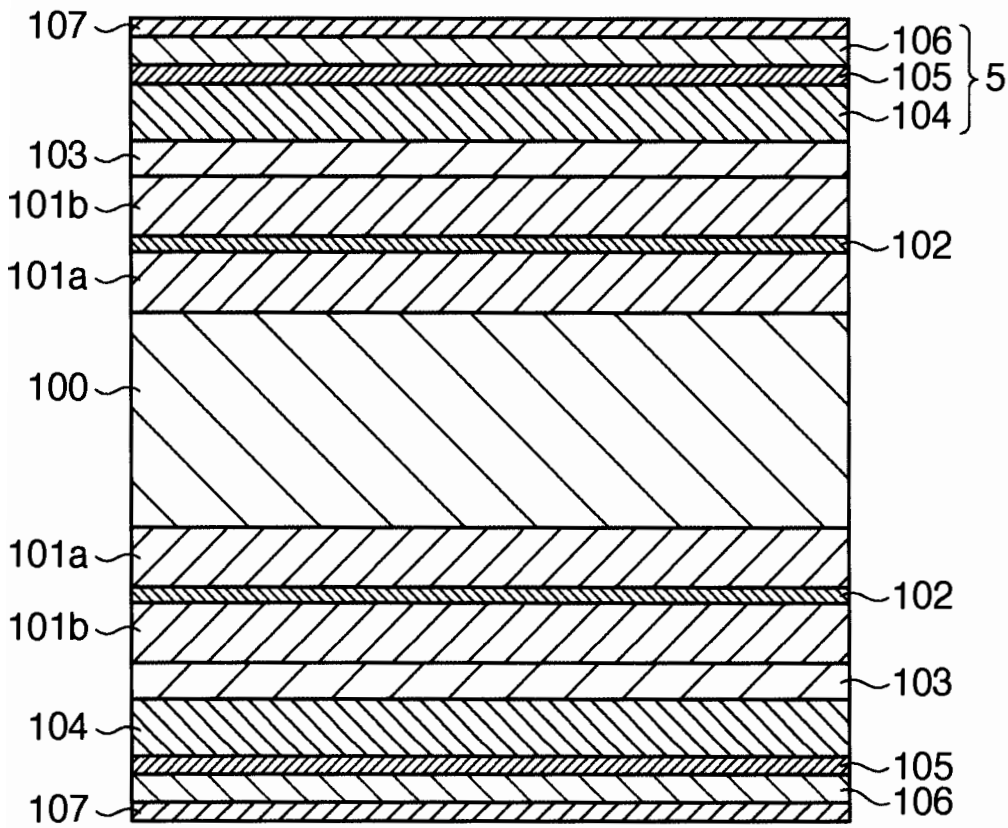
FIG. 1


107
106
105
104
5
103
101b
102
101a
100
101a
102
101b
103
104
105
107
106

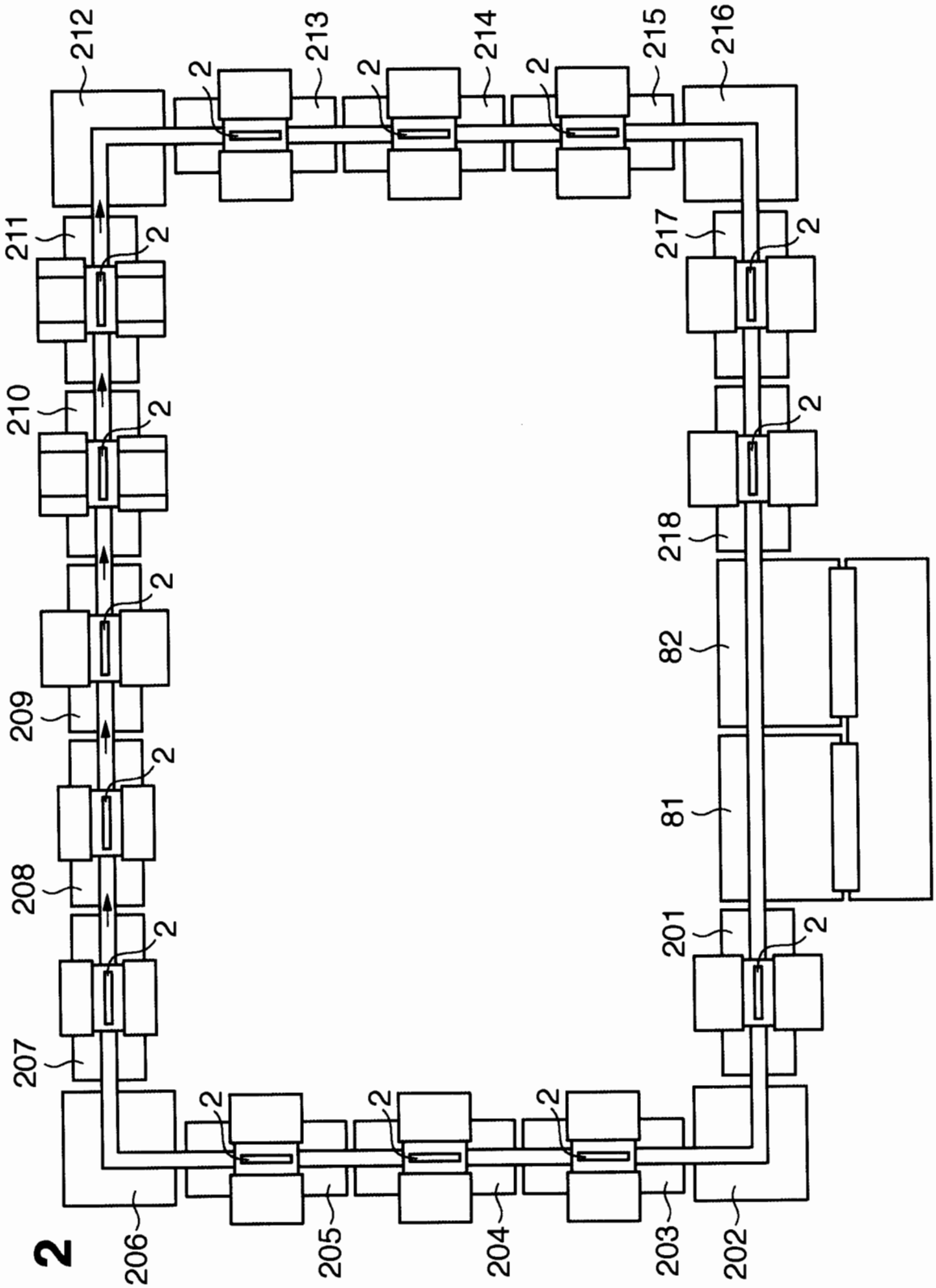

212
213
214
215
216
211
217
210
218
209
82
208
81
207
201
206
205
204
203
202
2

FIG. 2

FIG. 3

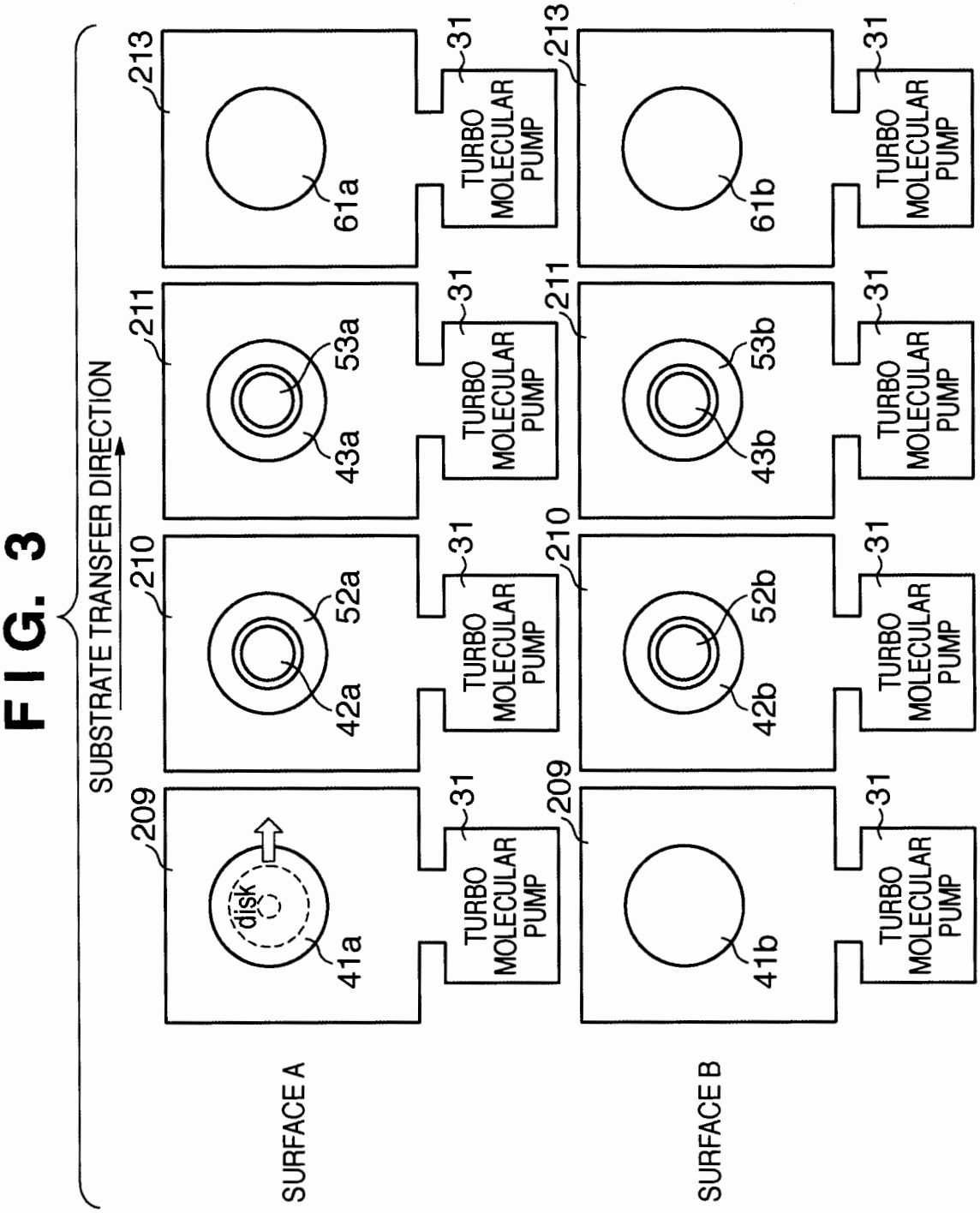

SUBSTRATE TRANSFER DIRECTION
SURFACE A
SURFACE B
209
210
211
213
disk
41a
42a
52a
43a
53a
61a
41b
42b
52b
43b
53b
61b
31
TURBO MOLECULAR PUMP

FIG. 4

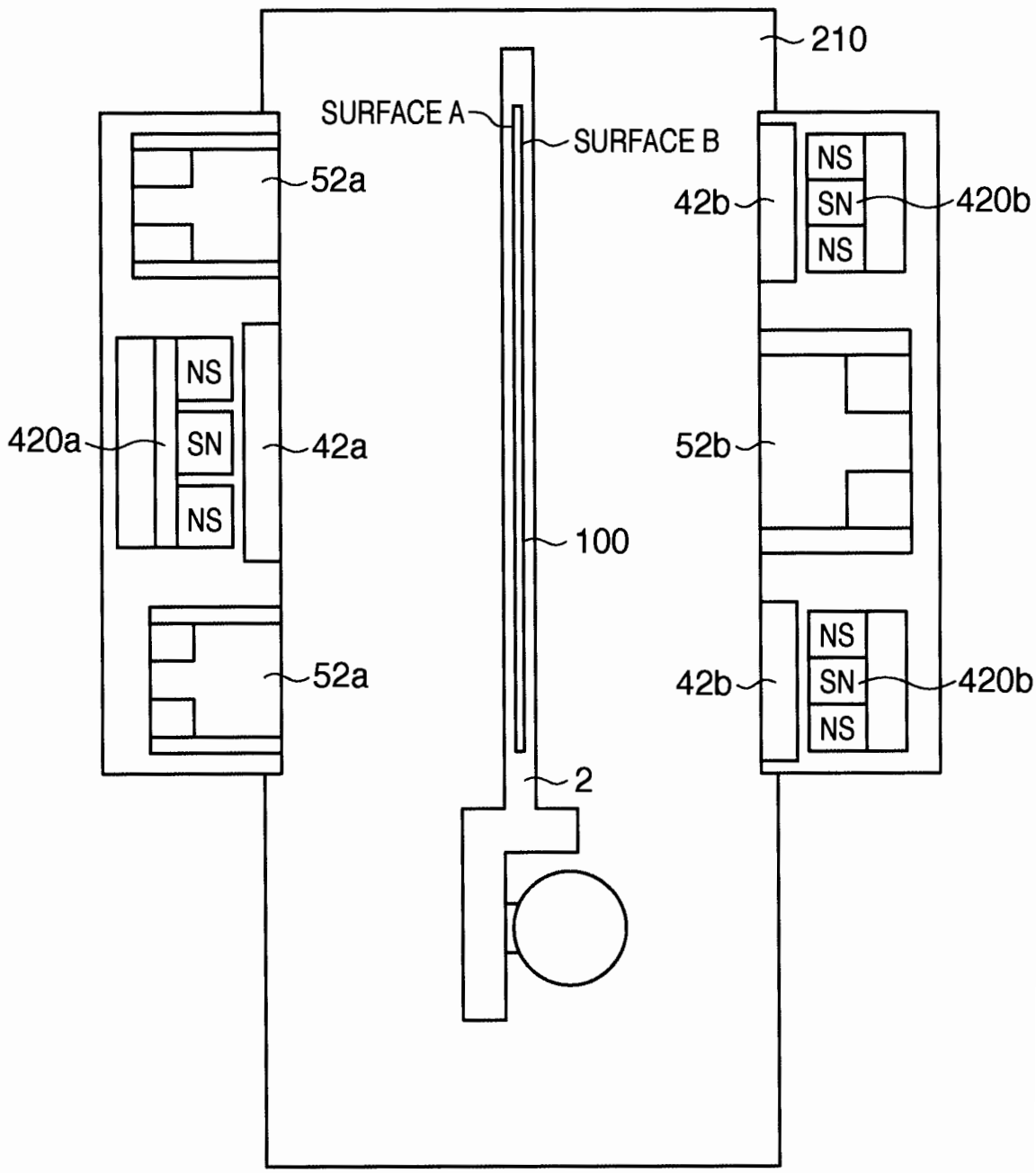

210
SURFACE A
SURFACE B
52a
NS
SN
NS
42b
420b
420a
42a
52b
100
52a
2

FIG. 5

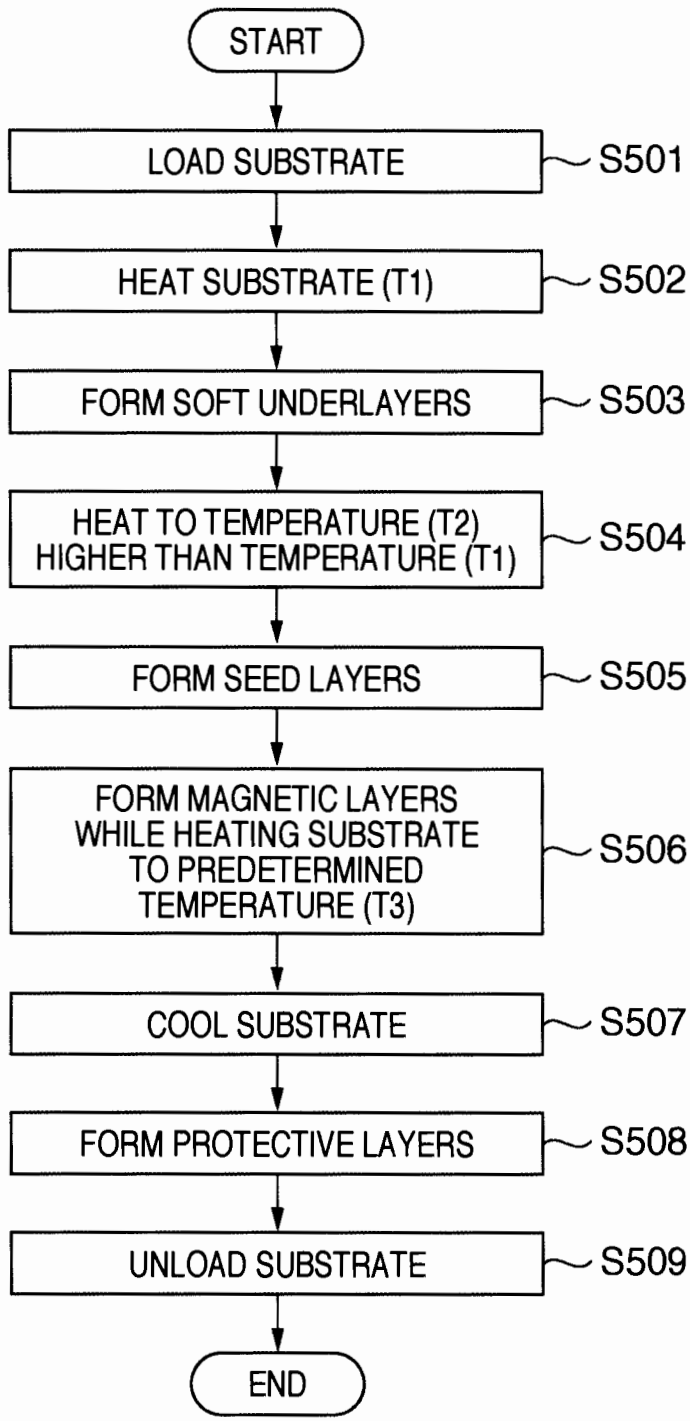
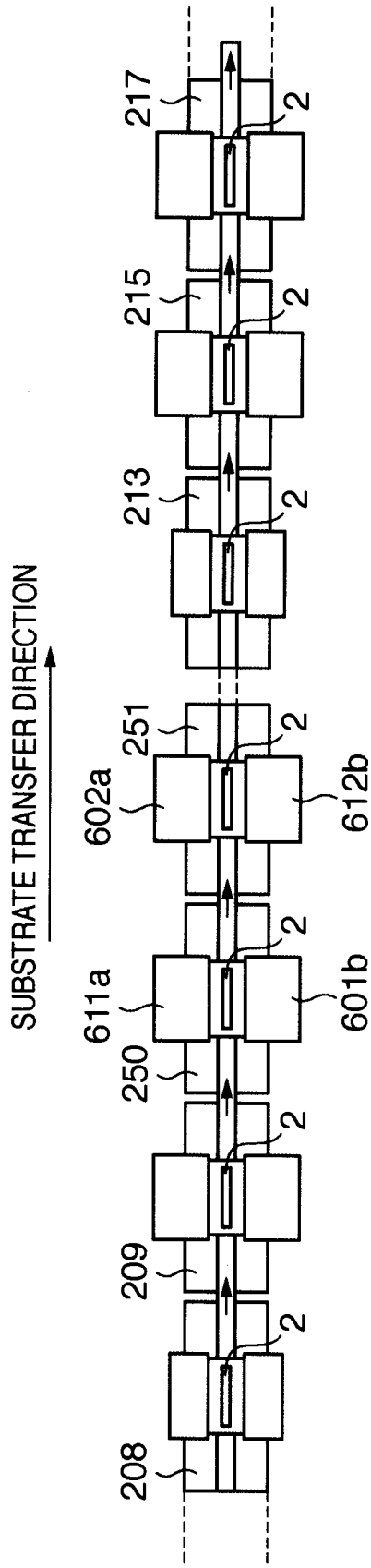

START
LOAD SUBSTRATE
S501
HEAT SUBSTRATE (T1)
S502
FORM SOFT UNDERLAYERS
S503
HEAT TO TEMPERATURE (T2) HIGHER THAN TEMPERATURE (T1)
S504
FORM SEED LAYERS
S505
FORM MAGNETIC LAYERS WHILE HEATING SUBSTRATE TO PREDETERMINED TEMPERATURE (T3)
S506
COOL SUBSTRATE
S507
FORM PROTECTIVE LAYERS
S508
UNLOAD SUBSTRATE
S509
END

FIG. 6


SUBSTRATE TRANSFER DIRECTION
208
209
250
611a
601b
602a
612b
251
213
215
217
2