

Support Information

Enlargement of Uniform Micropores in Hierarchically Ordered Micro-Mesoporous Carbon for High Level Decontamination of Bisphenol A

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Assembly of tri-constituents

In order to synthesize hierarchical porous OMMC, we have examined the required molar ratio of terephthalaldehyde to phloroglucinol in the ethanol solution of triblock copolymer (Pluronic F127) as soft template and tetraethyl orthosilicate (TEOS) as inorganic precursor at room temperature in mild acidic condition and also examined the pore generation by silica removal from carbon-silica composites. The molar ratio of terephthalaldehyde to phloroglucinol played an immense role in the self-assembly process. Increasing the molar ratio of terephthalaldehyde to phloroglucinol above to 0.37 resulted the formation of a yellow polymer gel within 30-45 min. Evaporation of ethanol induced the formation of membrane and the color of the membrane varied with the change in molar mass of terephthalaldehyde to phloroglucinol (Fig. S1). Below $x = 0.37$, a virtually transparent membrane was observed and this was attributed to the homogenous arrangement of the constituents and above to 0.37 the darkness in the membrane gradually increased, which could attributed to the disturbance in homogenous constituents arrangement.

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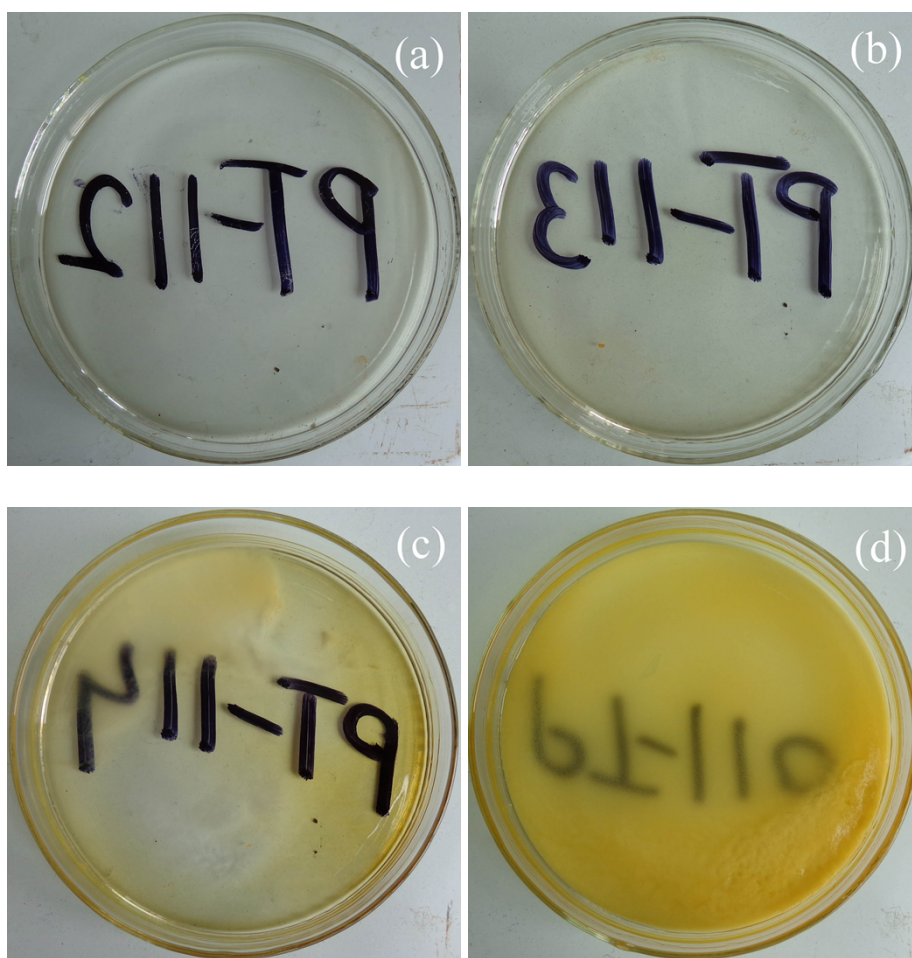
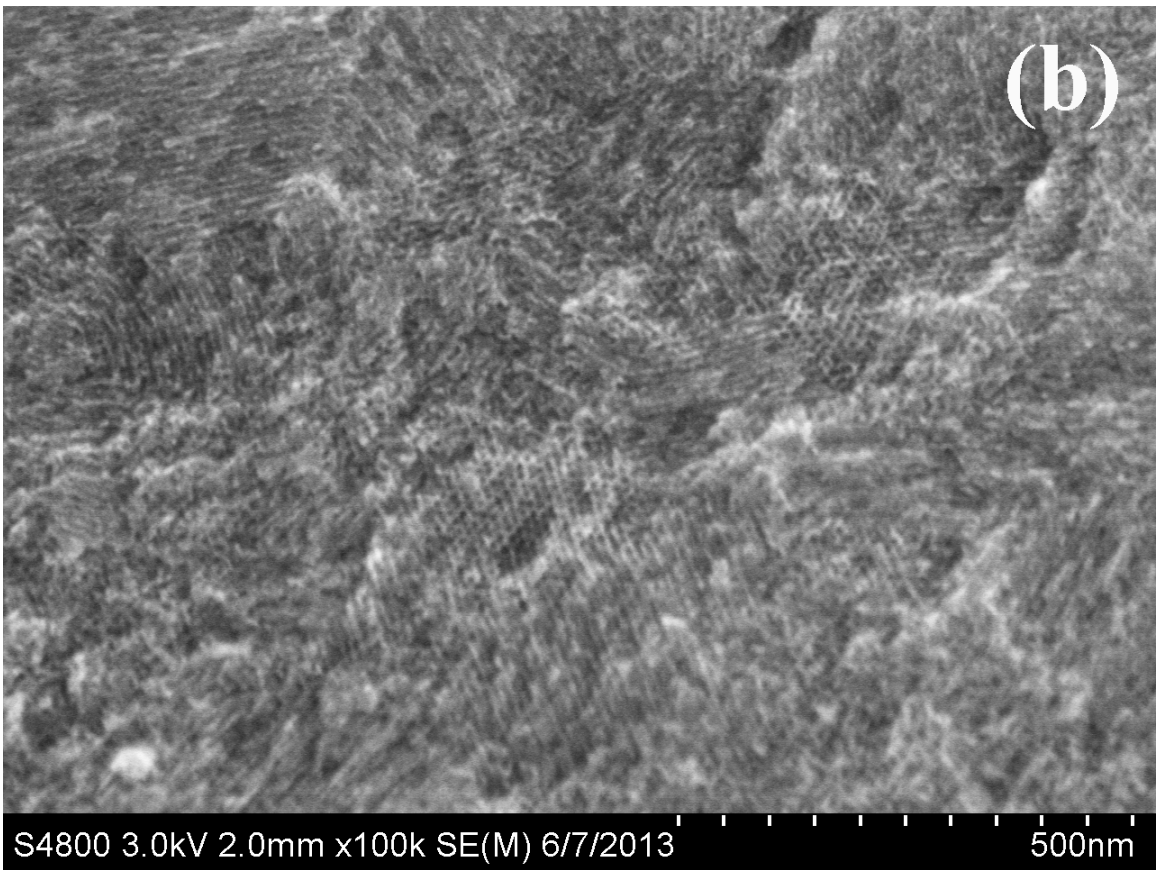
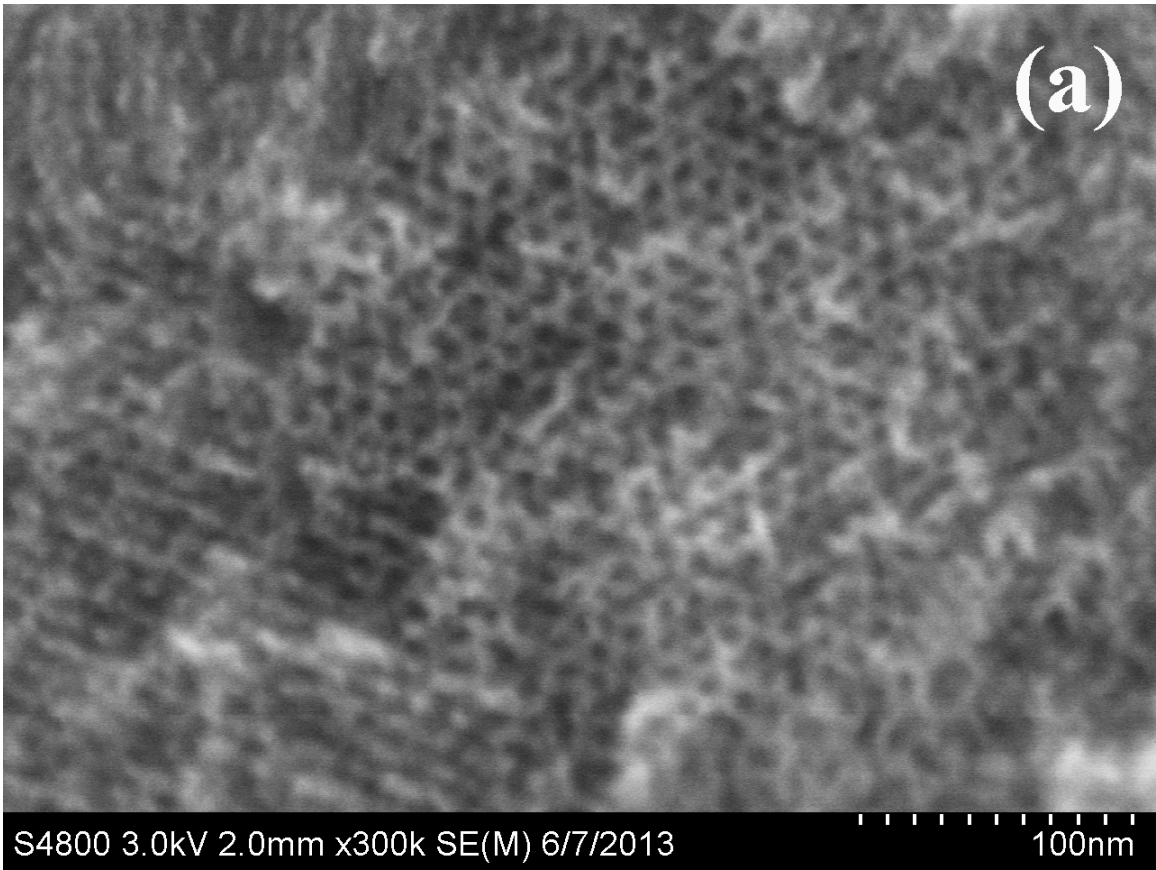
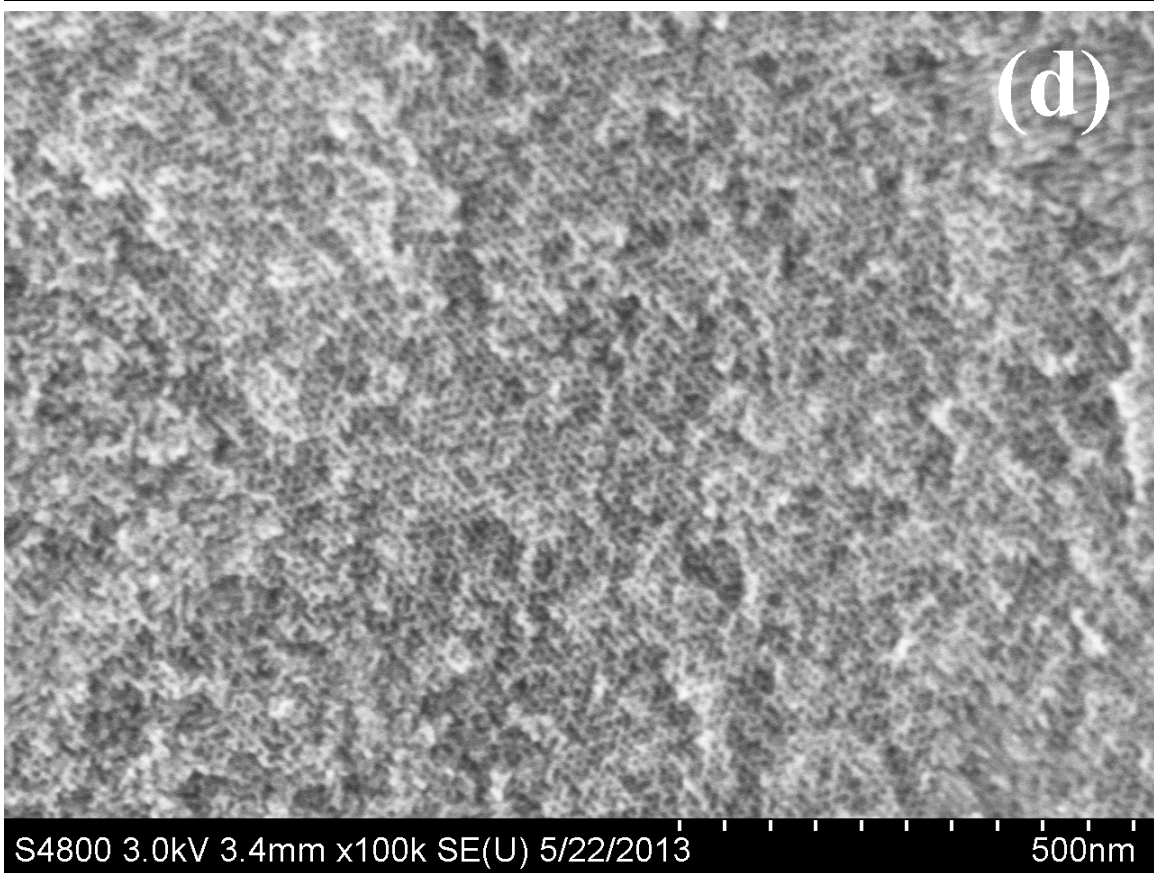
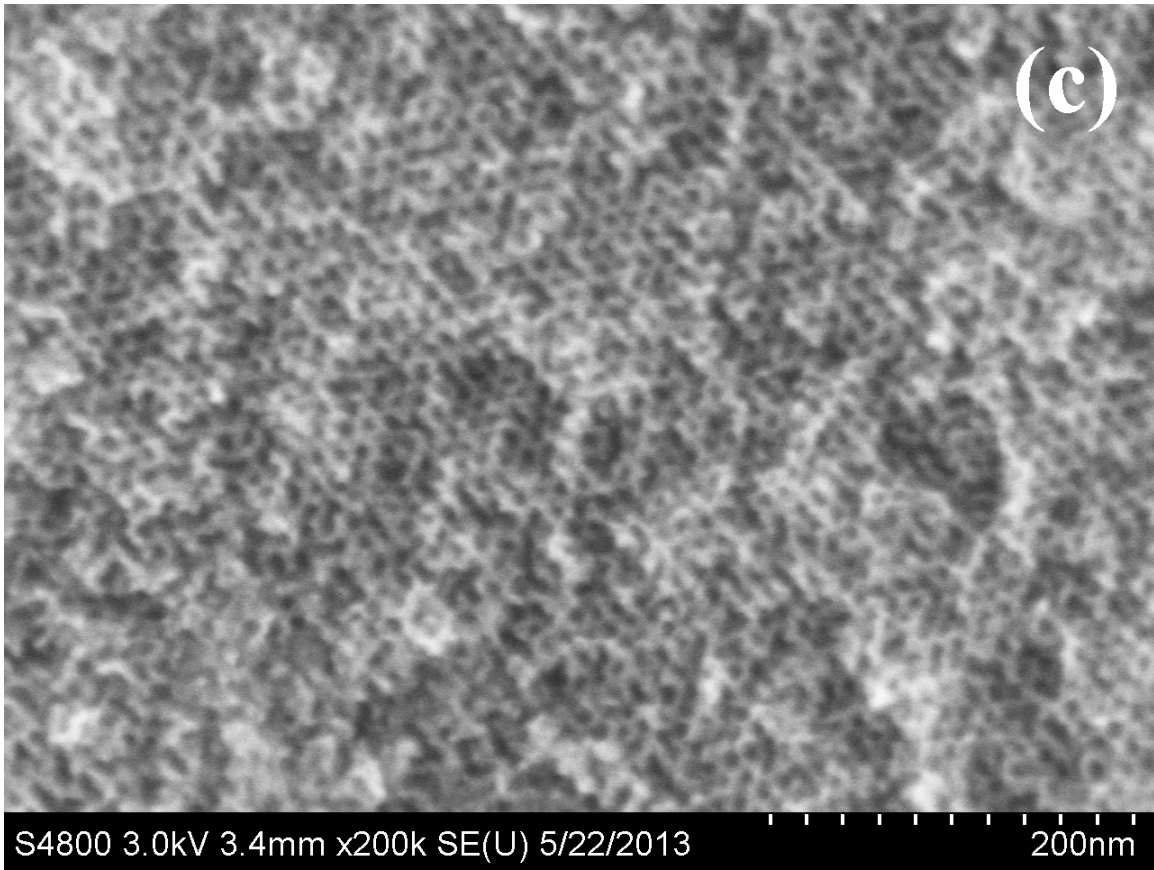
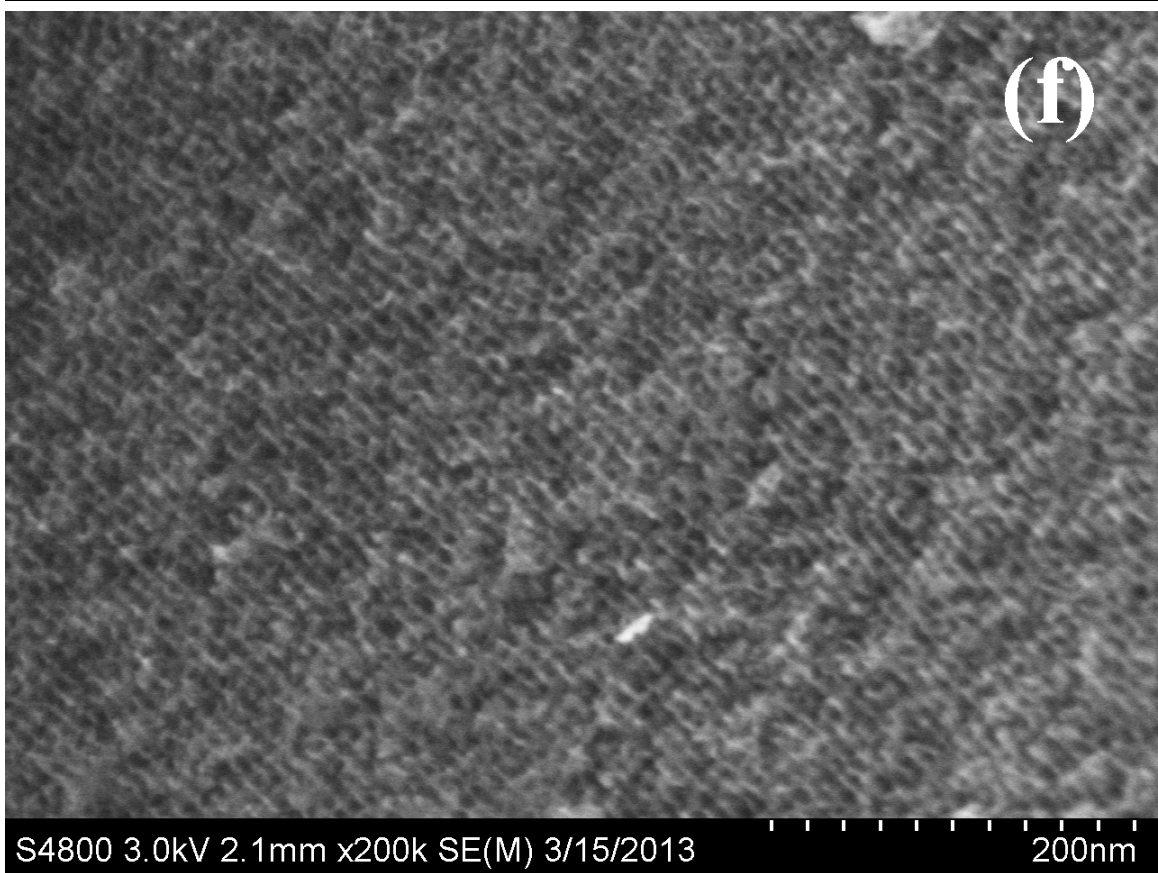
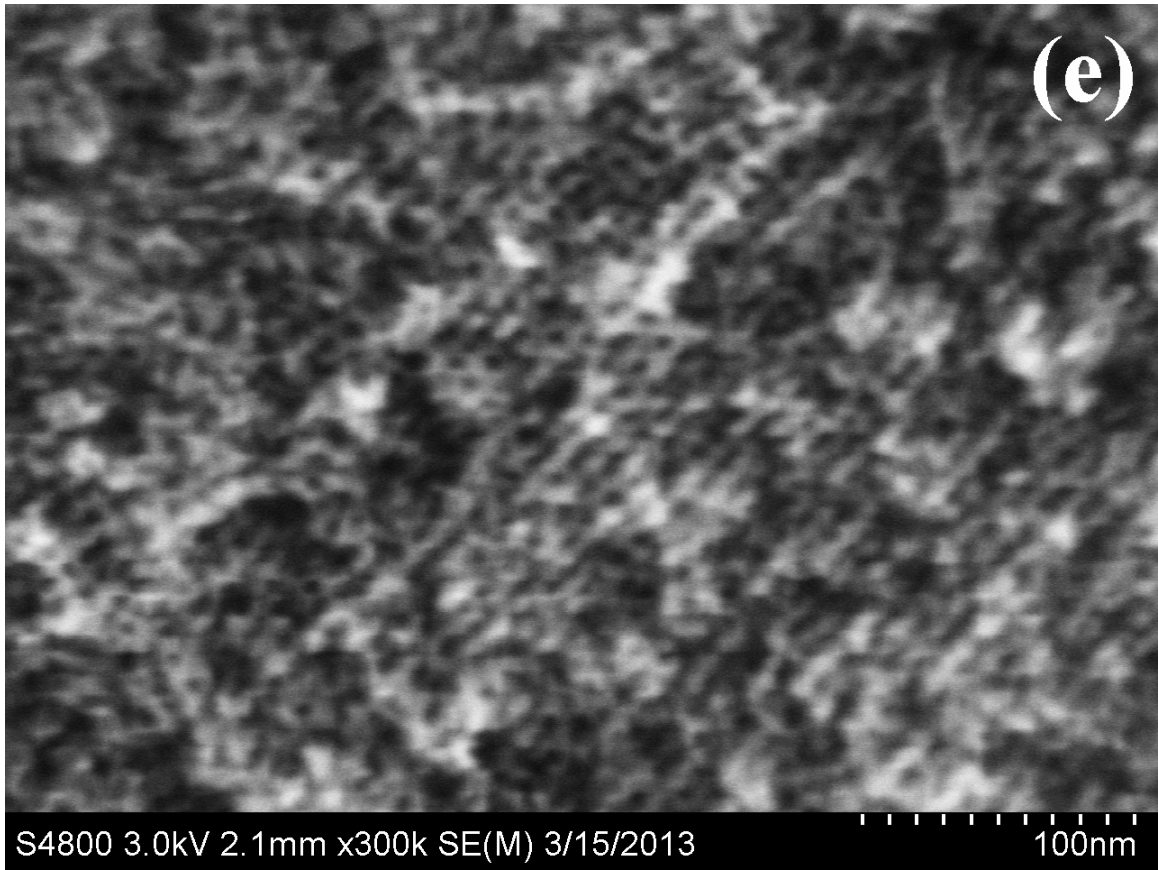


Fig. S1 Assembled polymer images of tri-constituents after the evaporation of ethanol at room temperature, $OMMC_{0.25}$, $OMMC_{0.37}$, $OMMC_{0.50}$ and $OMMC_{0.75}$ (a), (b), (c) and (d) respectively.







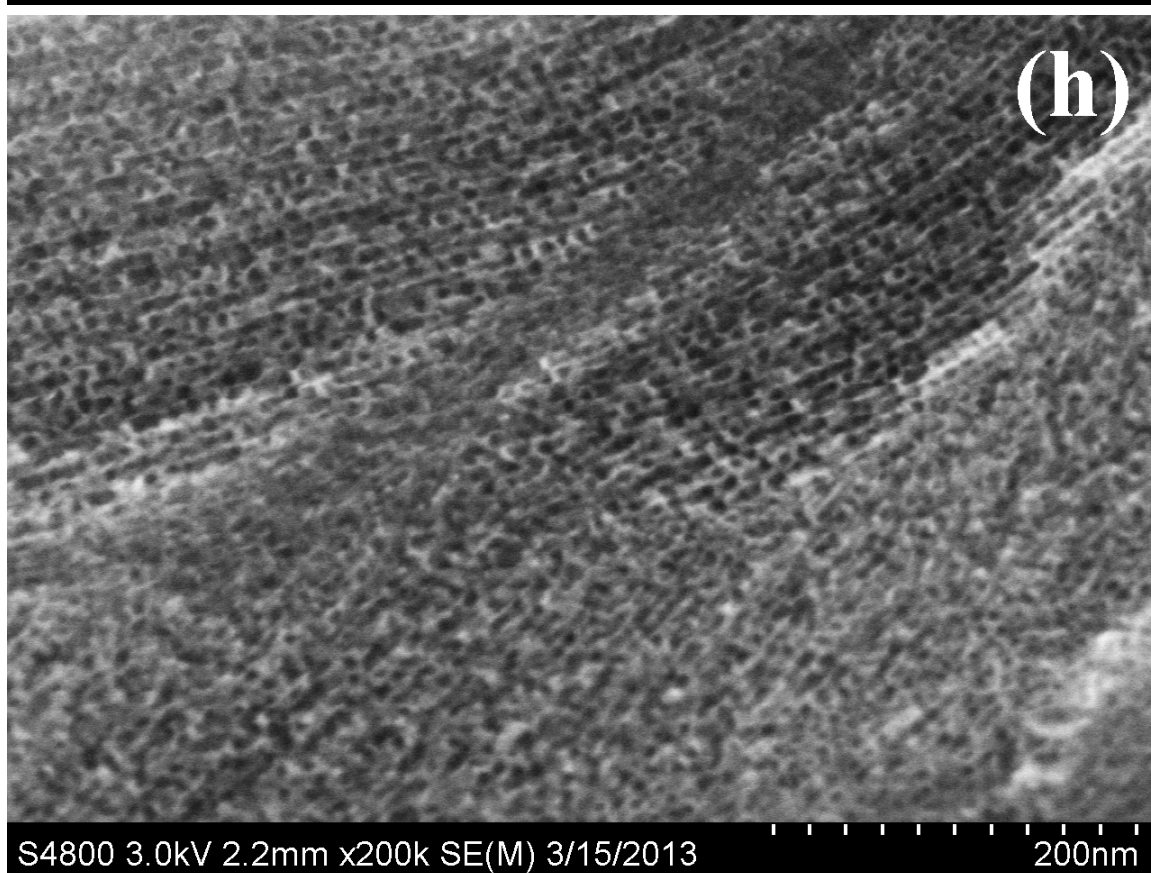
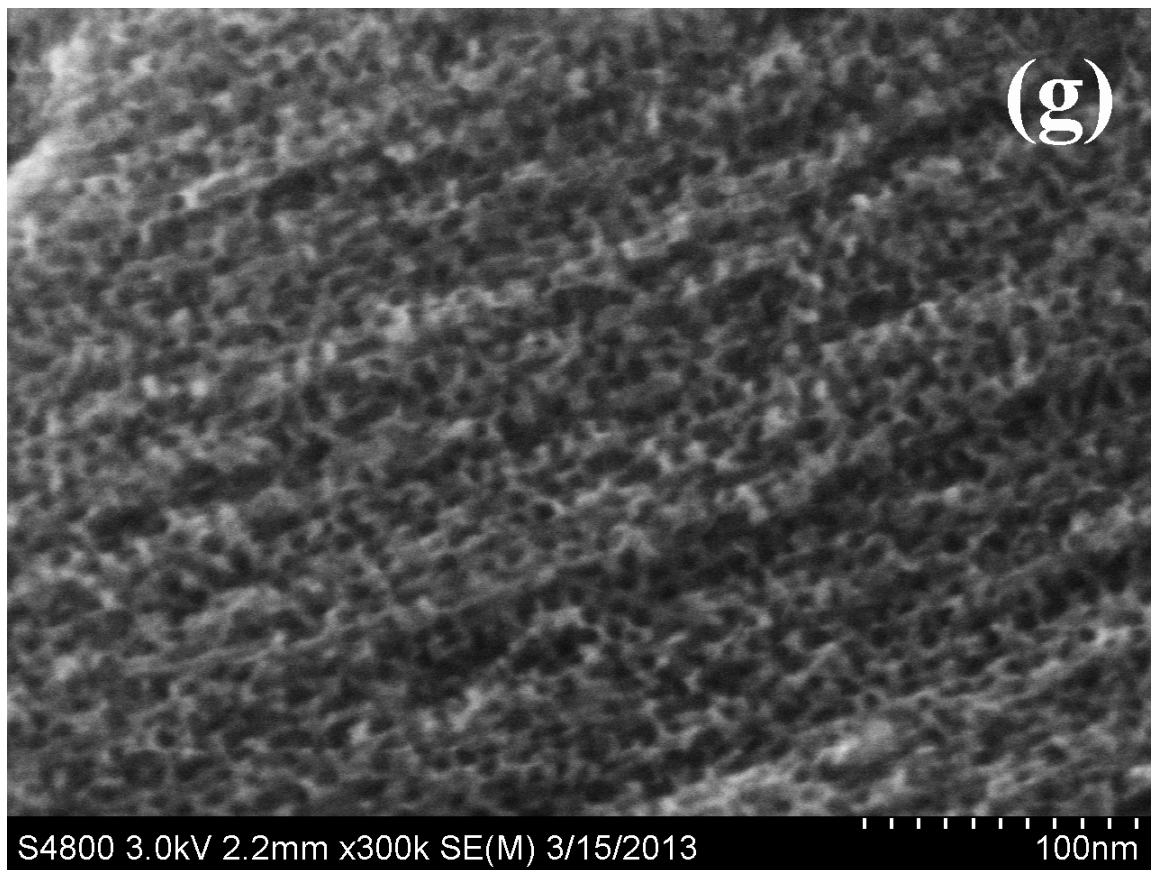


Fig. S2 SEM images of OMMC_{0.25} (a and b at 100 and 500 nm), OMMC_{0.37} (c and d at 200 and 500 nm), OMMC_{0.50} (e and f at 100 and 200 nm) and OMMC_{0.75} (g and h at 100 and 200 nm) respectively.

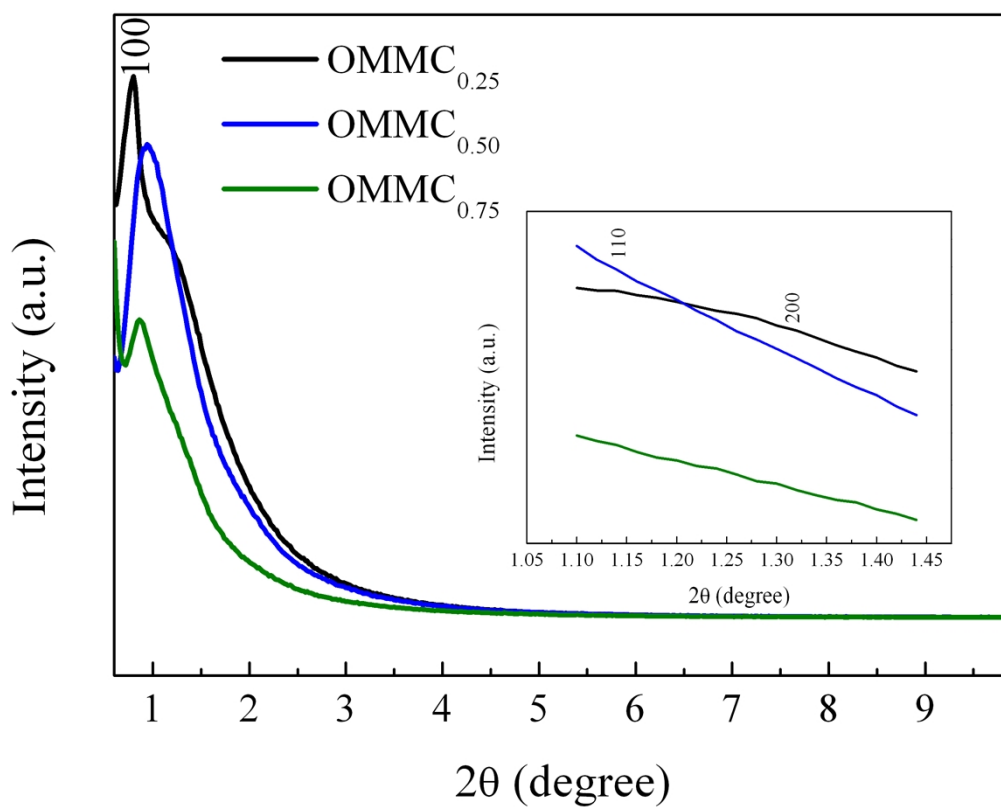


Fig. S3 SAXRD diffractograms of OMMC_{0.25-0.75}.

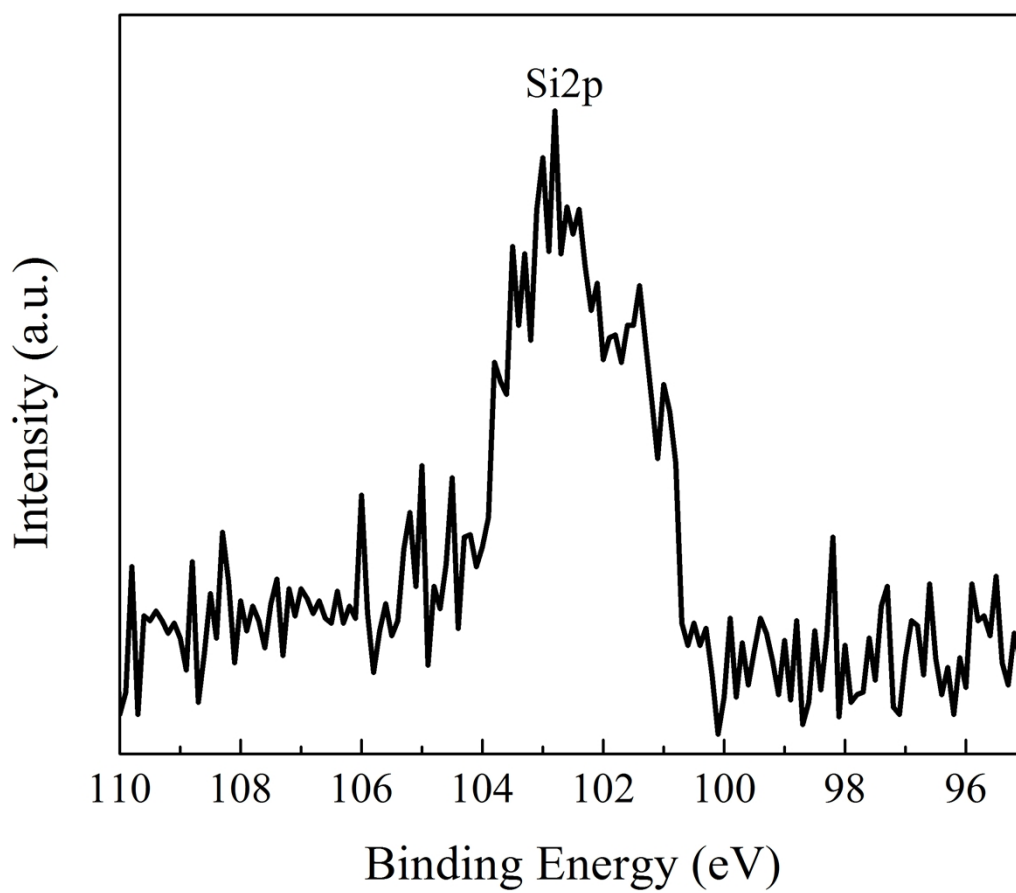


Fig. S4 XPS spectrum of Si2p of OMMC_{0.37}.

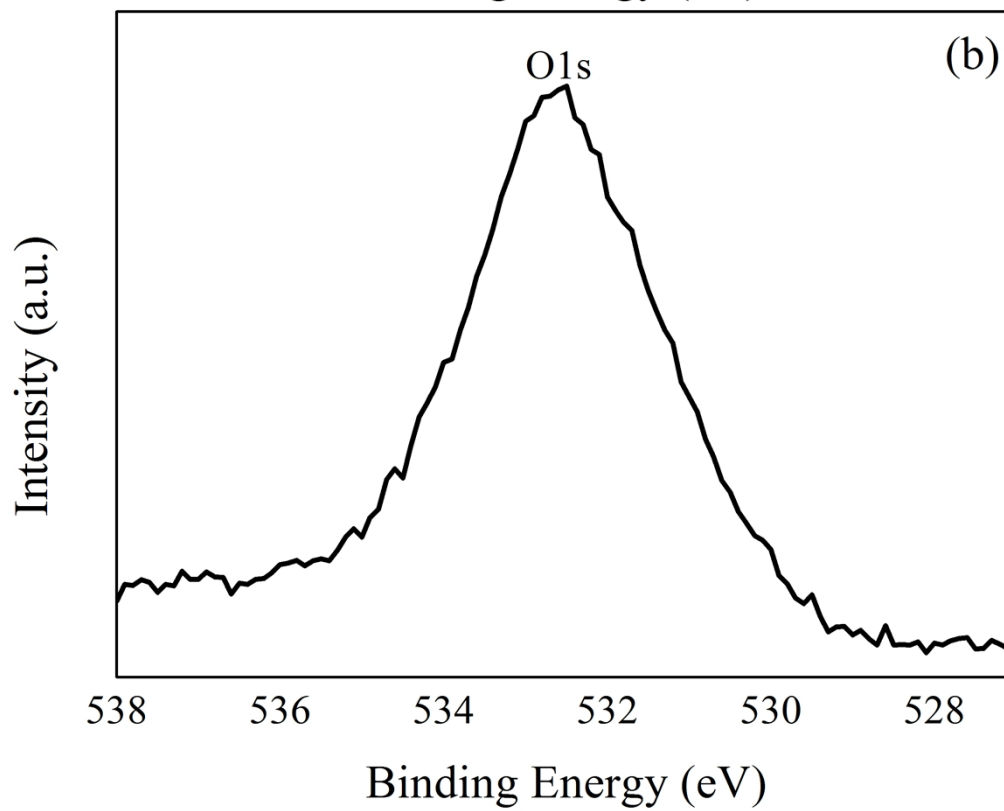
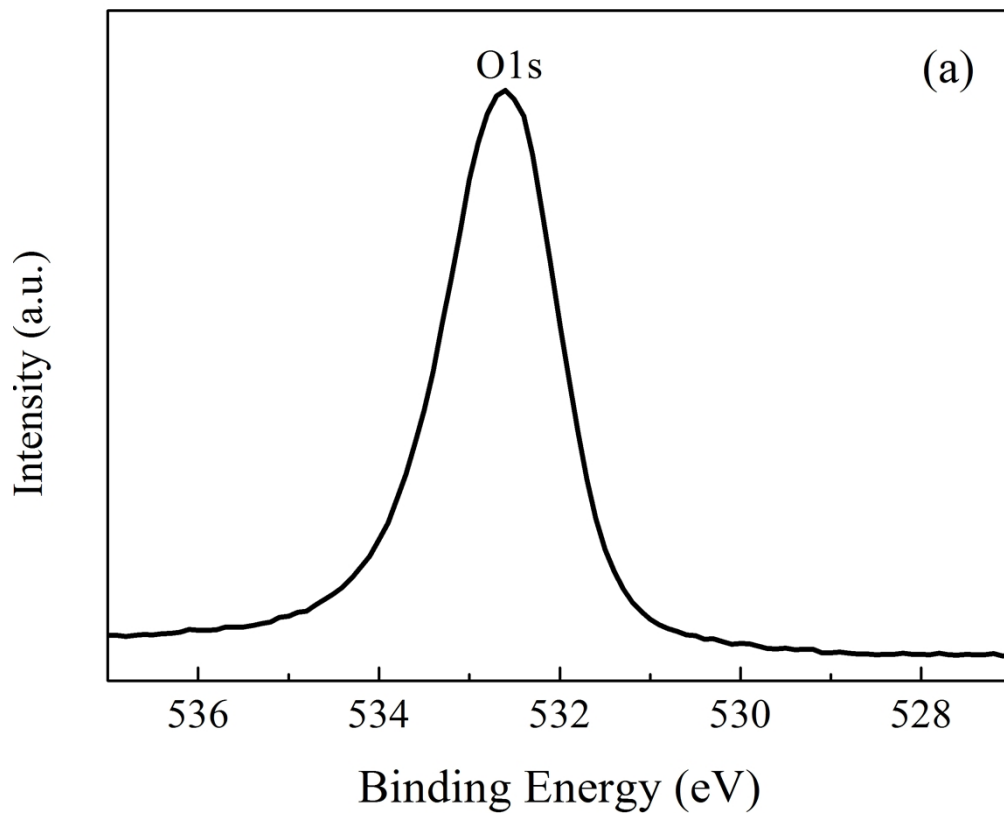


Fig. S5 XPS spectrum of **O1s** of OMMC-S_{0.37} (a) and OMMC_{0.37} (b).

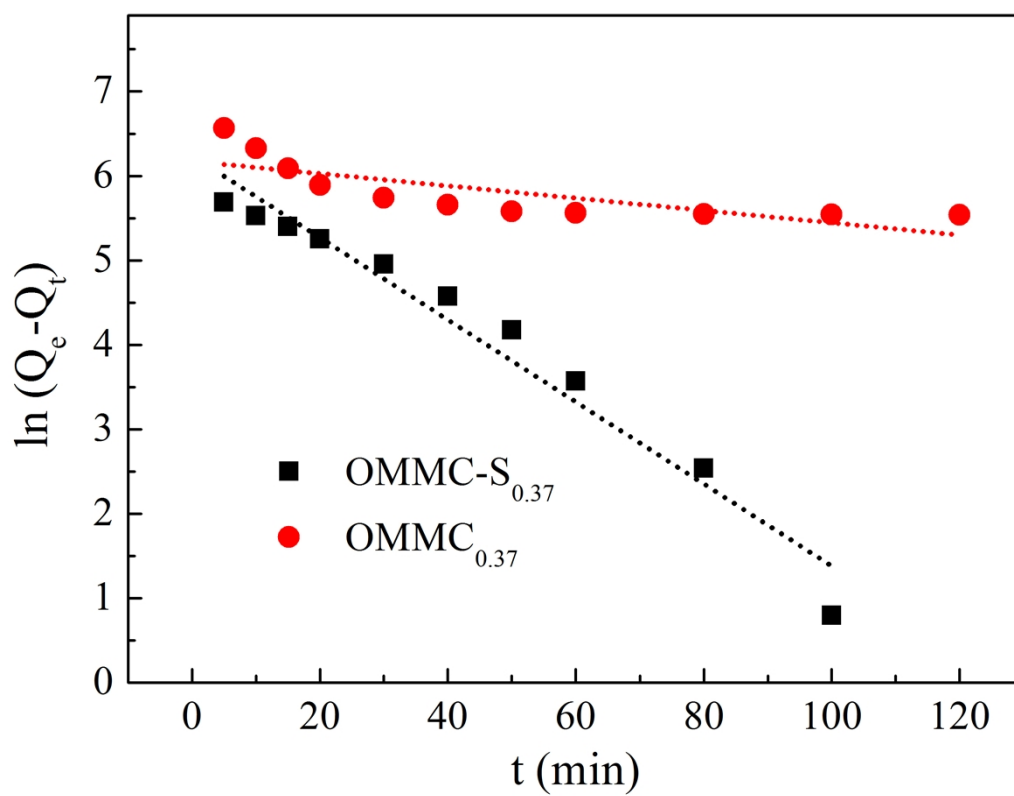


Fig. S6 Pseudo first-order kinetic plot of OMMC-S_{0.37} and OMMC_{0.37}.