Supporting Information

Superhydrophobic Silica Aerogel Reinforced with Polyacrylonitrile Fibers for Adsorbing Oil from Water and Oil Mixtures

Mingjia Shi, Cunguo Tang, Xudong Yang, Junling Zhou, Fei Jia, Yuxiang Han, Zhenyu Li*

School of Chemical Engineering, Changchun University of Technology, Changchun 130012, P. R. China.

*Corresponding author:

School of Chemical Engineering, Changchun University of Technology, Changchun

130012, People's Republic of China.

Tel: +86-431-85716328; E-mail: cclzy2001@163.com



Figure S1 Gelation time and density as function of the molar tatio of methanol/MTMS.



Figure S2 Gelation time and density as function of the molar tatio of DMF/MTMS.

 Table S1 Gelation time, density and porosity of silica aerogels prepared with the

 different molar tatio of MTMS/DMDMS.

MTMS:DMDMS (Gelation time /min	Density/(kg/m ³)	Porosity/%
1:0.35	15	83.45	95.60
1:0.70	24	80.31	95.77
1:1.05	80	148.57	92.18



Figure S3 Gelation time and density as function of the pH of polycondensation.



Figure S4 Contact angle and density as function of the modification time.



Figure S5 The photograph of modified aerogels we prepared with different shapes.



Figure S6 The bending photograph of modified aerogels prepared.



Figure S7 SEM images of the unmodified aerogel at different magnifications.



Figure S8 Photograph depecting the flexibility of modified aerogels prepared (a) (b)

(c).



Figure S9 X-ray diffraction spectra of the unmodified and modified aerogel.



Figure S10 Stress and density as function of the mass fraction of fiber contents.



Figure S11 SEM images of fibers at different magnifications.



Figure S12 The photograph of water on the aerogel surface and aerogel floating on the water.