

## Electronic Supplementary Information

### Partitioned cooperative self-assembly process: Taking the mesopore swelling strategy one step further for the preparation of mesocellular foams

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Fig.S1.

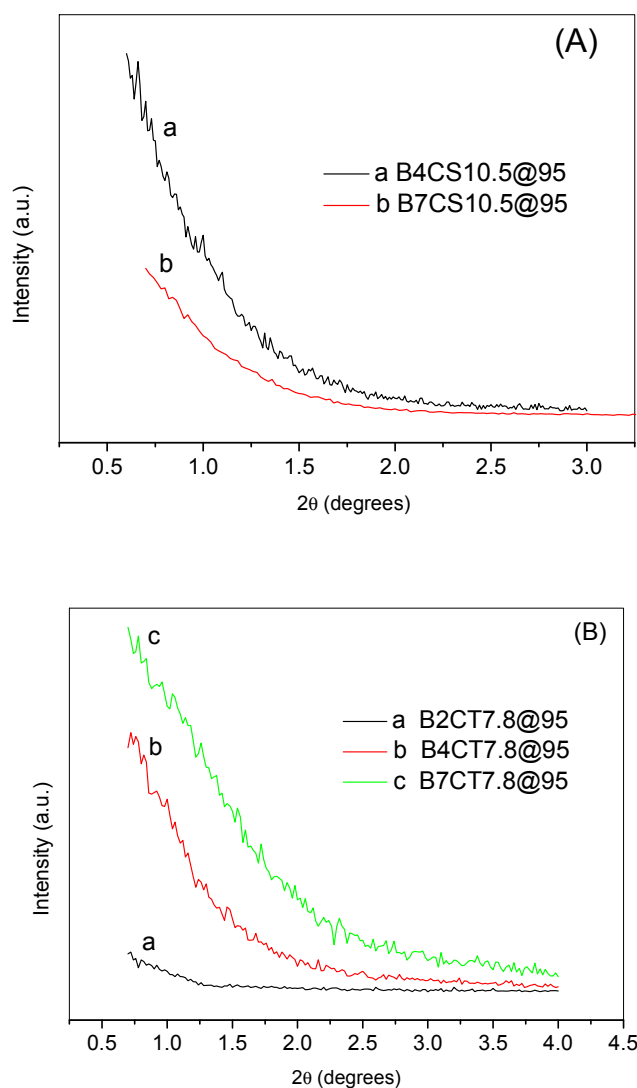


Fig.S1 XRD patterns of MCFs prepared *via* conventional method based on (A) sodium silicate and (B) TEOS.

**Fig.S2**

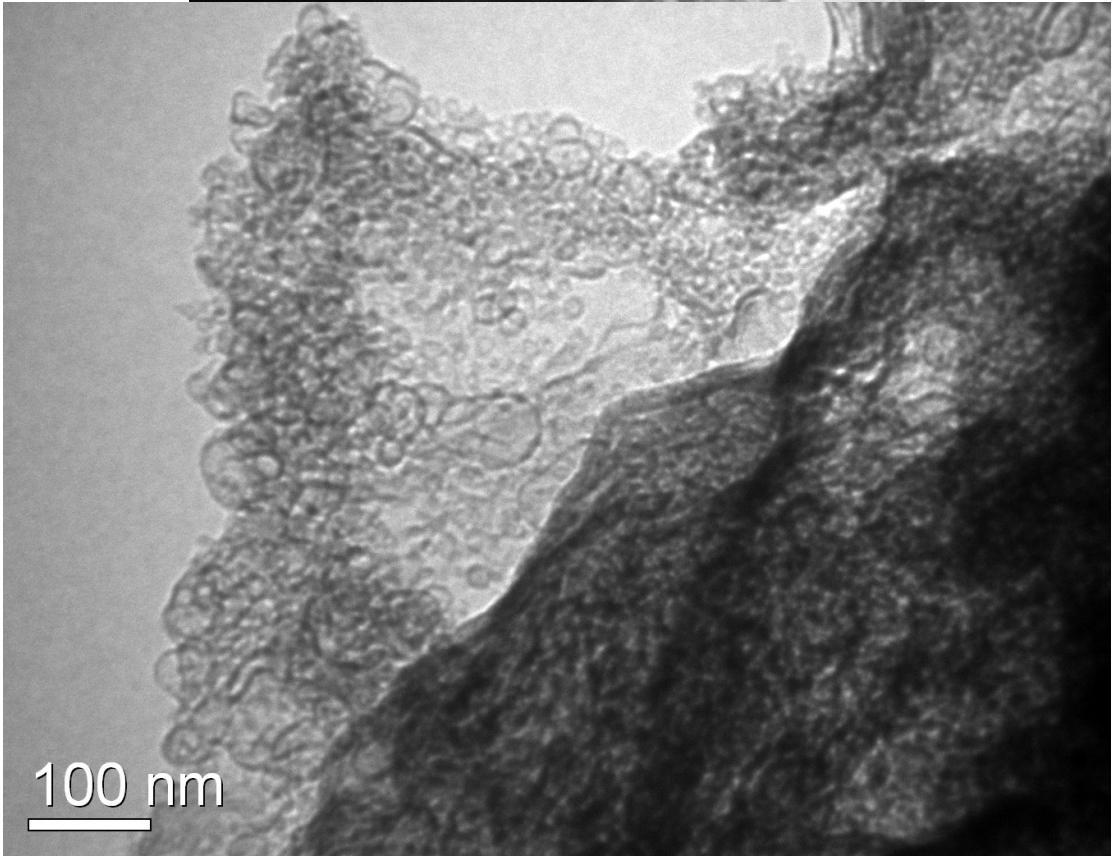
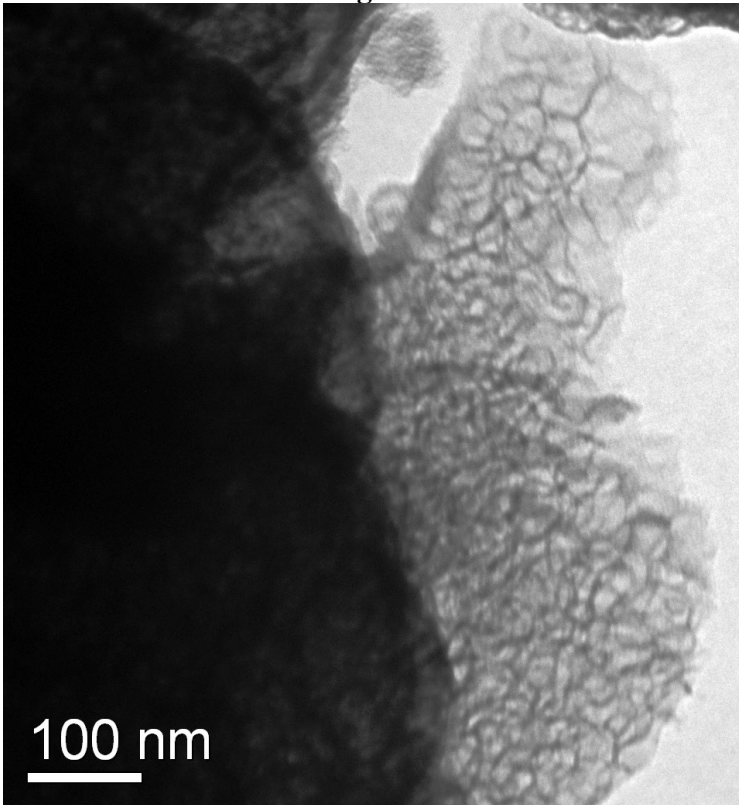


Fig.S2 TEM images of B4CS10.5@95.

Fig.S3

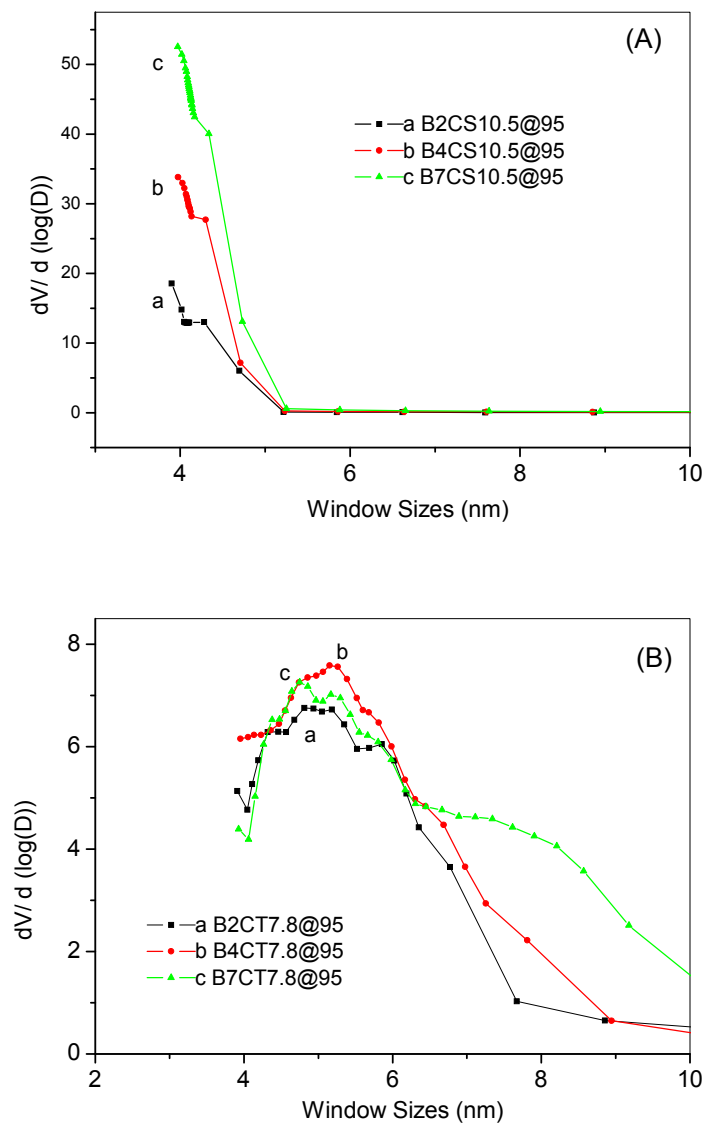


Fig.S3 Window Size distributions (BDB) of MCFs prepared via conventional method base on (A) SS and (B) TS.

Fig.S4

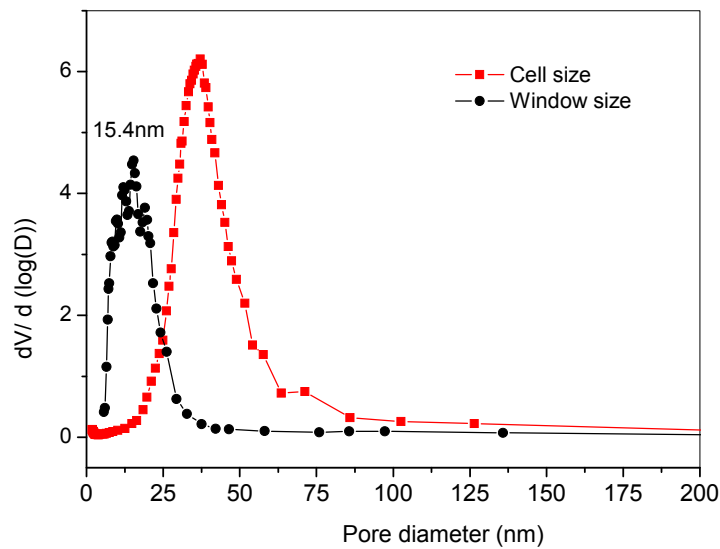


Fig.S4 cell size and window size distributions of B7CS10.5@95-F.

Fig.S5

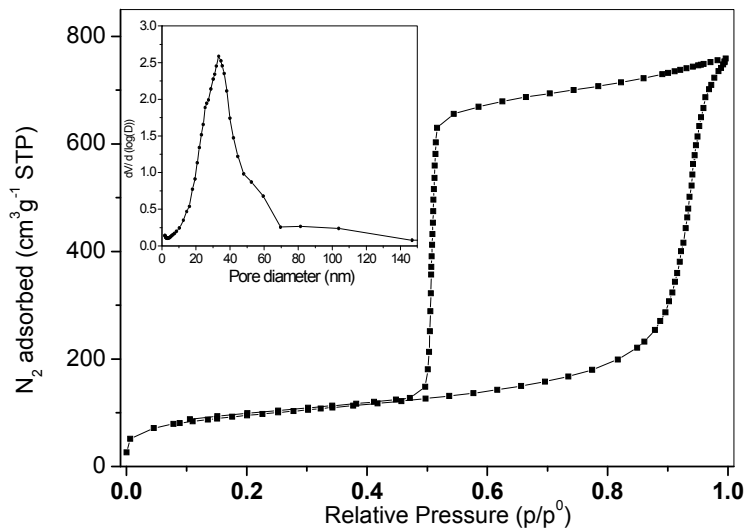


Fig.S5  $N_2$  sorption result and PSDs (inset) of B7SS8-3h-2.5@95.

**Fig.S6**

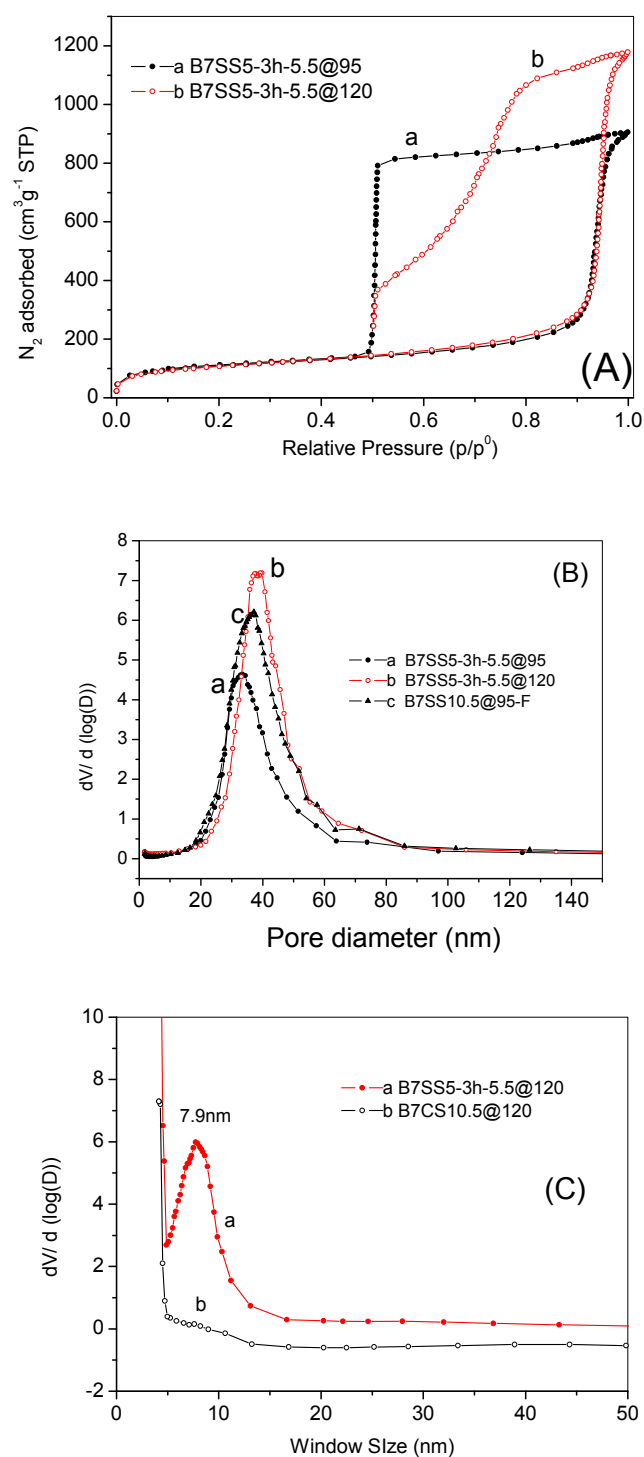


Fig.S6. (A) comparison in the  $N_2$  sorption results of (a)B7SS5-3h-5.5@95 and (b) B7SS5-3h-5.5@120.  
(B) Comparison in the cell sizes of (a)B7SS5-3h-5.5@95 and (b) B7SS5-3h-5.5@120 and (c) B7CS10.5@95-F.  
(C) The window size distributions of (a)B7SS5-3h-5.5@120 and (b)B7CS10.5@120.

Fig.S7

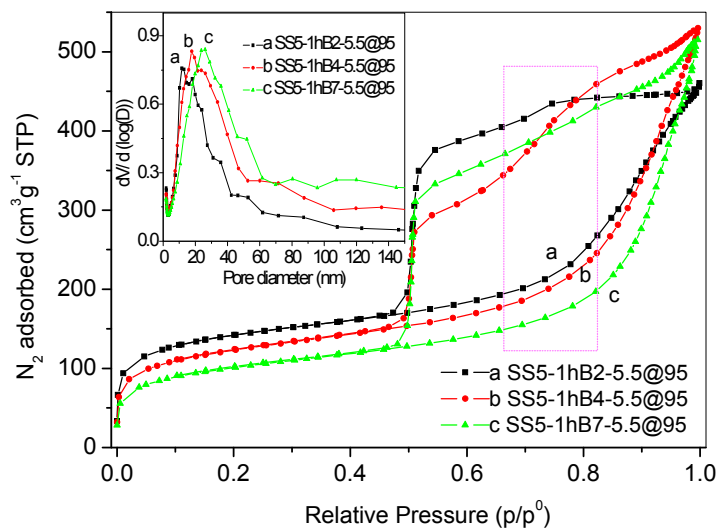


Fig.S7 N<sub>2</sub> sorption results of (a)SS5-1hB2-5.5@95, (b)SS5-1hB4-5.5@95, (c)SS5-1hB7-5.5@95.  
The inset shows the PSDs.