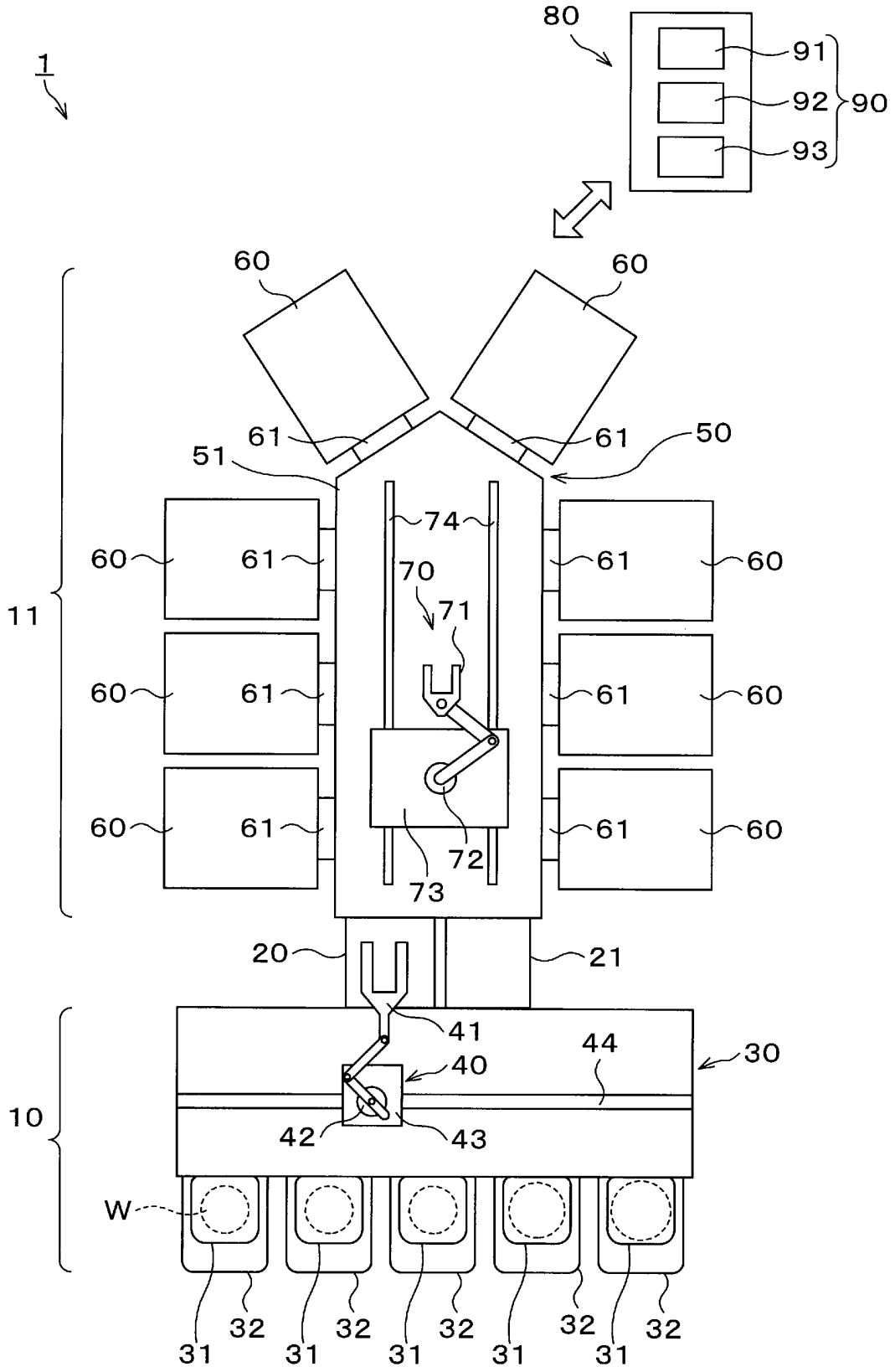
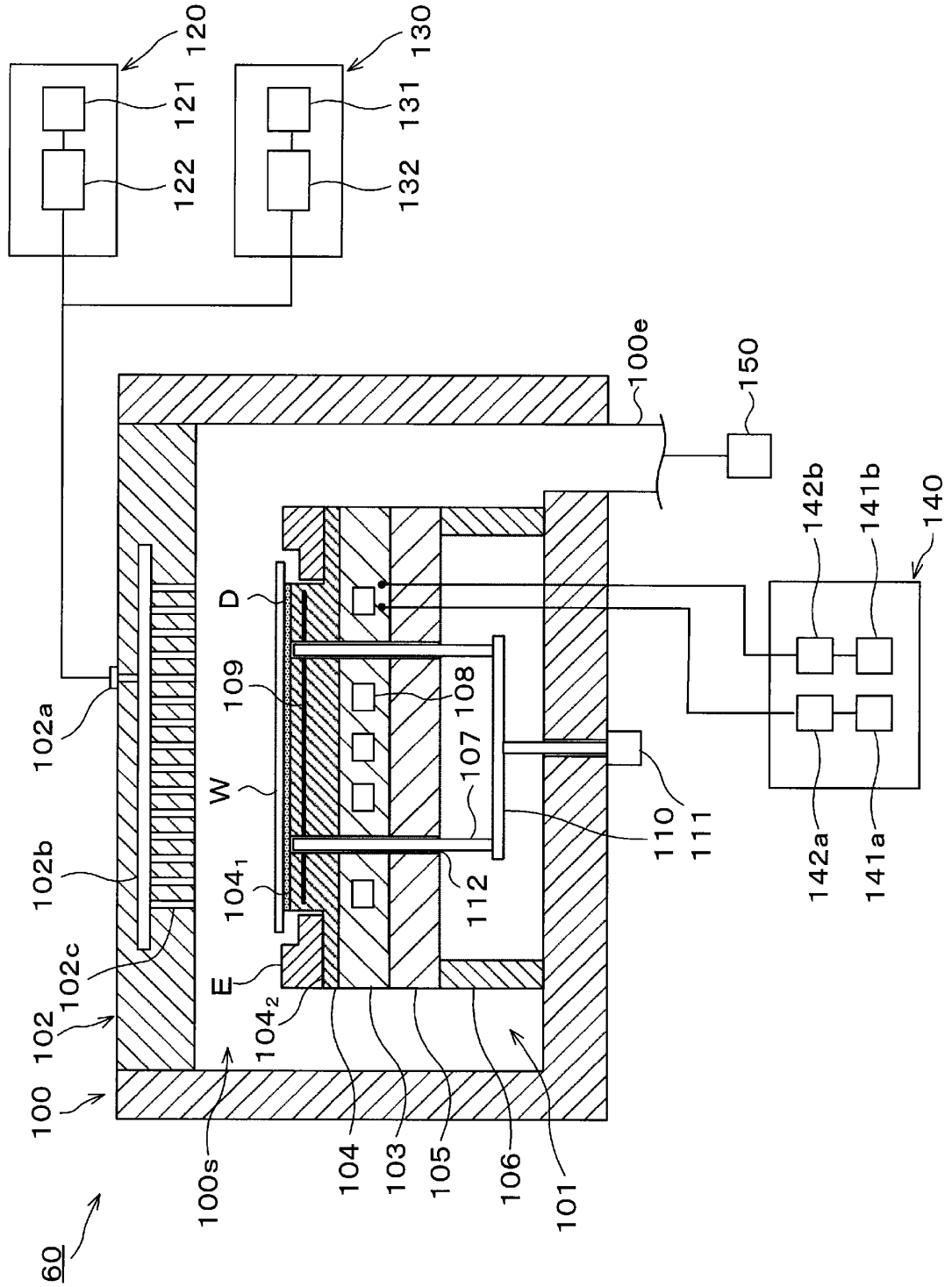
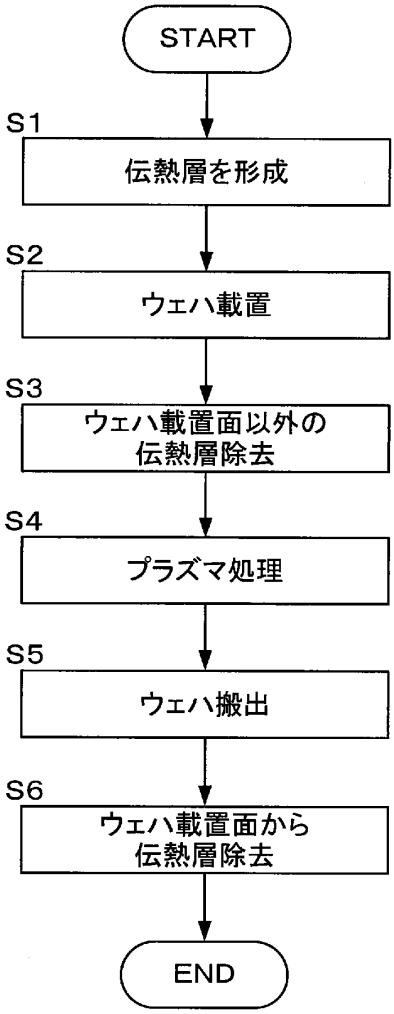
[図1]


1
80
91
92
93
90
60
61
50
51
74
70
71
72
73
11
20
21
41
40
44
30
10
42
43
W
31
32

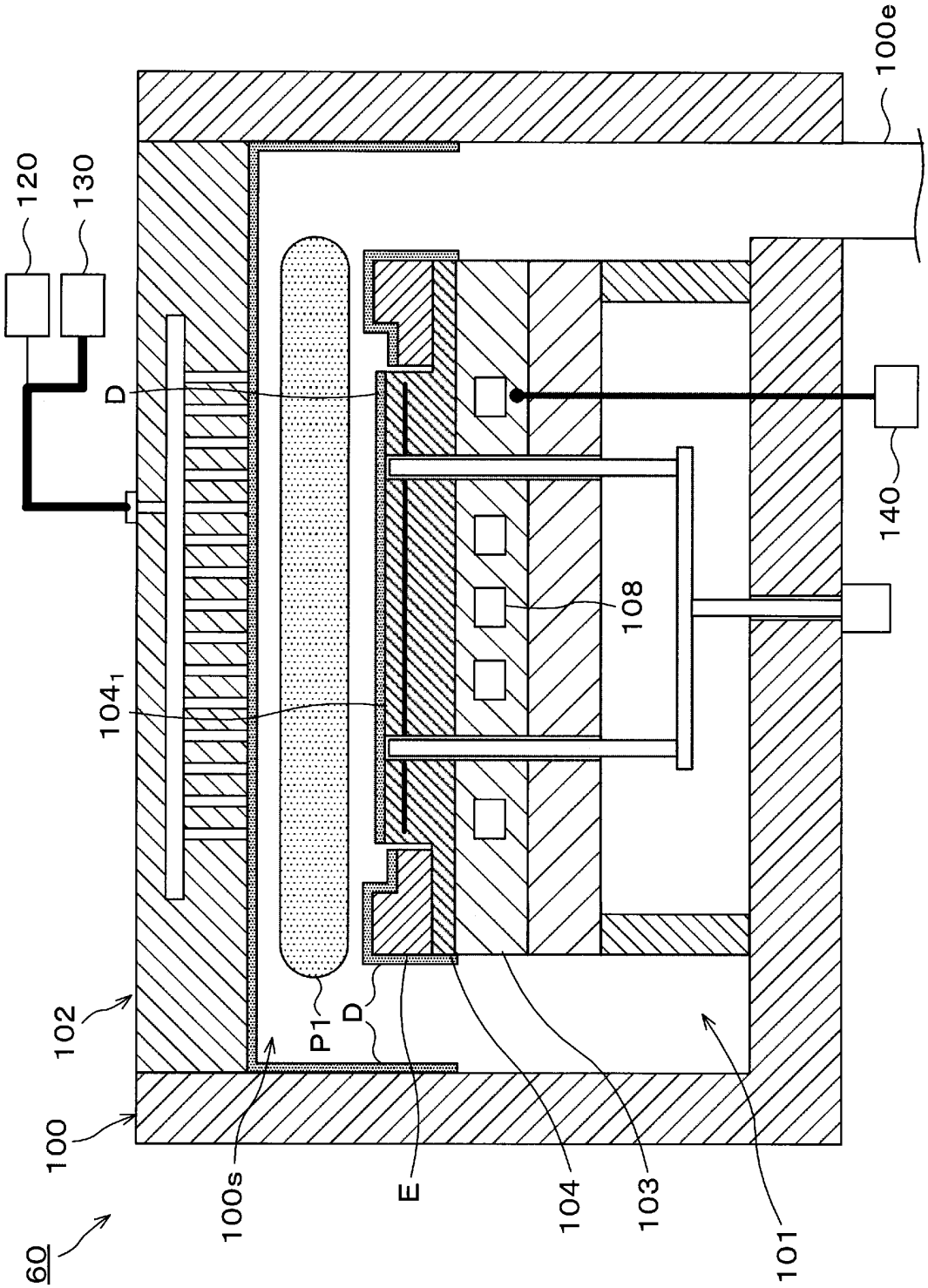
[図2]


120
121
122
130
131
132
100e
150
140
142b
141b
142a
141a
D
109
108
107
W
110
111
112
102a
102b
102c
102
100
E
104_1
104_2
100s
104
103
105
106
101
60

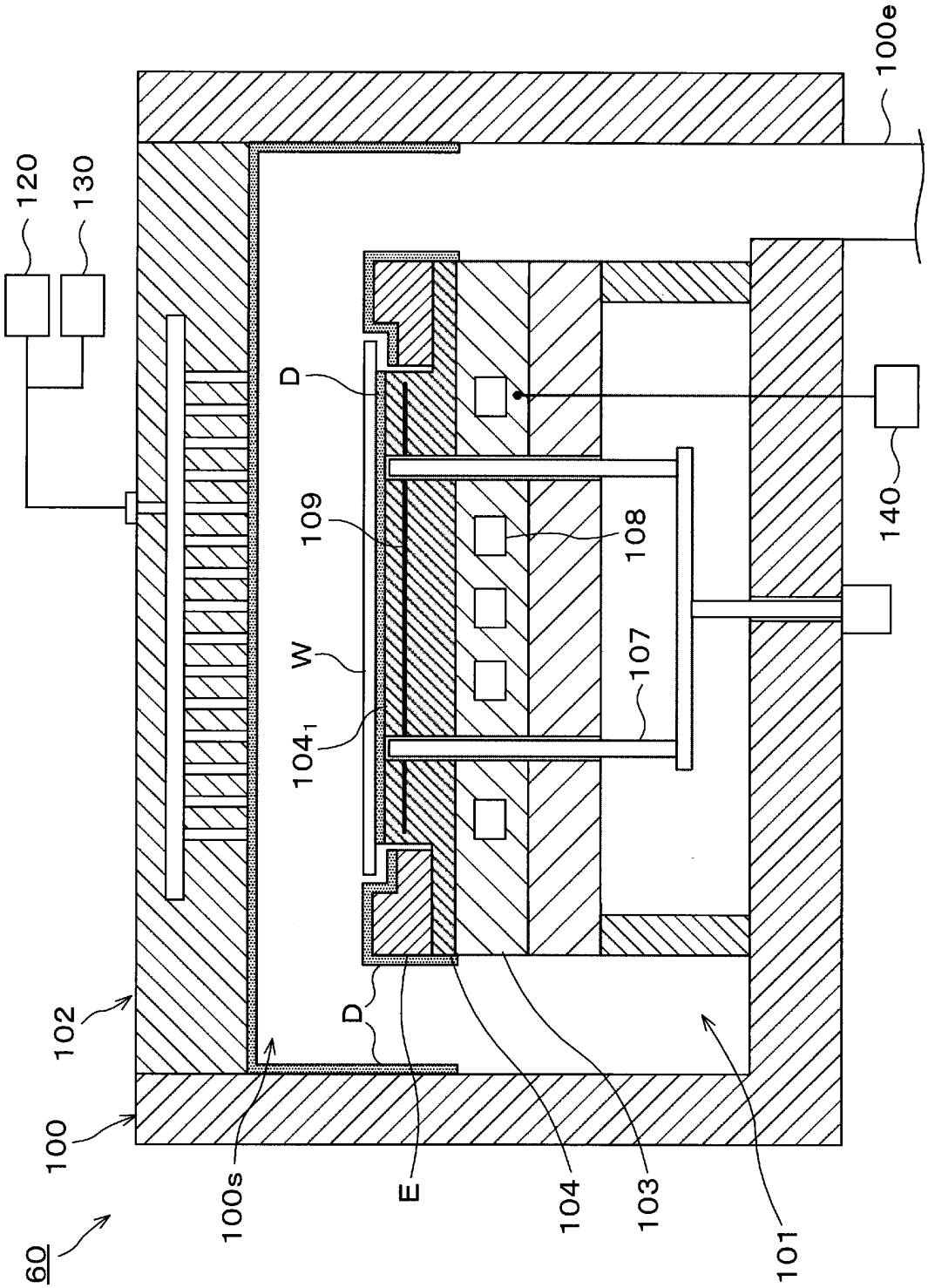
[図3]


START
S1
伝熱層を形成
S2
ウェハ載置
S3
ウェハ載置面以外の
伝熱層除去
S4
プラズマ処理
S5
ウェハ搬出
S6
ウェハ載置面から
伝熱層除去
END

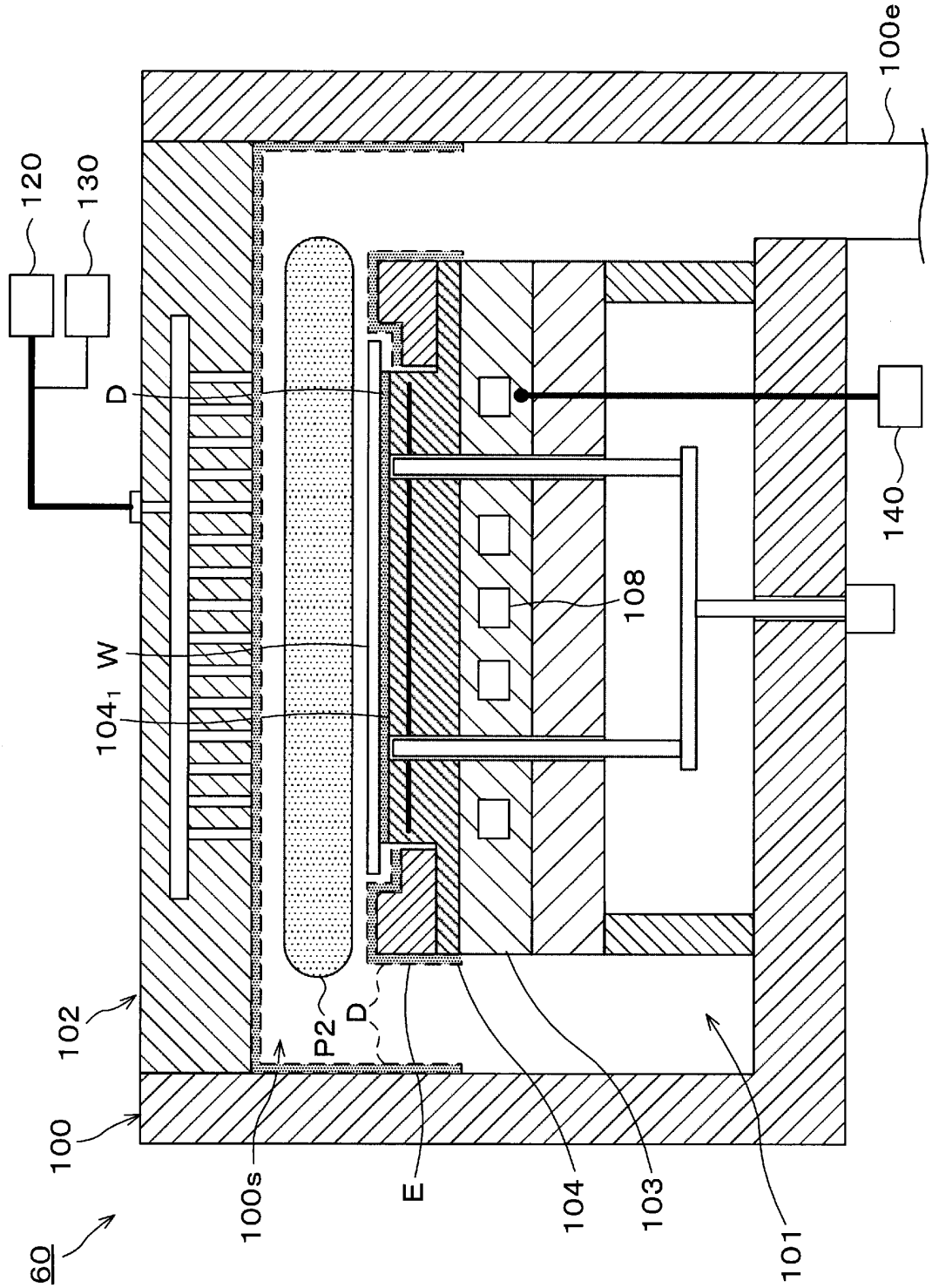
[図4]



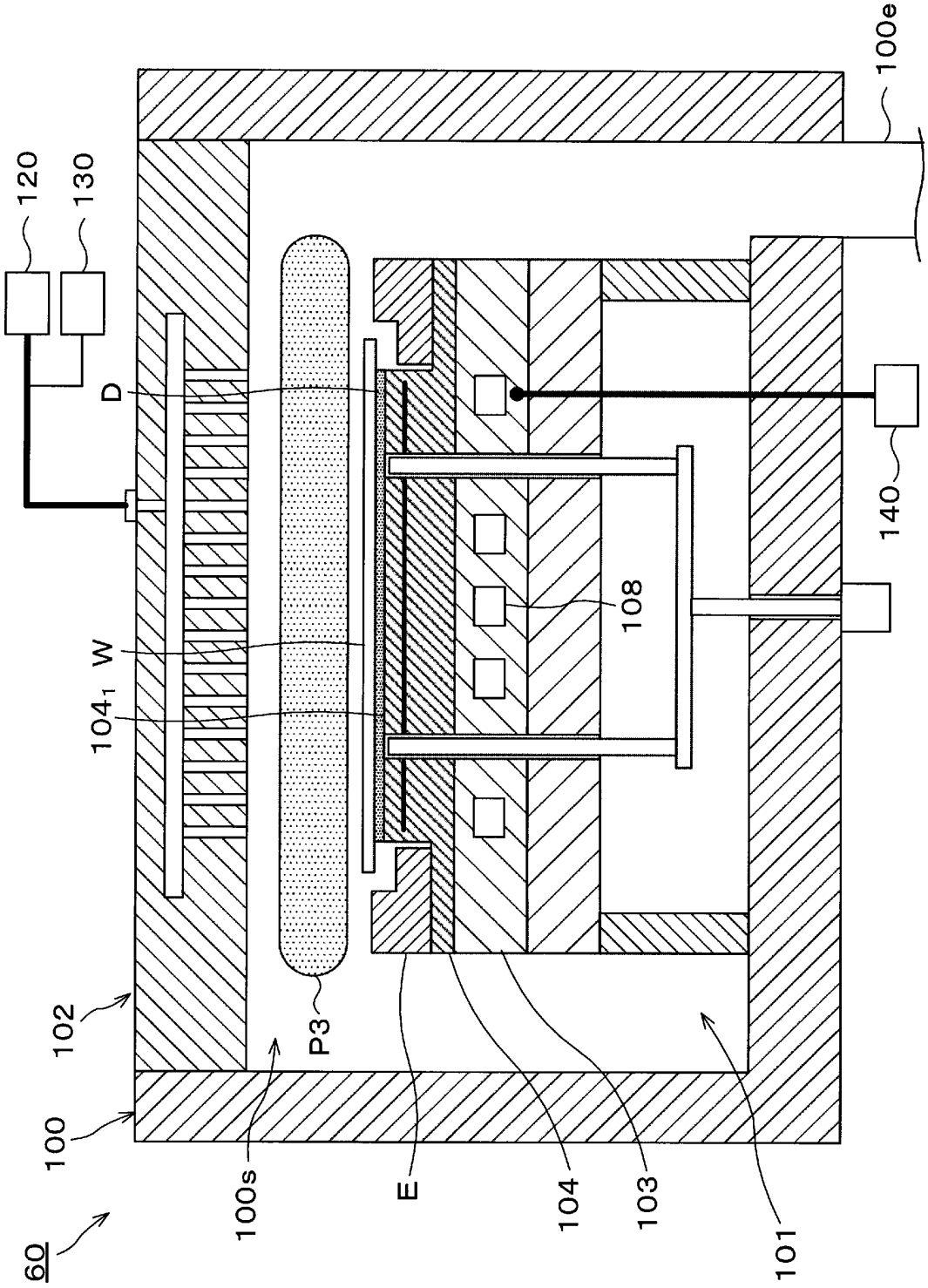
[図5]


100e
120
130
D
109
108
W
107
104_1
140
D
102
100
100s
E
104
103
101
60

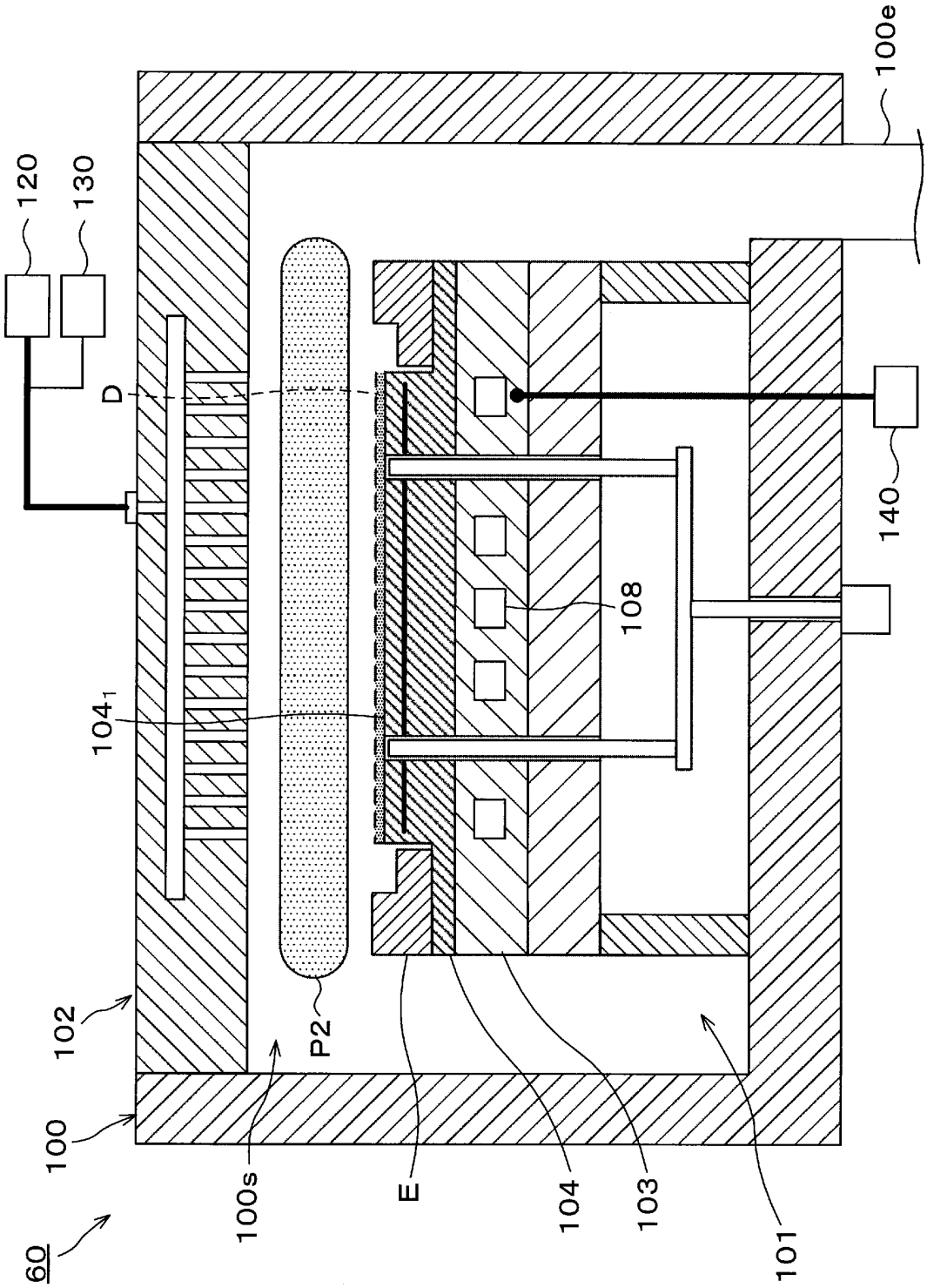
[図6]



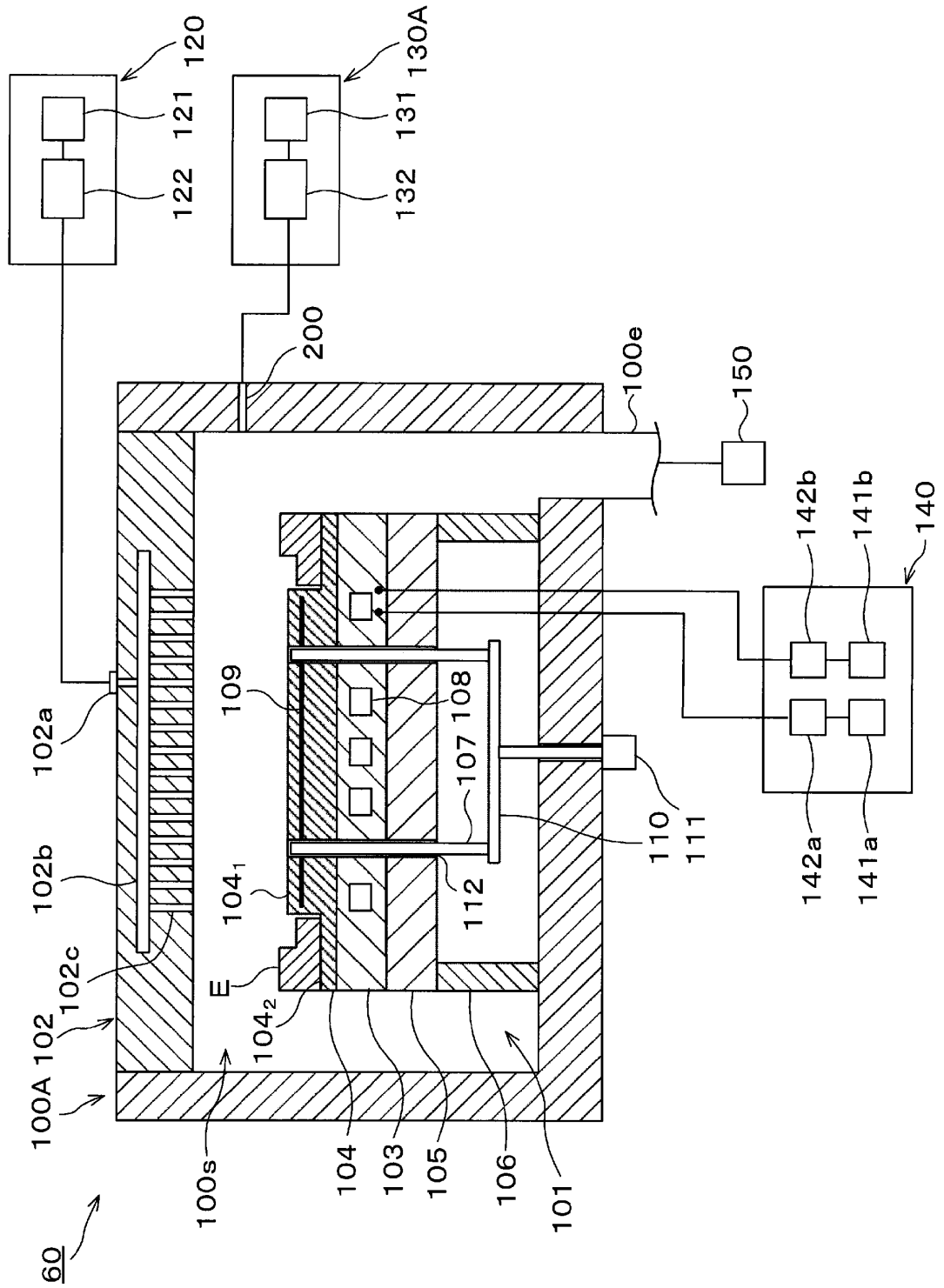
[図7]



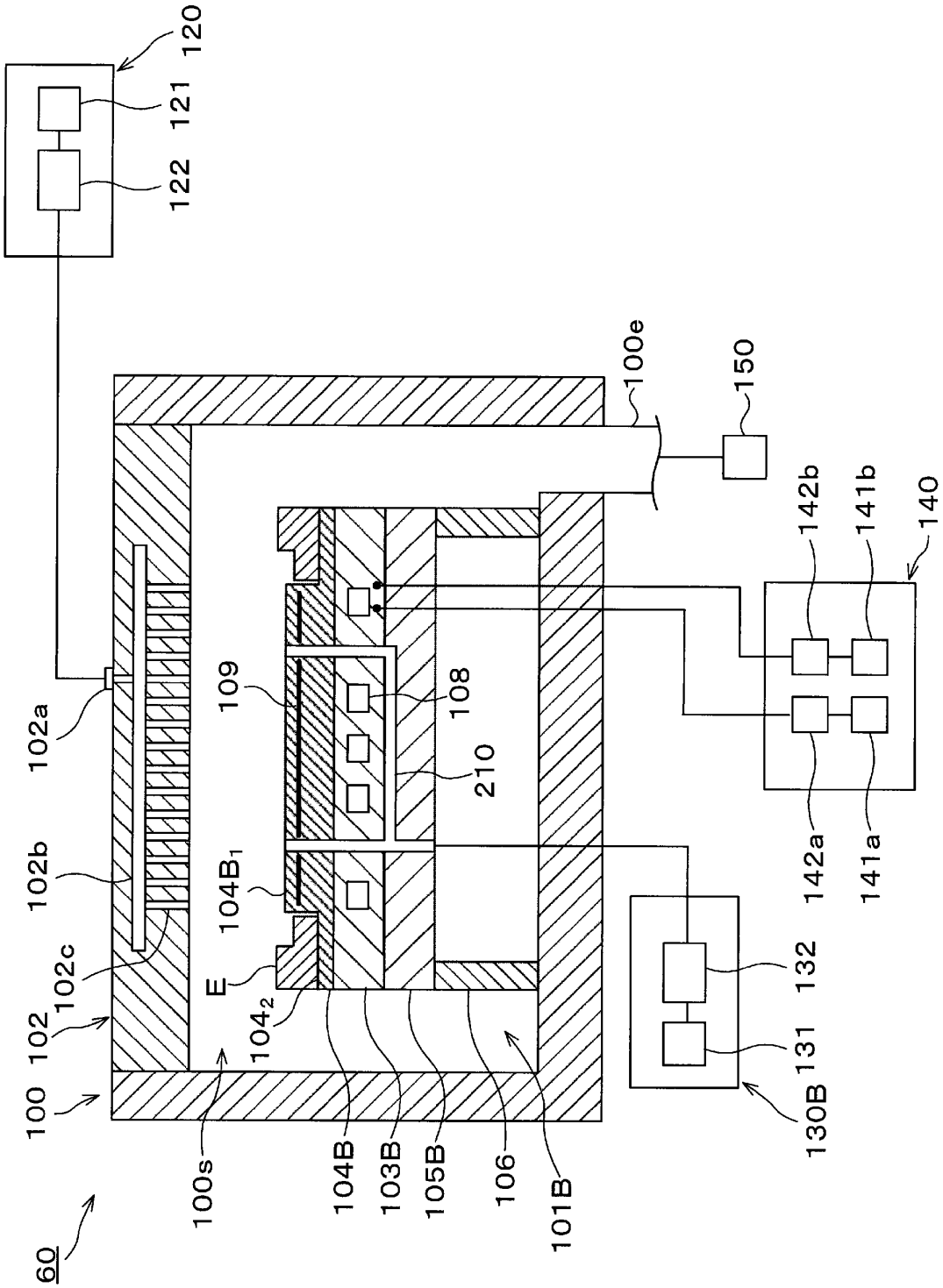
[図8]



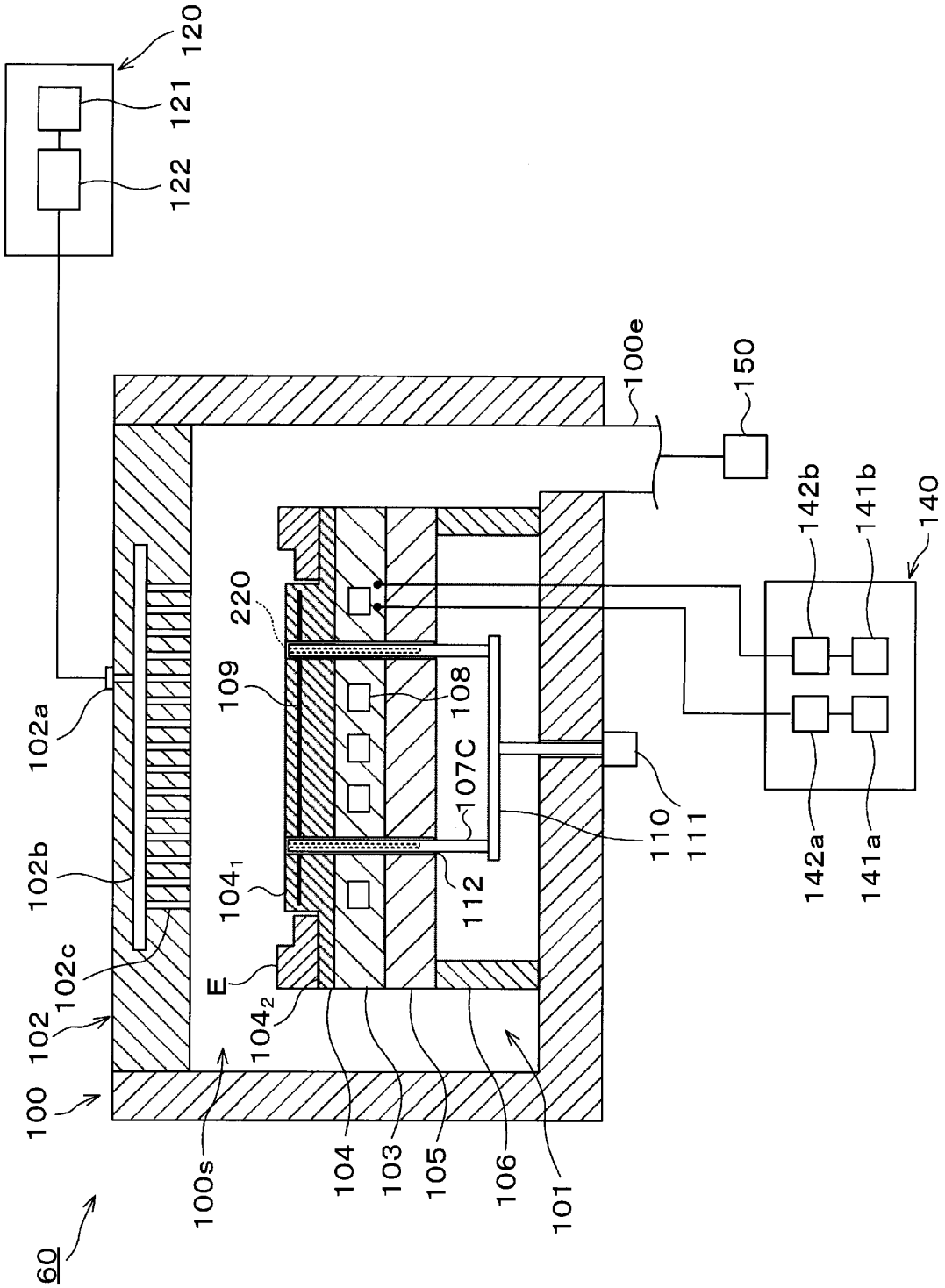
[図9]


120
121
122
130A
131
132
200
100e
150
140
142b
141b
142a
141a
102a
109
108
107
110
111
112
102b
104_1
102c
E
104_2
102
100A
100s
104
103
105
106
101
60

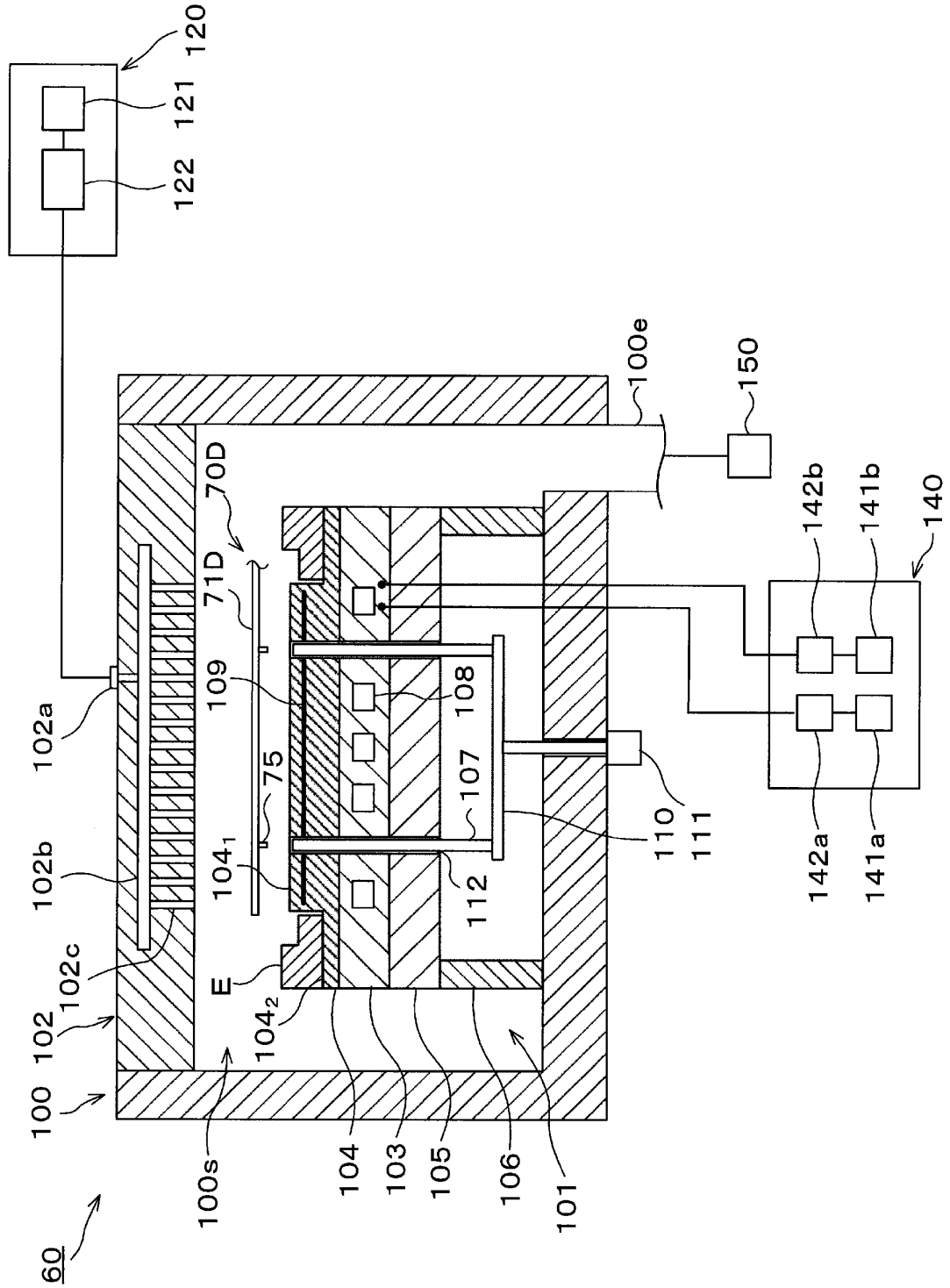
[図10]


120
121
122
100e
150
142b
141b
140
102a
109
108
210
102b
104B1
102c
E
1042
102
100
142a
141a
132
131
130B
100s
104B
103B
105B
106
101B
60

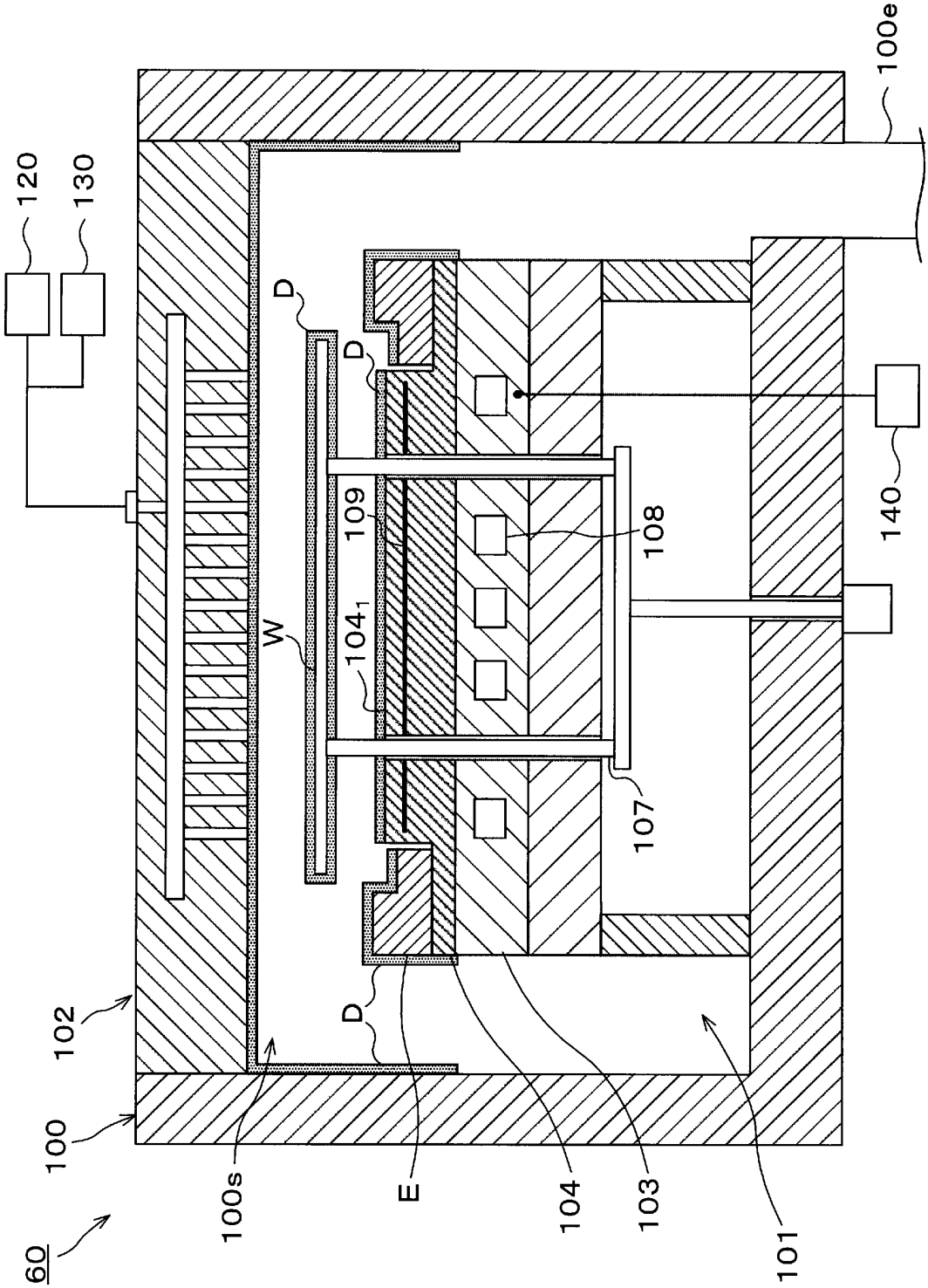
[図11]


120
121
122
100e
150
142b
141b
140
220
109
108
107C
102a
102b
102c
102
100
104_1
104_2
E
112
110
111
142a
141a
100s
104
103
105
106
101
60

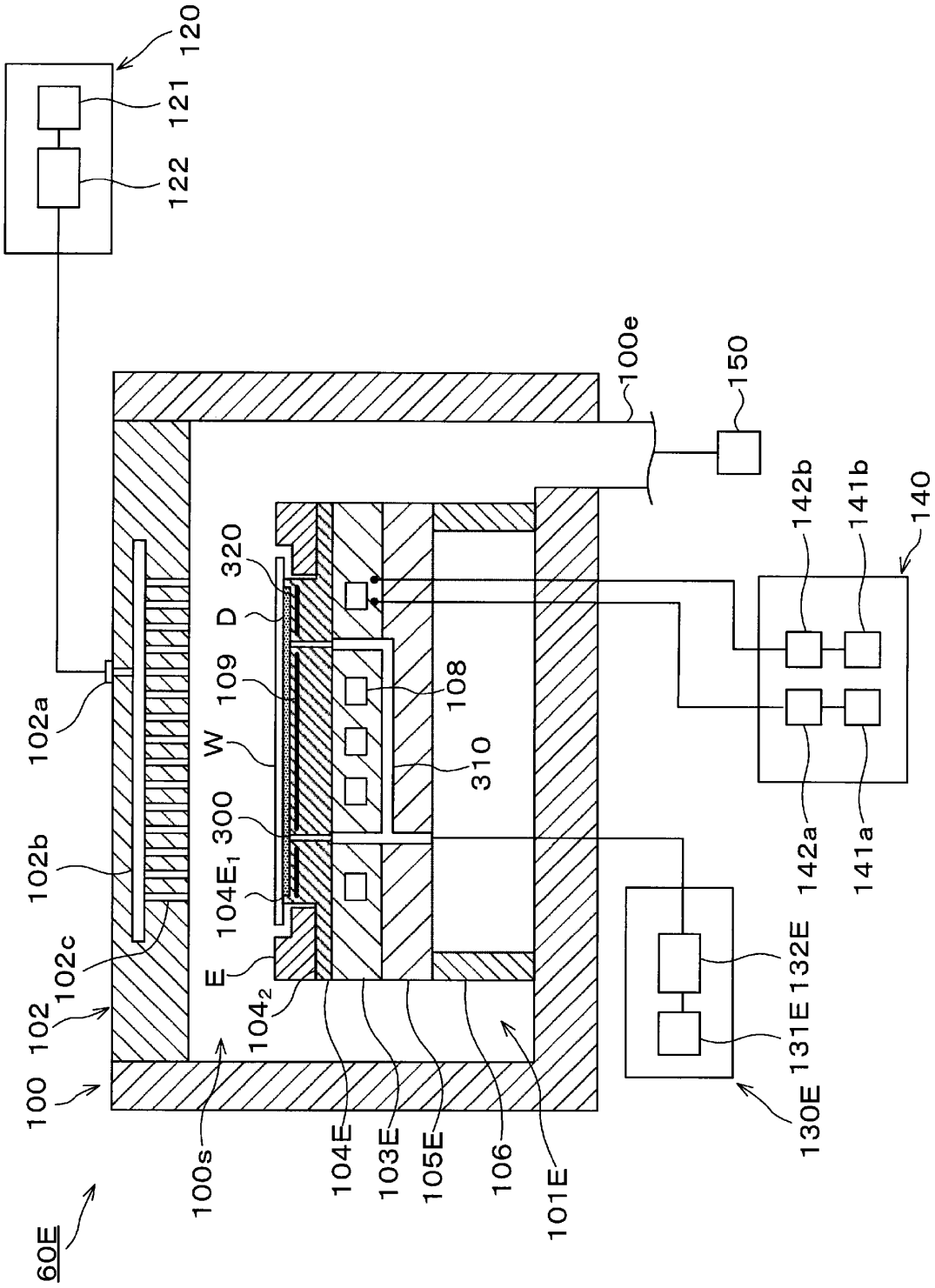
[図12]


120
121
122
100e
150
70D
71D
109
108
75
107
110
111
112
104_1
104_2
E
102a
102b
102c
102
100
100s
104
103
105
106
101
60
142b
141b
140
142a
141a

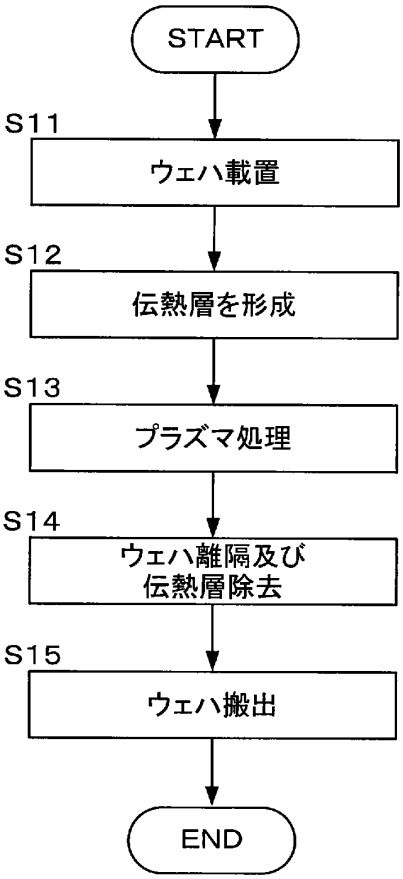
[図13]


100e
120
130
D
D
109
108
140
W
104_1
107
D
102
100
100s
E
104
103
101
60

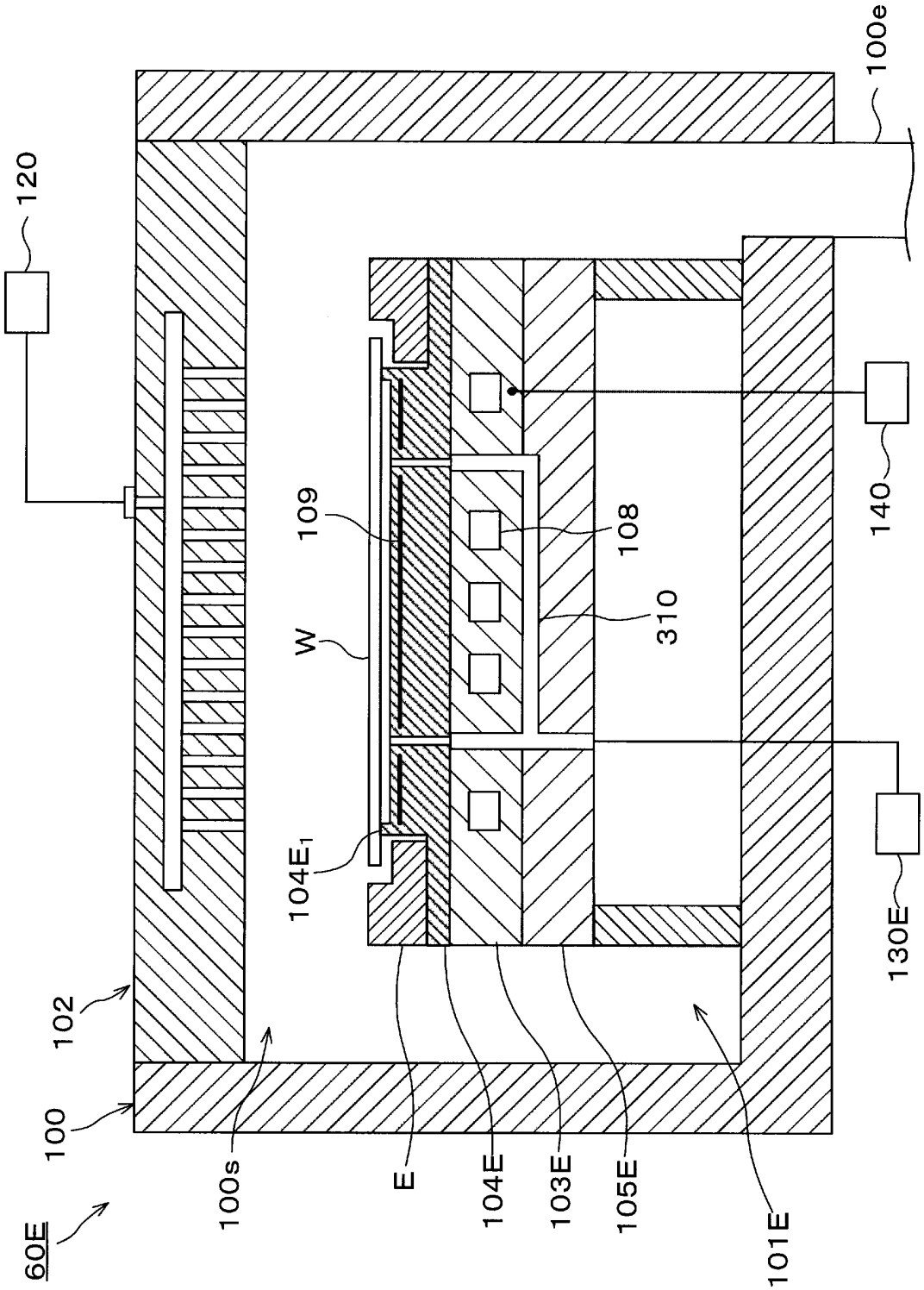
[図14]


120
121
122
100e
150
142b
141b
140
320
D
109
108
W
310
300
104E1
102a
102b
102c
102
100
E
1042
100s
104E
103E
105E
106
101E
142a
141a
132E
131E
130E
60E

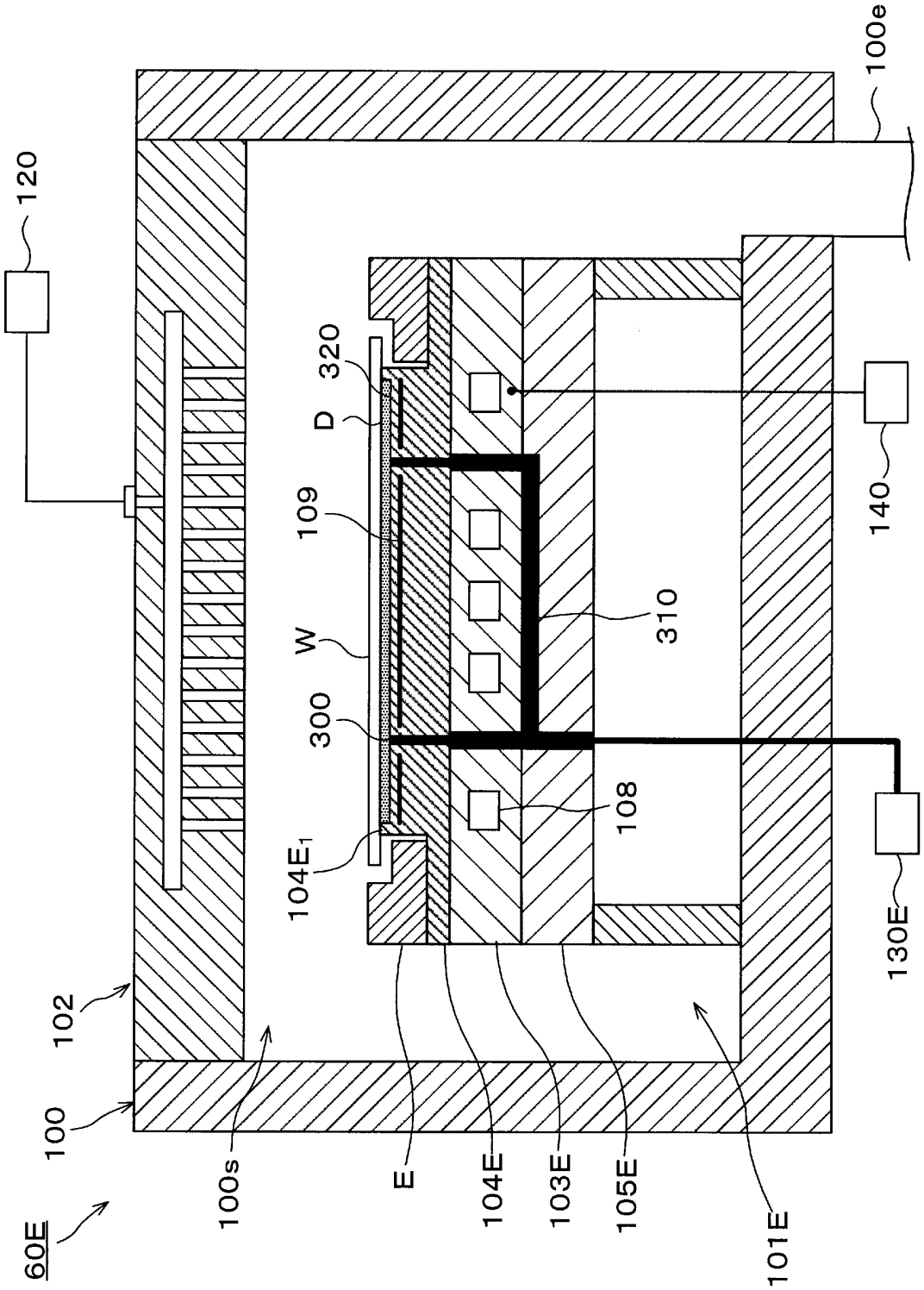
[図15]


START
S11
ウェハ載置
S12
伝熱層を形成
S13
プラズマ処理
S14
ウェハ離隔及び
伝熱層除去
S15
ウェハ搬出
END

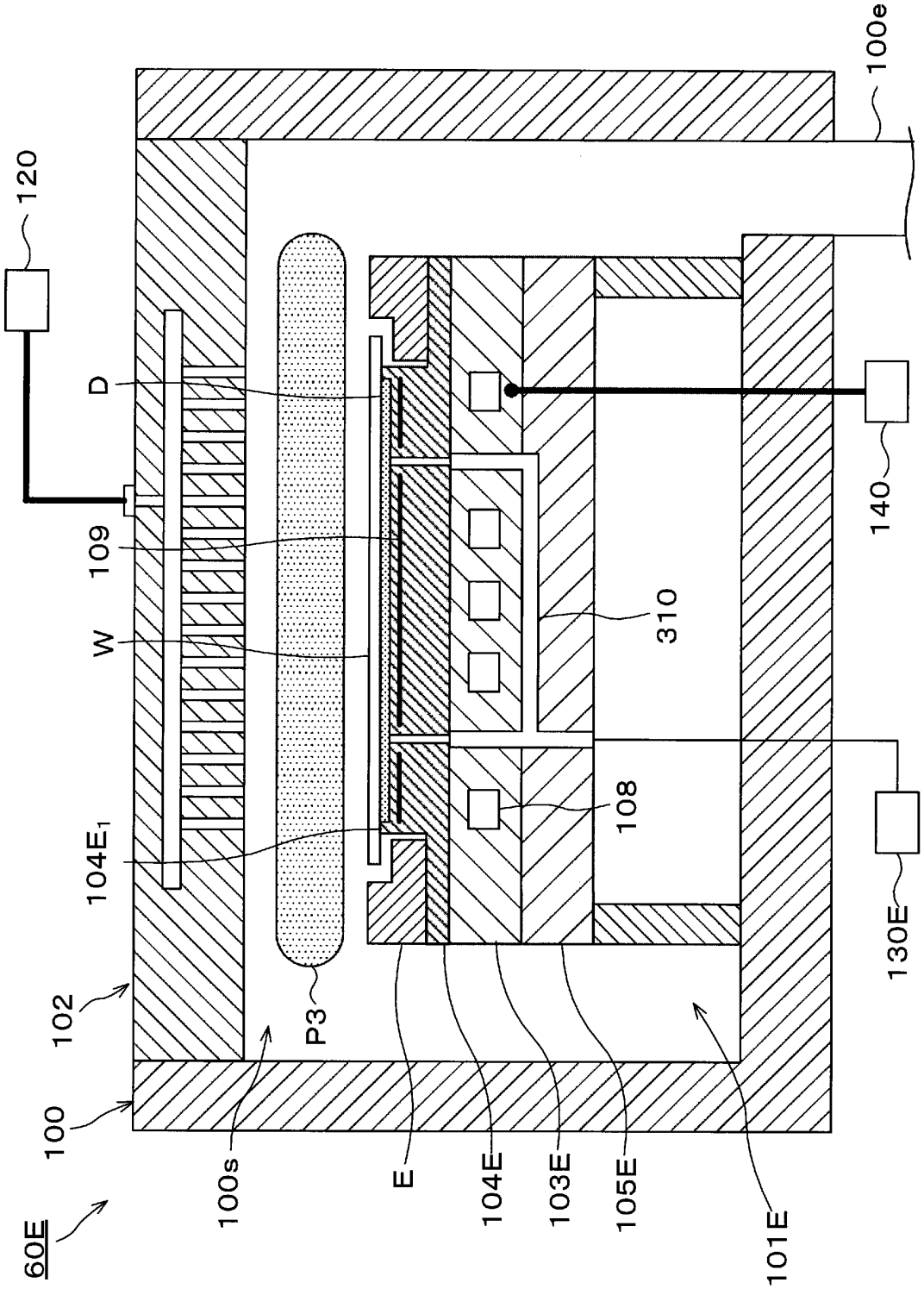
[図16]


100e
120
140
109
108
W
310
104E1
130E
102
100
60E
100s
E
104E
103E
105E
101E

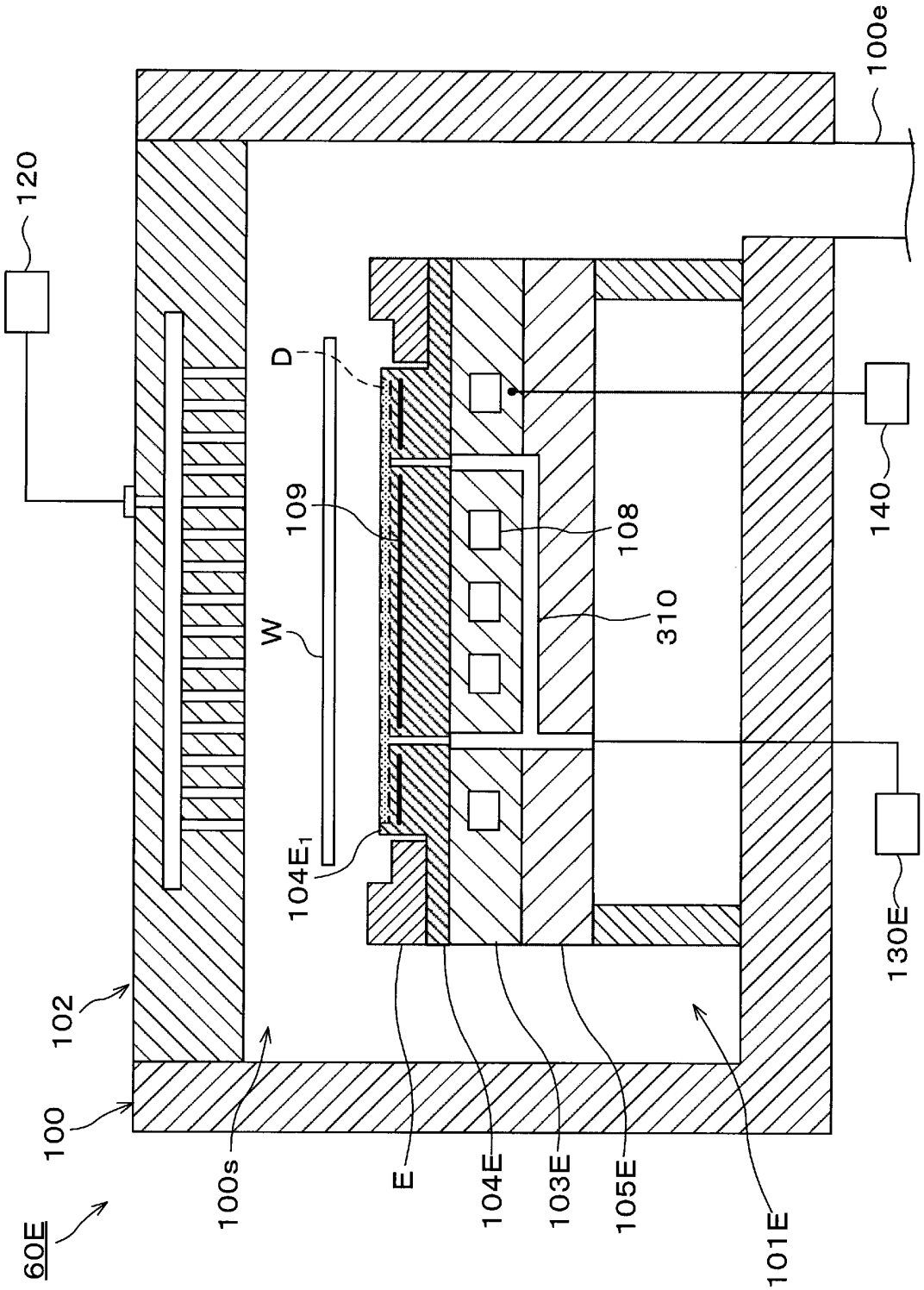
[図17]


100e
120
320
D
109
W
300
310
140
108
104E1
130E
102
100
100s
E
104E
103E
105E
101E
60E

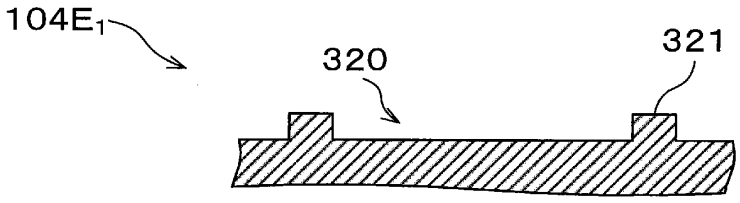
[図18]


100e
120
D
109
W
104E1
102
100
60E
100s
P3
E
104E
103E
105E
101E
310
108
140
130E

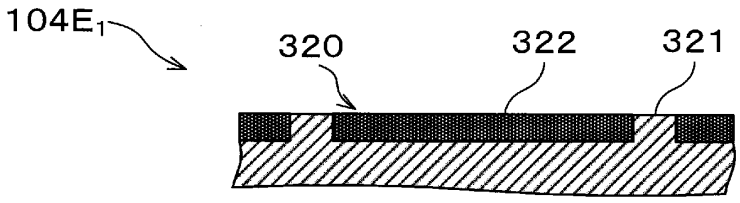
[図19]


100e
120
D
109
108
140
W
310
104E1
130E
102
100
100s
E
104E
103E
105E
101E
60E

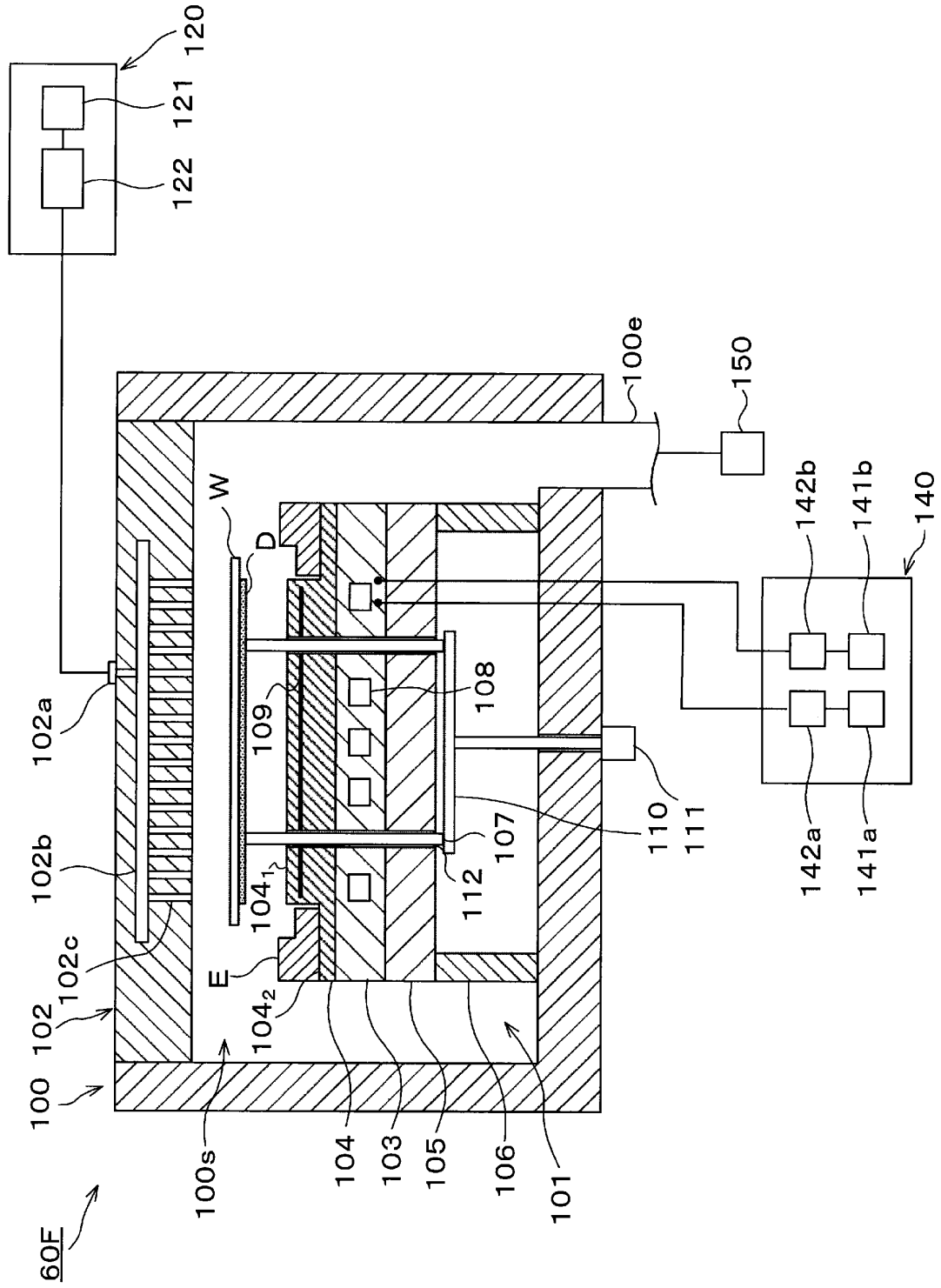
[図20]



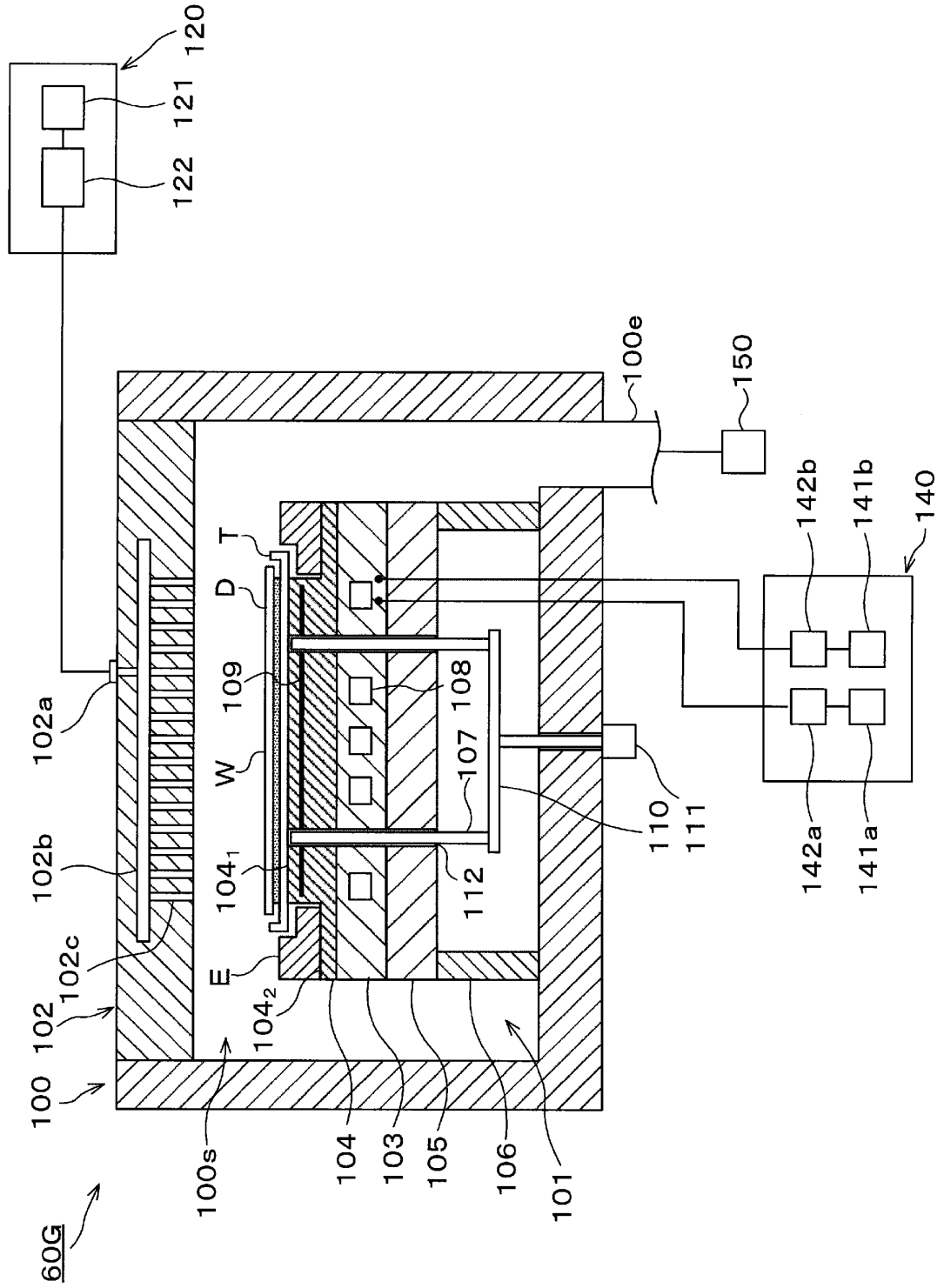
[図21]



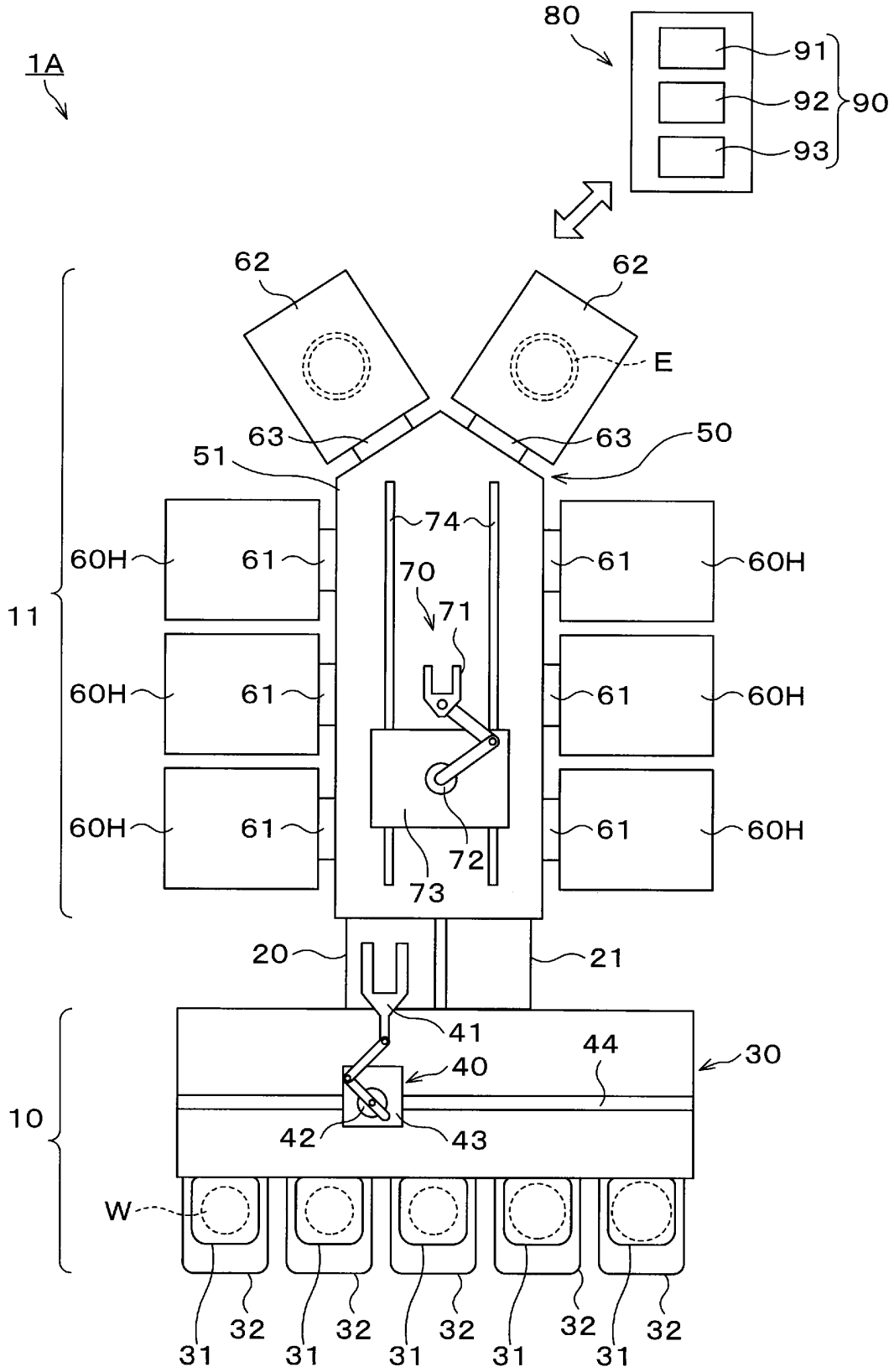
[図22]


120
121
122
100e
150
W
D
142b
141b
140
102a
109
108
110
111
107
112
102b
104_1
102c
E
104_2
102
100
100s
104
103
105
106
101
142a
141a
60F

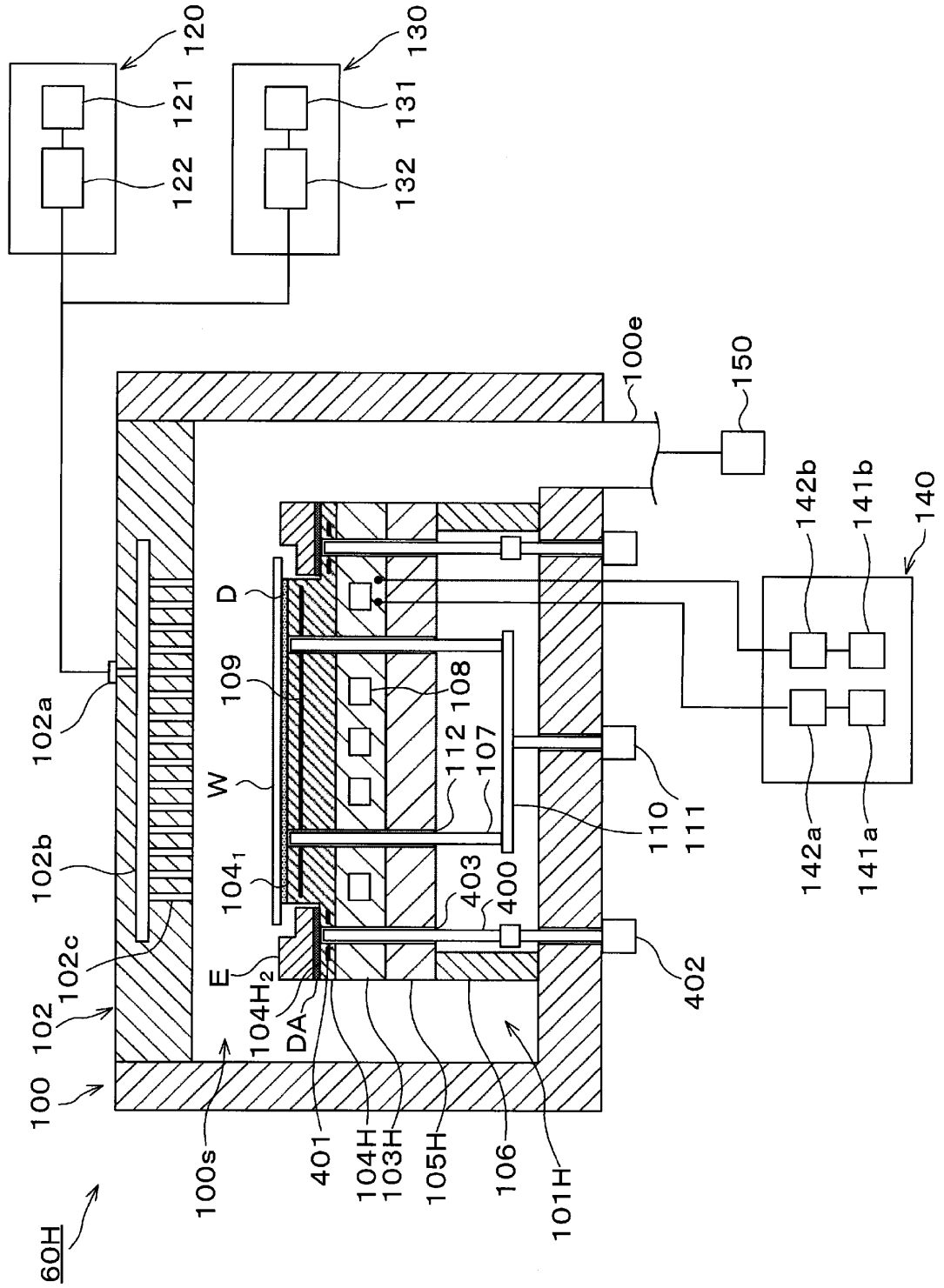
[図23]


120
121
122
100e
150
142b
141b
140
T
D
109
108
W
107
102a
102b
104_1
112
110
111
142a
141a
102c
E
102
104_2
100
100s
104
103
105
106
101
60G

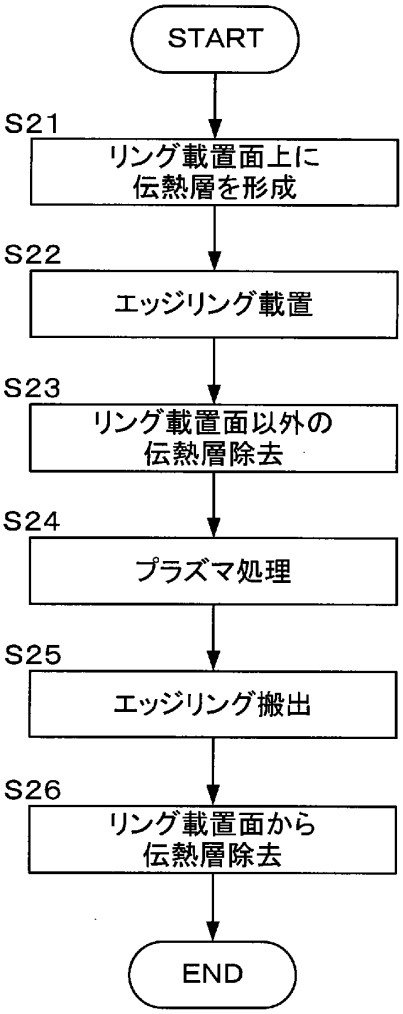
[図24]


1A
80
91
92
93
90
62
62
E
63
63
50
51
74
60H
61
61
60H
70
71
60H
61
61
60H
11
60H
61
61
60H
72
73
20
21
41
44
30
40
10
42
43
W
31
32
31
32
31
32
31
32
31
32

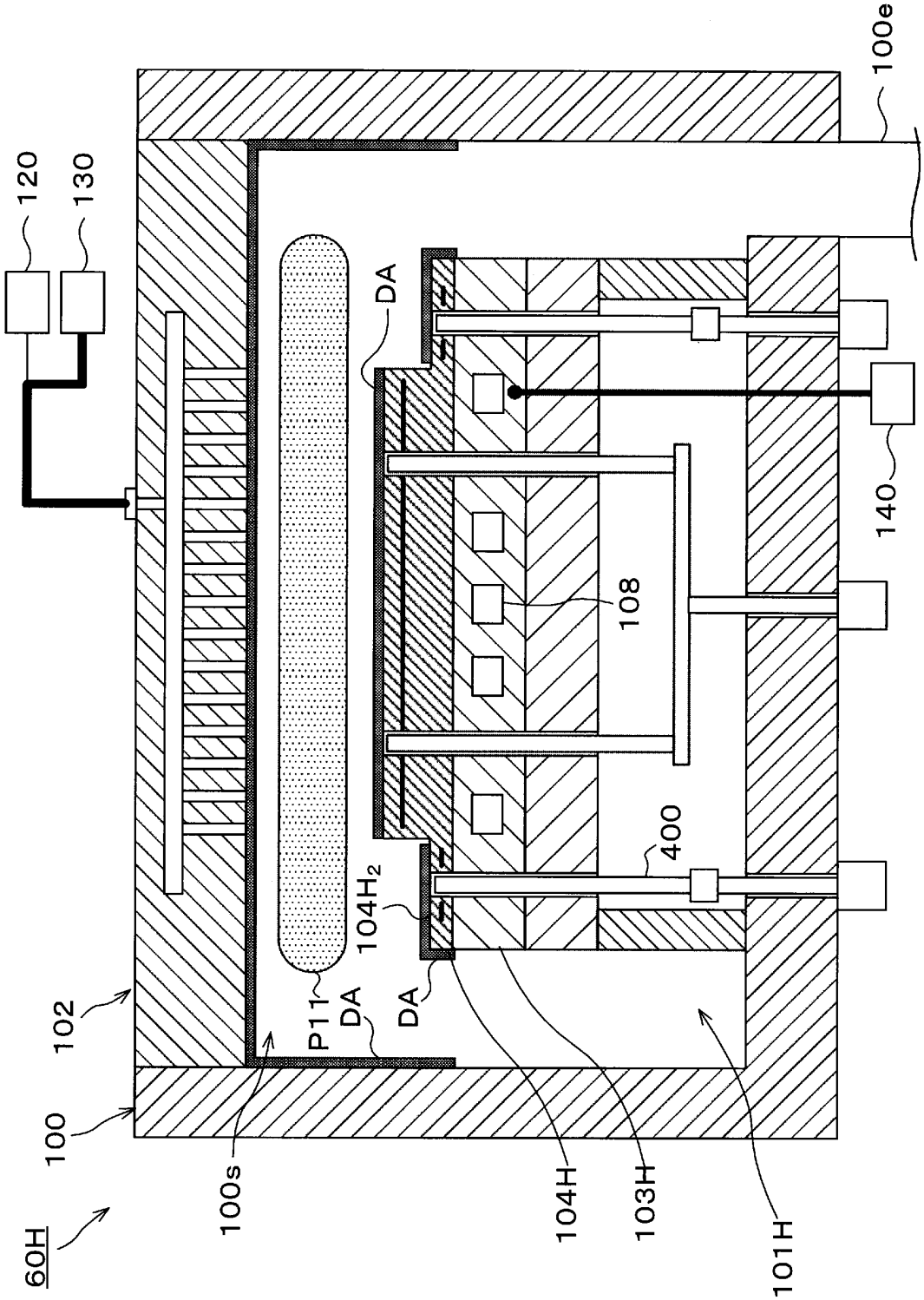
[図25]


120
121
122
130
131
132
100e
150
140
142b
141b
142a
141a
102a
102b
102c
102
100
60H
D
109
W
108
112
107
110
111
104_1
403
400
402
E
$104H_2$
DA
401
104H
103H
105H
106
101H
100s

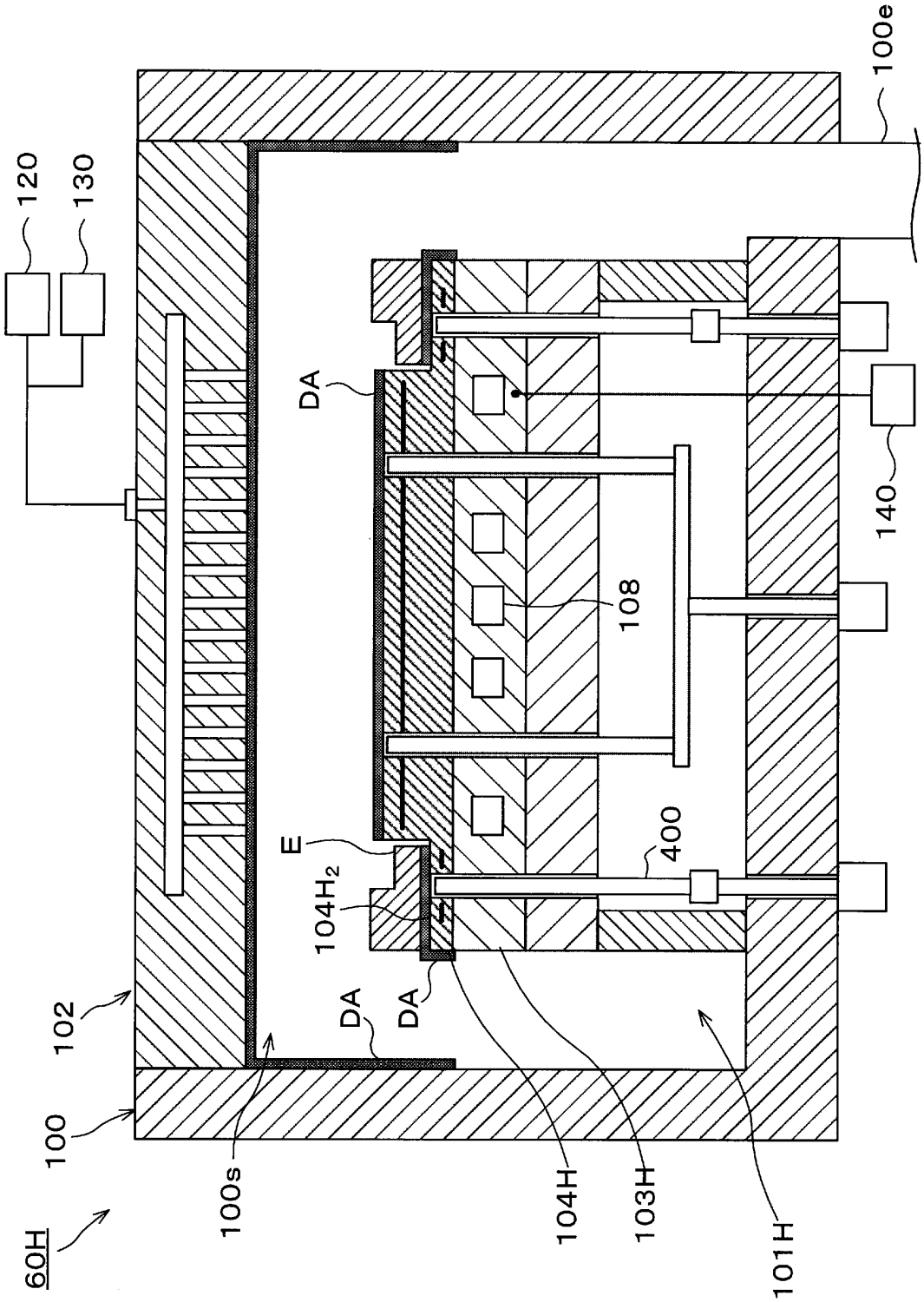
[図26]


START
S21
リング載置面上に
伝熱層を形成
S22
エッジリング載置
S23
リング載置面以外の
伝熱層除去
S24
プラズマ処理
S25
エッジリング搬出
S26
リング載置面から
伝熱層除去
END

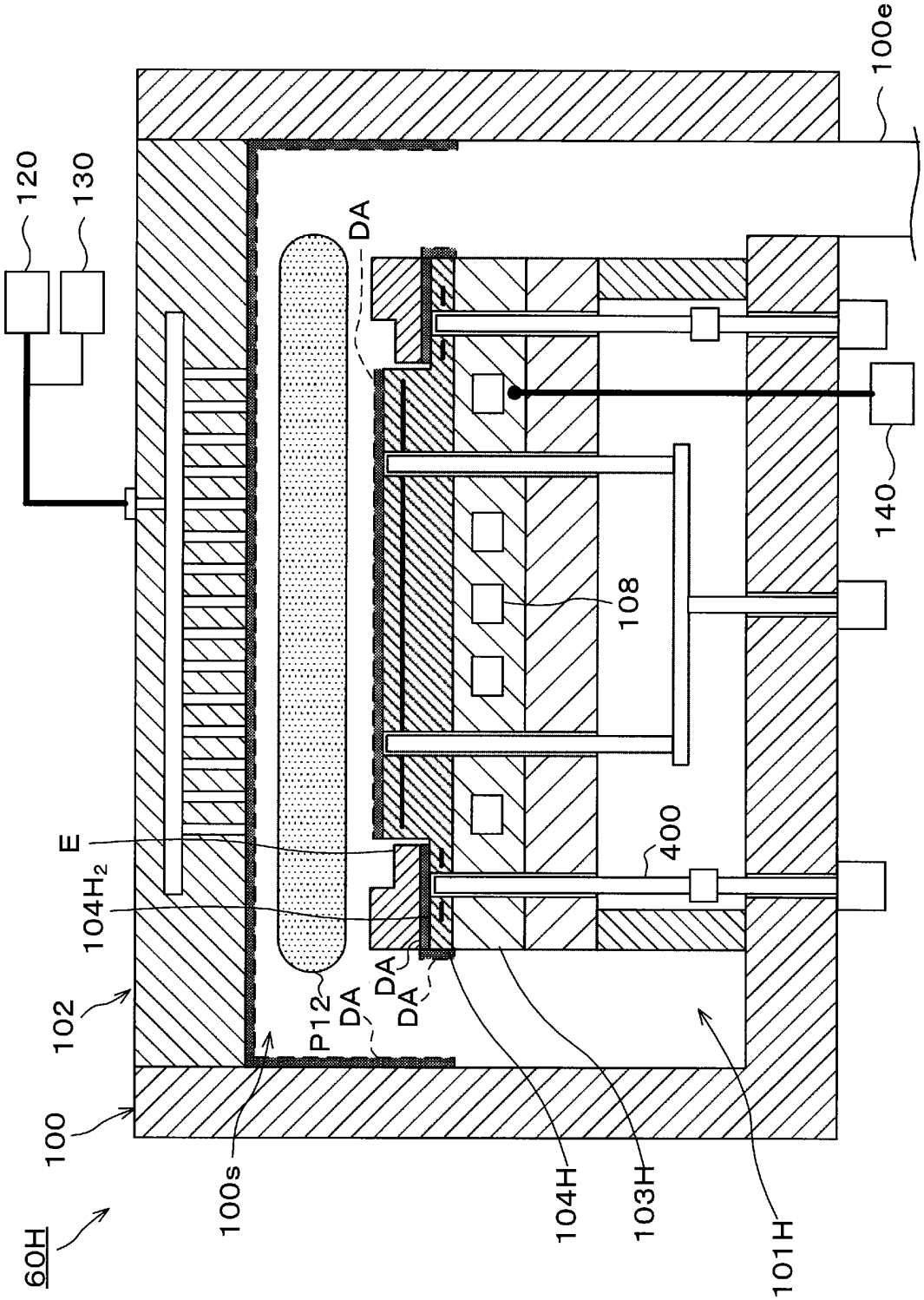
[図27]


100e
120
130
DA
140
108
400
$104H_2$
P11
DA
DA
102
100
100s
104H
103H
101H
60H

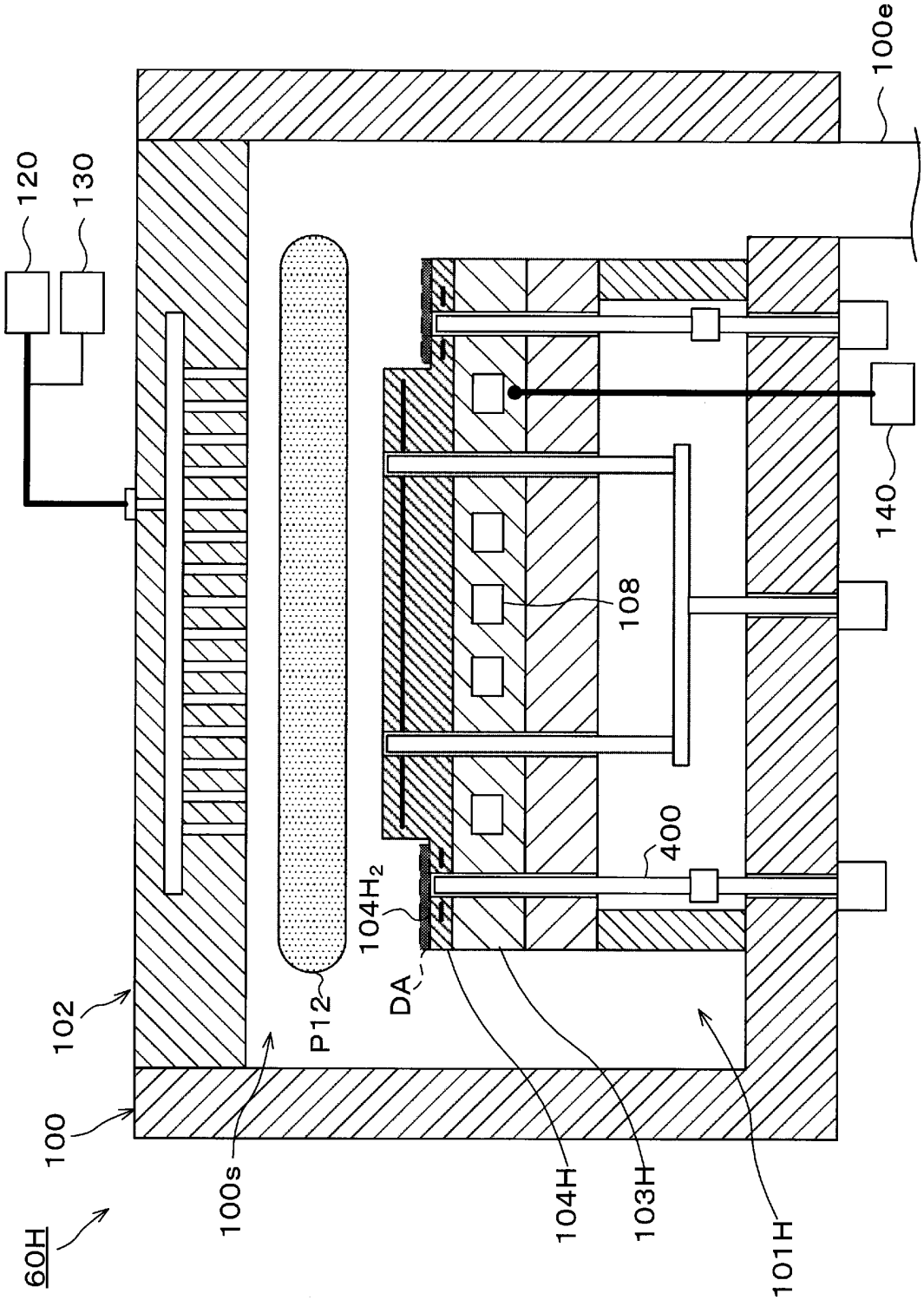
[図28]


100e
120
130
DA
140
108
400
E
104H2
DA
DA
102
100
100s
104H
103H
101H
60H

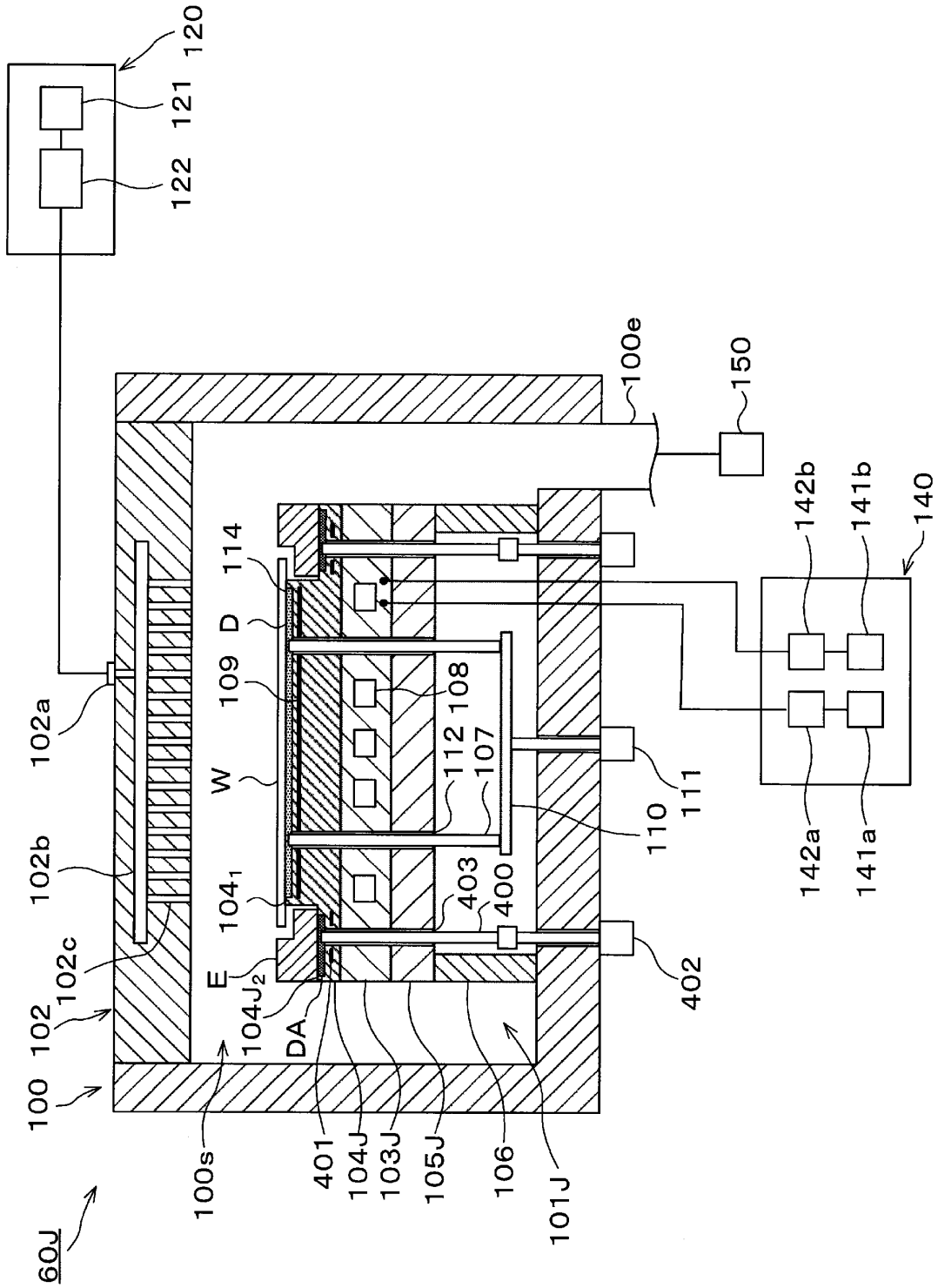
[図29]


100e
120
130
DA
140
108
400
E
104H2
102
P12
DA
DA
DA
100
100s
104H
103H
101H
60H

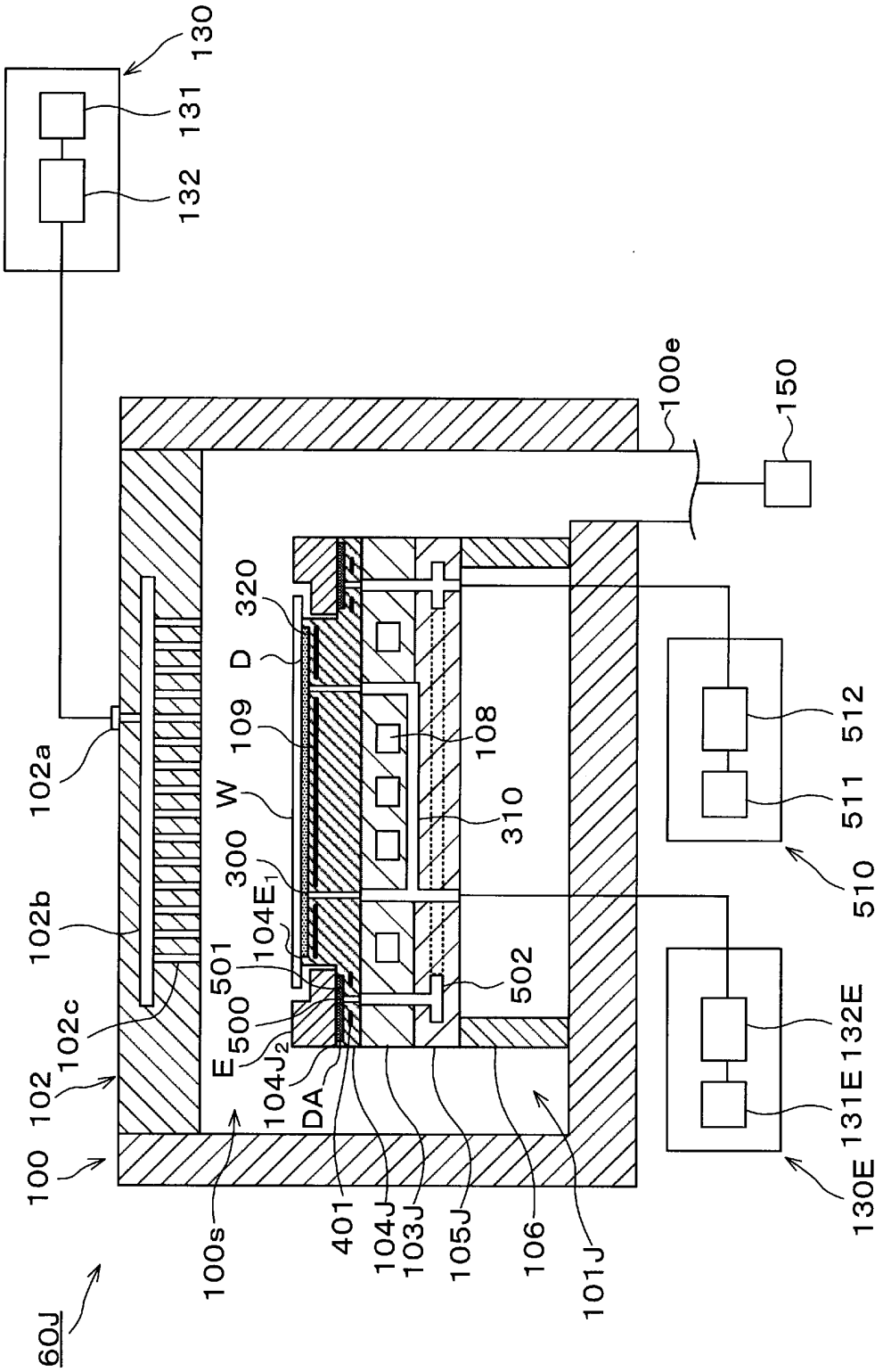
[図30]


100e
120
130
140
108
400
104H2
DA
P12
102
100
100s
104H
103H
101H
60H

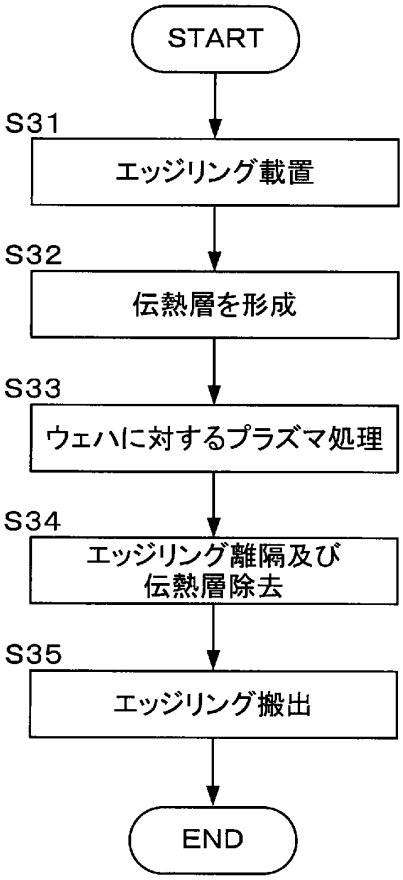
[図31]


120
121
122
100e
150
142b
141b
140
114
D
109
108
112
107
W
102a
102b
102c
102
100
104_1
$104J_2$
E
DA
403
400
110
111
402
142a
141a
100s
401
104J
103J
105J
106
101J
60J

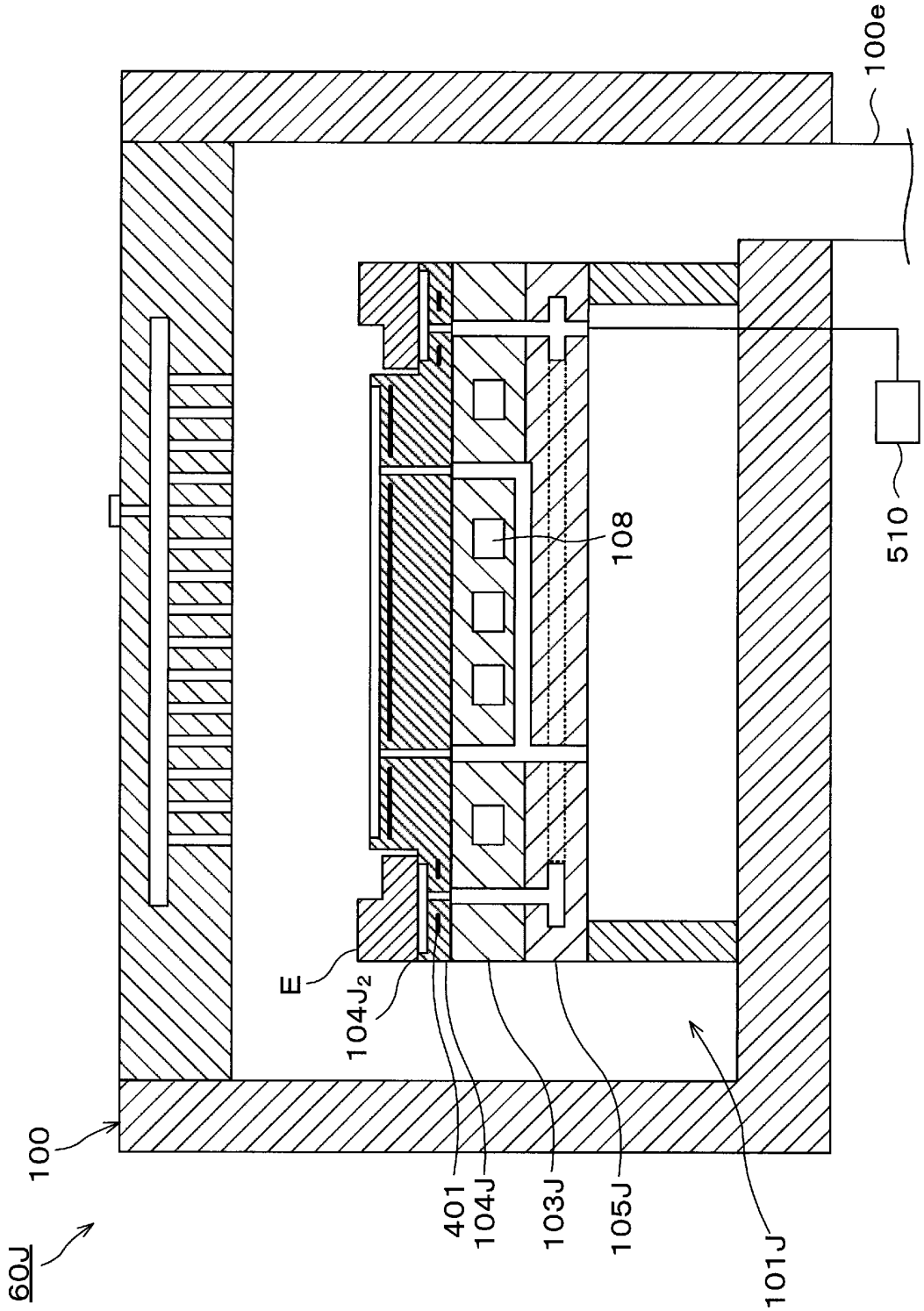
[図32]


130
131
132
100e
150
320
D
109
108
W
310
300
104E1
501
500
E
104J2
DA
502
102a
102b
102c
102
100
100s
401
104J
103J
105J
106
101J
512
511
510
132E
131E
130E
60J

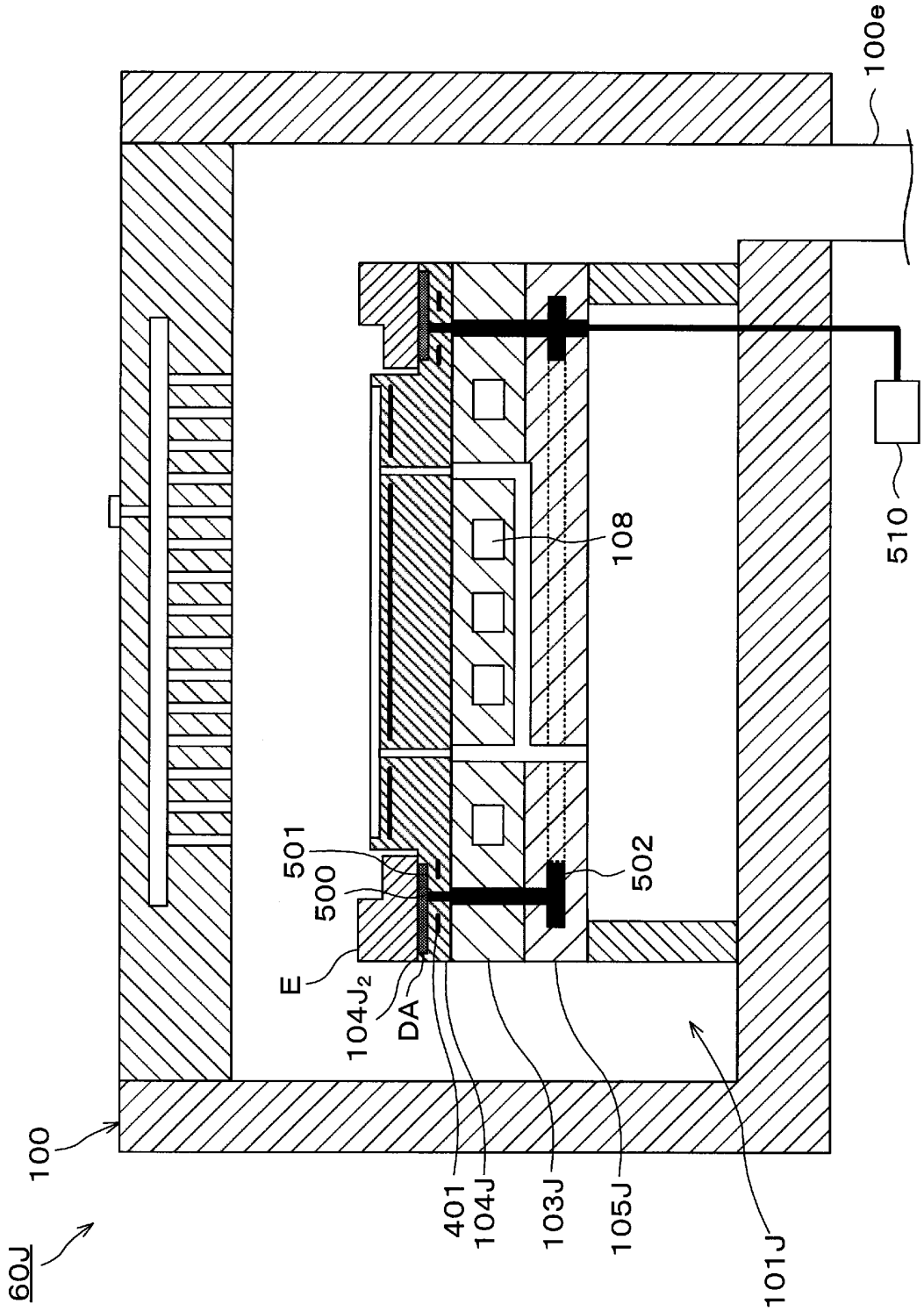
[図33]


START
S31
エッジリング載置
S32
伝熱層を形成
S33
ウェハに対するプラズマ処理
S34
エッジリング離隔及び
伝熱層除去
S35
エッジリング搬出
END

[図34]



[図35]


100e
510
108
501
500
502
E
104J2
DA
100
401
104J
103J
105J
101J
60J

[図36]

