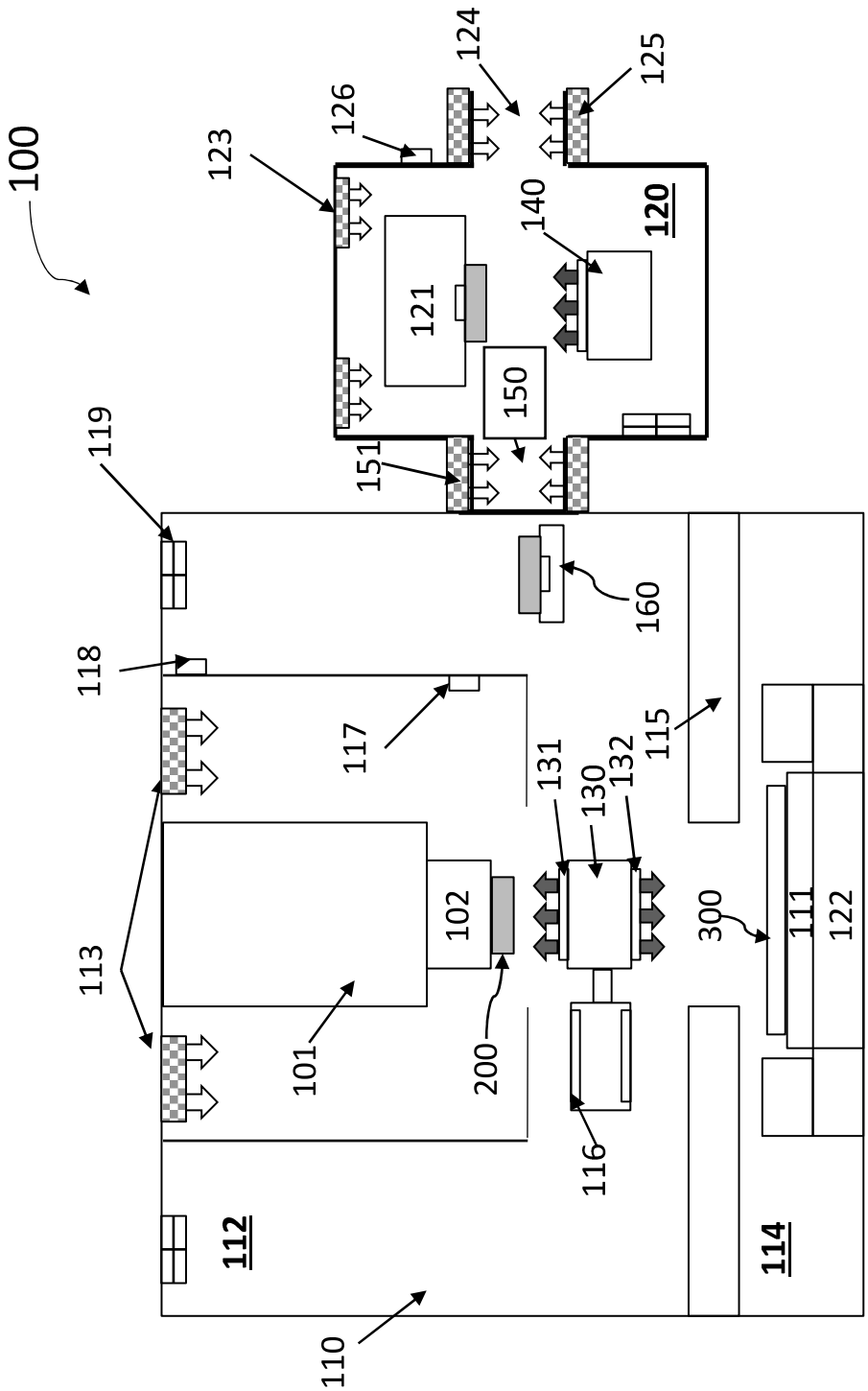

100
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FIG. 1A

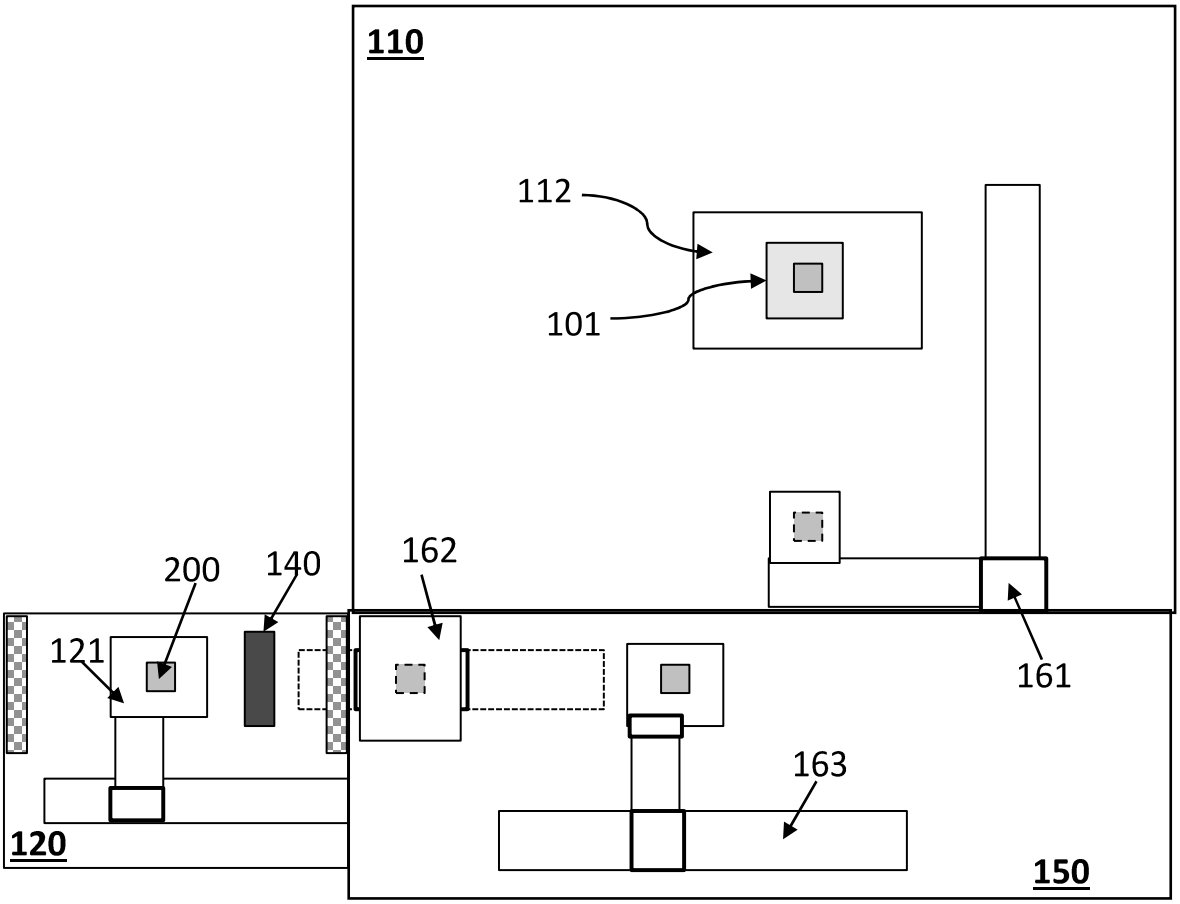


FIG. 1B

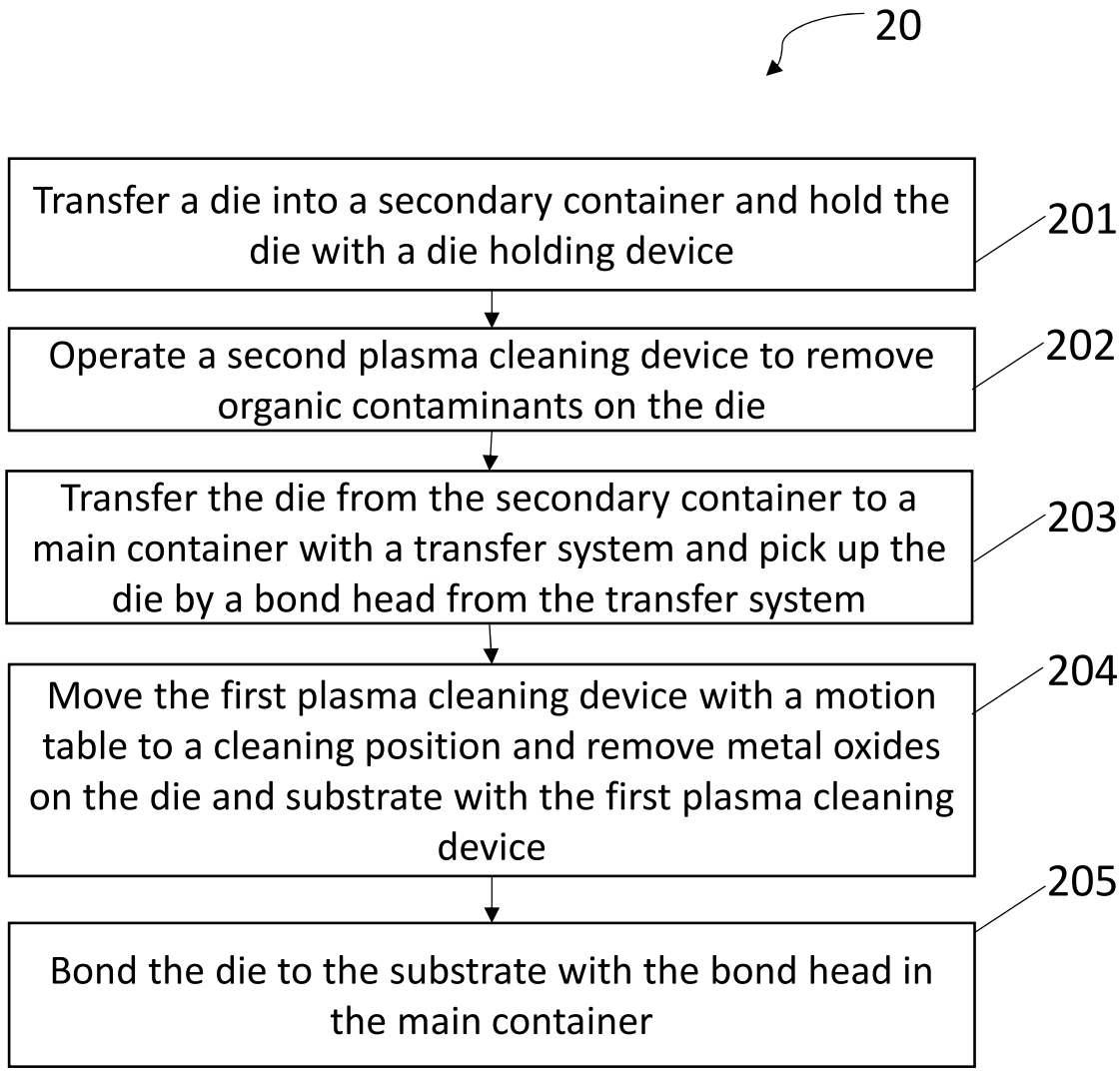

20
Transfer a die into a secondary container and hold the die with a die holding device
201
Operate a second plasma cleaning device to remove organic contaminants on the die
202
Transfer the die from the secondary container to a main container with a transfer system and pick up the die by a bond head from the transfer system
203
Move the first plasma cleaning device with a motion table to a cleaning position and remove metal oxides on the die and substrate with the first plasma cleaning device
204
Bond the die to the substrate with the bond head in the main container
205

FIG. 2

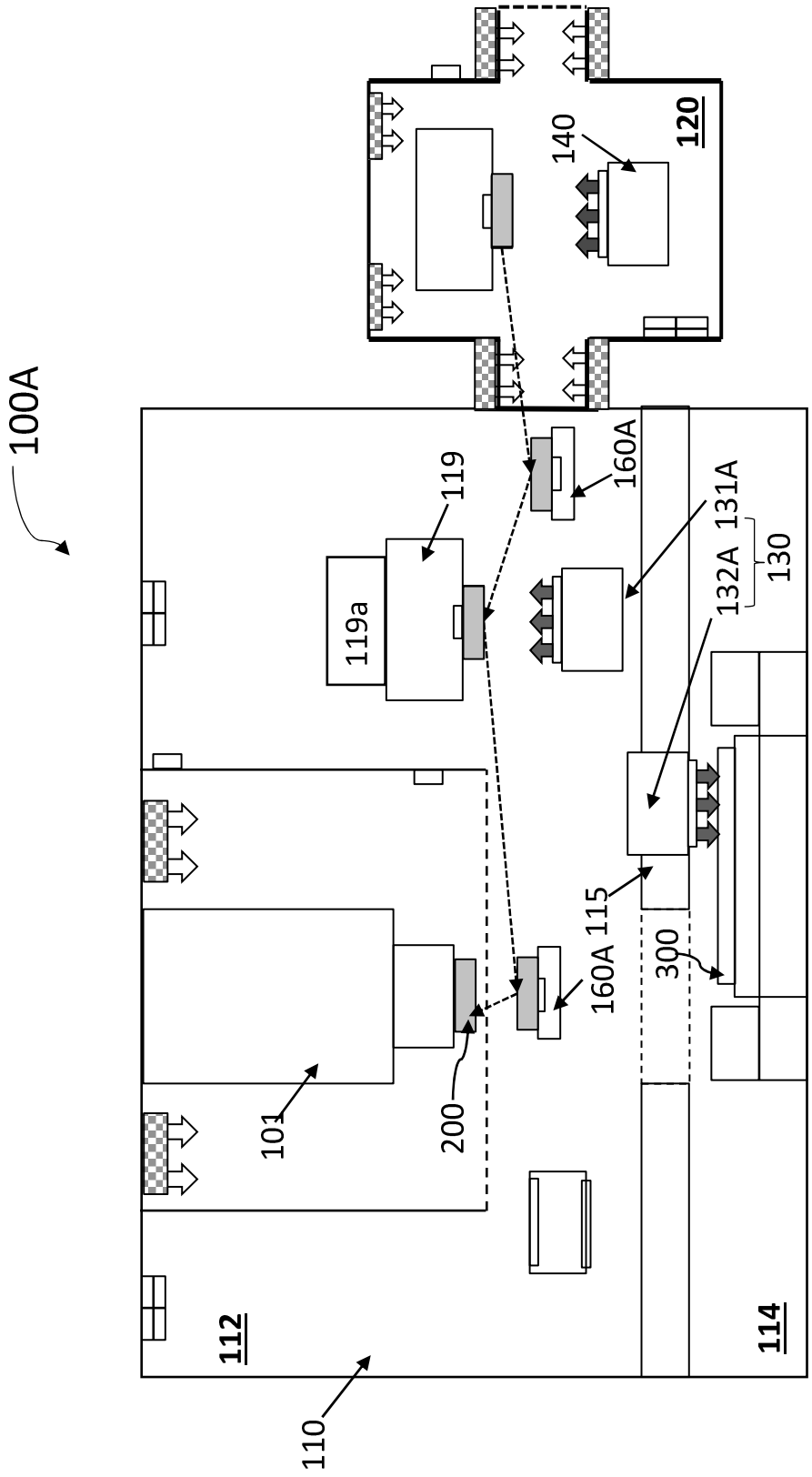

100A
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119a
131A
132A
130
115
160A
300
101
200
112
114
110

FIG. 3A

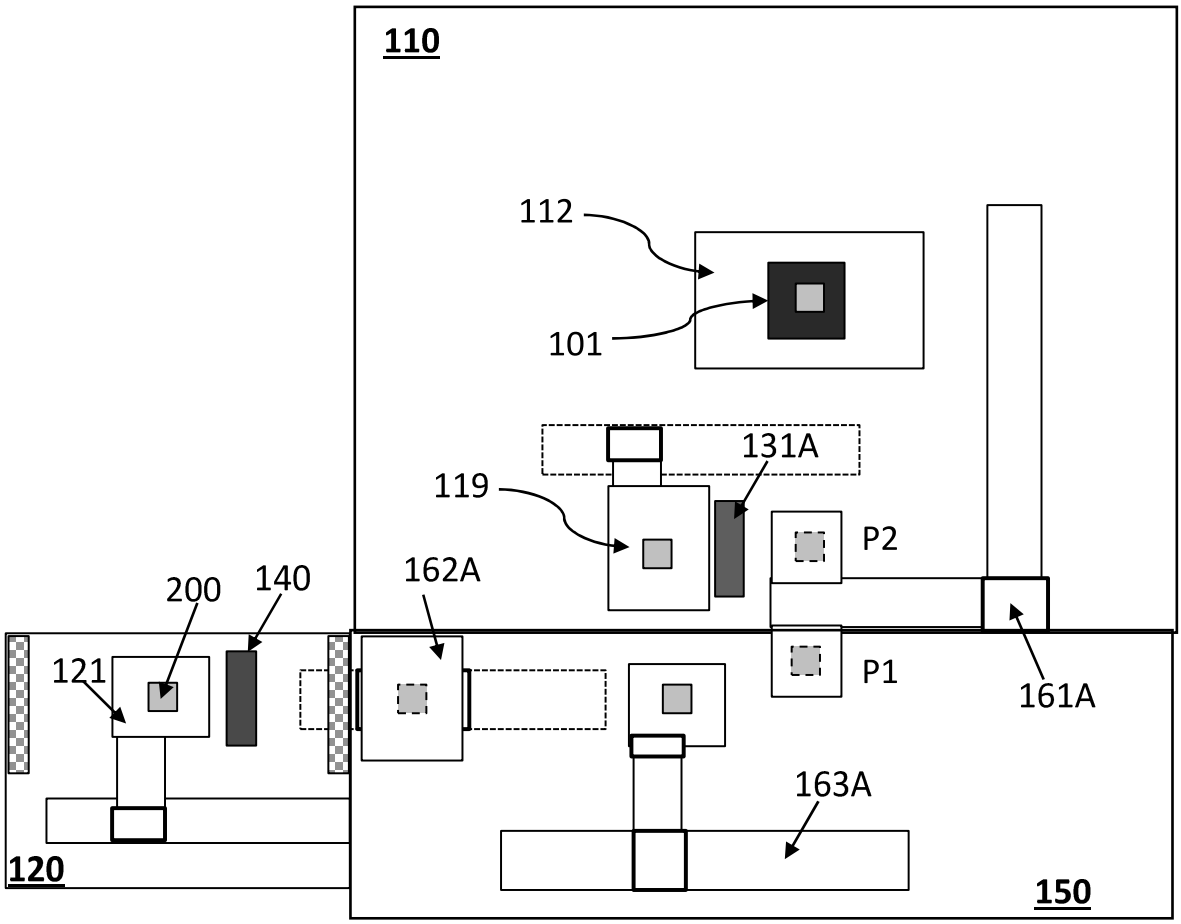


FIG. 3B

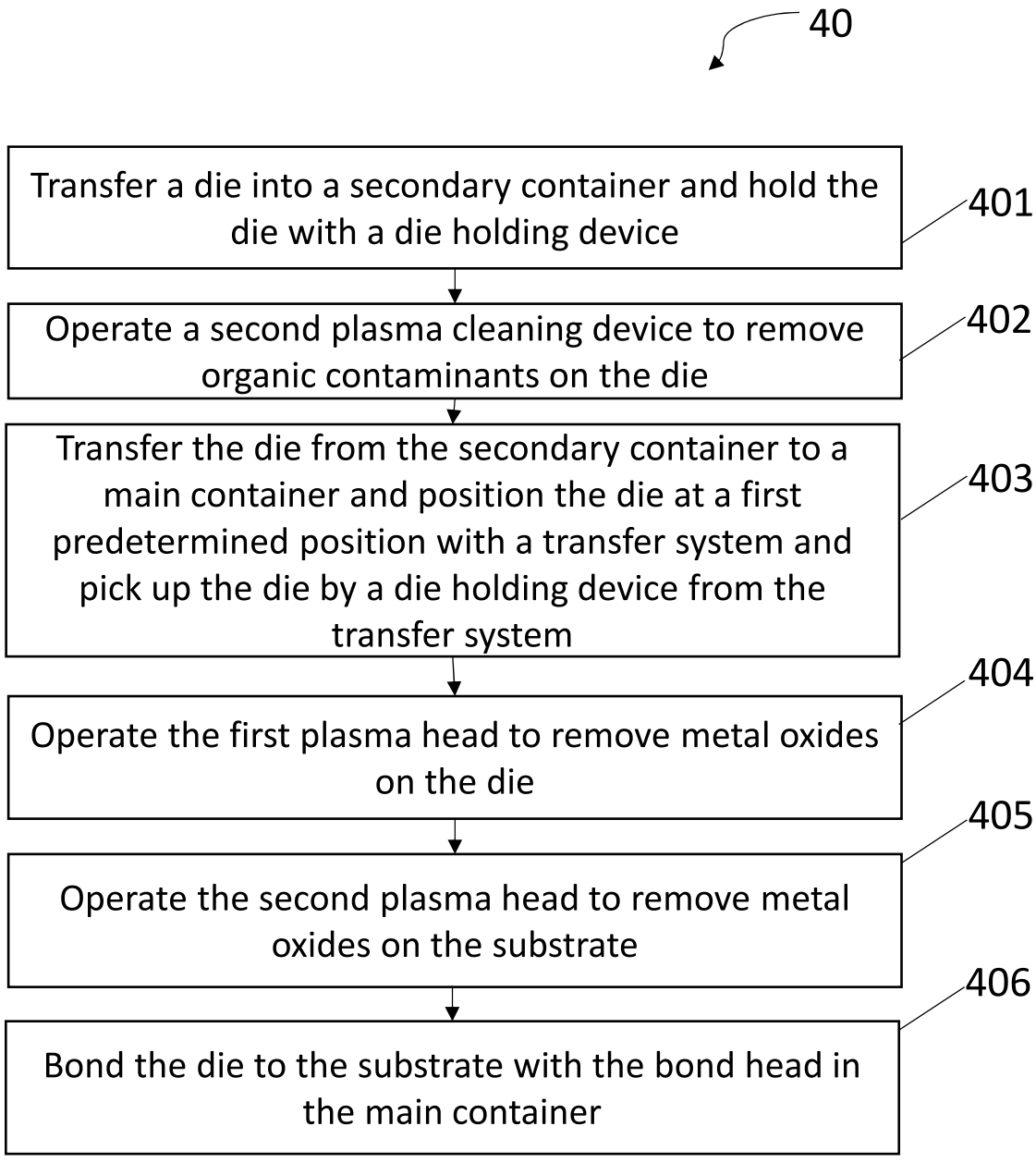

40
Transfer a die into a secondary container and hold the die with a die holding device
401
Operate a second plasma cleaning device to remove organic contaminants on the die
402
Transfer the die from the secondary container to a main container and position the die at a first predetermined position with a transfer system and pick up the die by a die holding device from the transfer system
403
Operate the first plasma head to remove metal oxides on the die
404
Operate the second plasma head to remove metal oxides on the substrate
405
Bond the die to the substrate with the bond head in the main container
406

FIG. 4