

FIG. 1

Membrane	Membrane Performance
Perfluorinated ionomer membrane	N.A.
B-ZSM-11	Isopropanol Separation (5% isopropanol at 60°C) Separation factor: 16; Flux: 310 g/m ² .hr
Ge-ZSM-5	Isopropanol Separation (5% isopropanol at 30°C); Separation factor: 29; Flux: 91 g/m ² .hr
30% ZSM-5 loading PDMS	Isopropanol Separation (10% isopropanol at 50°C); Separation factor: 11.2; Flux: 104.8 g/m ² .hr
3wt% TMSH-Silica loading PDMS	Isopropanol Separation (4% isopropanol at 50°C) Separation factor: 31.7; Flux: 405 g/m ² .hr
PDMS Membrane	Isopropanol Separation (3% isopropanol at 75°C) Separation factor: 125.8; Flux: 437.8 g/m ² .hr

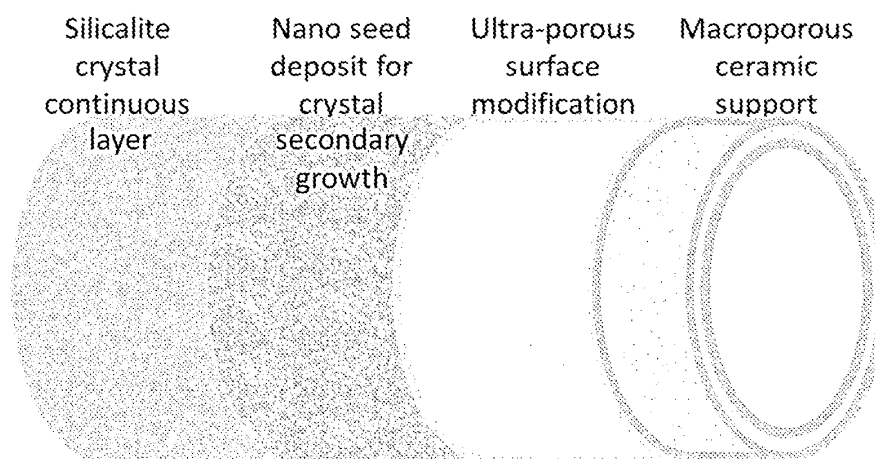
FIG. 2

FIG. 3

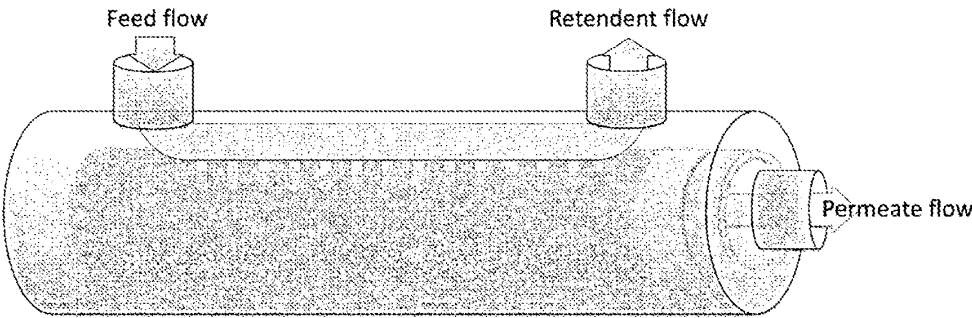


FIG. 4

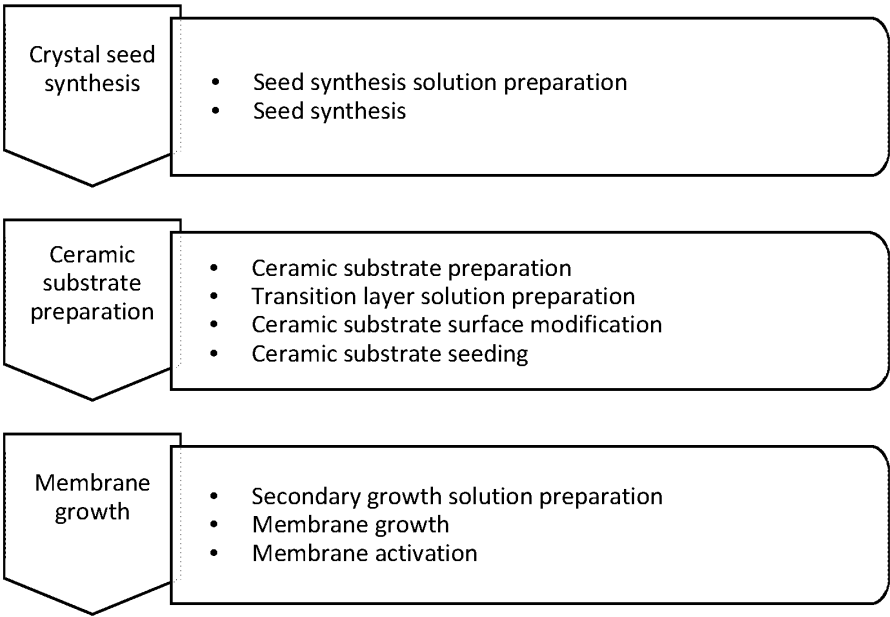


FIG. 5

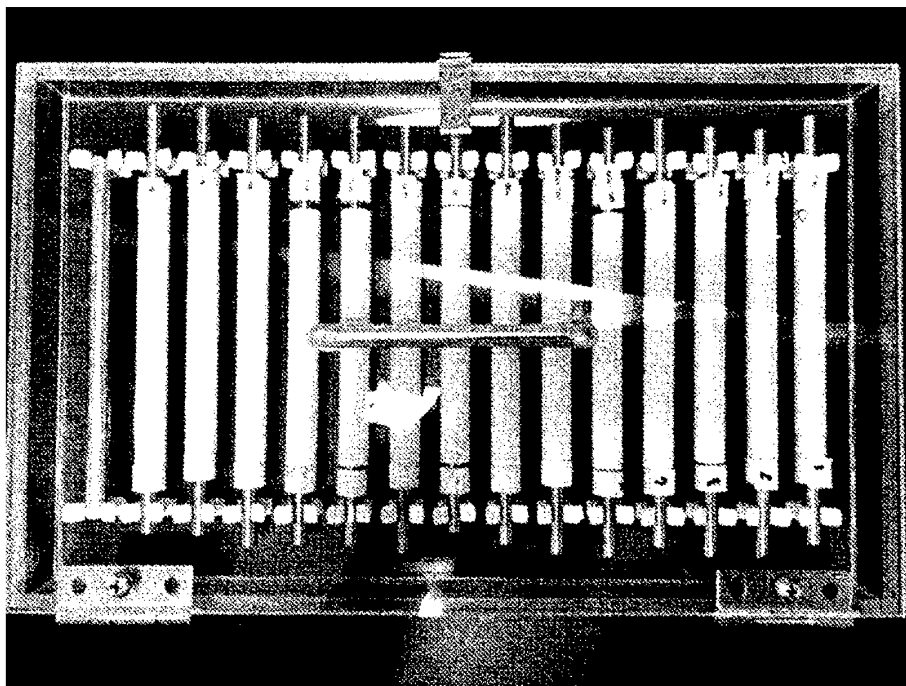


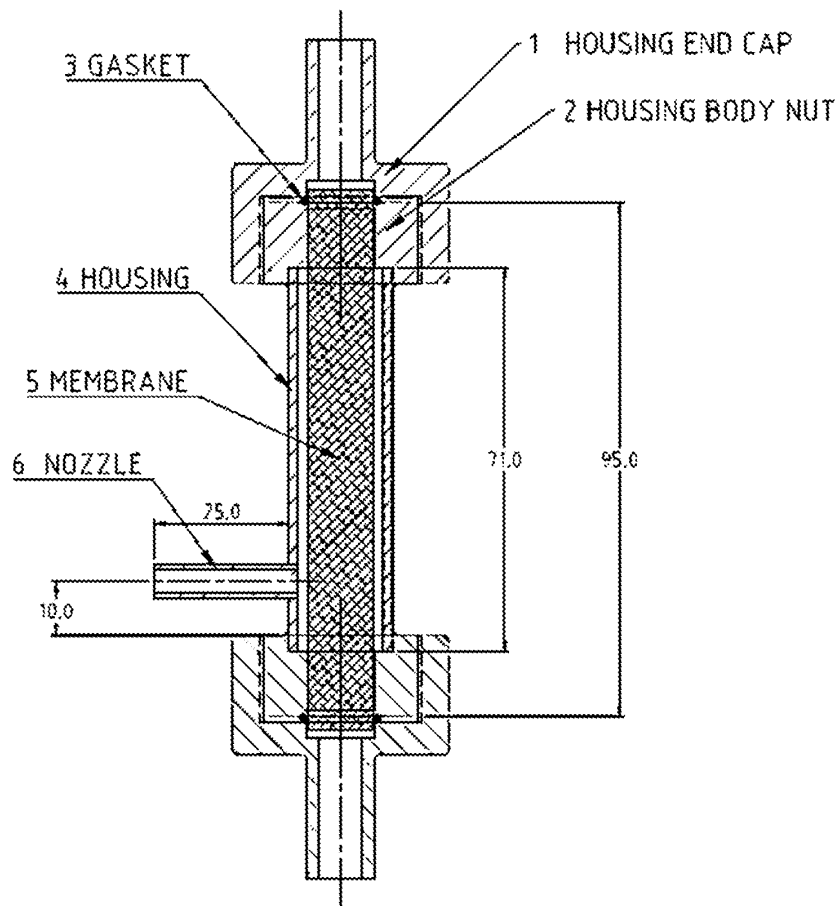
FIG. 6

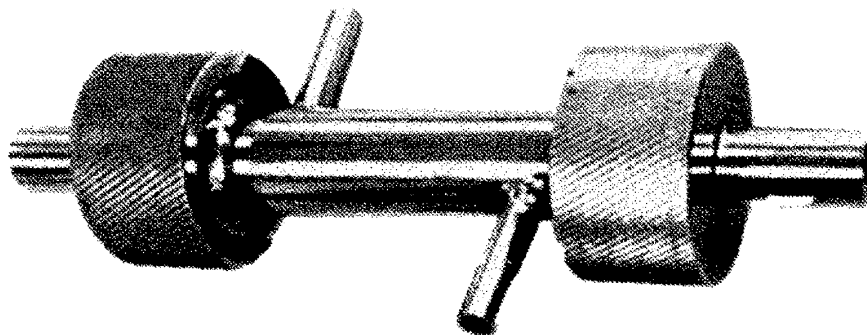
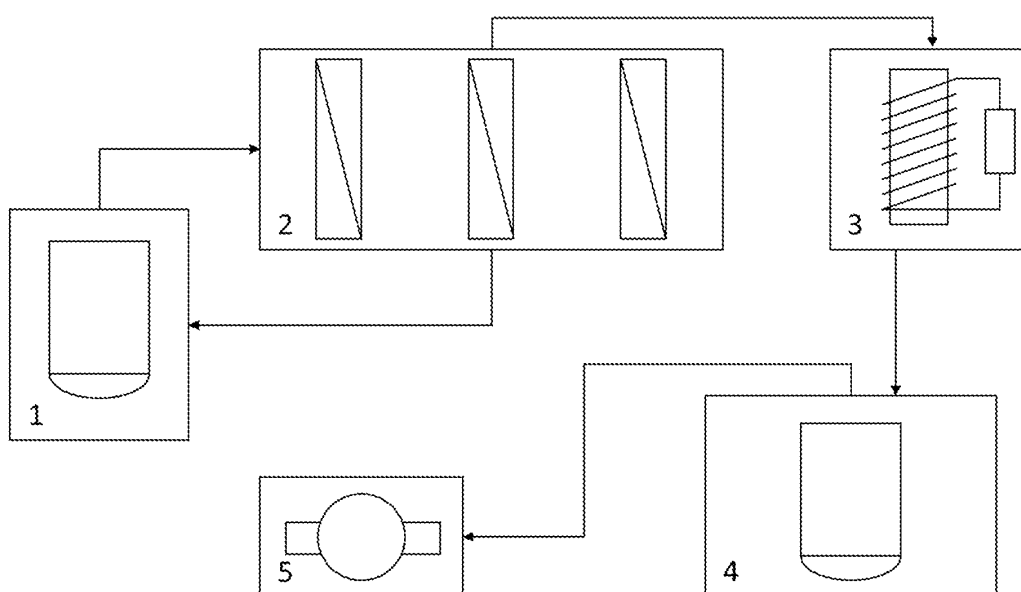
FIG. 7**FIG. 8**

FIG. 9

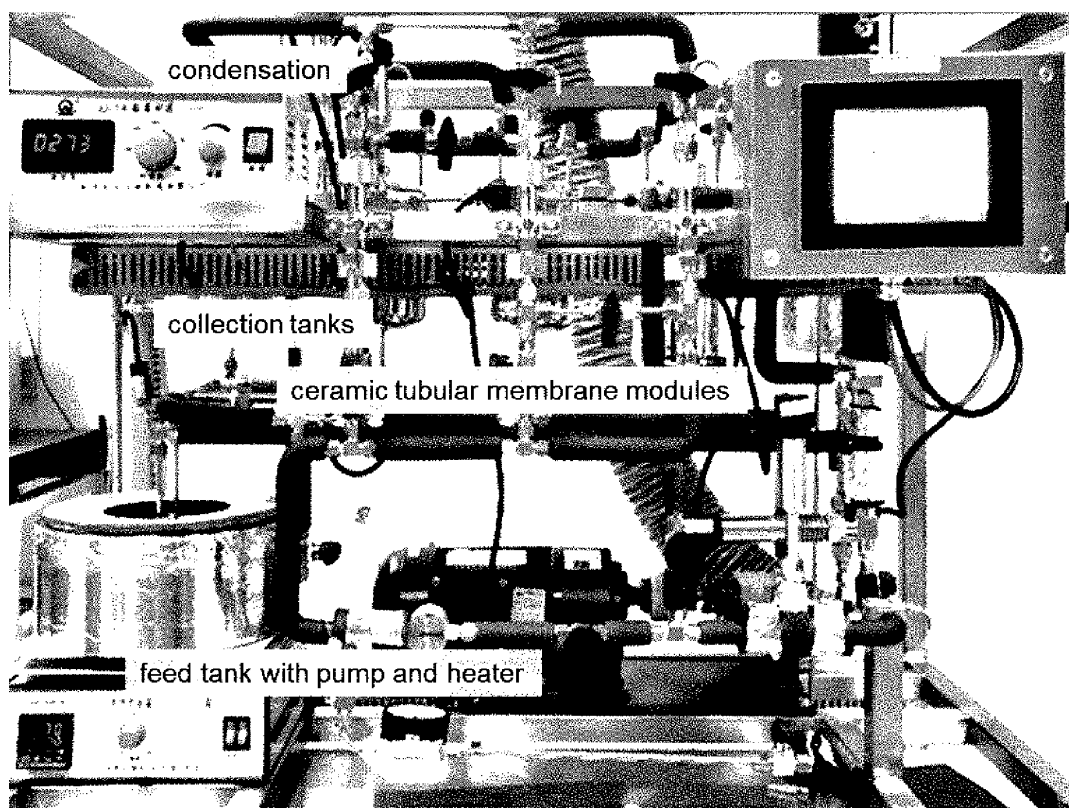


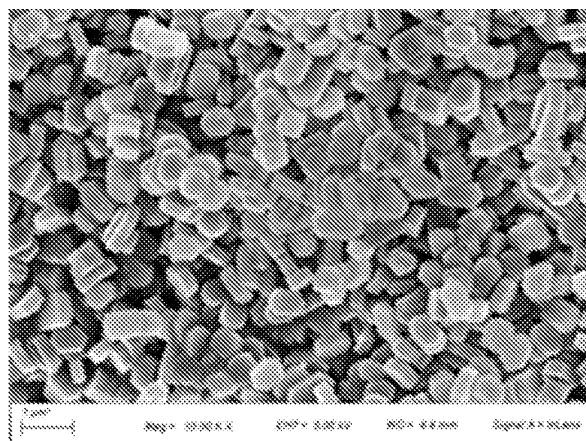
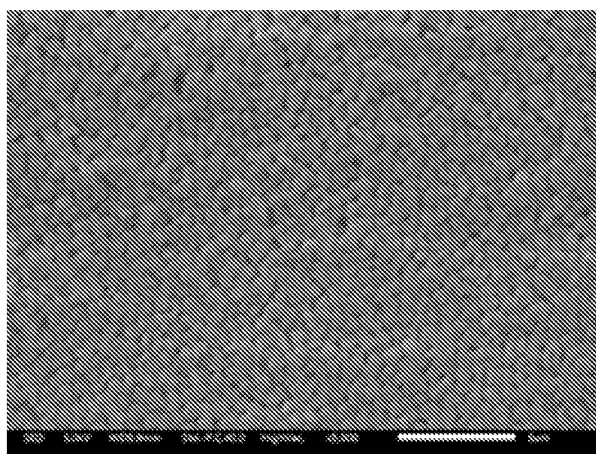
FIG. 10A**FIG. 10B**

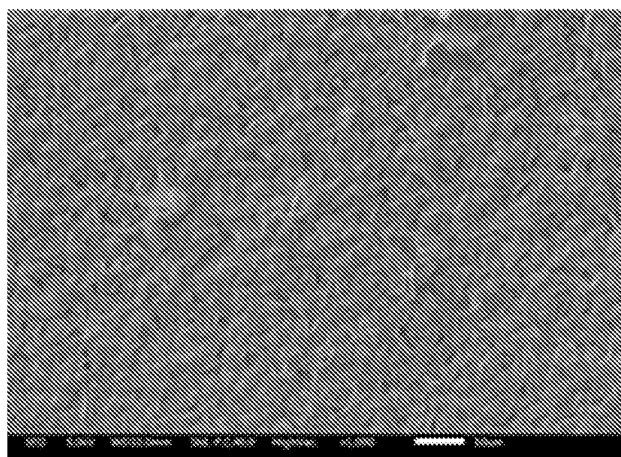
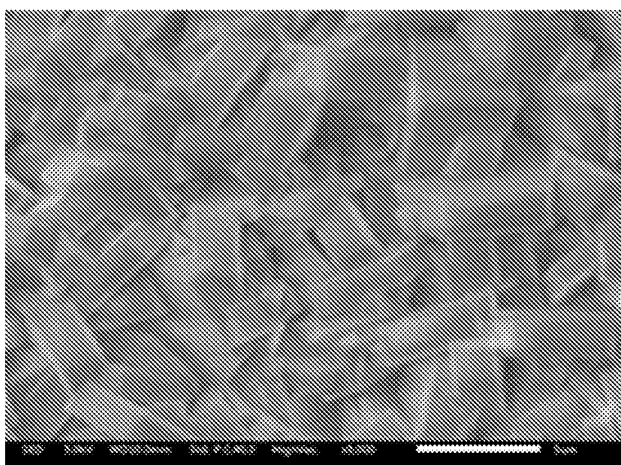
FIG. 10C**FIG. 10D**

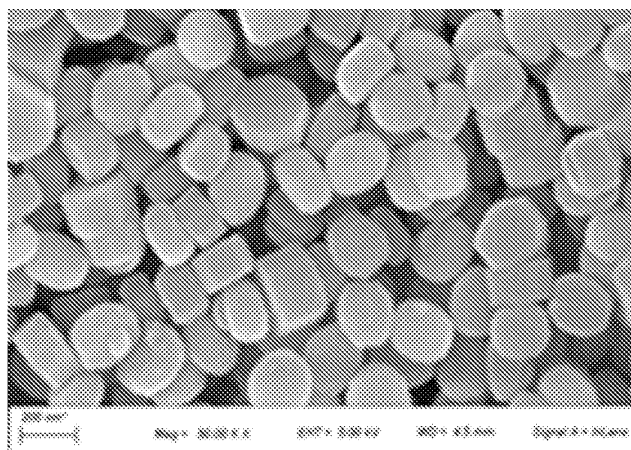
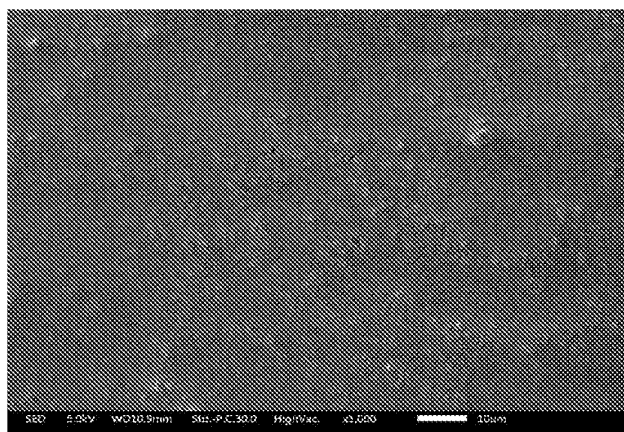
FIG. 11A**FIG. 11B**

FIG. 11C

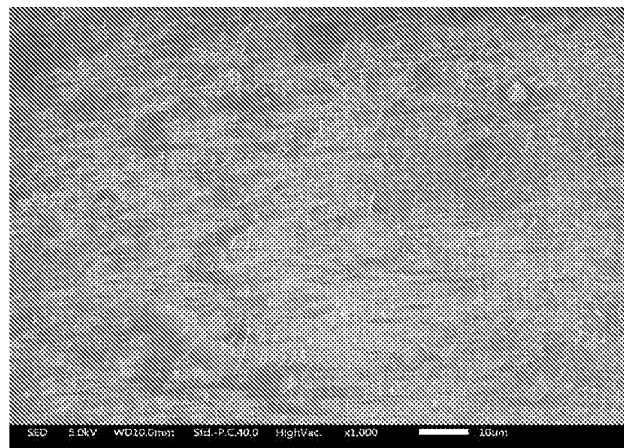


FIG. 11D

