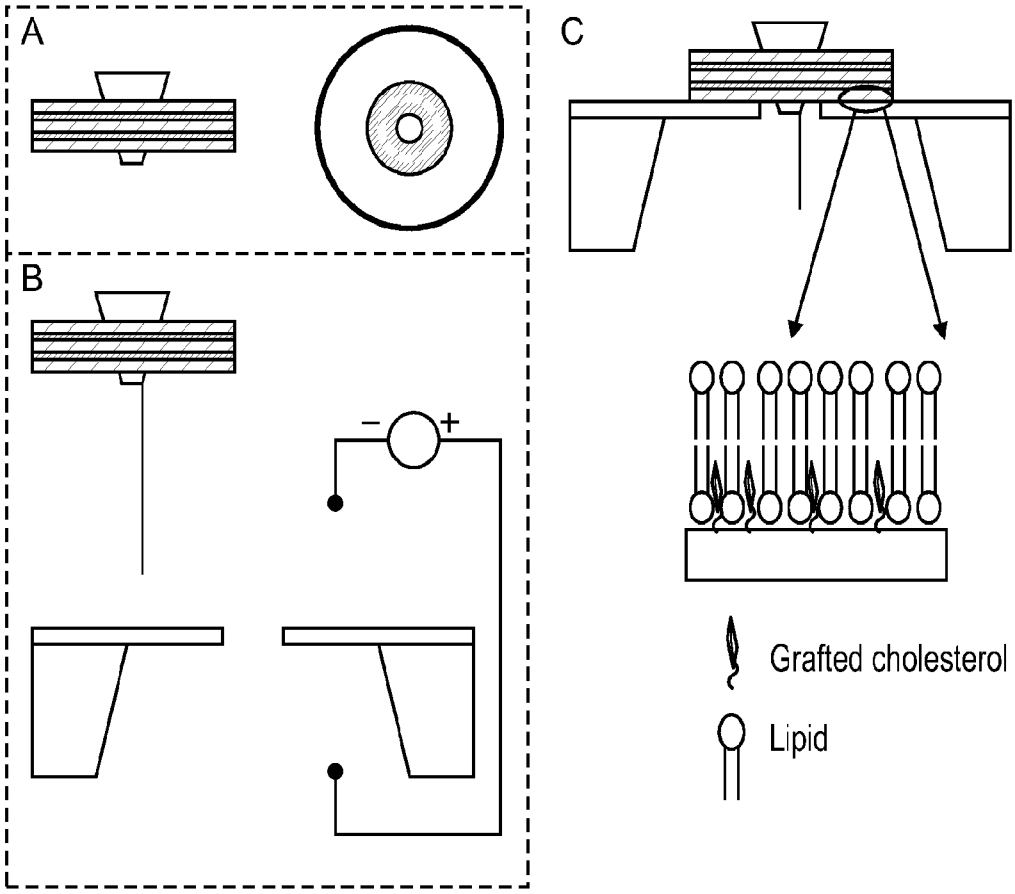


Fig. 1

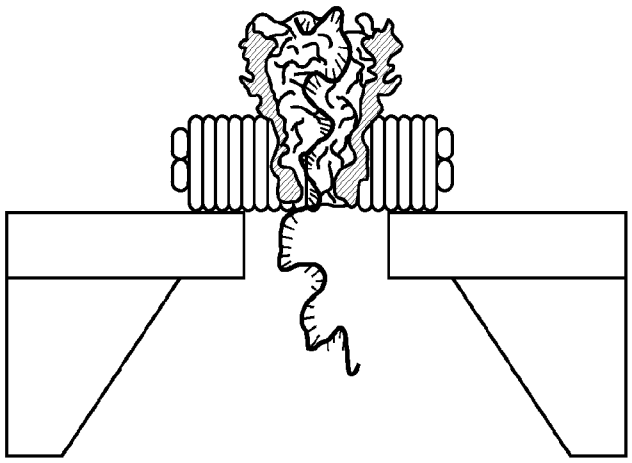


Fig. 2A

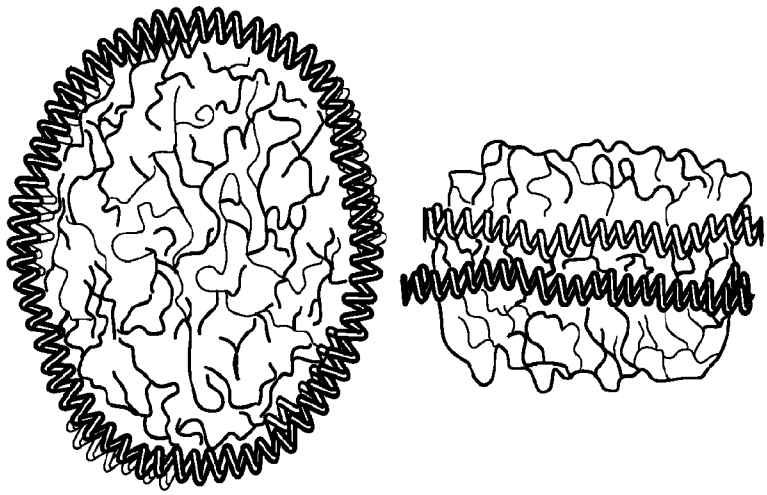


Fig. 2B

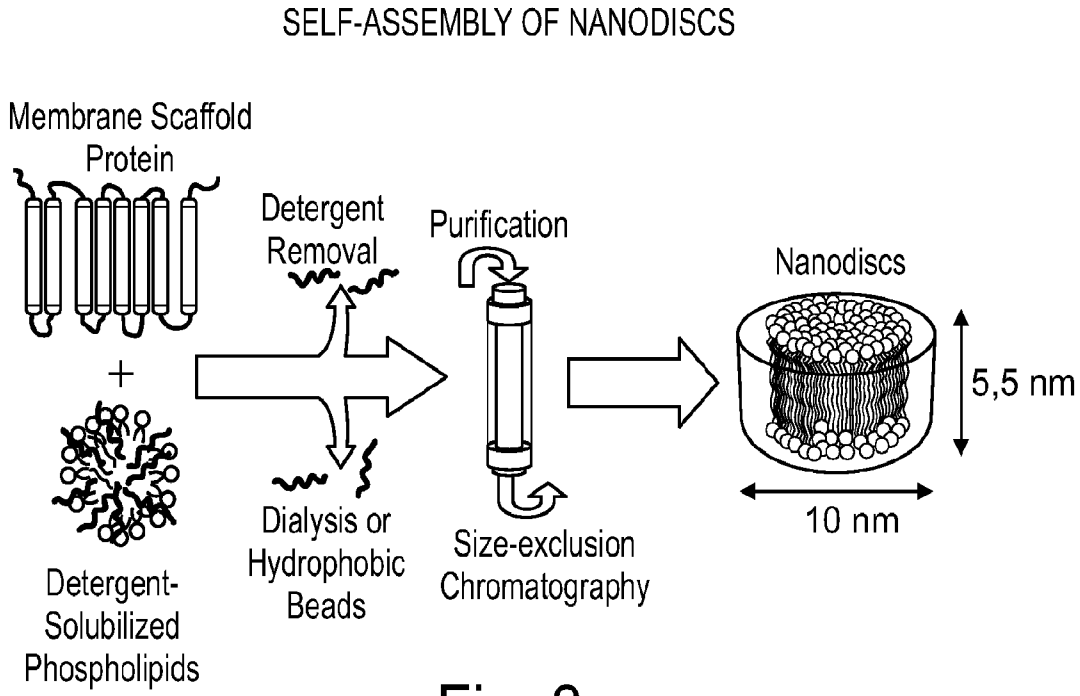

SELF-ASSEMBLY OF NANODISCS
Membrane Scaffold Protein
Detergent Removal
Purification
Nanodiscs
5,5 nm
10 nm
Detergent-Solubilized Phospholipids
Dialysis or Hydrophobic Beads
Size-exclusion Chromatography

Fig. 3

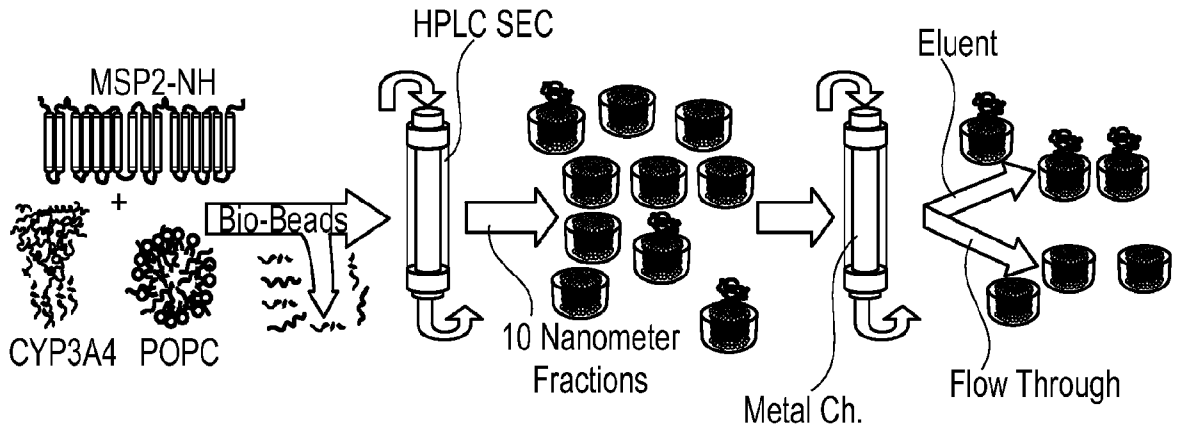

HPLC SEC
Eluent
MSP2-NH
Bio-Beads
CYP3A4
POPC
10 Nanometer Fractions
Metal Ch.
Flow Through

Fig. 4

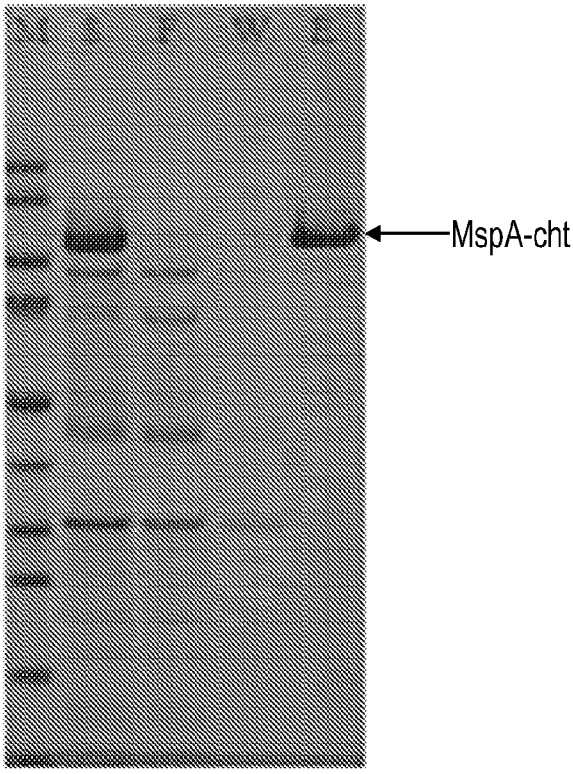


Fig. 5

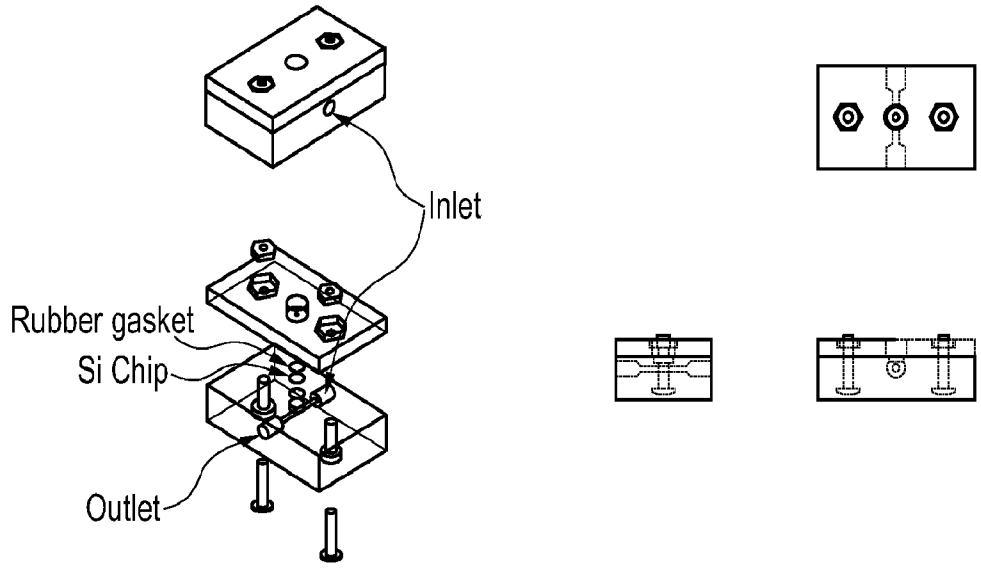


Fig. 6A

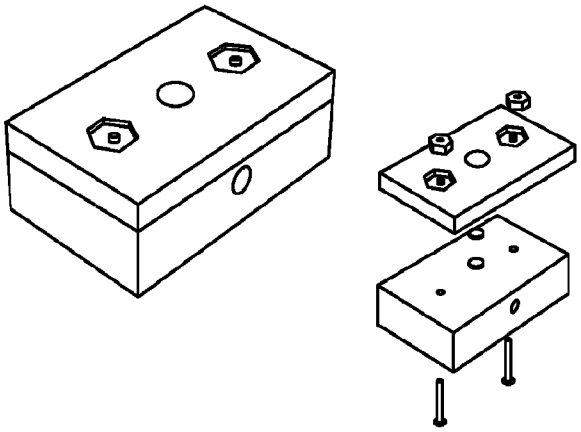


Fig. 6B

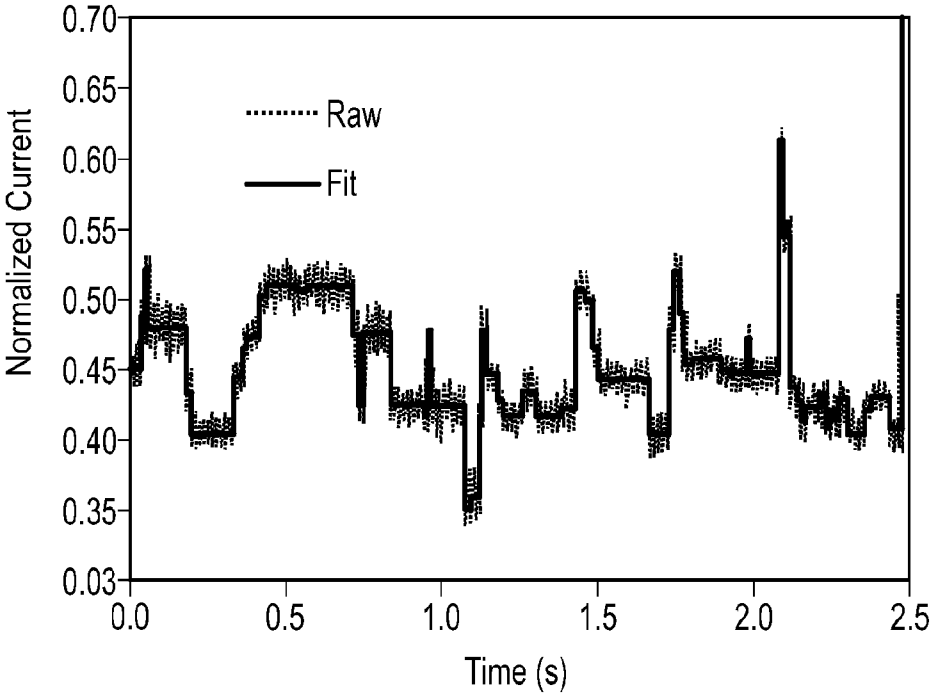

0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.03
Normalized Current
Raw
Fit
0.0
0.5
1.0
1.5
2.0
2.5
Time (s)

Fig. 7

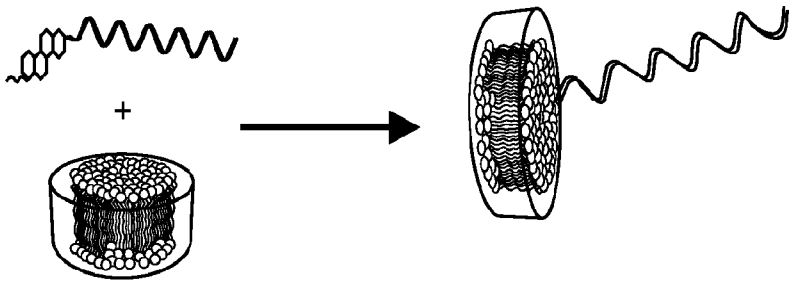

+

Fig. 8

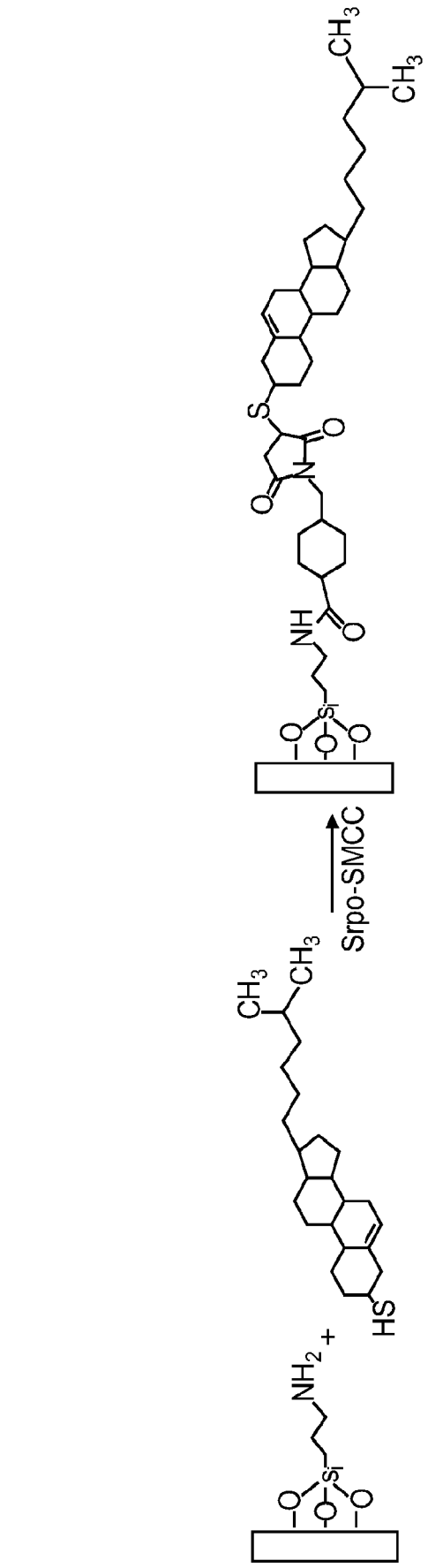

Srpo-SMCC

Fig. 9

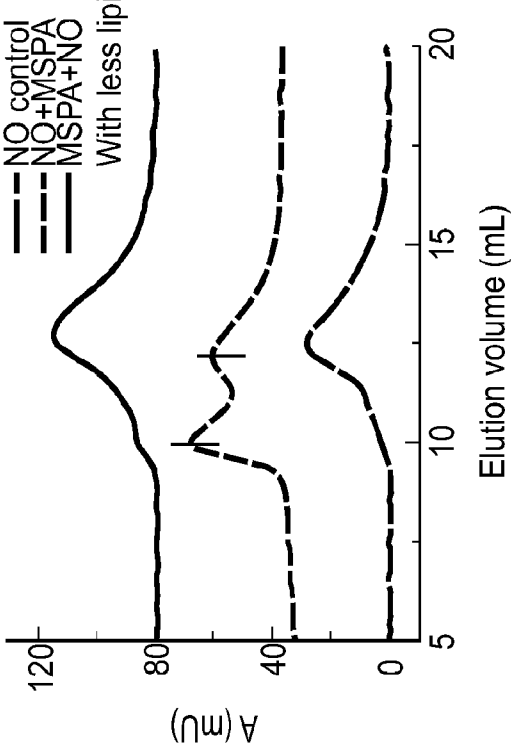

NO control
NO+MSPA
MSPA+NO
With less lipid
A (mU)
120
80
40
0
5
10
15
20
Elution volume (mL)

Fig. 10

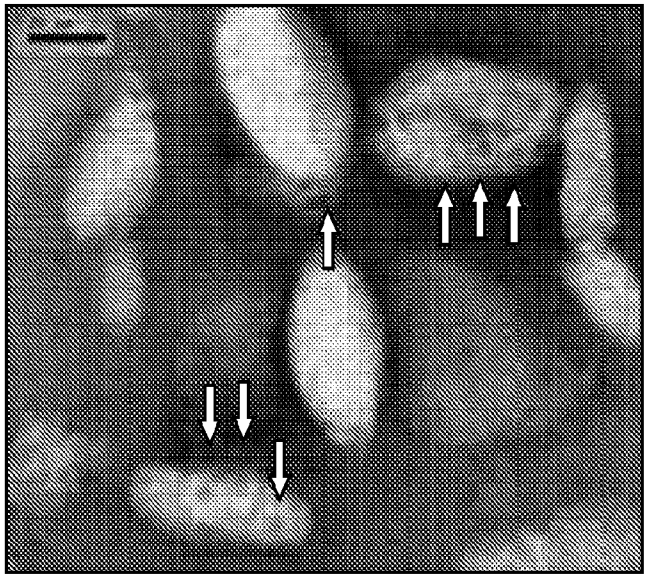


Fig. 11A

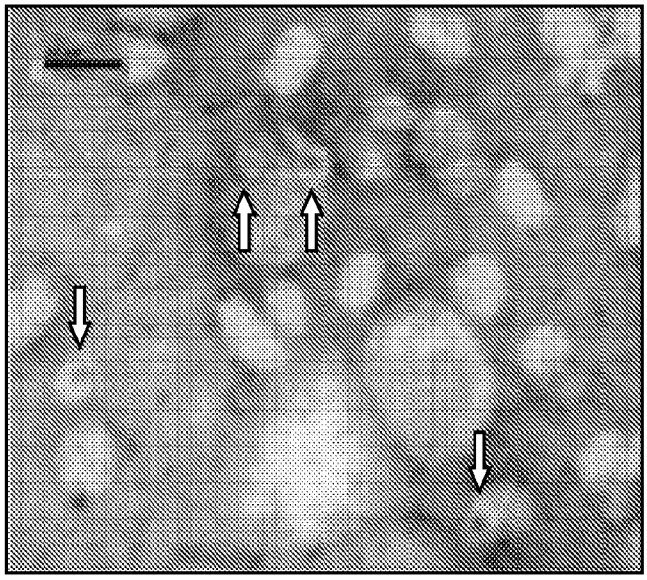


Fig. 11B

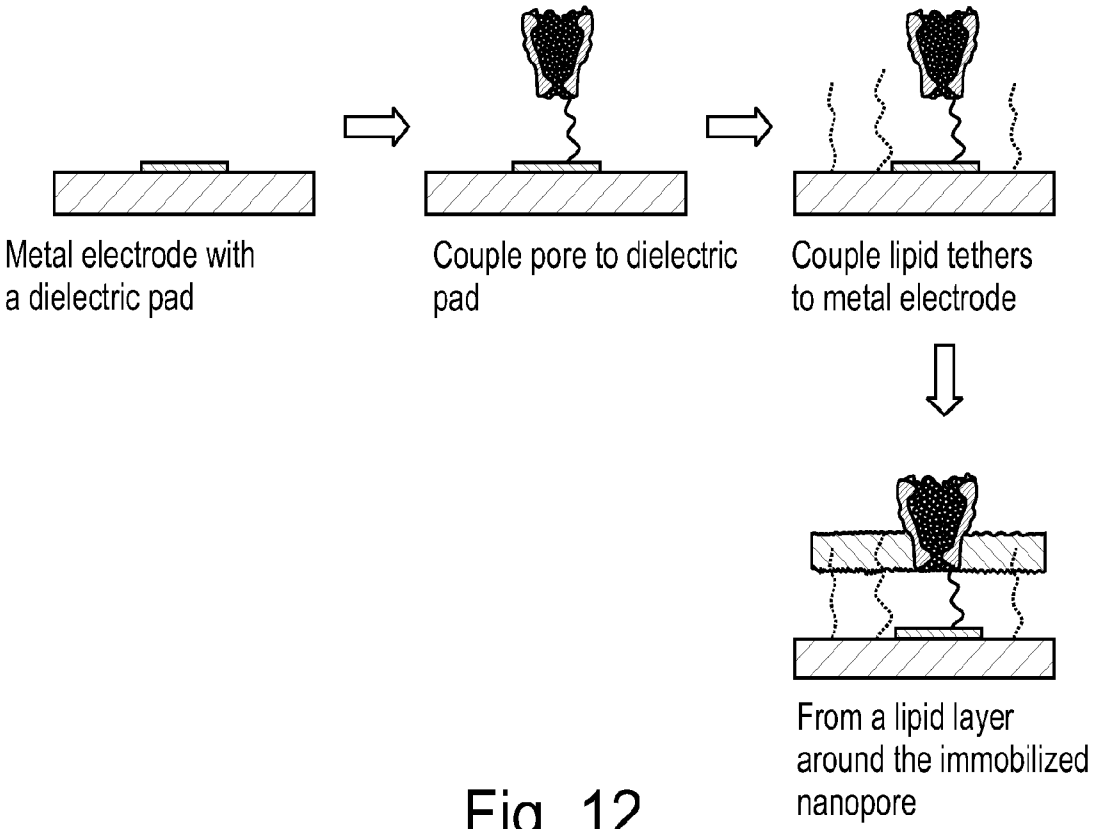

Metal electrode with
a dielectric pad
Couple pore to dielectric
pad
Couple lipid tethers
to metal electrode
From a lipid layer
around the immobilized
nanopore

Fig. 12

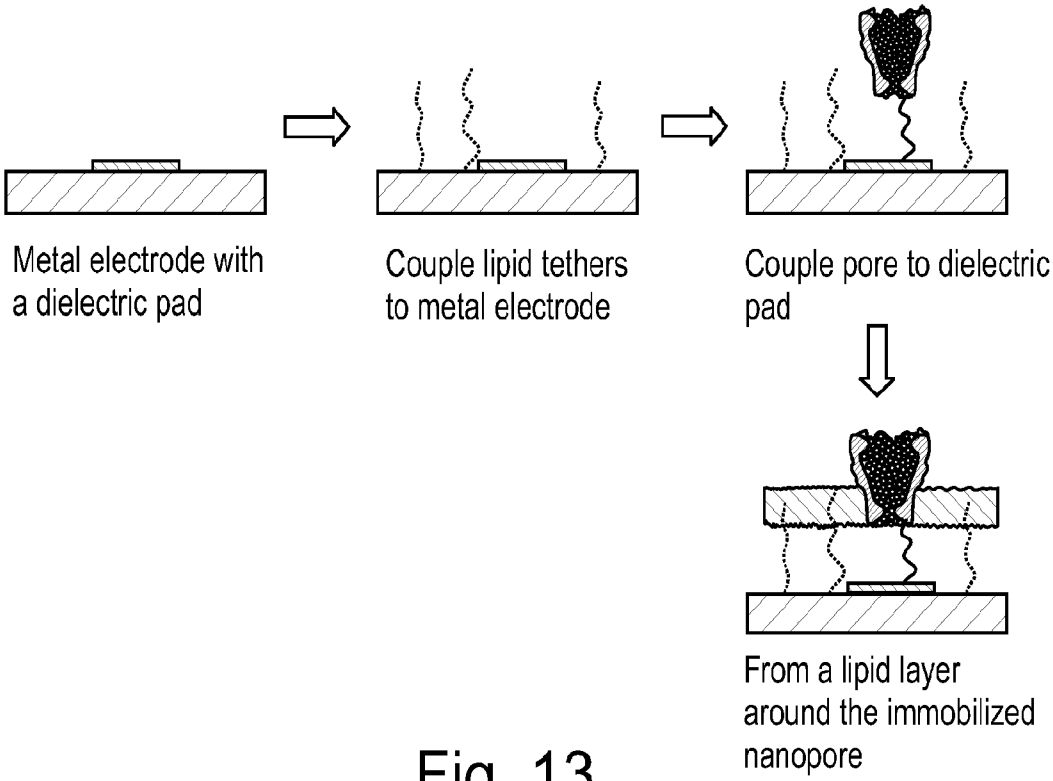

Metal electrode with a dielectric pad
Couple lipid tethers to metal electrode
Couple pore to dielectric pad
From a lipid layer around the immobilized nanopore

Fig. 13

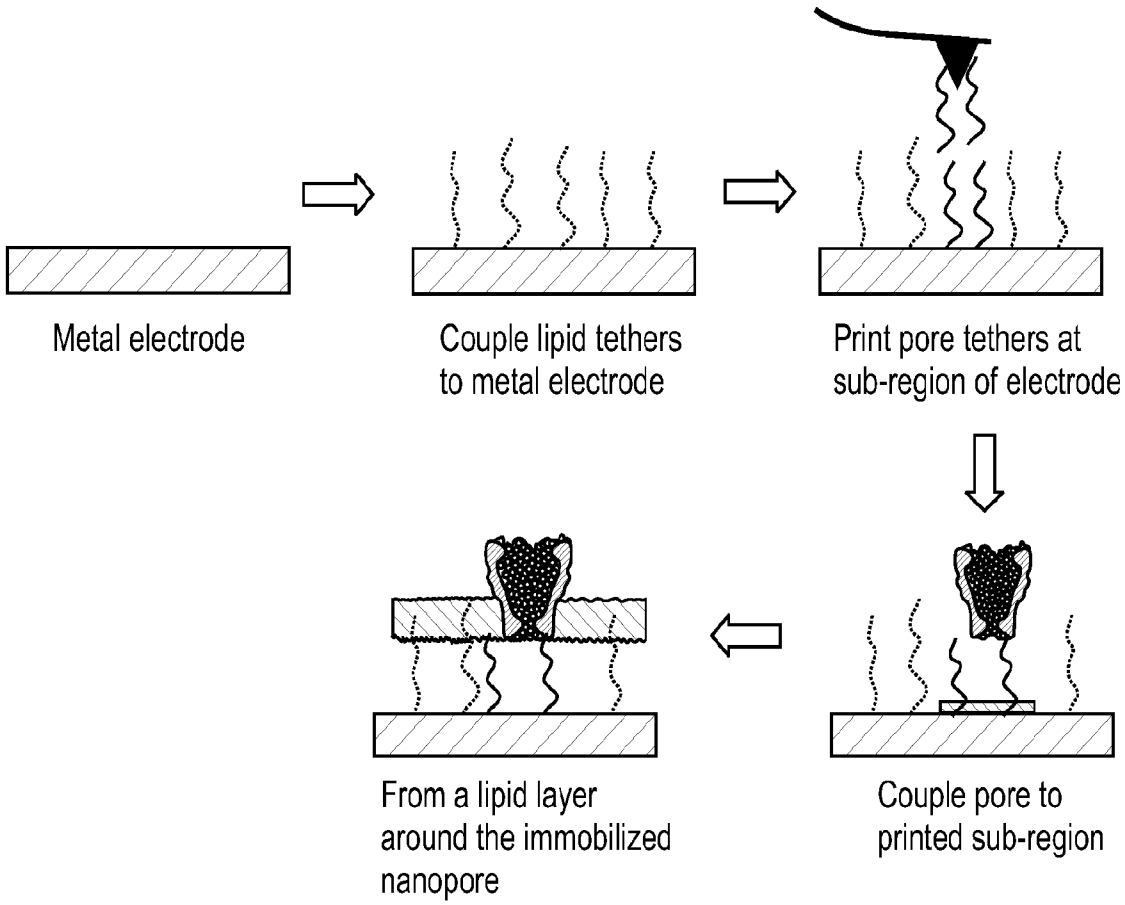

Metal electrode
Couple lipid tethers to metal electrode
Print pore tethers at sub-region of electrode
Couple pore to printed sub-region
From a lipid layer around the immobilized nanopore

Fig. 14