Supporting Information for

Hydrophobic and Flexible Cellulose Aerogel as an Efficient, Green and Reusable Oil Sorbent

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Table S1. Compressive strength of 2wt.% cellulose aerogels in different mediums.

Mediums / Stress / Strain	Tap water	Air	Pump Oil	Diesel	Ethanol
60%	3.27kPa	5.39kPa	5.46kPa	6.18kPa	8.61kPa
80%	26.78kPa	15.72kpa	95.46kPa	26.45kPa	29.07kPa

Table S2. Adsorption capacity of 3wt.% modified cellulose aerogels.

Oils	Diesel	Pump Oil	Peanut Oil
Cm($g \cdot g^{-1}$)	14.7	15.9	16.6

Table S3. Relative peak areas from deconvoluted C 1s spectra before and after hydrophobic modification.

	C 1	C 2	C 3	C 4
Unmodified	14.19%	41.51%	38.31%	5.99%
Modified	53.25 %	39.95%	5.24%	1.56%

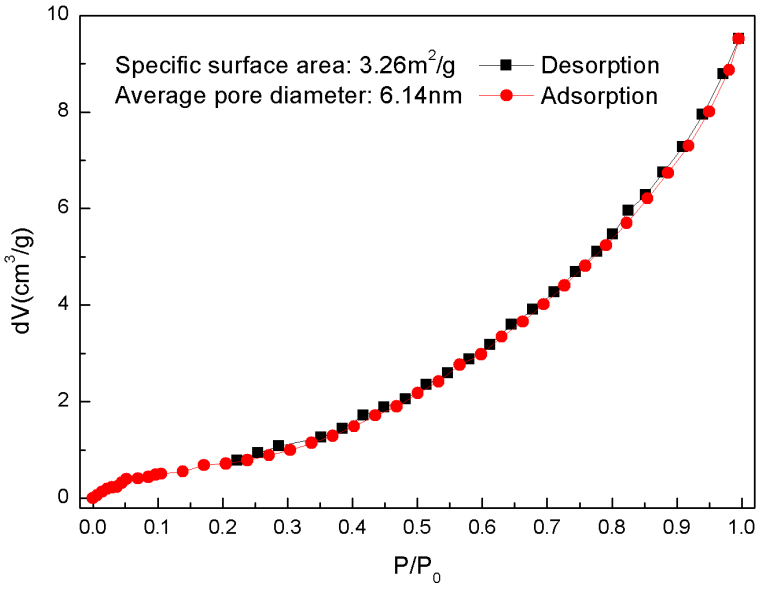

Figure S1. N_2 sorption isotherms of 3wt.% cellulose aerogels.*

*Notes: Nitrogen sorption isotherms were performed at -196℃ on JK-BK112 Surface Area and Mesopore Size Analyzer from Beijing JWGB Sci & Tech Co., Ltd. The BET surface area was determined from an analysis of the isotherms in the relative pressure range of 0.01 to 0.35.

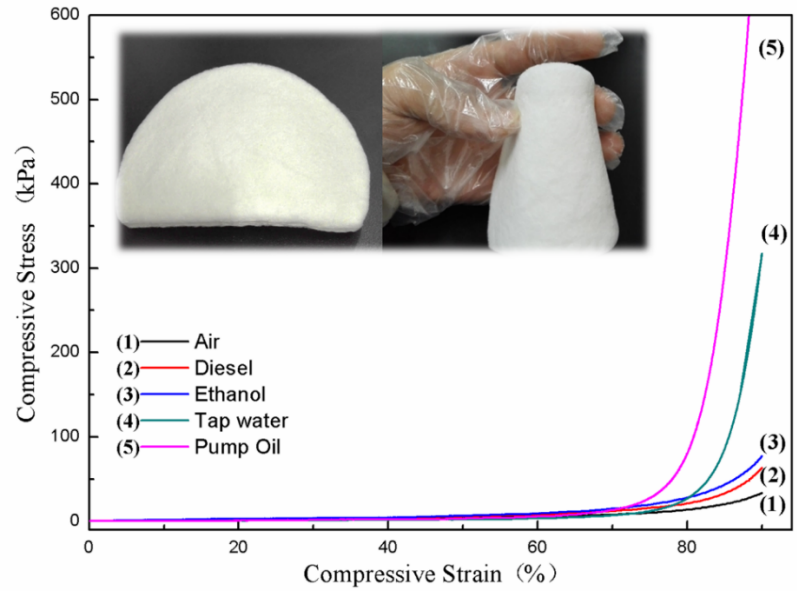

Figure S2. Compressive properties of 2wt.% cellulose aerogels in various mediums. The insert photograph indicated that cellulose aerogel was flexible (**Supplementary Video 1**).

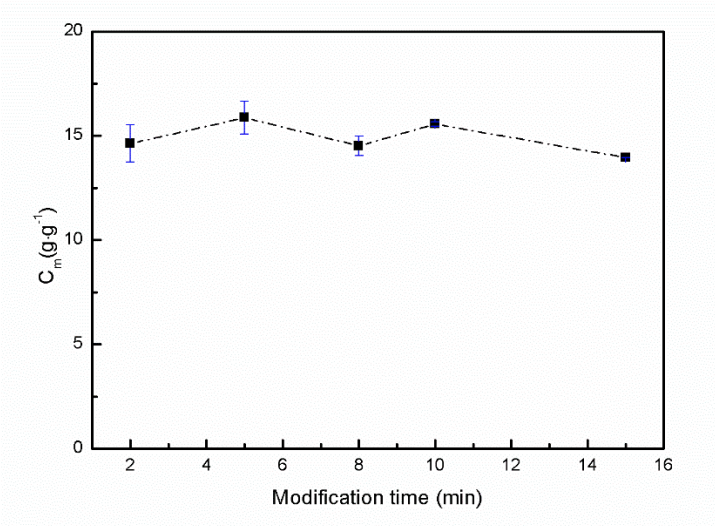

Figure S3. Diesel oil adsorption capacities versus different modification time.

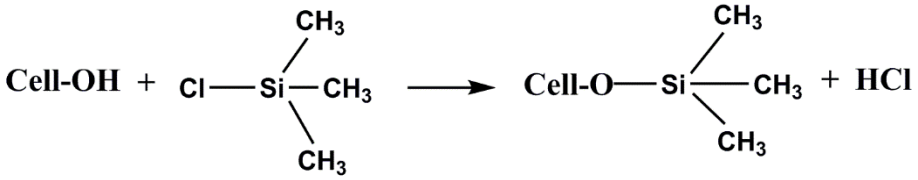

Figure S4. The silylation of cellulose with MTCS.

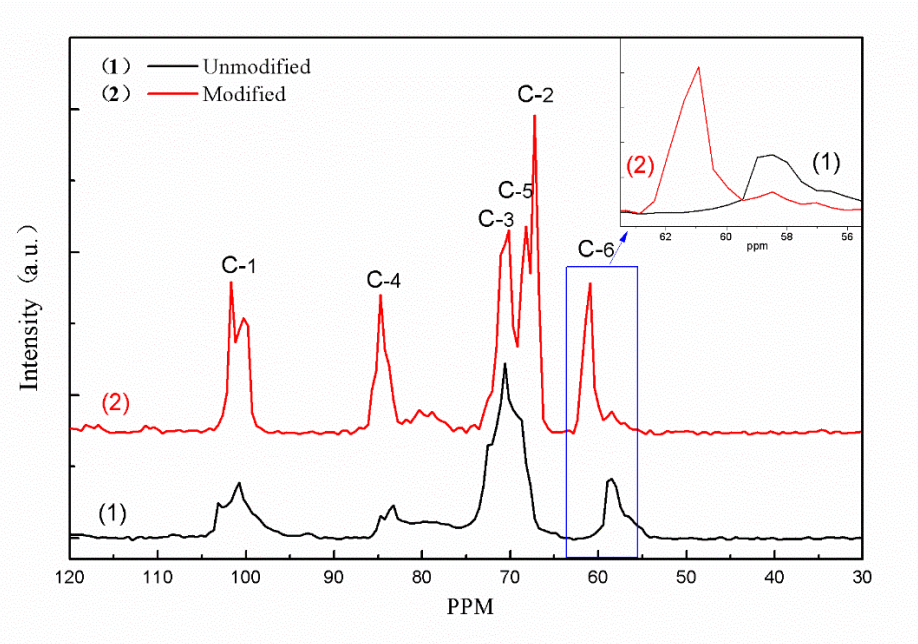

Figure S5. CP/MAS ^{13}C NMR spectra of cellulose aerogels before and after hydrophobic modification.