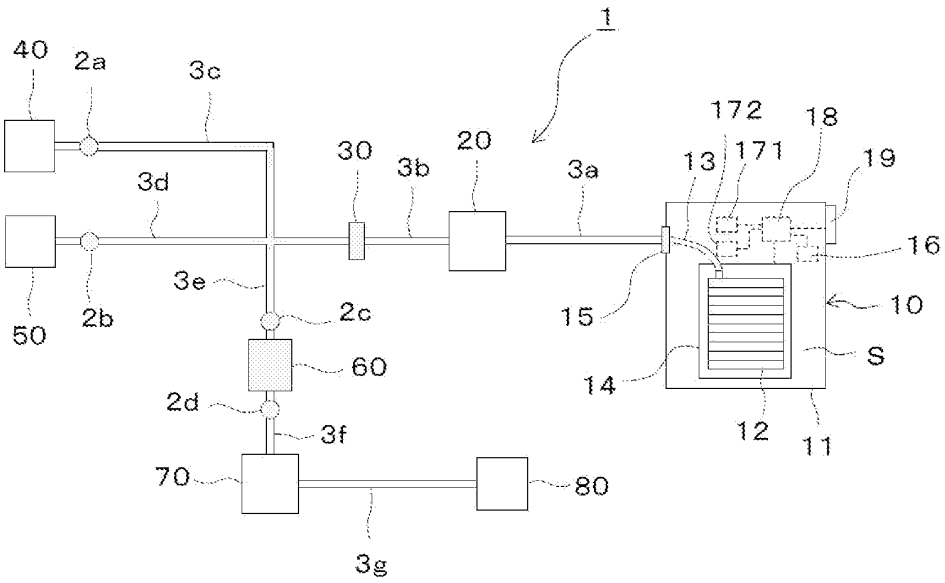
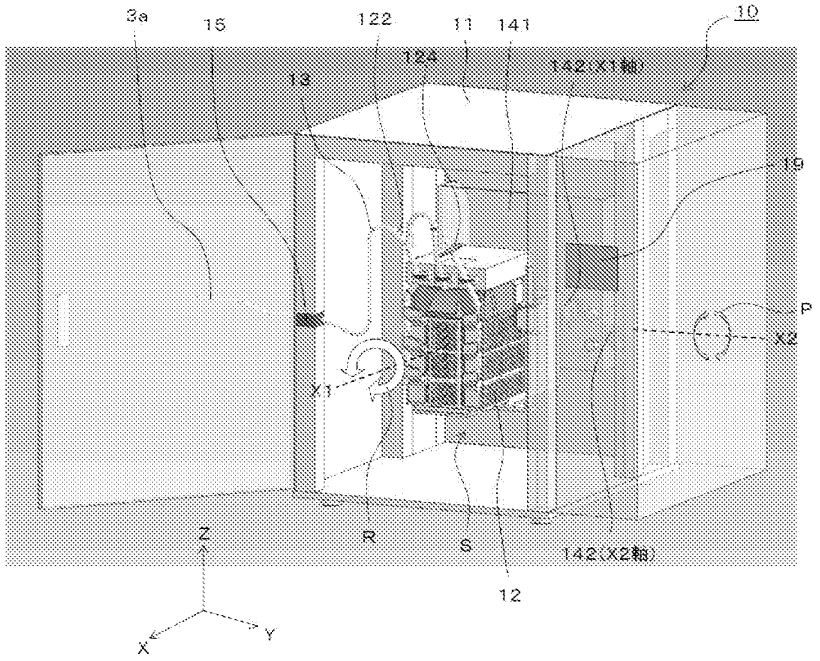
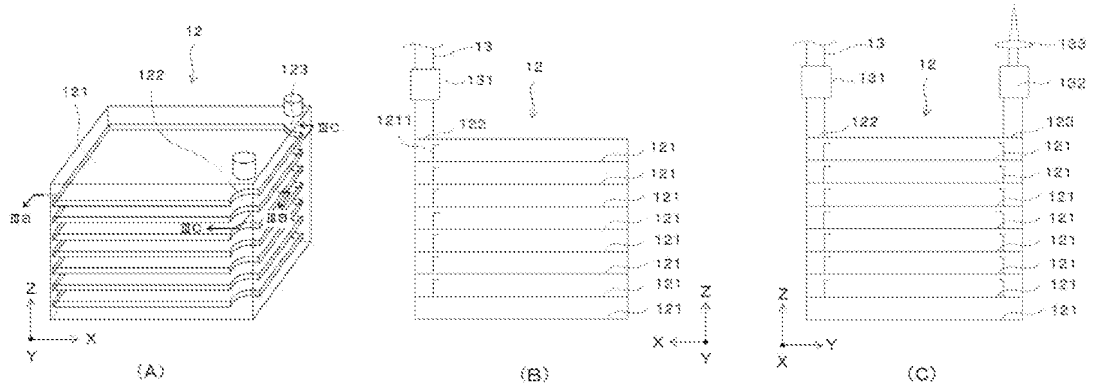
[図1]


1
40
2a
3c
30
3b
20
3a
172
18
13
171
19
3d
16
3e
2c
15
10
50
2b
60
S
14
2d
3f
12
11
70
80
3g

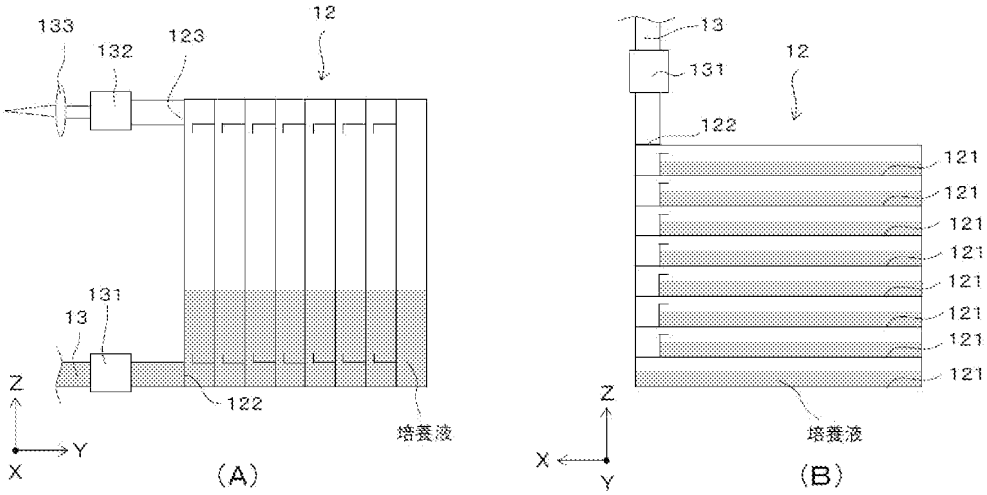
[図2]


3a
15
122
11
141
10
124
142(X1軸)
13
19
P
X2
X1
Z
R
S
142(X2軸)
12
X
Y

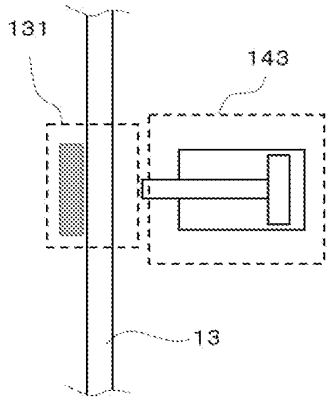
[図3]


12
121
122
123
131
132
133
1211
(A)
(B)
(C)

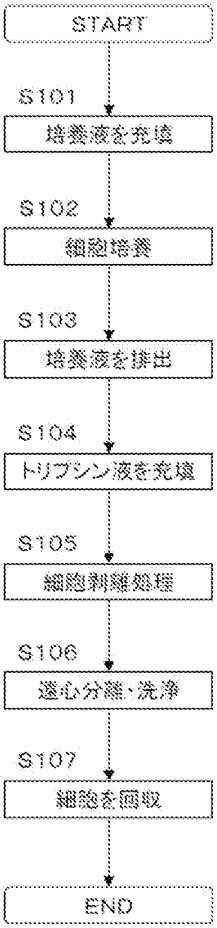
[図4]


133
132
123
12
131
13
122
培養液
Z
Y
X
(A)
13
131
12
122
121
121
121
121
121
121
121
121
Z
X
Y
培養液
(B)

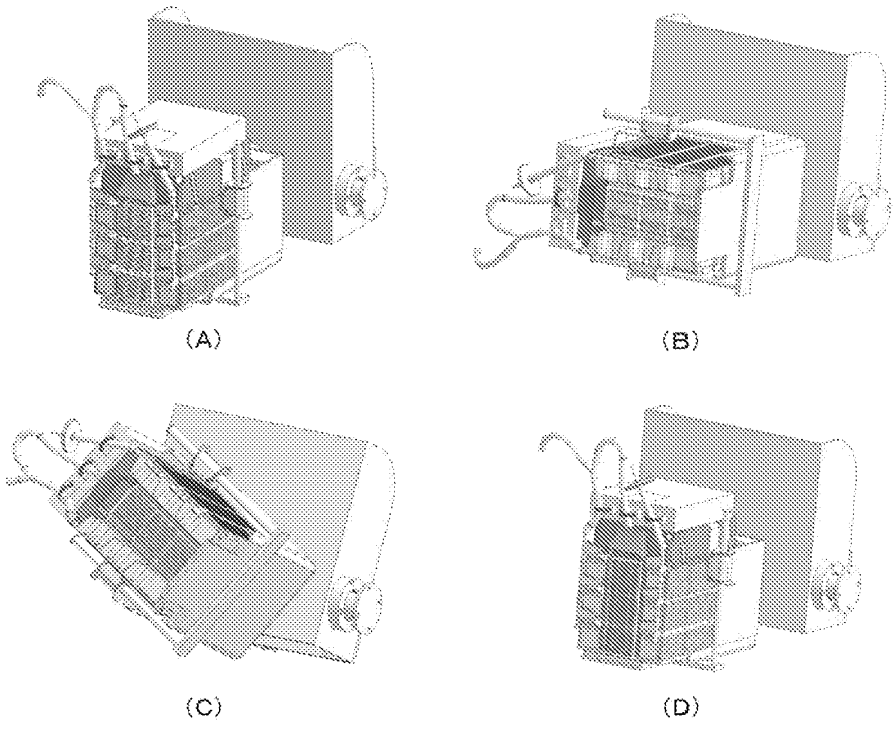
[図5]


131
143
13

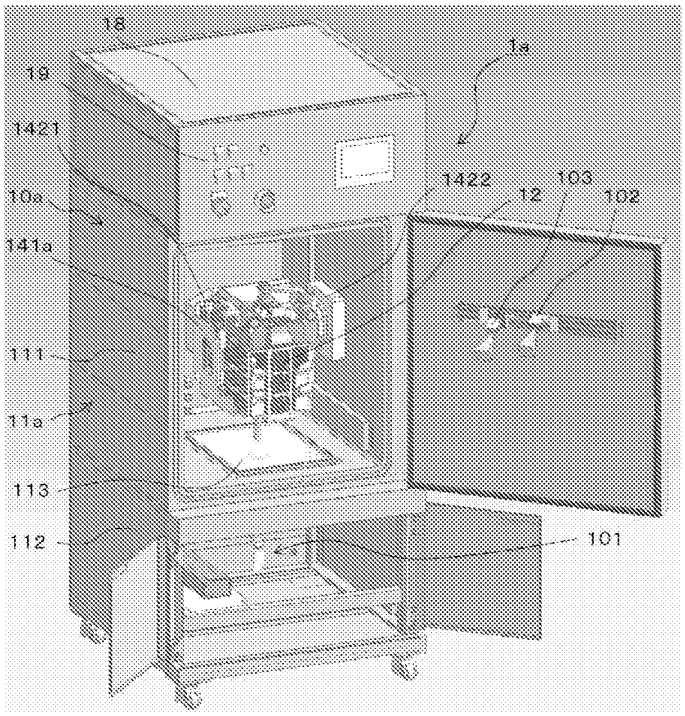
[図6]


START
S101
培養液を充填
S102
細胞培養
S103
培養液を排出
S104
トリプシン液を充填
S105
細胞剥離処理
S106
遠心分離・洗浄
S107
細胞を回収
END

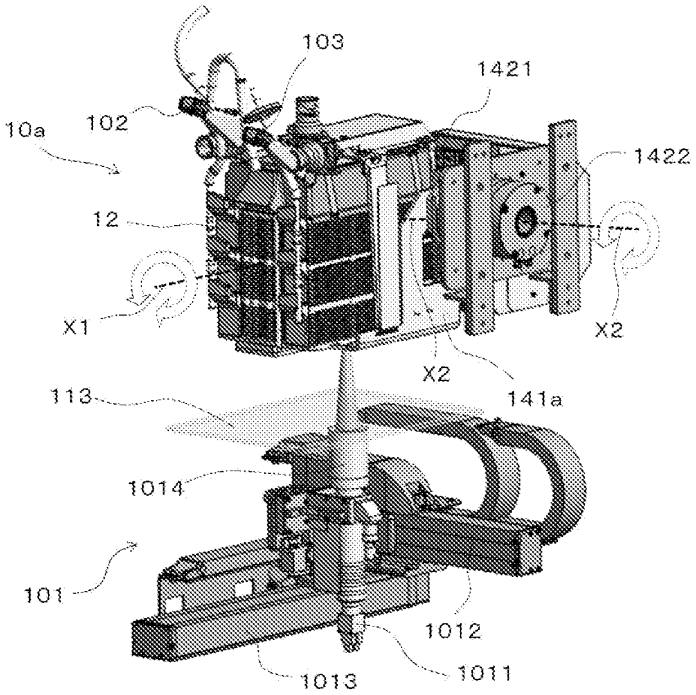
[図7]


(A)
(B)
(C)
(D)

[図8]


18
19
1421
10a
141a
111
11a
113
112
1a
1422
12
103
102
101

[図9]


103
1421
10a
102
1422
12
X1
X2
X2
113
141a
1014
101
1012
1013
1011

[図10]

