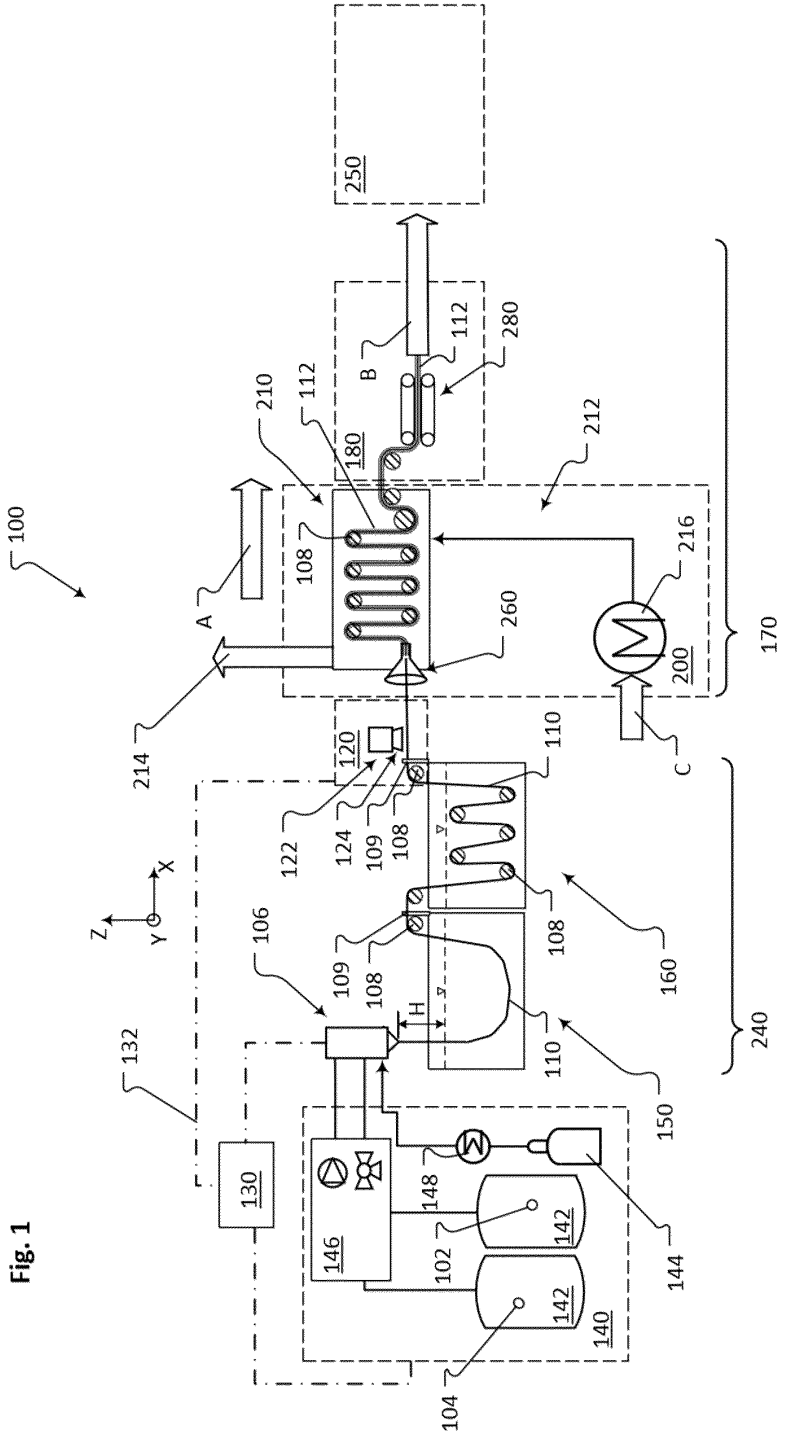
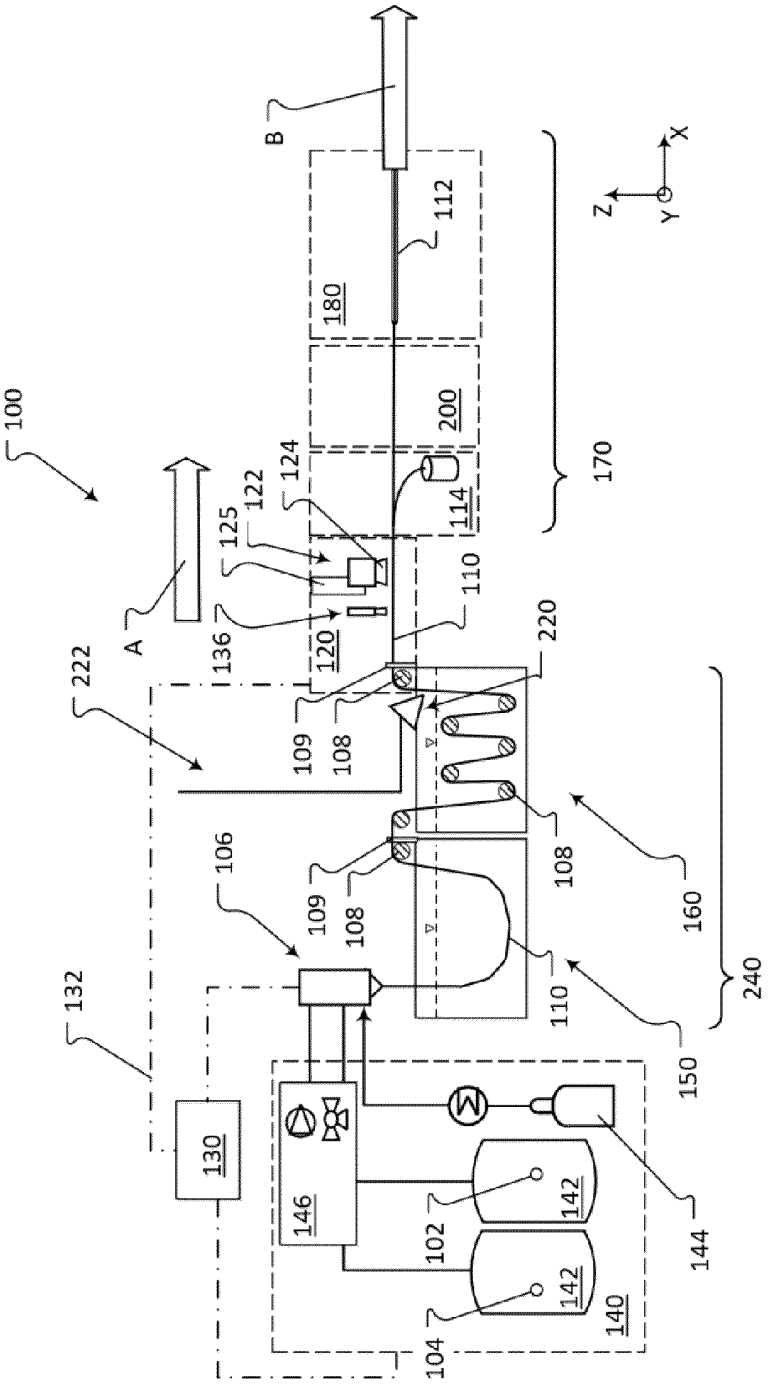

100
250
112
280
B
112
210
180
212
108
216
A
260
200
170
214
120
110
C
122
124
109
108
X
Z
Y
106
109
108
108
160
H
110
150
240
132
130
148
146
102
142
142
144
140
104

Fig. 1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A
B
112
180
200
170
114
124
122
125
136
120
110
220
222
109
108
106
132
130
146
102
142
104
140
144
150
160
240
X
Y
Z

Fig. 2

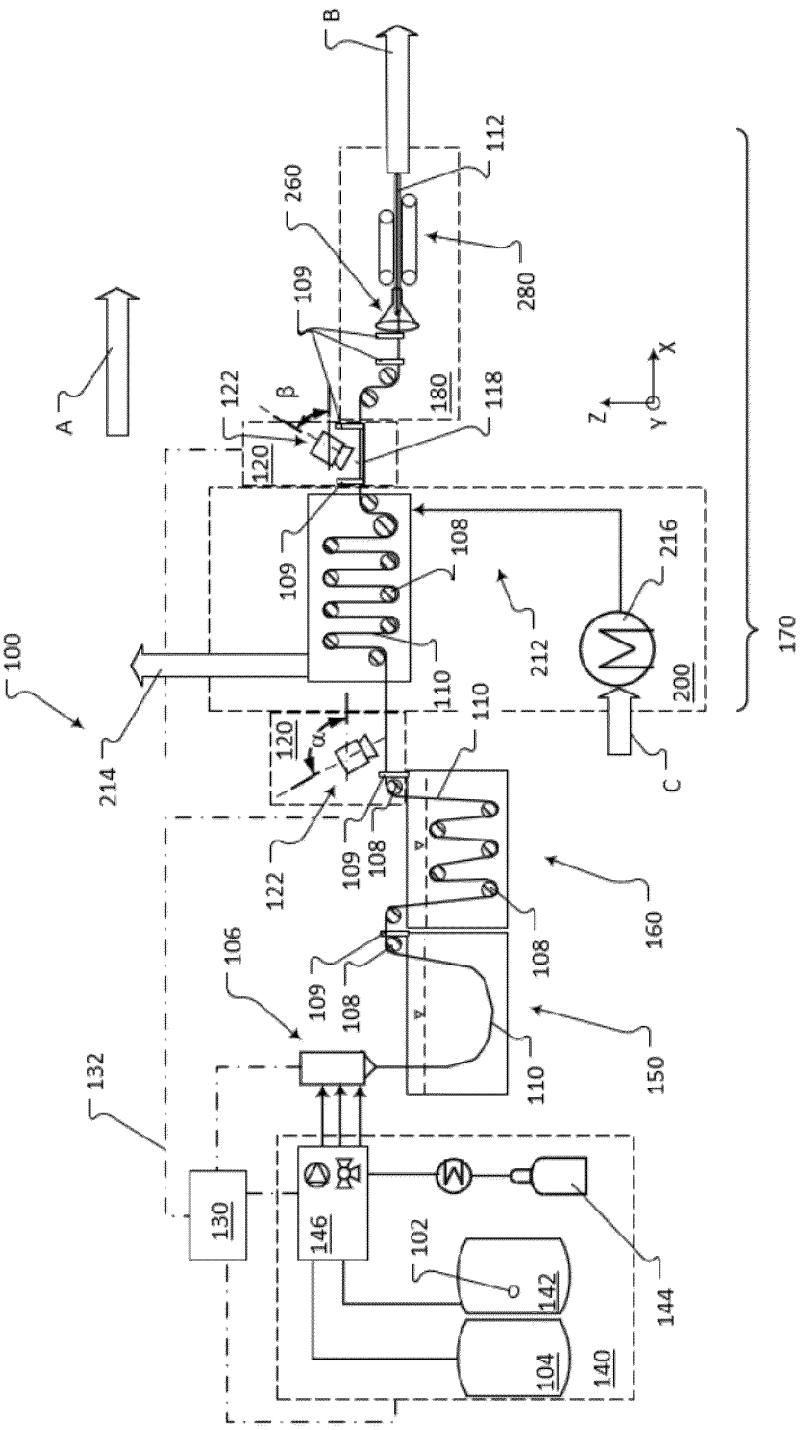

A
B
C
100
102
104
106
108
109
110
112
118
120
122
130
132
140
142
144
146
150
160
170
180
200
212
214
216
260
280
α
β
γ
X
Y
Z

Fig. 3

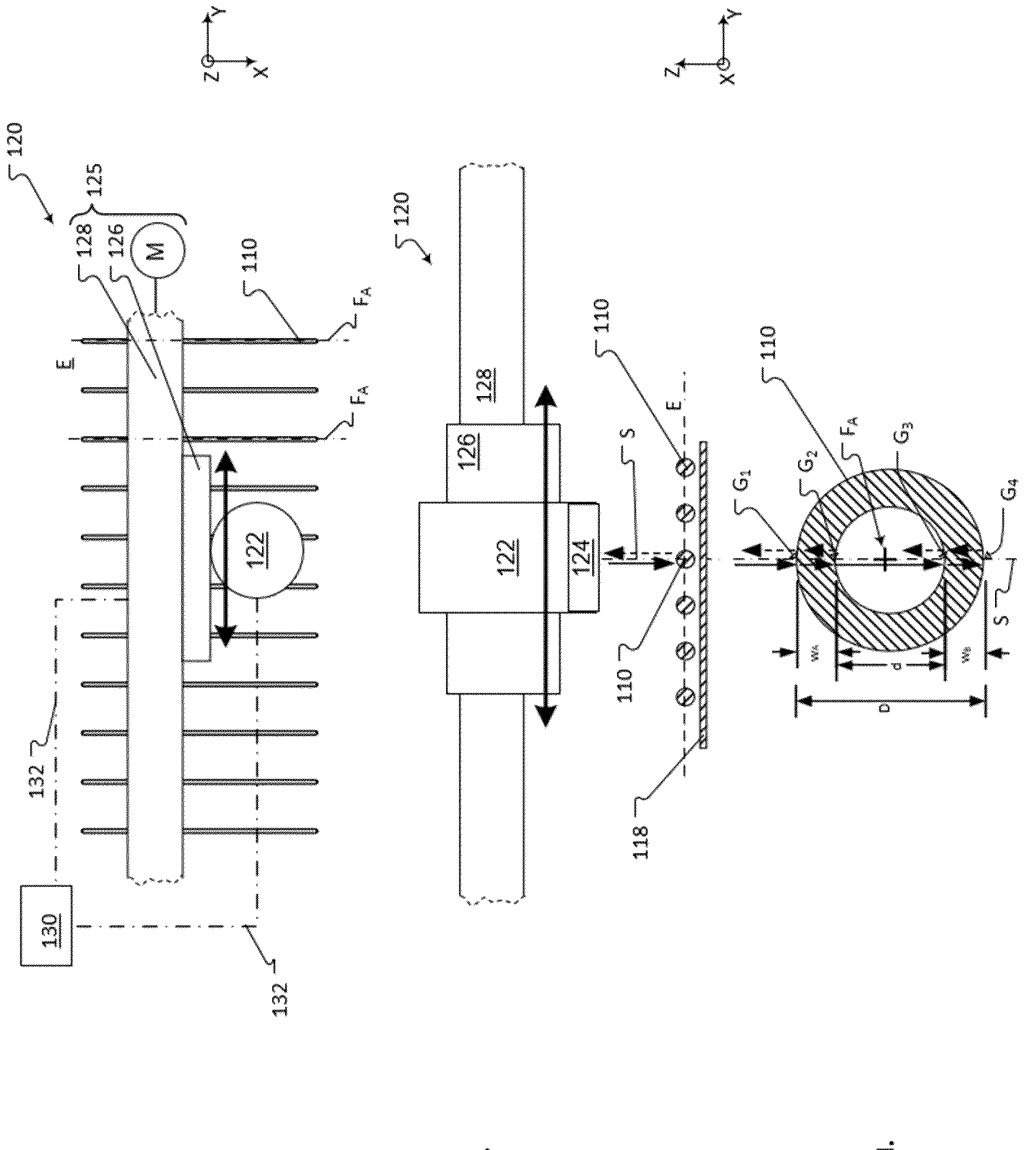
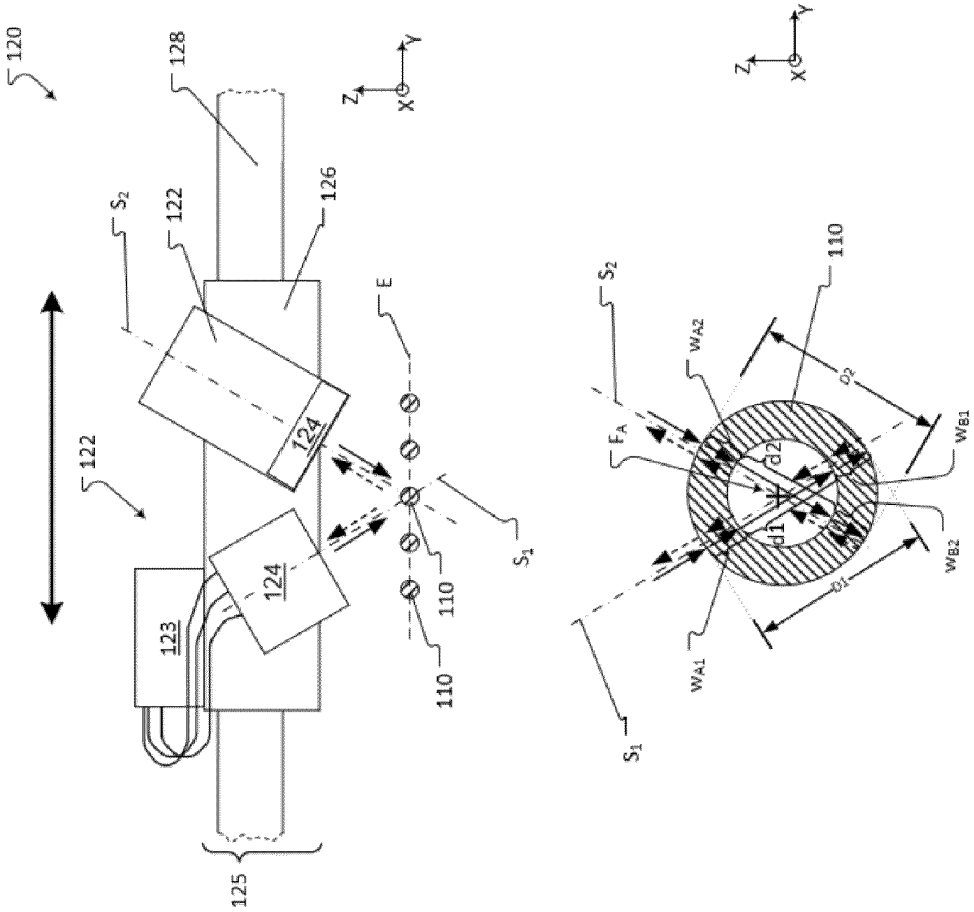

Y
Z
X
120
125
128
126
M
110
F_A
E
122
132
130
I.
124
S
118
II.
G_1
G_2
G_3
G_4
w_A
d
w_B
D
III.

Fig. 4


120
128
126
122
S2
124
123
E
110
S1
125
Z
X
Y
FA
WA2
WA1
WB1
WB2
d1
d2

I.

II.

Fig. 5

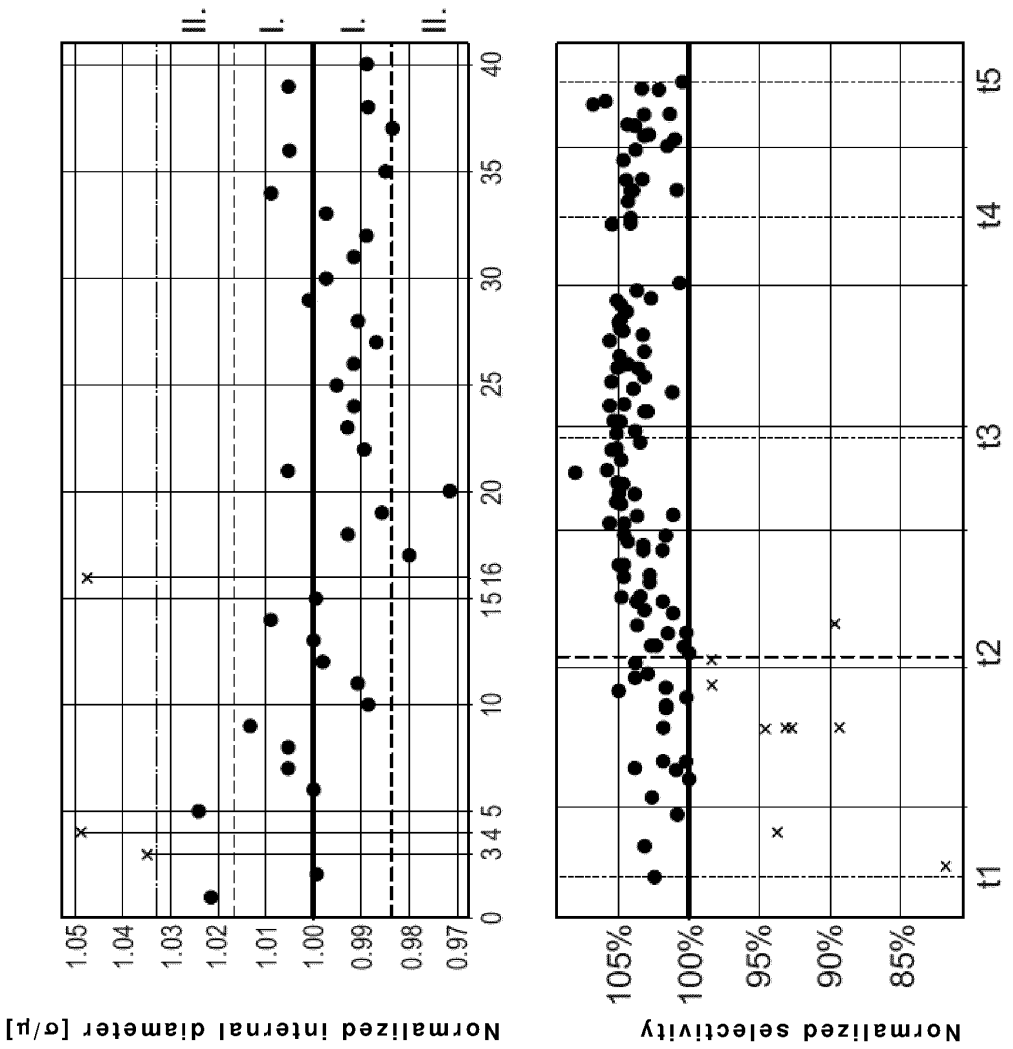

II.
I.
I.
II.
1.05
1.04
1.03
1.02
1.01
1.00
0.99
0.98
0.97
0
3 4 5
10
15 16
20
25
30
35
40
Normalized internal diameter [σ/μ]
105%
100%
95%
90%
85%
t1
t2
t3
t4
t5
Normalized selectivity

Fig. 6