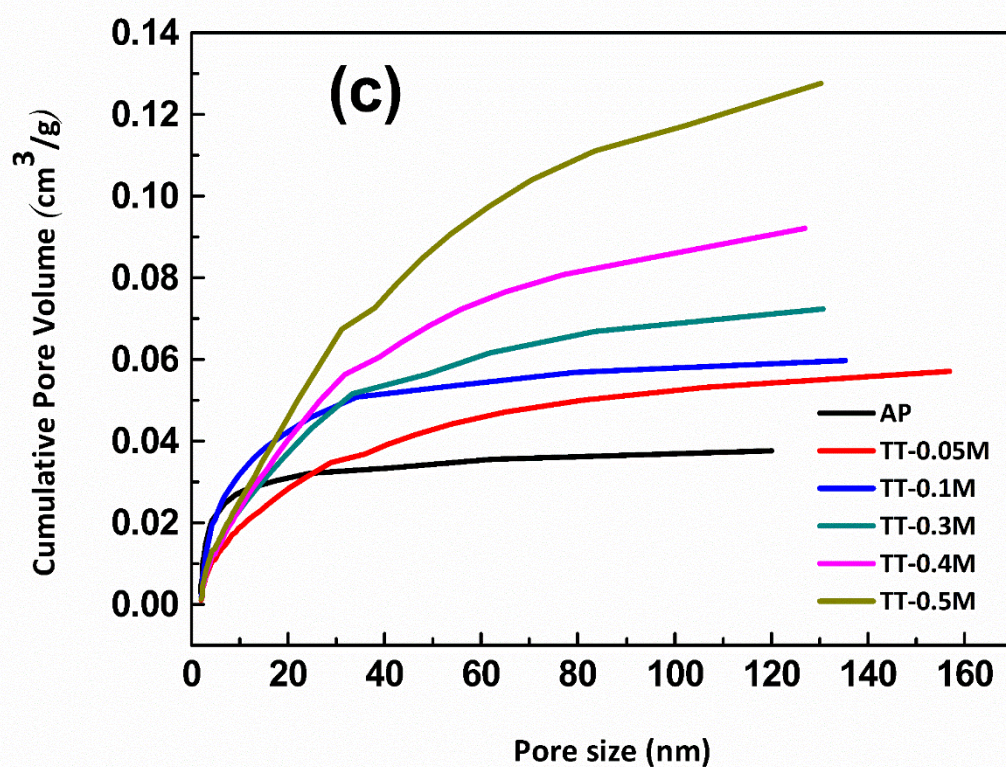
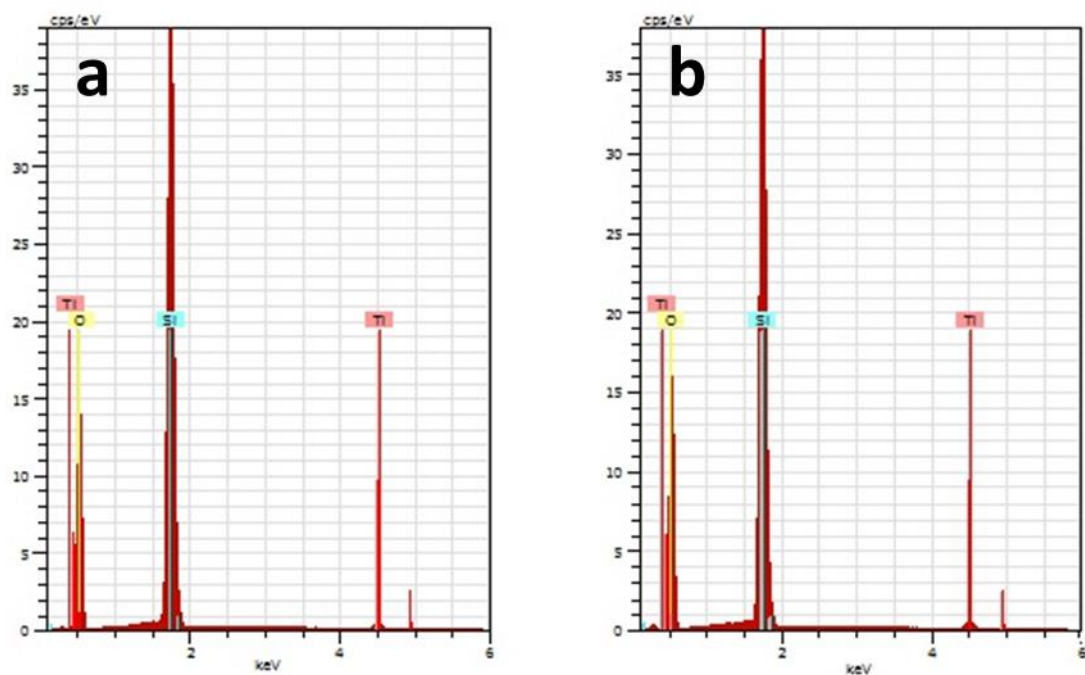


Figure S1. Pore size distribution of as prepared and TPAOH treated samples (a) H-K differential Pore Volume Plot, (b) H-K cumulative pore volume and (c) BJH cumulative pore volume



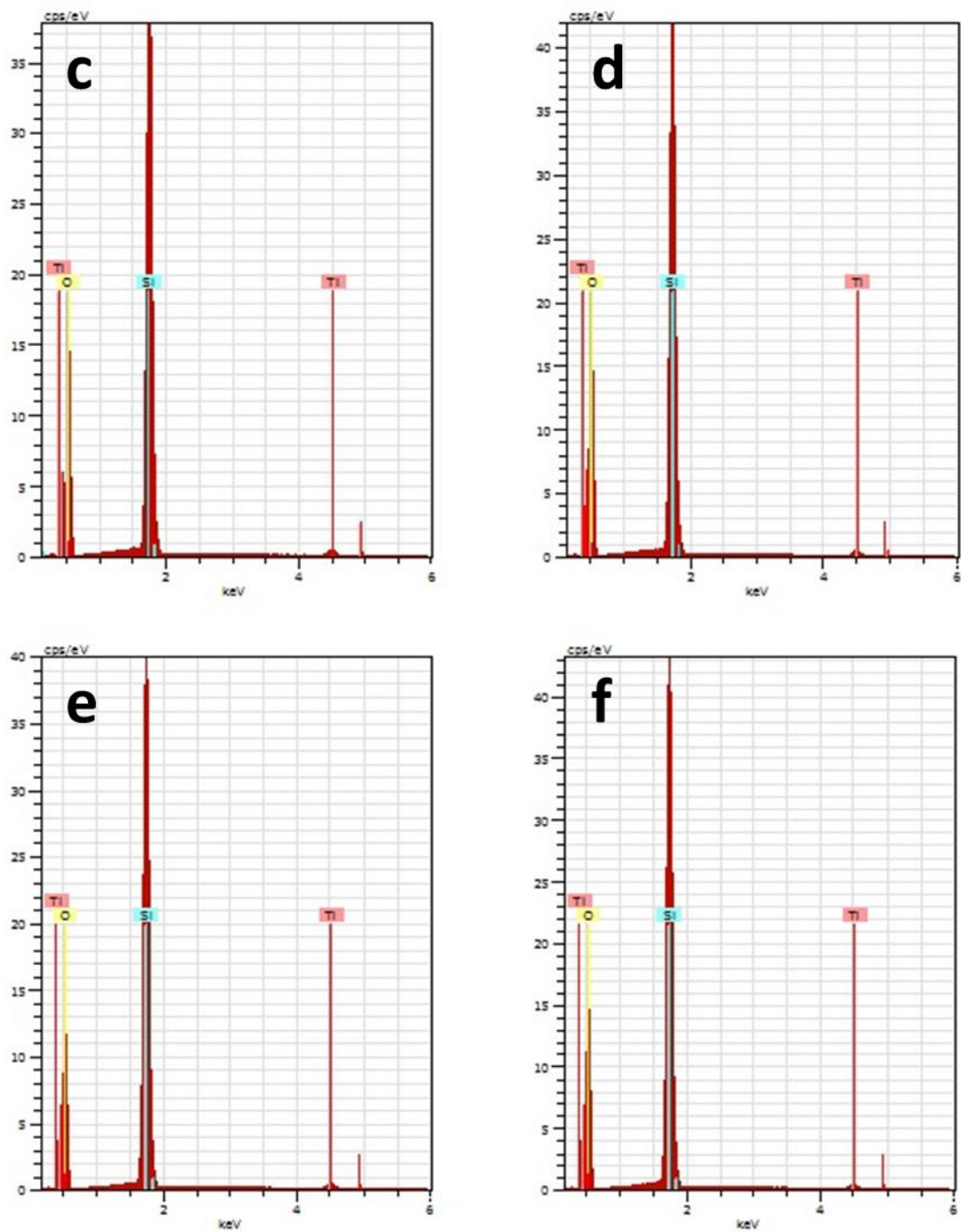


Figure S2. EDS patterns of as prepared and TPAOH treated samples (a) as prepared TS-1, (b) TT-0.05M, (c) TT-0.1M, (d) TT-0.3M, (e) TT-0.4M and (f) TT-0.5M.

Table S1. Summary of the elements distribution of as-prepared (AP) and TPAOH modified (TT-XM) TS-1 samples.

Elements*	AP	TT-0.05M	TT-0.1M	TT-0.3M	TT-0.4M	TT-0.5M
O	66.54	68.10	67.39	69.18	63.58	66.17
Si	32.75	31.15	31.89	30.11	35.59	33.07
Ti	0.71	0.75	0.72	0.71	0.84	0.76

* The elements were calculated by atom (at. %)

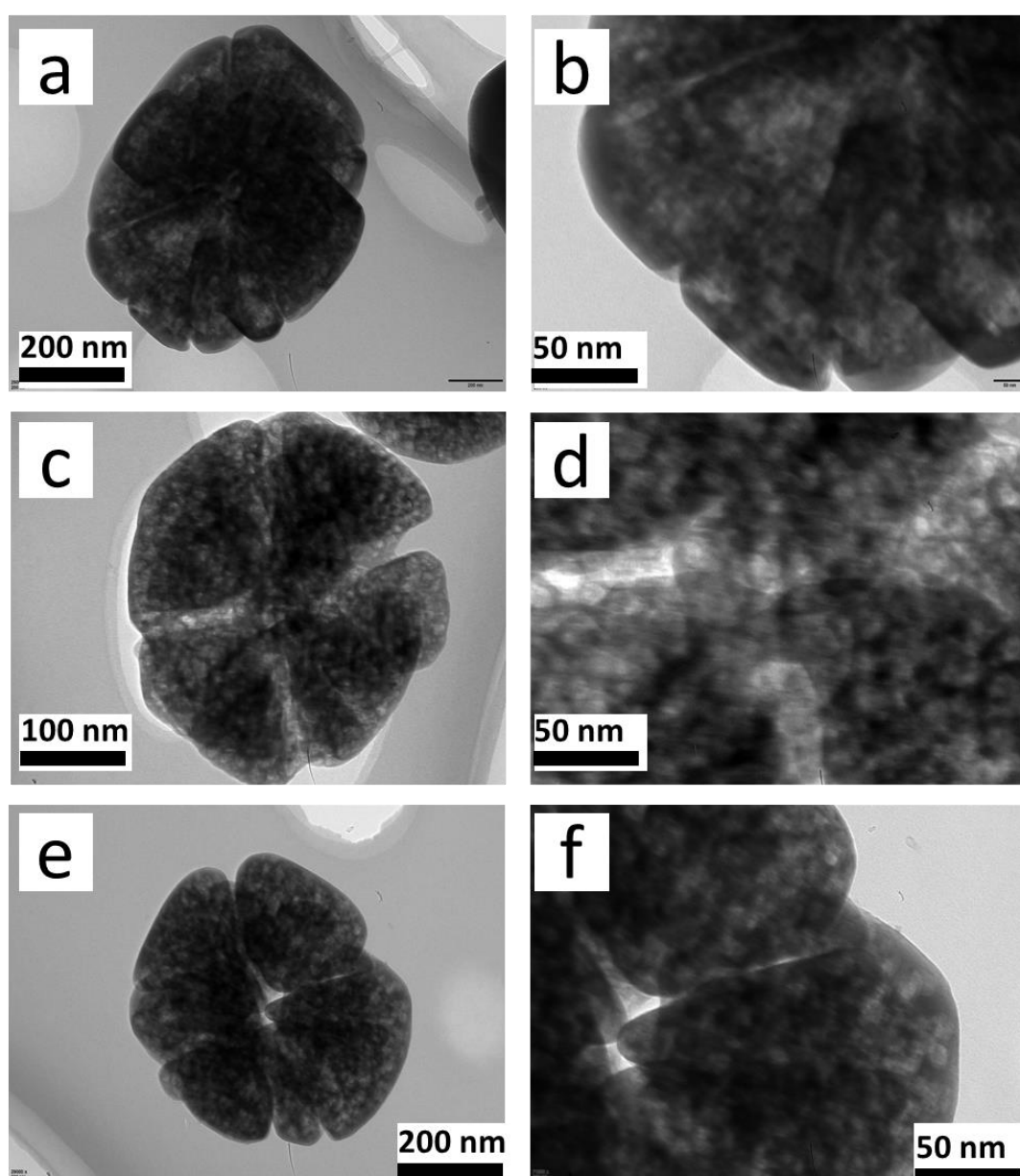


Figure S3 TEM image of sample TT-0.45M (a & b), TT-0.5M (c & d) and TT-0.6M (e & f)

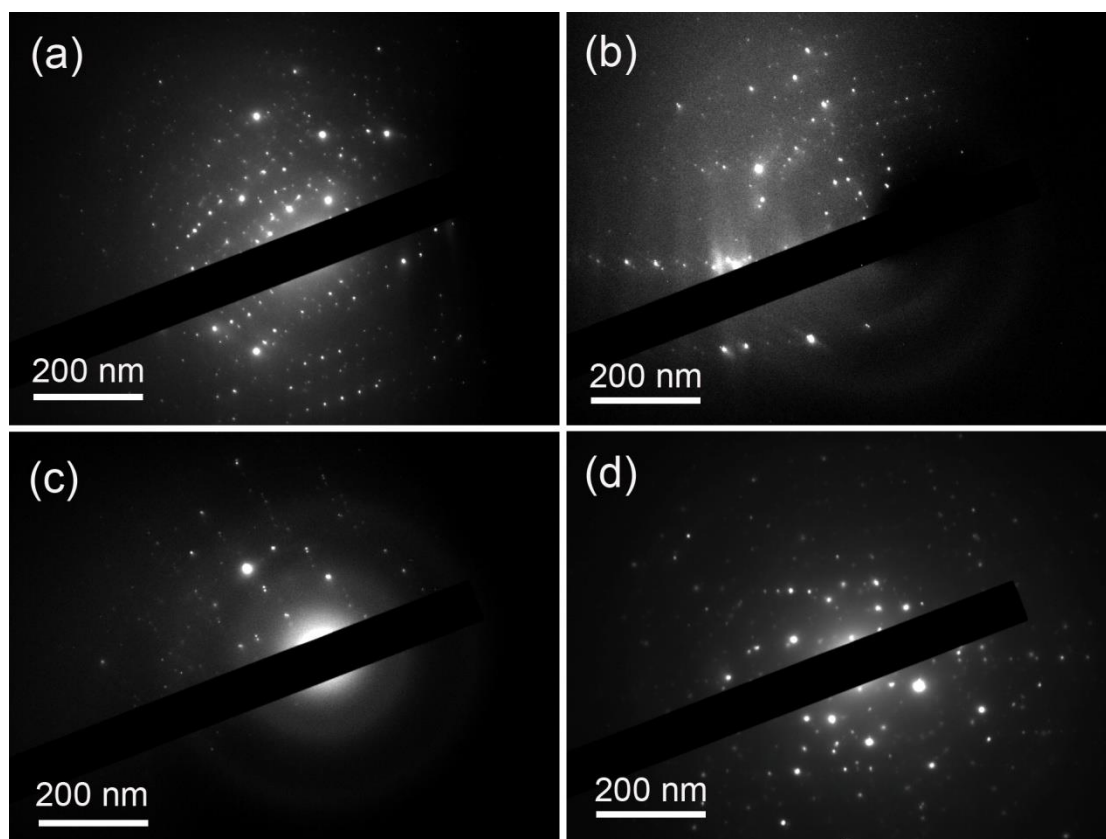


Figure S4. SAED patterns of as prepared and TPAOH treated samples (a) as prepared TS-1, (b) TT-0.1M, (c) TT-0.4M and (d) TT-0.5 M