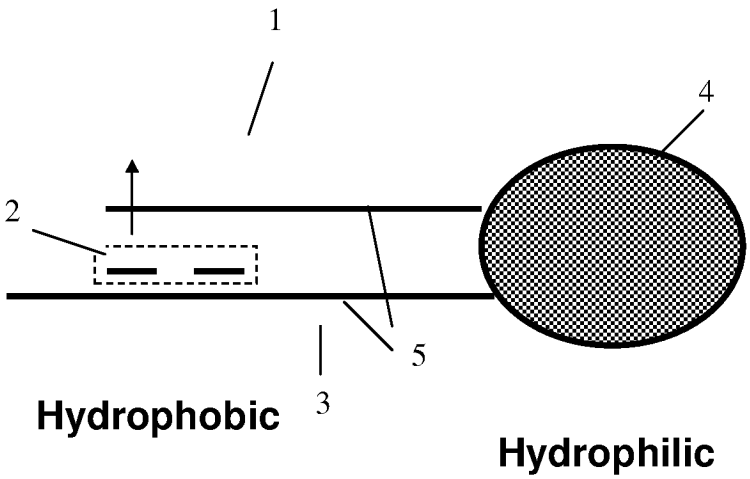

1
4
2
5
3
Hydrophobic
Hydrophilic

Fig. 1

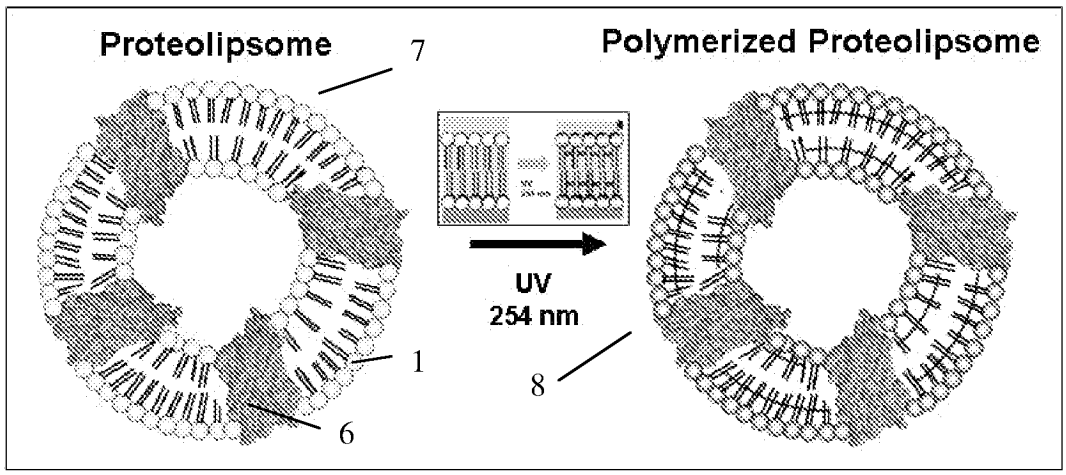

Proteolipsome
7
Polymerized Proteolipsome
UV
254 nm
1
8
6

Fig. 2

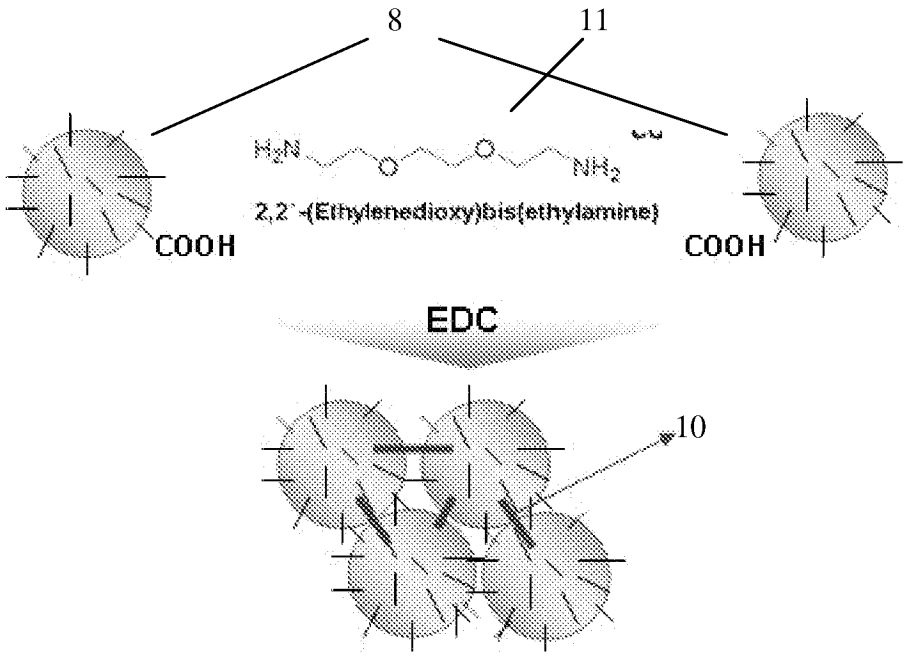

8
11
COOH
2,2`-(Ethylenedioxy)bis(ethylamine)
COOH
EDC
10

Fig. 3

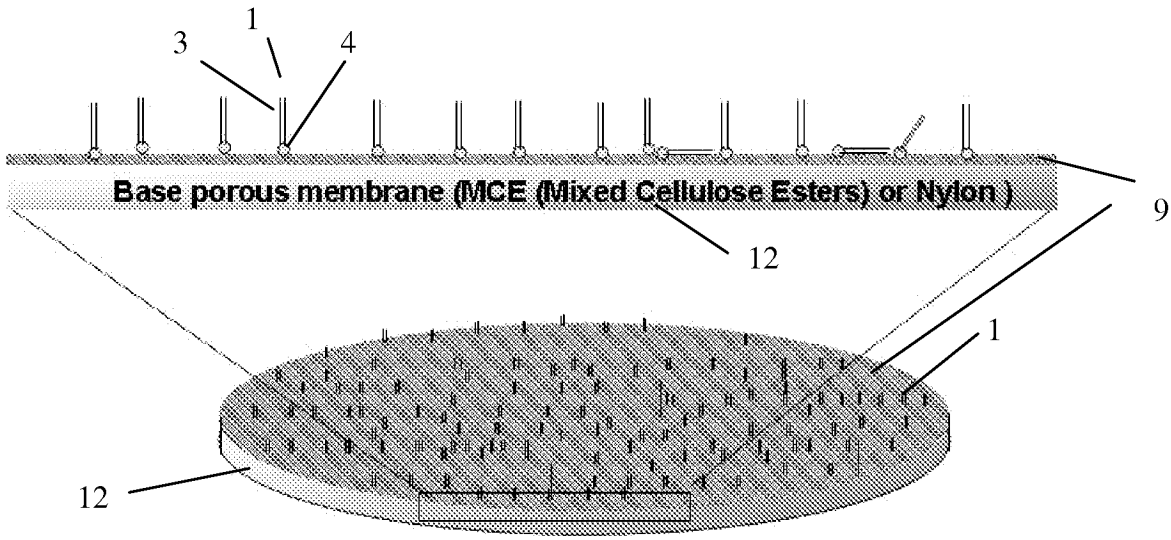

1
3
4
Base porous membrane (MCE (Mixed Cellulose Esters) or Nylon)
9
12
1
12

Fig. 4

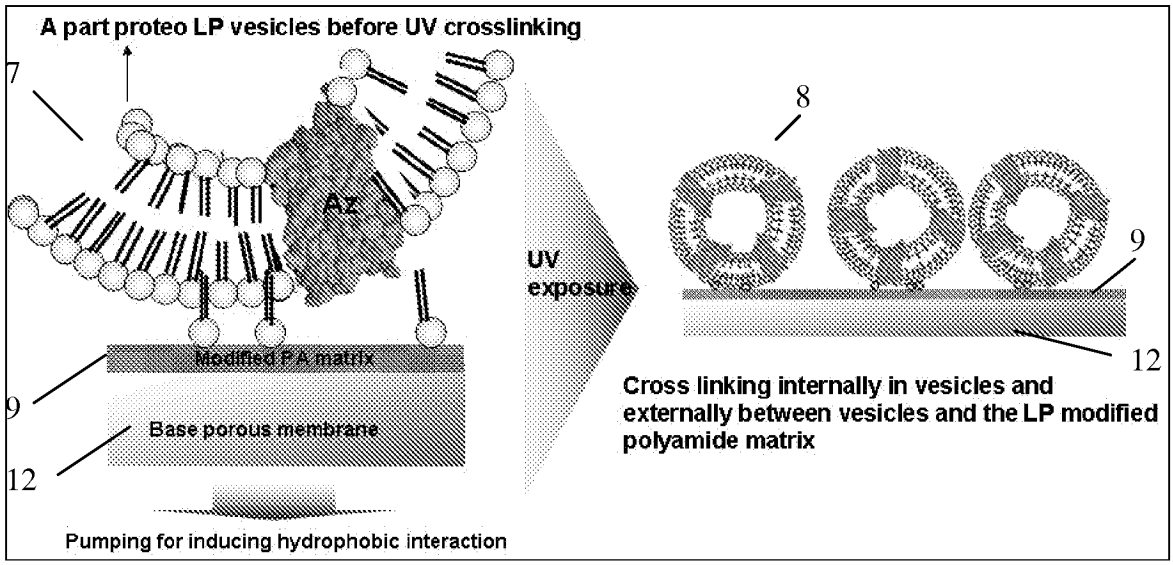

A part proteo LP vesicles before UV crosslinking
7
Az
Modified PA matrix
9
Base porous membrane
12
Pumping for inducing hydrophobic interaction
UV exposure
8
9
12
Cross linking internally in vesicles and externally between vesicles and the LP modified polyamide matrix

Fig. 5

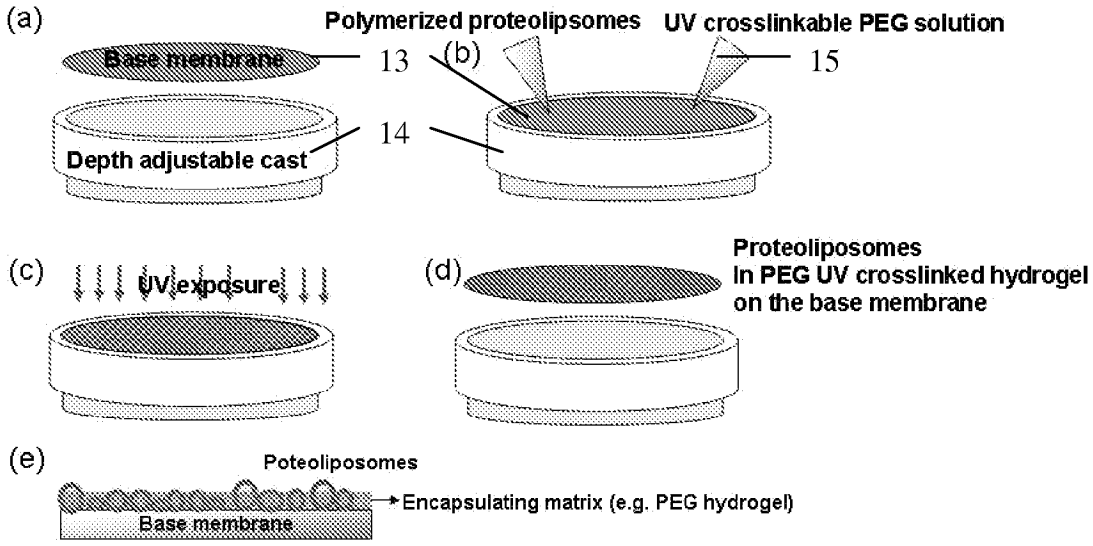
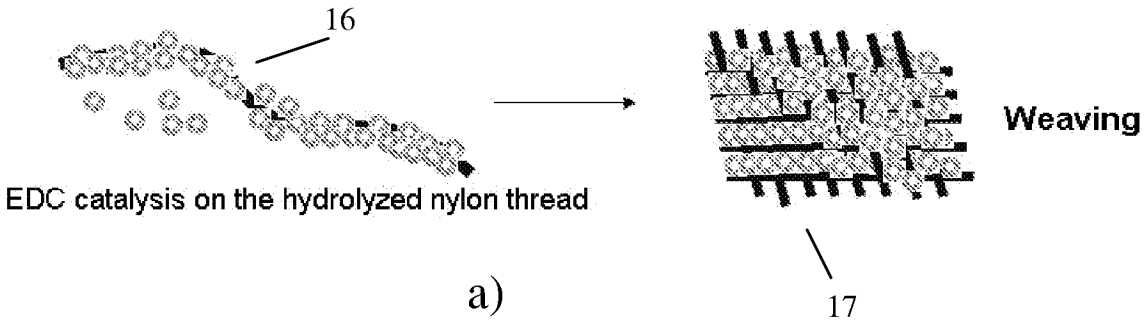
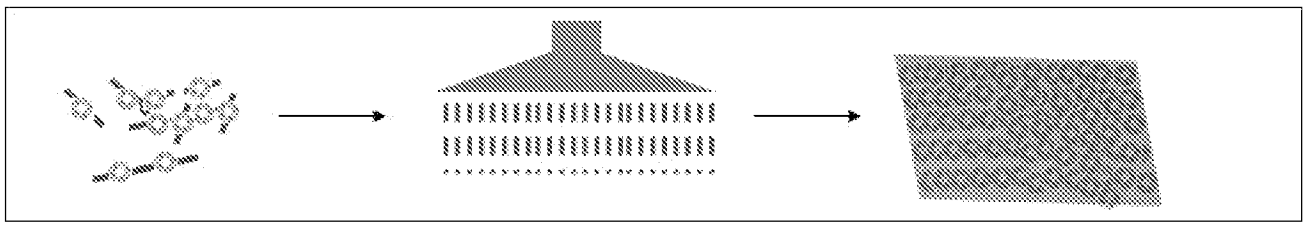

(a)
Base membrane
13
Depth adjustable cast
14
Polymerized proteolipsomes
(b)
UV crosslinkable PEG solution
15
(c)
UV exposure
(d)
Proteoliposomes
In PEG UV crosslinked hydrogel
on the base membrane
(e)
Poteoliposomes
Base membrane
Encapsulating matrix (e.g. PEG hydrogel)

Fig. 6



a)



b)

Fig. 7