Supporting Information

for

Ultra-low Density Porous Polystyrene Monolith: Facile Preparation and Superior Application

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Figure and Video Legends

Fig. S1 SEM images of the gel or gel-emulsion networks of different water content: (a) 0%, (b) 20%, (c) 50%, and (d) 90% (*v*/*v*).

Fig. S2 SEM pictures of the micro-structures of the relevant gel-emulsions in the presence of fourth component, a) CDDE/water/styrene containing 50% water and an inert solvent, b) CDDE/water/styrene containing 90% water and AN, and c) CDDE/ water/styrene containing 90% water and KH-570.

Fig. S3 SEM micrographs of porous monoliths with different water contents templates: a) 50%, b) 80%, c) 90% (*v*/*v*).

Fig. S4 Molecular structure of the stabilizer CDDE.

Fig. S5 Molecular structure of 1,6,7,12-tetra(4-tert-butylphenoxy)-perylene-3,4,9, 10-tetracarboxylic dianhydride, the fluorescence probe adopted.

Video S1. Selective absorption of kerosene from water by using the porous polystyrene monolith.

Video S2. Squeezing out of the oil absorbed by the porous polystyrene monolith.

Video S3. Recovery of the porous polystyrene monolith after utilization.

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Fig.S1

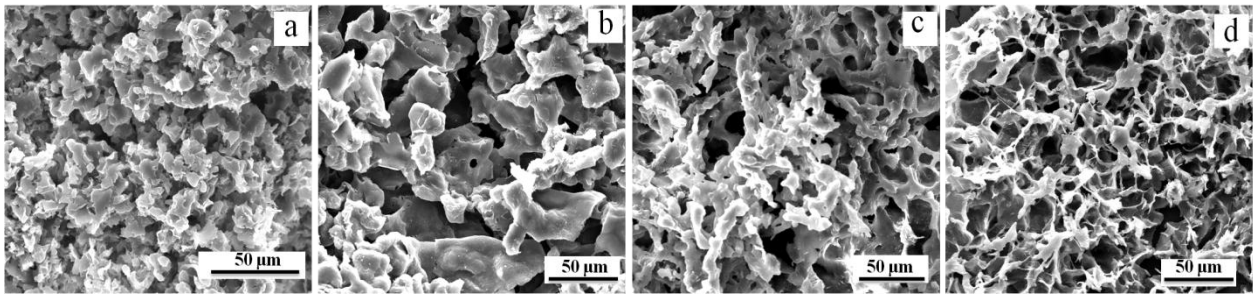

Fig. S2

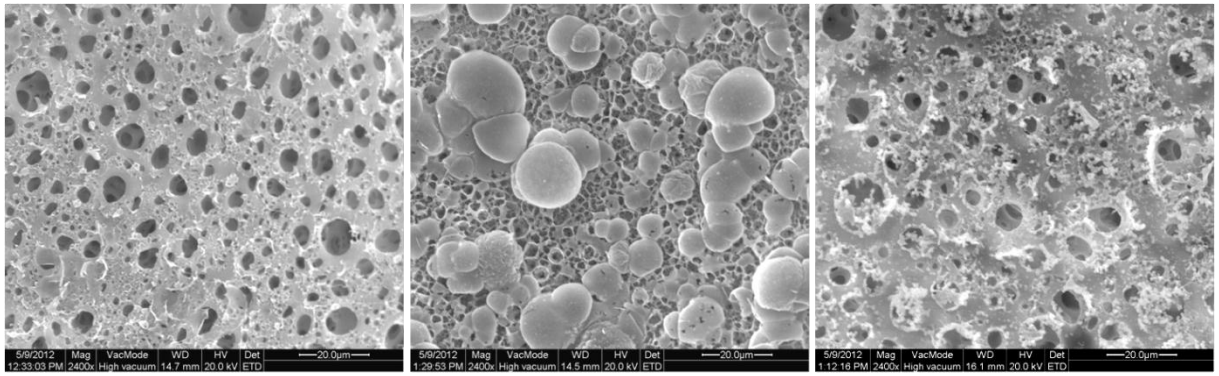

Fig. S3

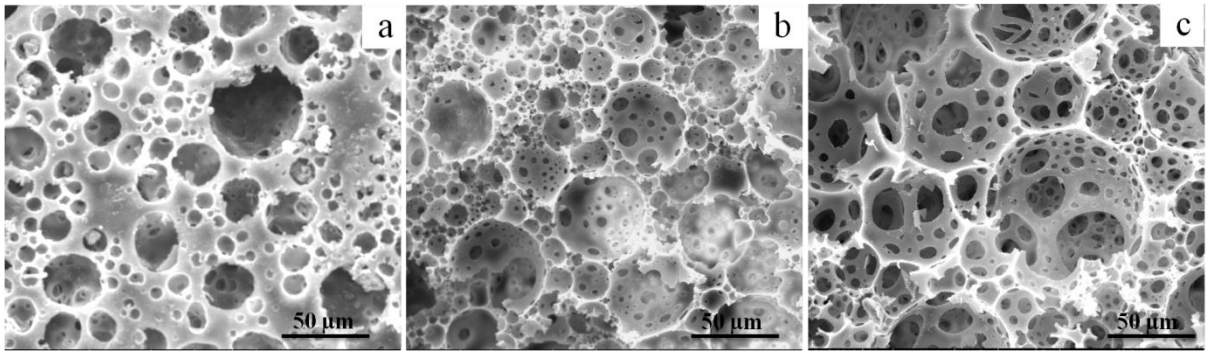

Fig. S4

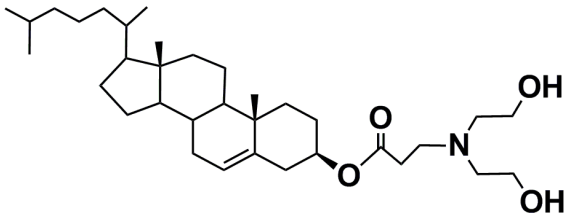

Fig. S5