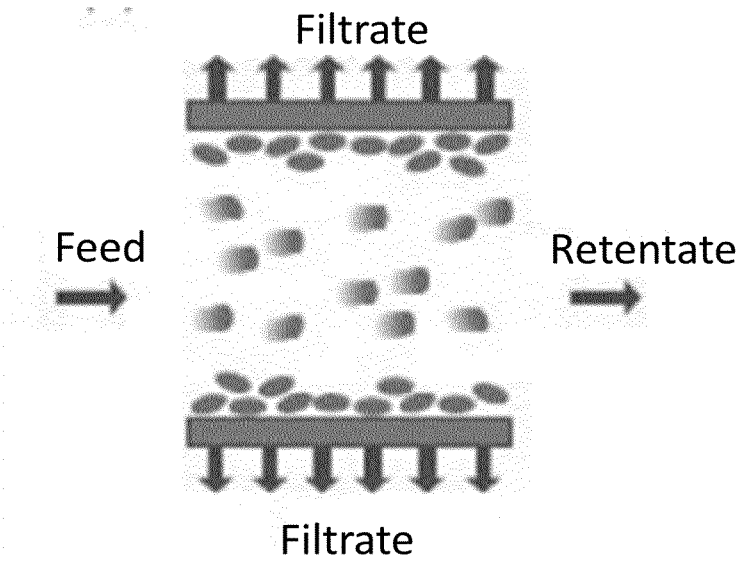
A


Filtrate
Feed
Retentate
Filtrate

B

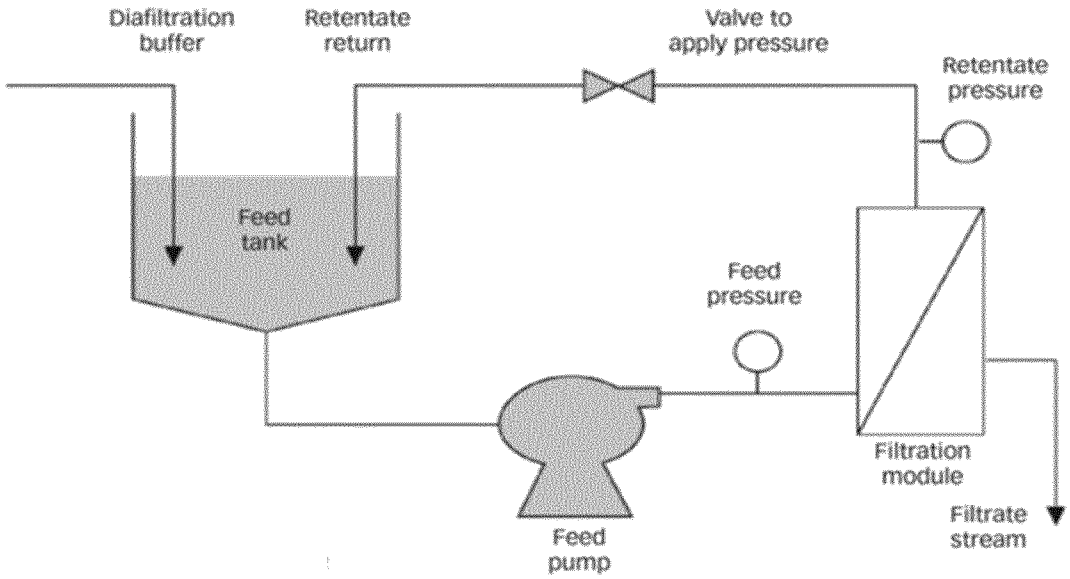
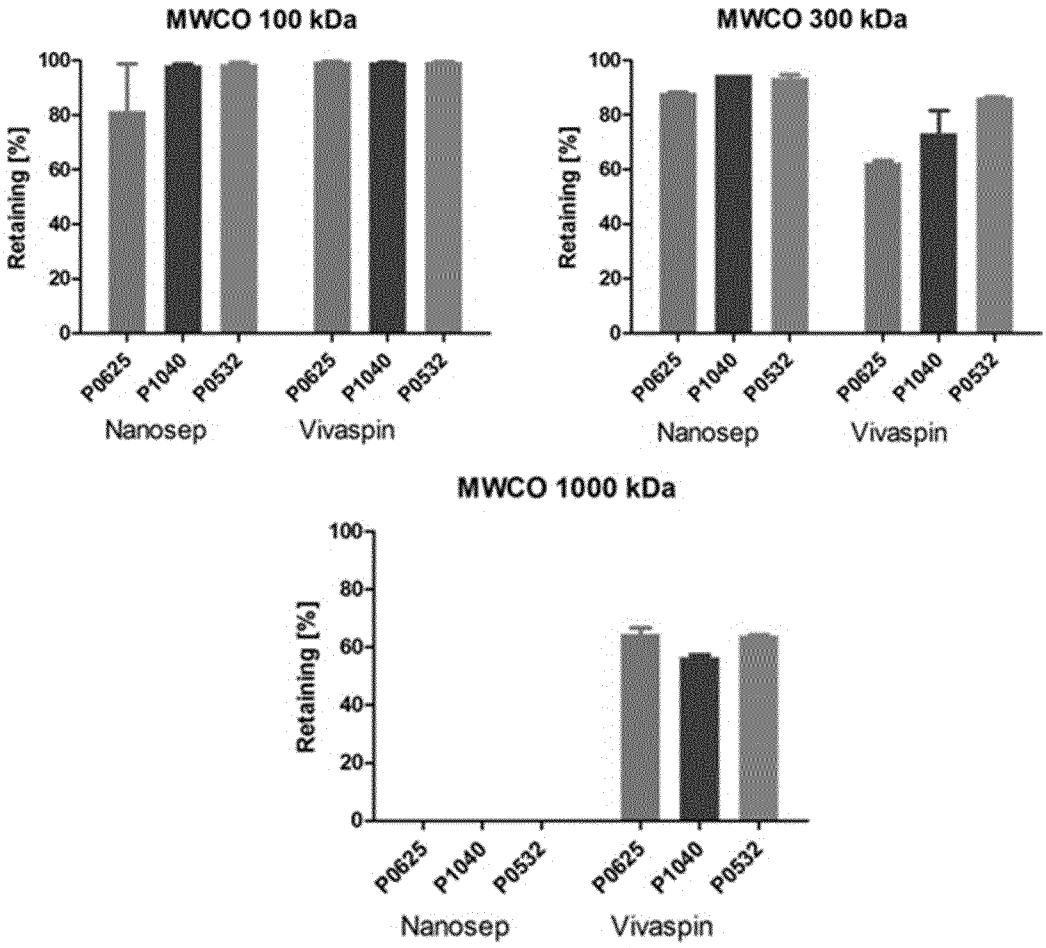

Diafiltration buffer
Retentate return
Valve to apply pressure
Retentate pressure
Feed tank
Feed pressure
Filtration module
Feed pump
Filtrate stream

Figure 1

A


MWCO 100 kDa
Retaining [%]
100
80
60
40
20
0
P0625
P1040
P0532
P0625
P1040
P0532
Nanosep
Vivaspin
MWCO 300 kDa
Retaining [%]
100
80
60
40
20
0
P0625
P1040
P0532
P0625
P1040
P0532
Nanosep
Vivaspin
MWCO 1000 kDa
Retaining [%]
100
80
60
40
20
0
P0625
P1040
P0532
P0625
P1040
P0532
Nanosep
Vivaspin

B

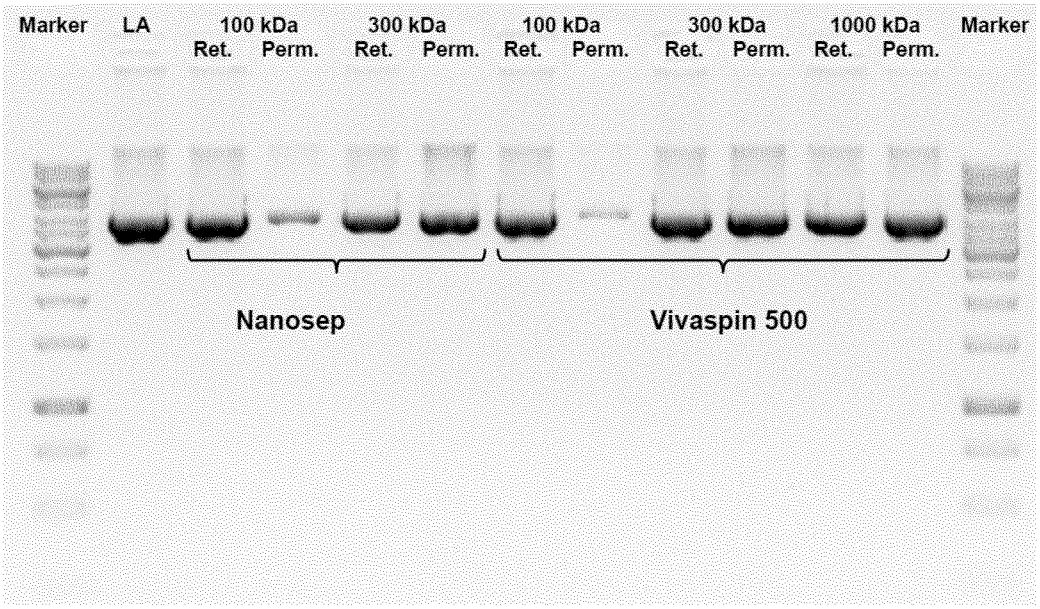
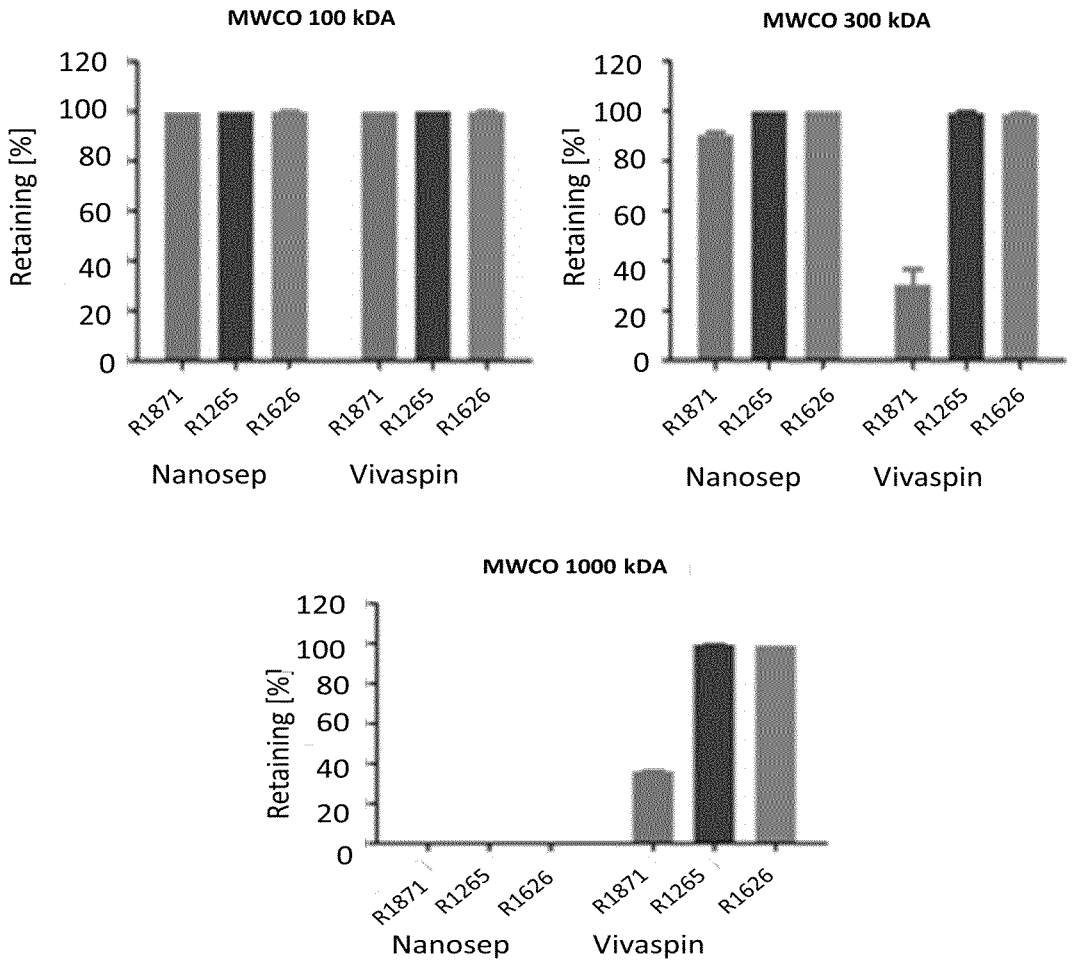

Marker
LA
100 kDa
Ret.
Perm.
300 kDa
Ret.
Perm.
100 kDa
Ret.
Perm.
300 kDa
Ret.
Perm.
1000 kDa
Ret.
Perm.
Marker
Nanosep
Vivaspin 500

Figure 2

A


MWCO 100 kDA
MWCO 300 kDA
MWCO 1000 kDA
Retaining [%]
120
100
80
60
40
20
0
R1871
R1265
R1626
Nanosep
Vivaspin

B

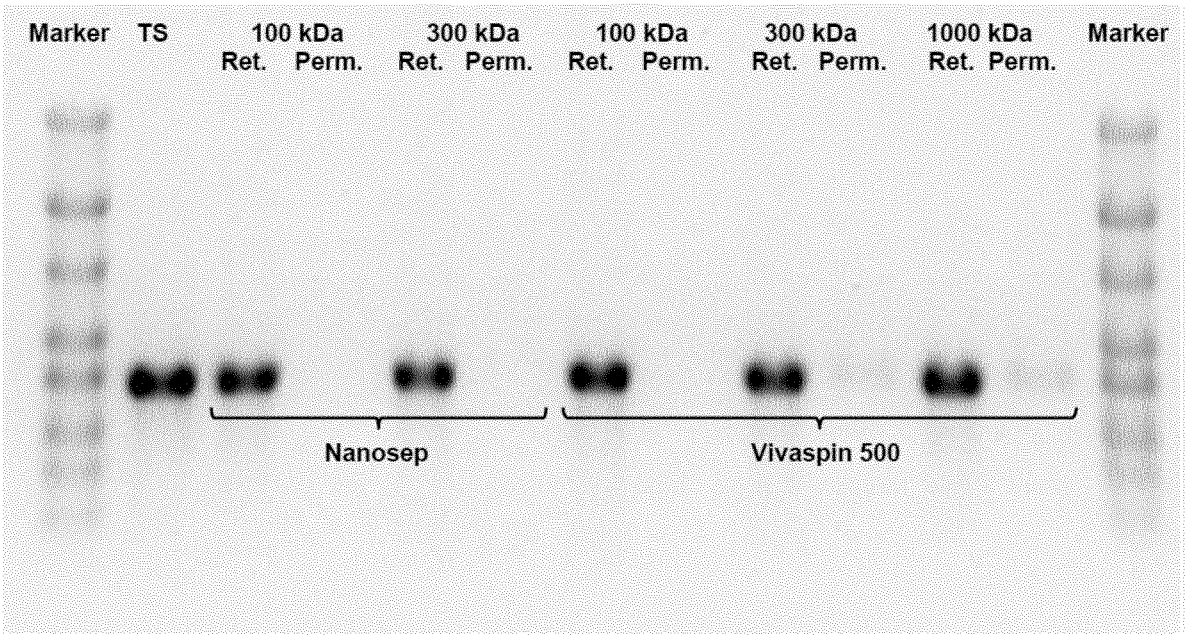

Marker
TS
100 kDa
Ret. Perm.
300 kDa
Ret. Perm.
100 kDa
Ret. Perm.
300 kDa
Ret. Perm.
1000 kDa
Ret. Perm.
Marker
Nanosep
Vivaspin 500

Figure 3

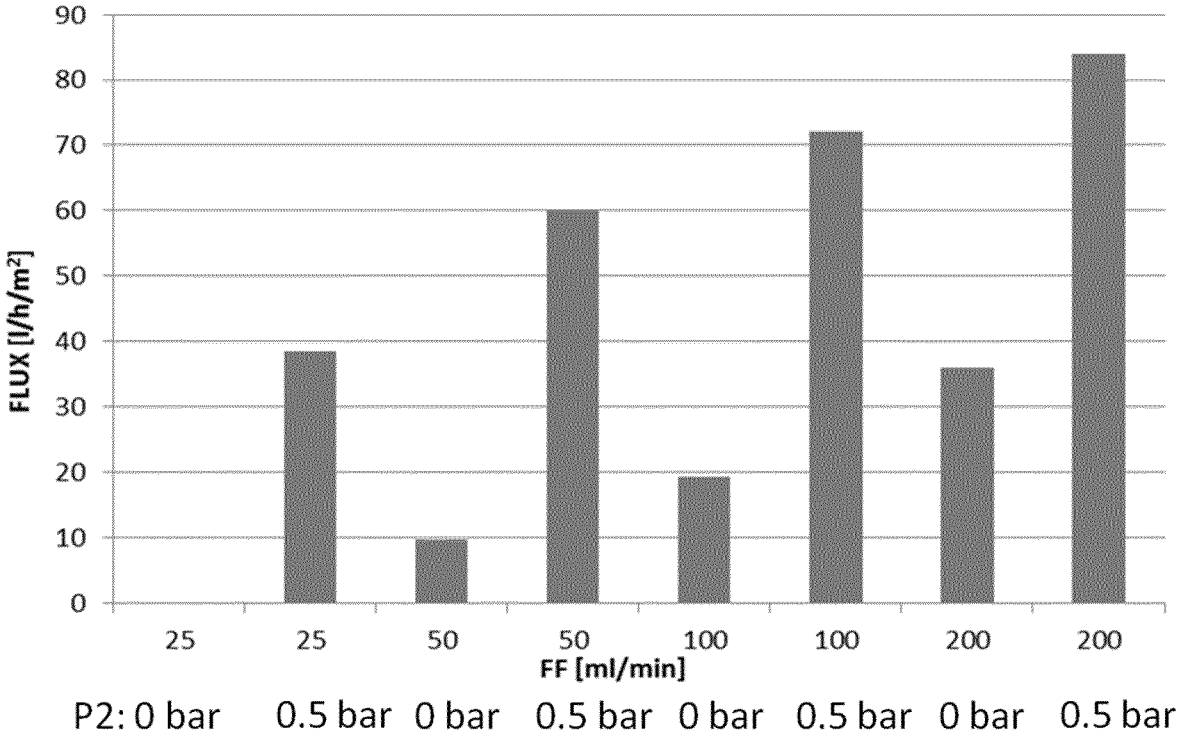

90
80
70
60
50
40
30
20
10
0
FLUX [l/h/m²]
25
25
50
50
100
100
200
200
FF [ml/min]
P2: 0 bar
0.5 bar
0 bar
0.5 bar
0 bar
0.5 bar
0 bar
0.5 bar

Figure 4

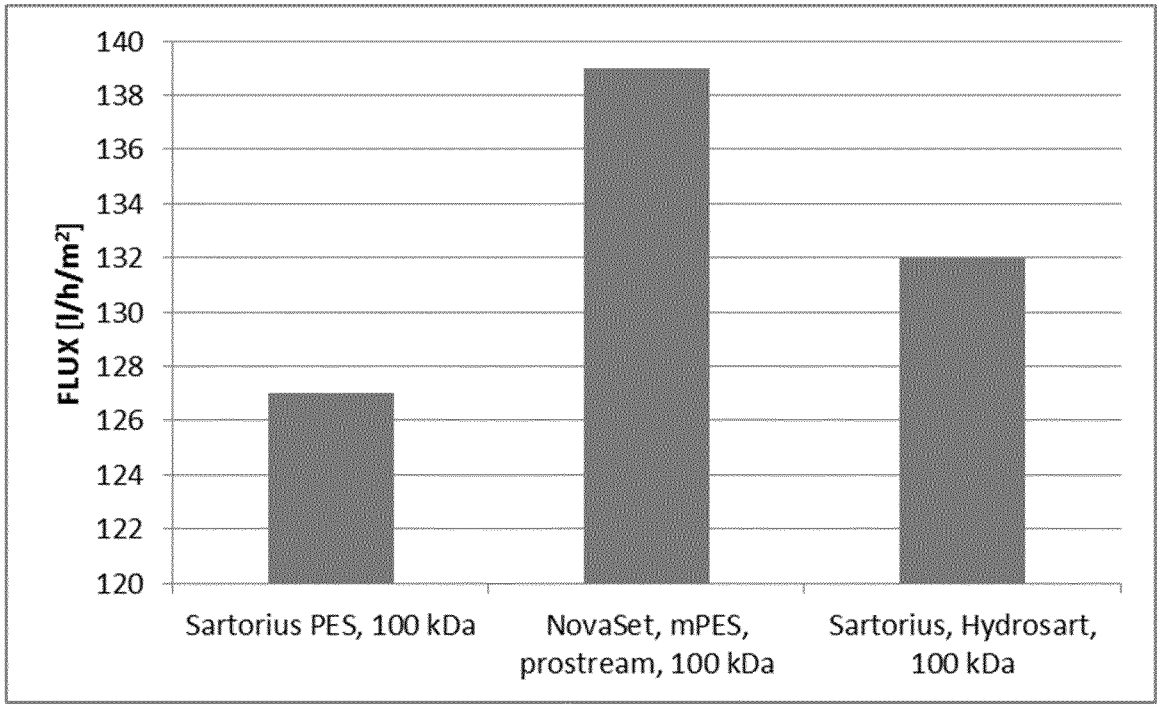
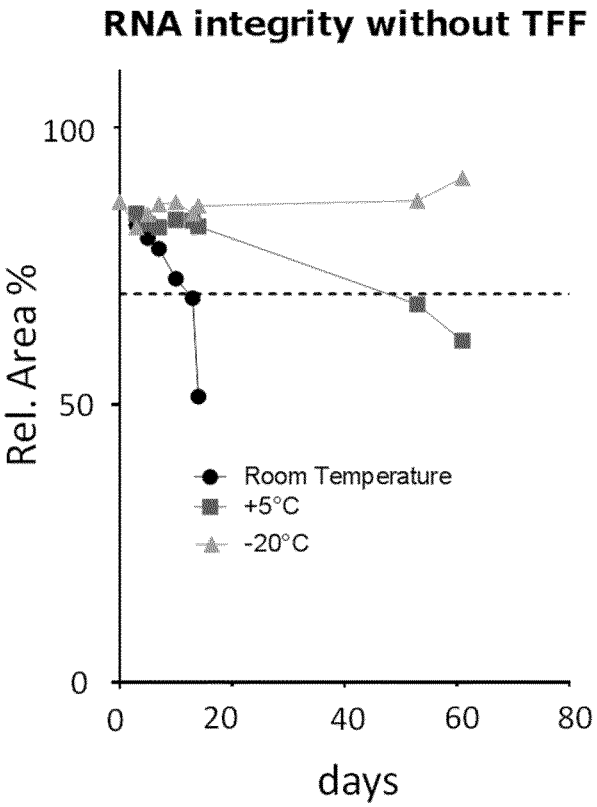

140
138
136
134
132
130
128
126
124
122
120
FLUX [l/h/m²]
Sartorius PES, 100 kDa
NovaSet, mPES, prostream, 100 kDa
Sartorius, Hydrosart, 100 kDa

Figure 5

A


RNA integrity without TFF
100
50
0
Rel. Area %
0
20
40
60
80
days
Room Temperature
+5°C
-20°C

B

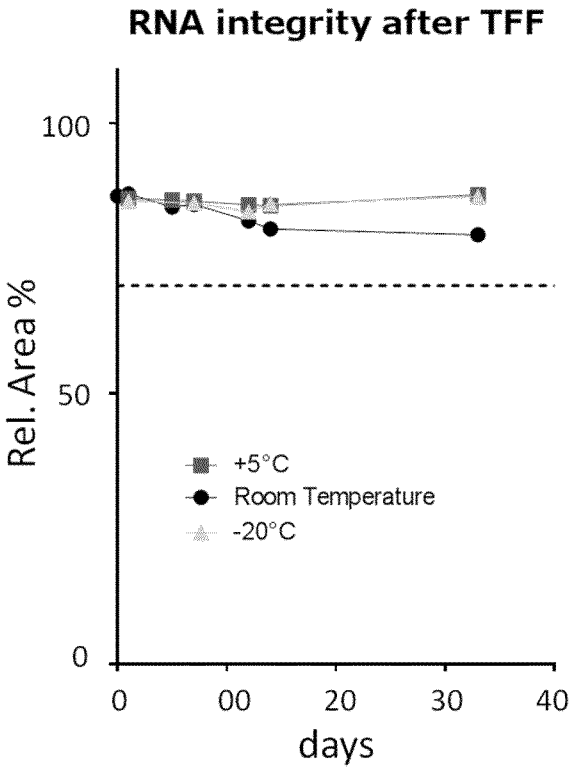

RNA integrity after TFF
100
50
0
Rel. Area %
0
00
20
30
40
days
+5°C
Room Temperature
-20°C

Figure 6

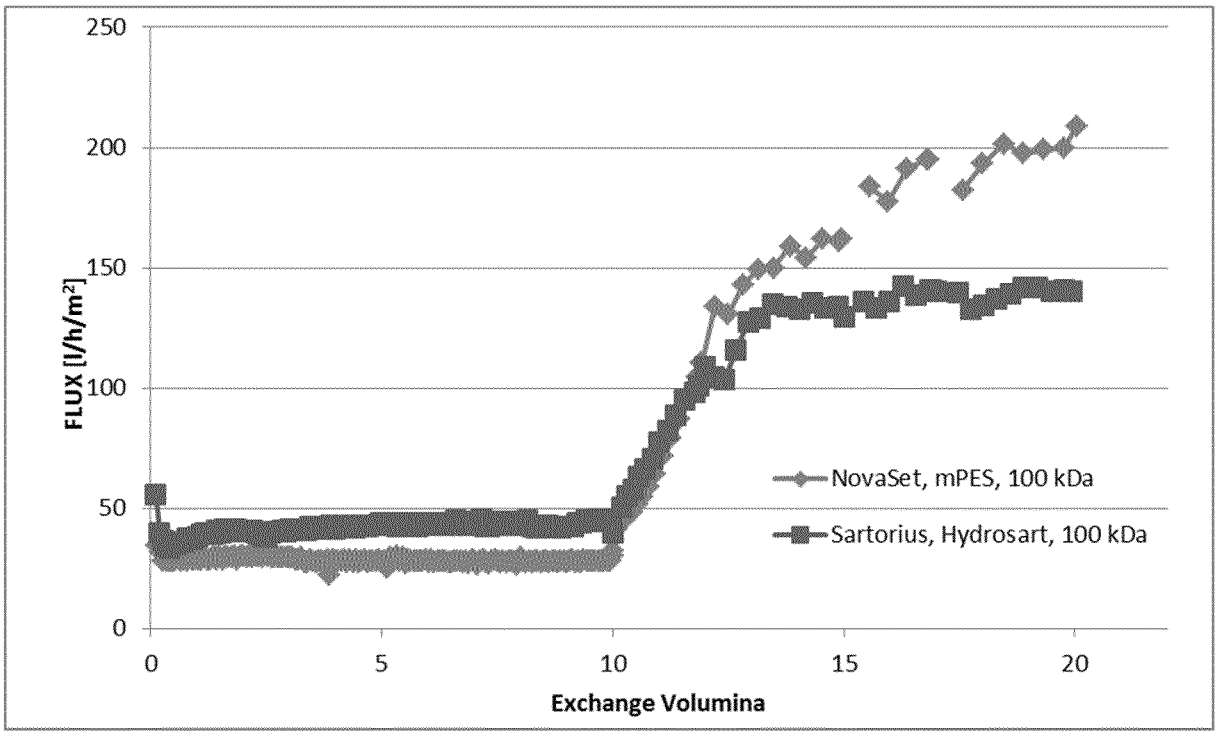

250
200
150
100
50
0
FLUX [l/h/m²]
0
5
10
15
20
Exchange Volumina
NovaSet, mPES, 100 kDa
Sartorius, Hydrosart, 100 kDa

Figure 7

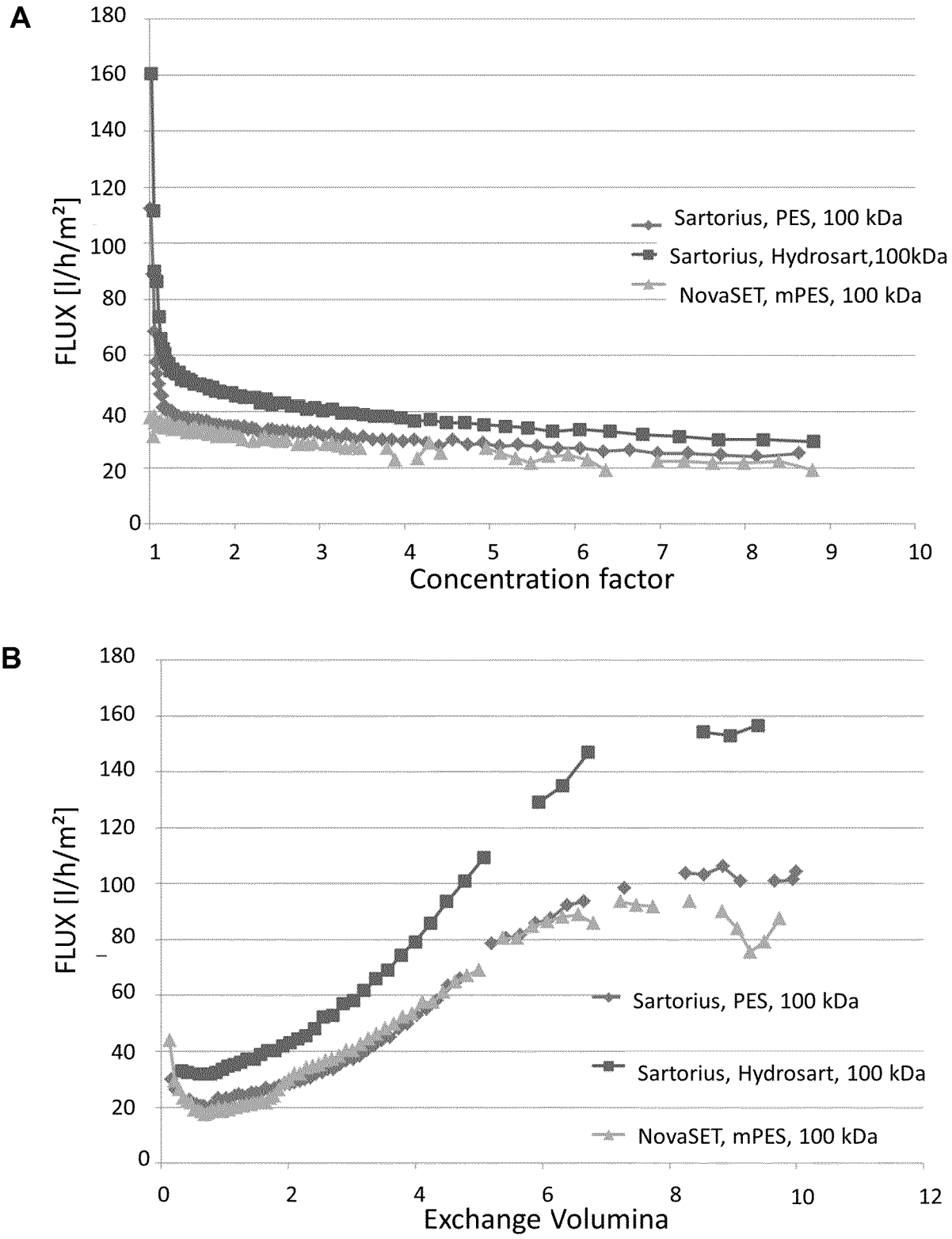

A
180
160
140
120
100
80
60
40
20
0
FLUX [l/h/m²]
1
2
3
4
5
6
7
8
9
10
Concentration factor
Sartorius, PES, 100 kDa
Sartorius, Hydrosart,100kDa
NovaSET, mPES, 100 kDa
B
180
160
140
120
100
80
60
40
20
0
FLUX [l/h/m²]
0
2
4
6
8
10
12
Exchange Volumina
Sartorius, PES, 100 kDa
Sartorius, Hydrosart, 100 kDa
NovaSET, mPES, 100 kDa

Figure 8

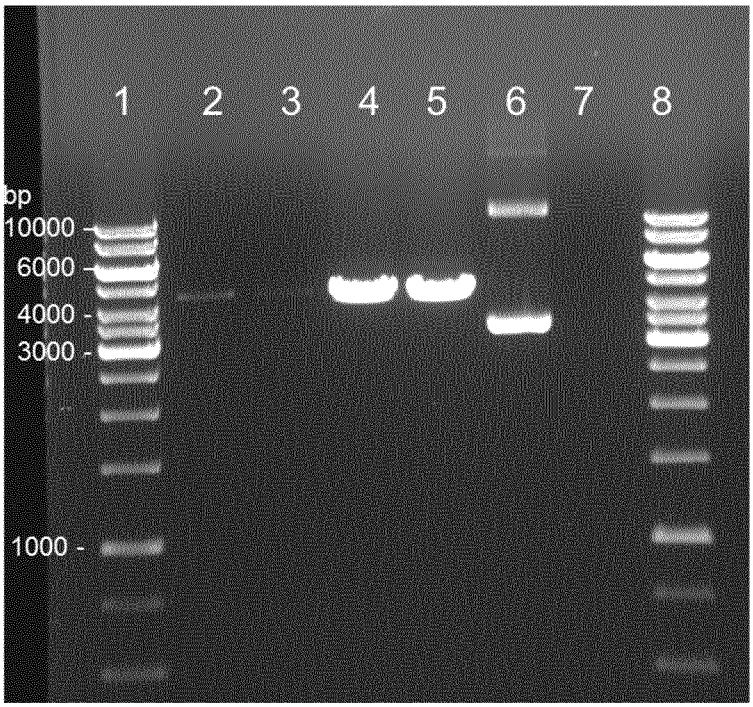


Figure 9



Figure 10

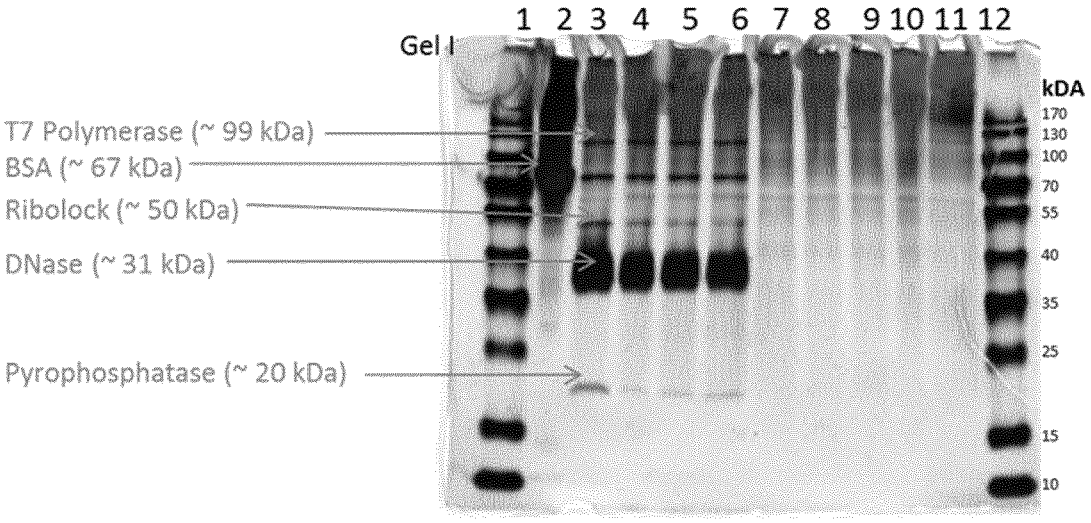

1 2 3 4 5 6 7 8 9 10 11 12
Gel I
kDA
170
130
100
70
55
40
35
25
15
10
T7 Polymerase (~ 99 kDa)
BSA (~ 67 kDa)
Ribolock (~ 50 kDa)
DNase (~ 31 kDa)
Pyrophosphatase (~ 20 kDa)

Figure 11

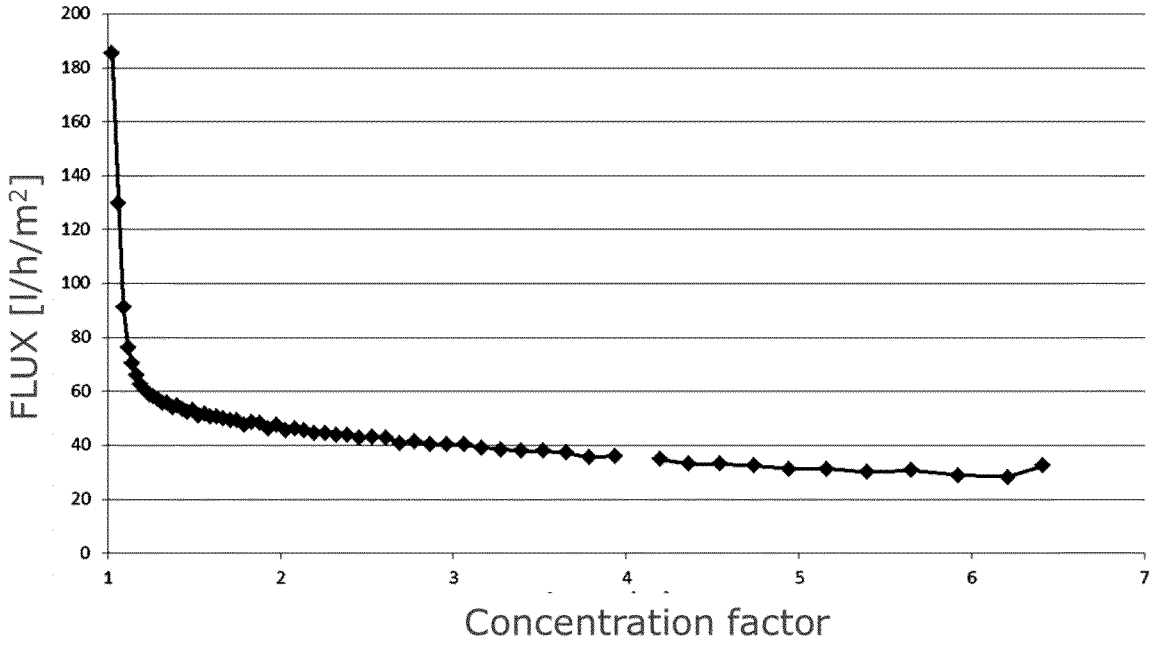

200
180
160
140
120
100
80
60
40
20
0
FLUX [l/h/m²]
1
2
3
4
5
6
7
Concentration factor

Figure 12

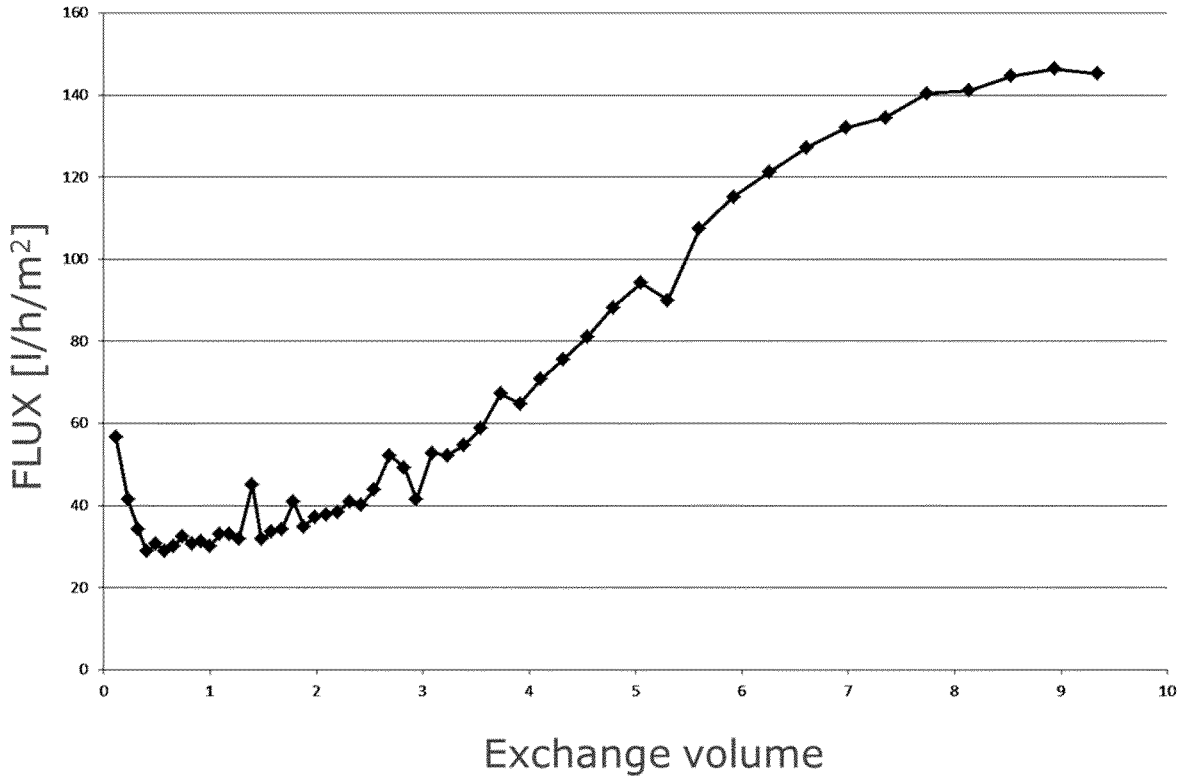

160
140
120
100
80
60
40
20
0
FLUX [l/h/m²]
0
1
2
3
4
5
6
7
8
9
10
Exchange volume

Figure 13

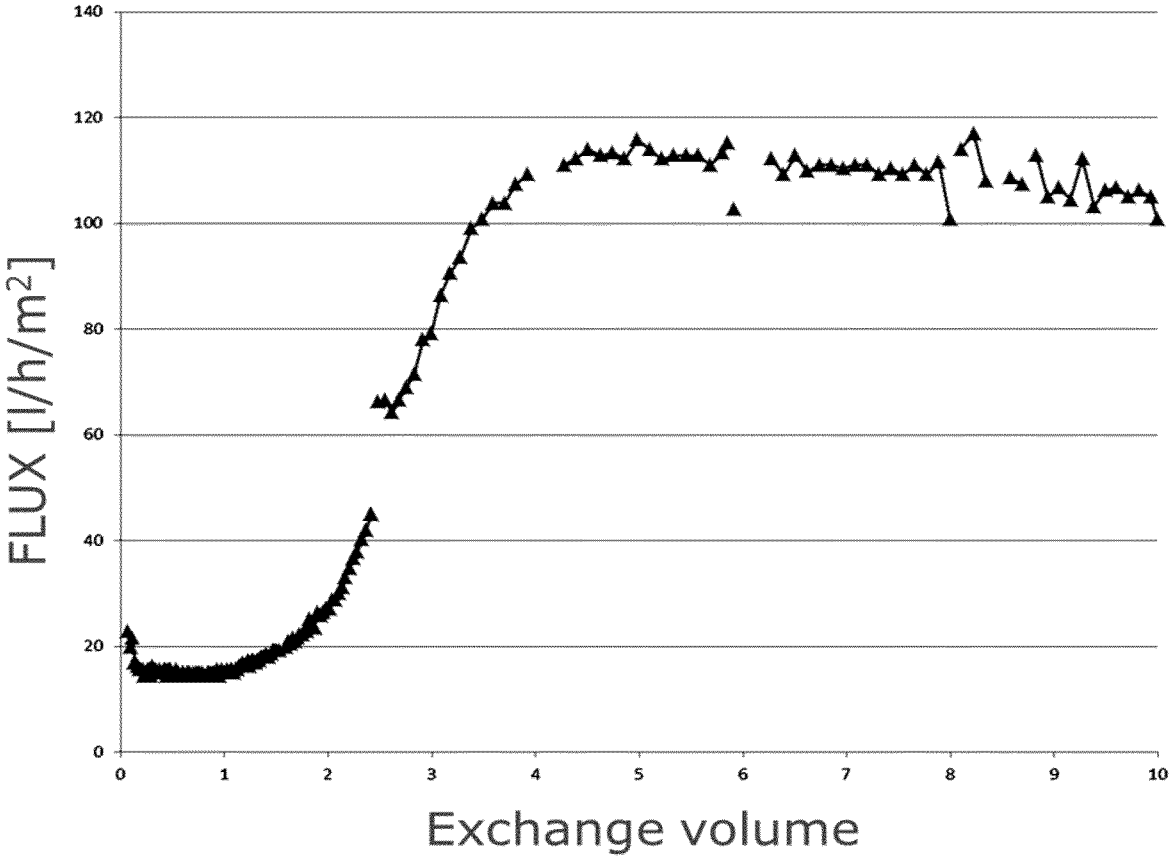

140
120
100
80
60
40
20
0
FLUX [l/h/m²]
0
1
2
3
4
5
6
7
8
9
10
Exchange volume

Figure 14

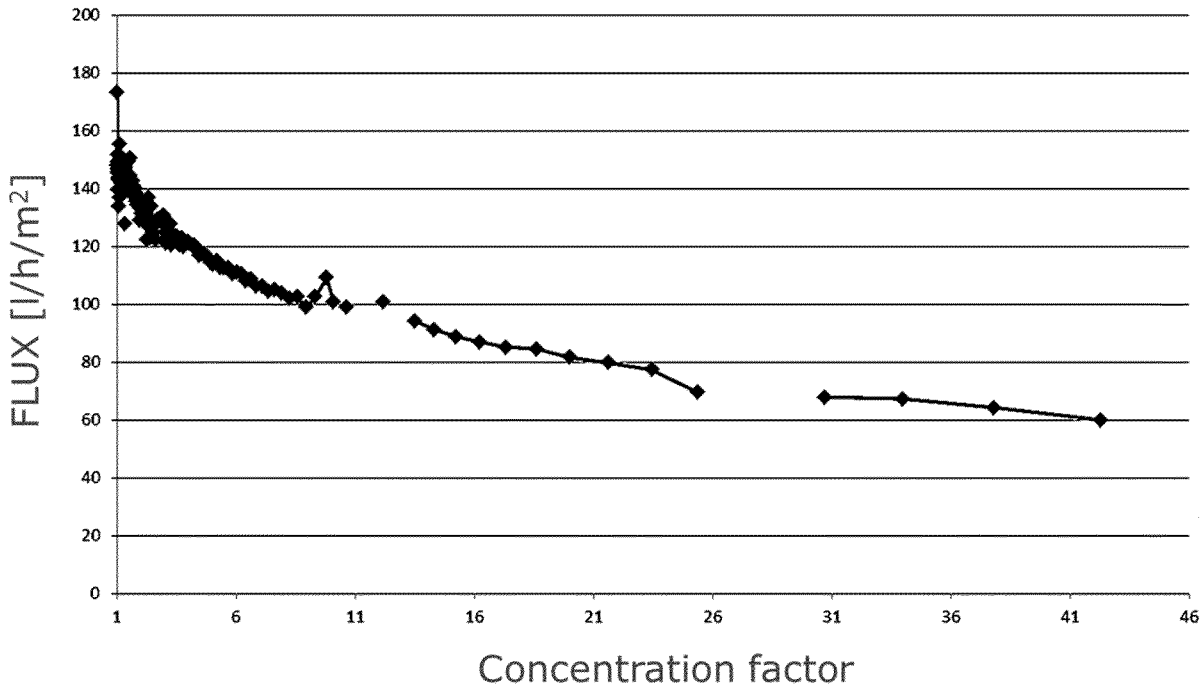

FLUX [l/h/m²]
200
180
160
140
120
100
80
60
40
20
0
1
6
11
16
21
26
31
36
41
46
Concentration factor

Figure 15

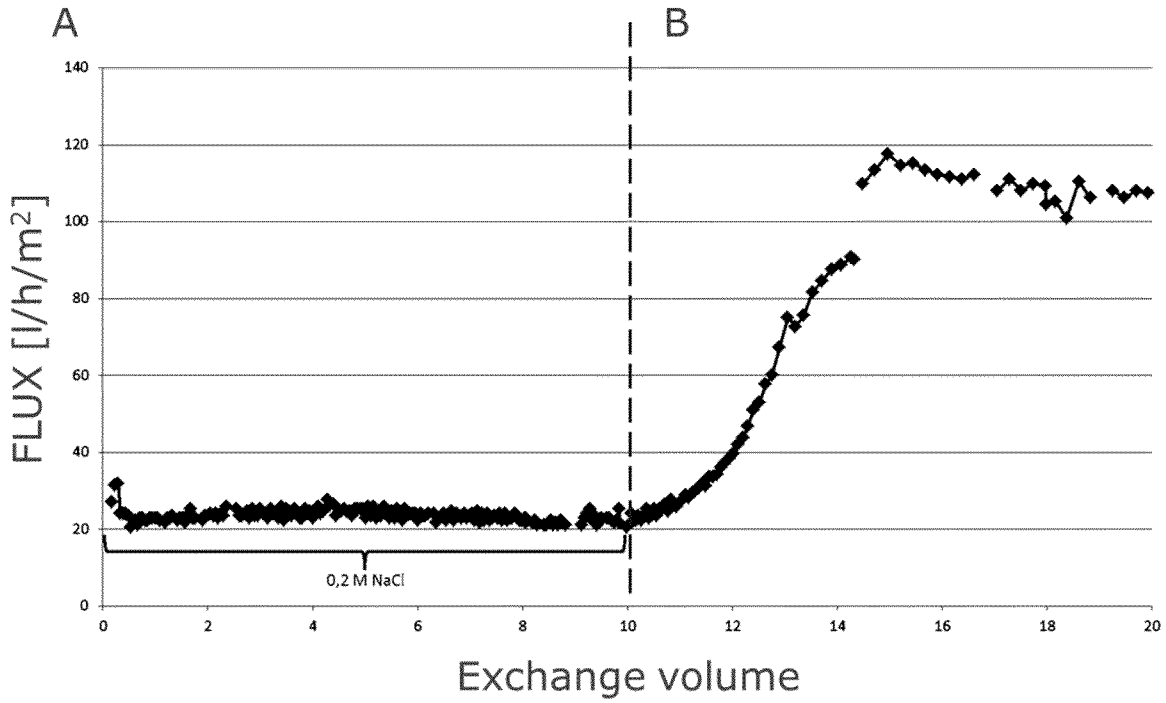

A
B
FLUX [l/h/m²]
140
120
100
80
60
40
20
0
0,2 M NaCl
0
2
4
6
8
10
12
14
16
18
20
Exchange volume

Figure 16