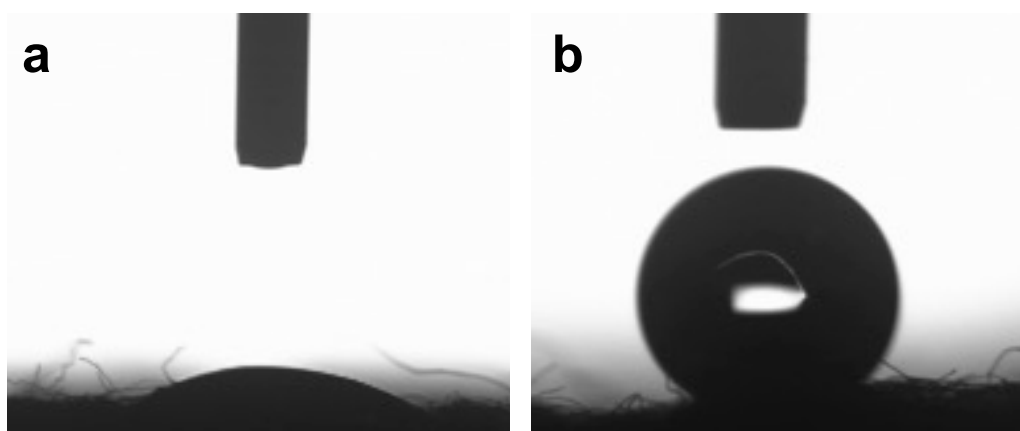
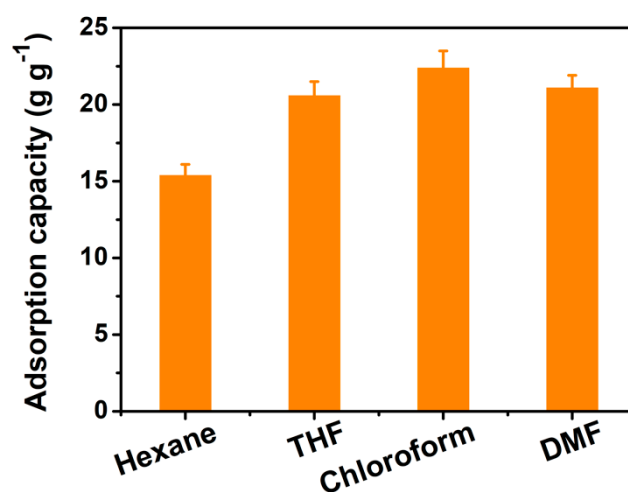


Supplementary Material



**Figure S1.** Water contact angles of CNWF (a) and PDMS-pCA@CNWF (b).



**Figure S2.** Adsorption capacities of PDMS-pCA@CNWF for different oil solvents.

**Table S1.** Summary of the oil adsorption capacities of various adsorbents.

Samples	Oil Adsorption Capacity (g/g)	Ref.
Polydivinylbenzene nanofibres	7.5	[1]
Alkenylsuccinic anhydride modified wood-based fibers	6	[2]
Cotton fibers grafted with dialkyl substituted silyl ethers	18	[3]
Polyvinyl alcohol nanofiber membranes	12.7	[4]
Raw cotton fiber	15	[5]
PDMS-pCA@CNWF	22.4	This work

**Table S2.** Thickness of CNWF, pCA@CNWF, PDMS-pCA@CNWF, and PDMS-pCA@CNWF in the different pH solutions (pH 1, 5, 7, 9, and 13) and various organic solvents (Hexane, THF, Chloroform, and DMF).

Samples	Thickness <sup>a</sup> (μm)
CNWF	1066 ± 2.1
pCA@CNWF	1059 ± 3.0
PDMS-pCA@CNWF	1068 ± 3.5
PDMS-pCA@CNWF (Hexane)	1027 ± 3.8
PDMS-pCA@CNWF (THF)	1049 ± 4.1
PDMS-pCA@CNWF (Chloroform)	1058 ± 2.1
PDMS-pCA@CNWF (DMF)	1056 ± 2.3
PDMS-pCA@CNWF (pH 1)	1051 ± 2.5
PDMS-pCA@CNWF (pH 5)	1055 ± 2.6
PDMS-pCA@CNWF (pH 7)	1049 ± 2.7
PDMS-pCA@CNWF (pH 9)	887 ± 3.1
PDMS-pCA@CNWF (pH 13)	721 ± 4.6

<sup>a</sup>Values are shown as the mean ± standard deviation (SD) (n = 3).

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