Supporting Information

Fabrication of core-shell structured mesoporous silica nanospheres with dually oriented mesochannels through pore engineering

Juan Peng, Jia Liu, Jian Liu, Yan Yang, Can Li* and Qihua Yang*

Figure S1  (A) High-resolution-TEM image of MSN-7.5-40 and (B) EDX analysis along the line shown in (A) of MSN-7.5-40.
Figure S2  Particle size distribution (Radius) of MSN-7.5-40 and MSN-7.5-80, determined by dynamic light scattering technique at 25 °C, using deionized water as the dispersion medium.

Figure S3  X-ray photoelectron spectroscopy of MSN-7.5-40 after adsorption of LYZ for 0.5 h and 79 h respectively.
Figure S4  STEM images of (A) MSN-7.5-70 and (B) MSN-7.5-80. (C) is the TEM image of a broken one of sample MSN-7.5-70 obtained by aging at 100°C
Figure S5   SEM image of MSN-15-70.

Figure S6   TEM images of MSN-7.5-70 with (A) 1 ml and (B) 5 ml extra ethanol added at the beginning of the synthesis.
Figure S7   TEM images of MSN-7.5-70 prepared with different amount of ethyl acetate: (A) 0 ml; (B) 0.4 ml; (C) 0.8 ml and (D) 1.2 ml.