Electronic Supplementary Material (ESI) for RSC Advances.

Wettability and Permeation of Ethanol/water Mixture on Porous Mesh Surface

Liping Heng,[a, b] Jie Liu,[a] Ruixiang Hu,*[a] Ke-Yu Han,[a, b] Lian-Lian Guo,[a] Ye Liu,[a] Meng-Ying Li,[a] Qiao Nie[a]

a *College of Chemistry and Chemical Engineering, Hunan Normal University, Changsha, Hunan Province 410081, China*

b School of Chemistry and Environment, Beihang University, Beijing 100191, China

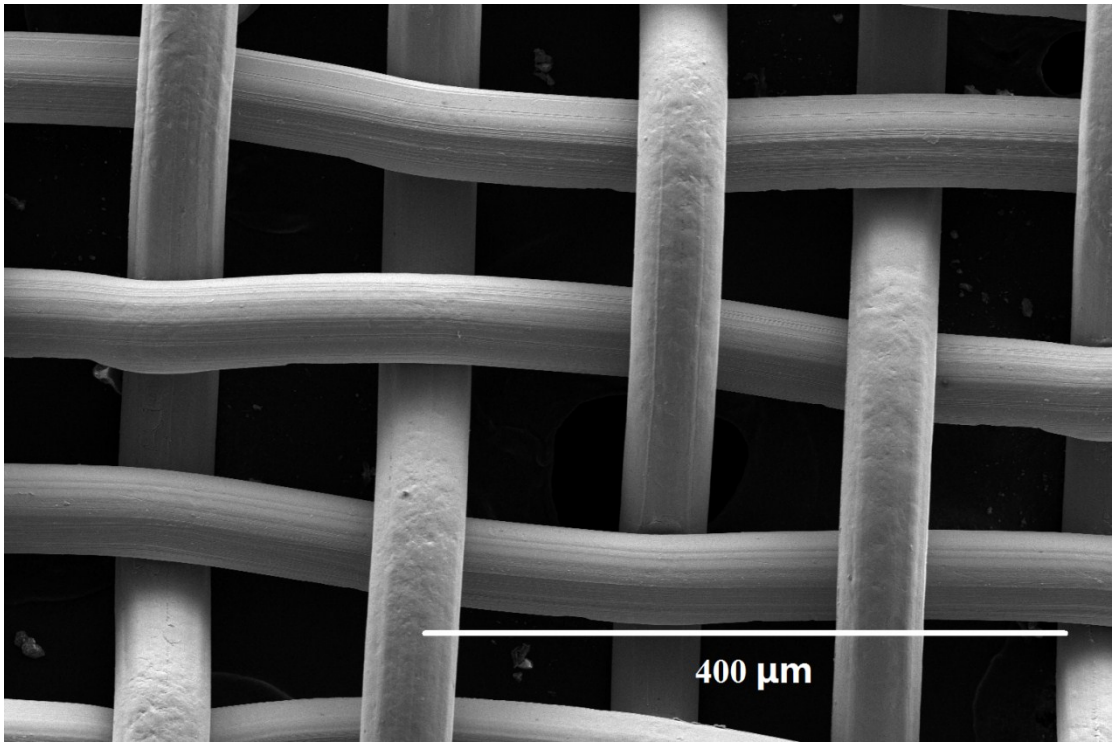

Figure S1 Low magnification SEM image of the Cu mesh, the diameter of copper wire is about 51 μm and the average width of a square in the mesh is about 85 μm.

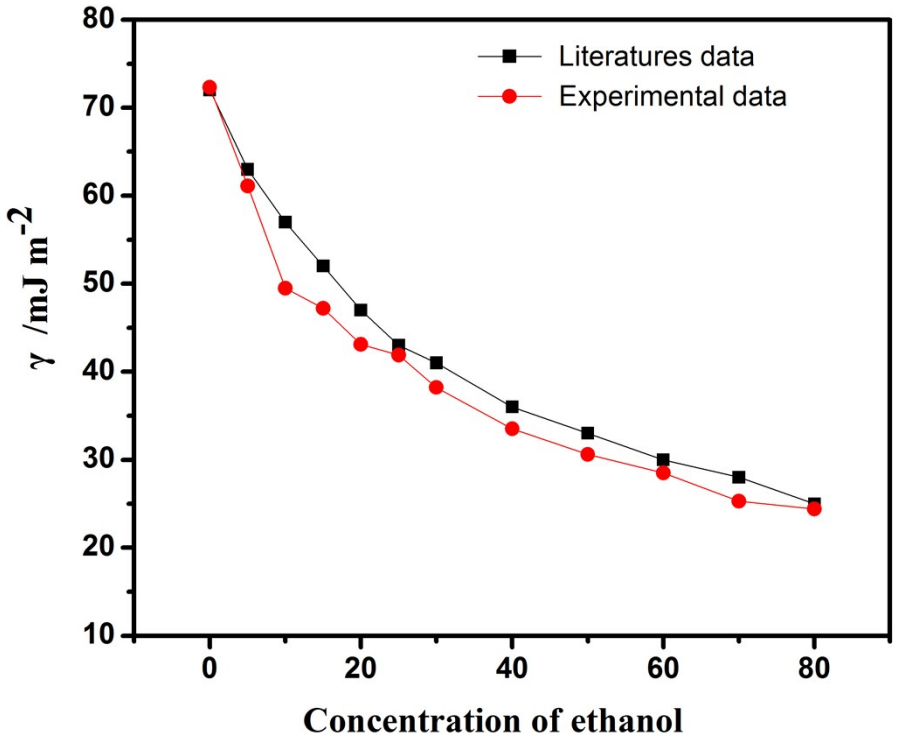

Figure S2 The surface tension values of different concentration ethanol/water mixed solution

Table S1 EDX element content analysis.

Element	X_{OH}=0 (%)	X_{OH}=0.3 (%)	X_{OH}=0.5 (%)	X_{OH}=0.7 (%)	X_{OH}=1.0 (%)
C	80.8	78.5	73.4	53.8	44.0
O	7.2	9.8	12.2	24.1	26.9
S	6.9	6.5	7.3	7.2	8.3

Table S2 Dynamic CA of the samples, θ_A is advancing angle, θ_R is receding angle, θ_H is CA hysteresis, θ_S is sliding angle.

X_{OH}	θ_A (°)	θ_R (°)	θ_H (°)	θ_S (°)
0.5	150.3	122.5	27.8	26.6
0.7	156.6	148.2	8.4	6.3
1.0	/	/	/	/