Supporting information:

Thermal-Responsive Hydrogel Surface: Tunable Wettability and Adhesion to Oil at Water/Solid Interface

Li Chen, Mingjie Liu, Ling Lin, Tong Zhang, Jie Ma, Yanlin Song and Lei Jiang

a Beijing National Laboratory for Molecular Sciences (BNLMS), Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, P. R. China. E-mail: jianglei@iccas.ac.cn

b Graduate University of Chinese Academy of Sciences, Beijing 100049, P. R. China.
**Figure S1**

![Image](image1.png)

**Fig. S1** OCA at water/PAM hydrogel interface, where no reversible changing observed.

**Figure S2**

![Image](image2.png)

**Fig S2.** Oil contact angles on the PNIPAM hydrogel micro stage arrays at different time at 40 °C. a) 0 s. b) 12 s. c) 22 s. d) 60 s. Size of the micro stage arrays: 50×50 μm in the sides, 20 μm in the height and 50 μm in the spacing.

**Figure S3**

![Image](image3.png)

**Fig. S3** Optical microscopic images of silicon wafers with micro wells of different sizes. The side length of the micro wells are the same value: 50×50 μm, but spacing sizes are different: a) 50 μm. b) 100 μm. c) 150 μm. d) 200 μm. Bar: 100 μm.