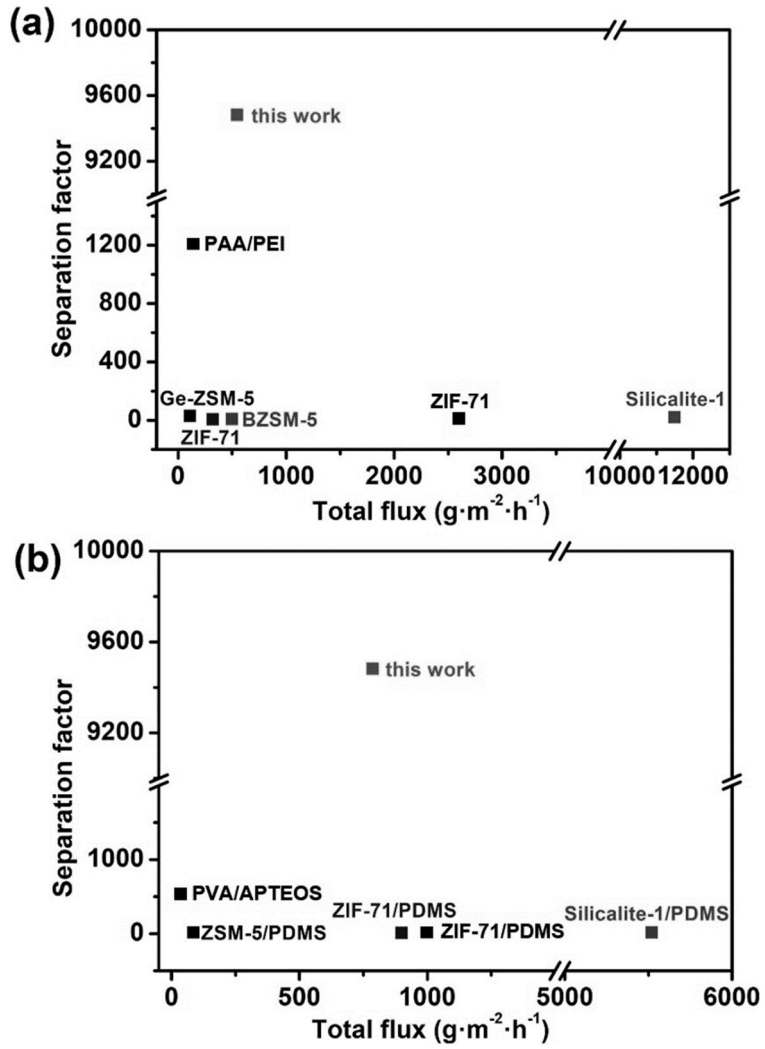
(a)
Separation factor
10000
9600
9200
1200
800
400
0
this work
PAA/PEI
Ge-ZSM-5
BZSM-5
ZIF-71
ZIF-71
Silicalite-1
0
1000
2000
3000
10000
12000
Total flux (g·m-2·h-1)
(b)
Separation factor
10000
9600
9200
1000
0
this work
PVA/APTEOS
ZSM-5/PDMS
ZIF-71/PDMS
ZIF-71/PDMS
Silicalite-1/PDMS
0
500
1000
5000
6000
Total flux (g·m-2·h-1)

FIG. 13

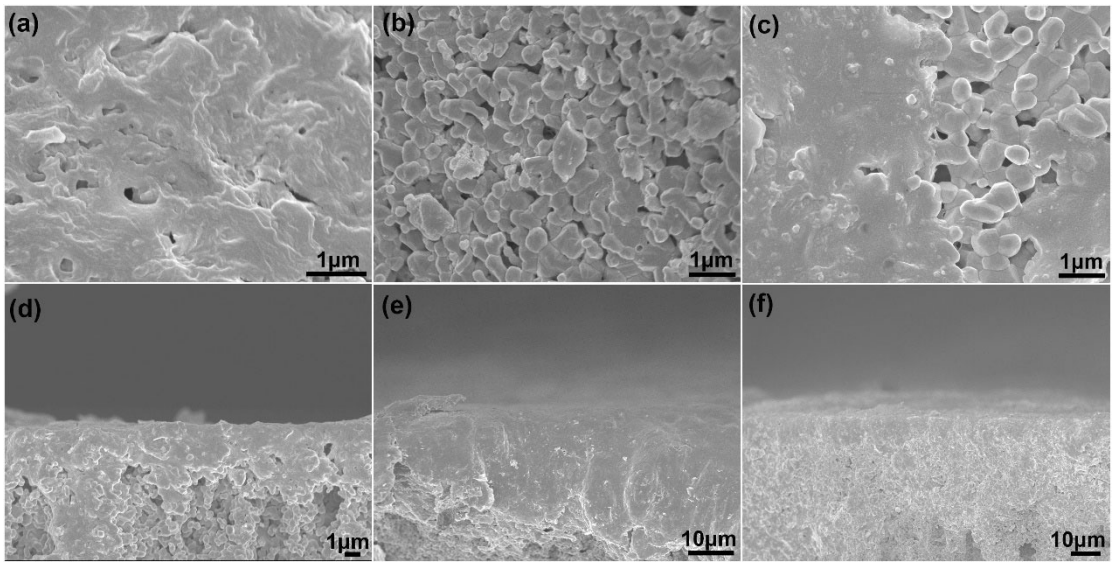
(a)
1μm
(b)
1μm
(c)
1μm
(d)
1μm
(e)
10μm
(f)
10μm

FIG. 14

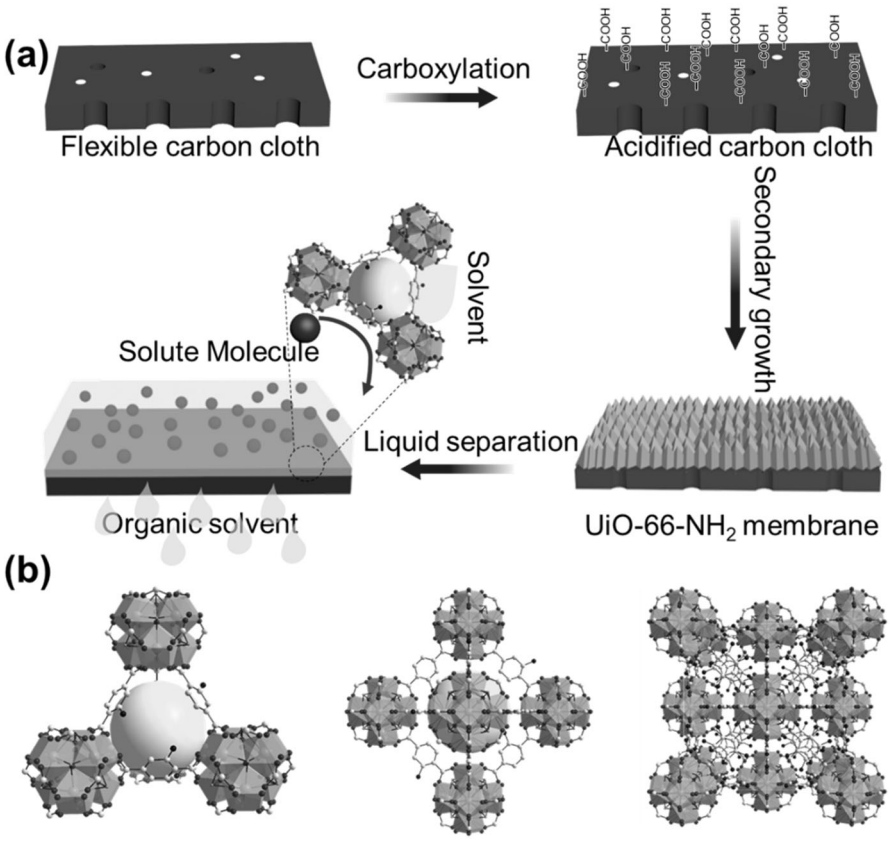
(a)
Flexible carbon cloth
Carboxylation
Acidified carbon cloth
Secondary growth
Solvent
Solute Molecule
Liquid separation
Organic solvent
UiO-66-NH2 membrane
(b)

Fig. 15

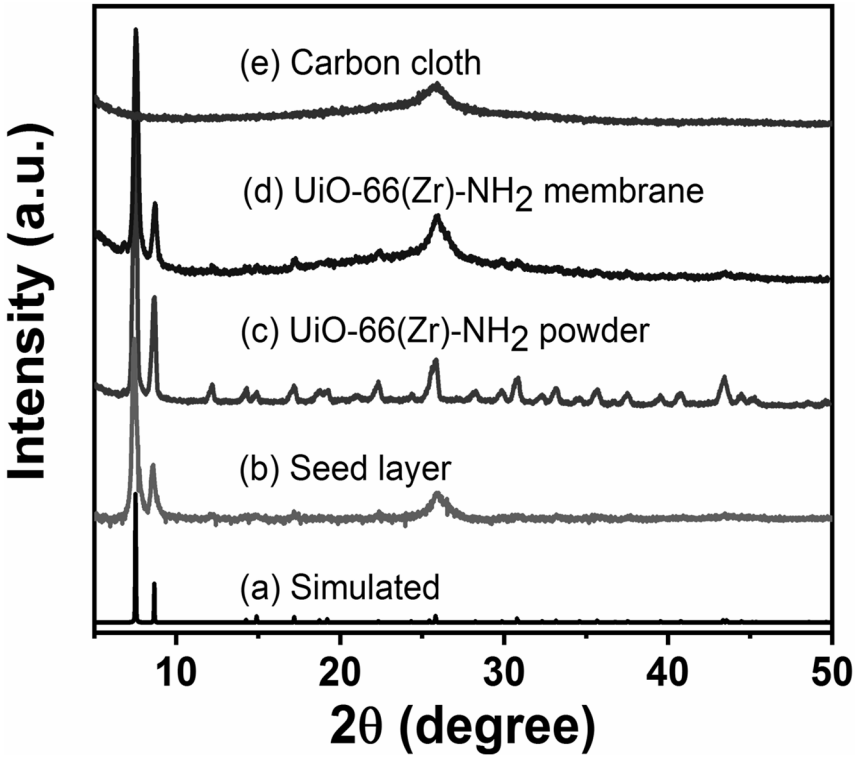
(e) Carbon cloth
(d) UiO-66(Zr)-NH2 membrane
(c) UiO-66(Zr)-NH2 powder
(b) Seed layer
(a) Simulated
Intensity (a.u.)
10
20
30
40
50
2θ (degree)

Fig. 16