FIG. 1

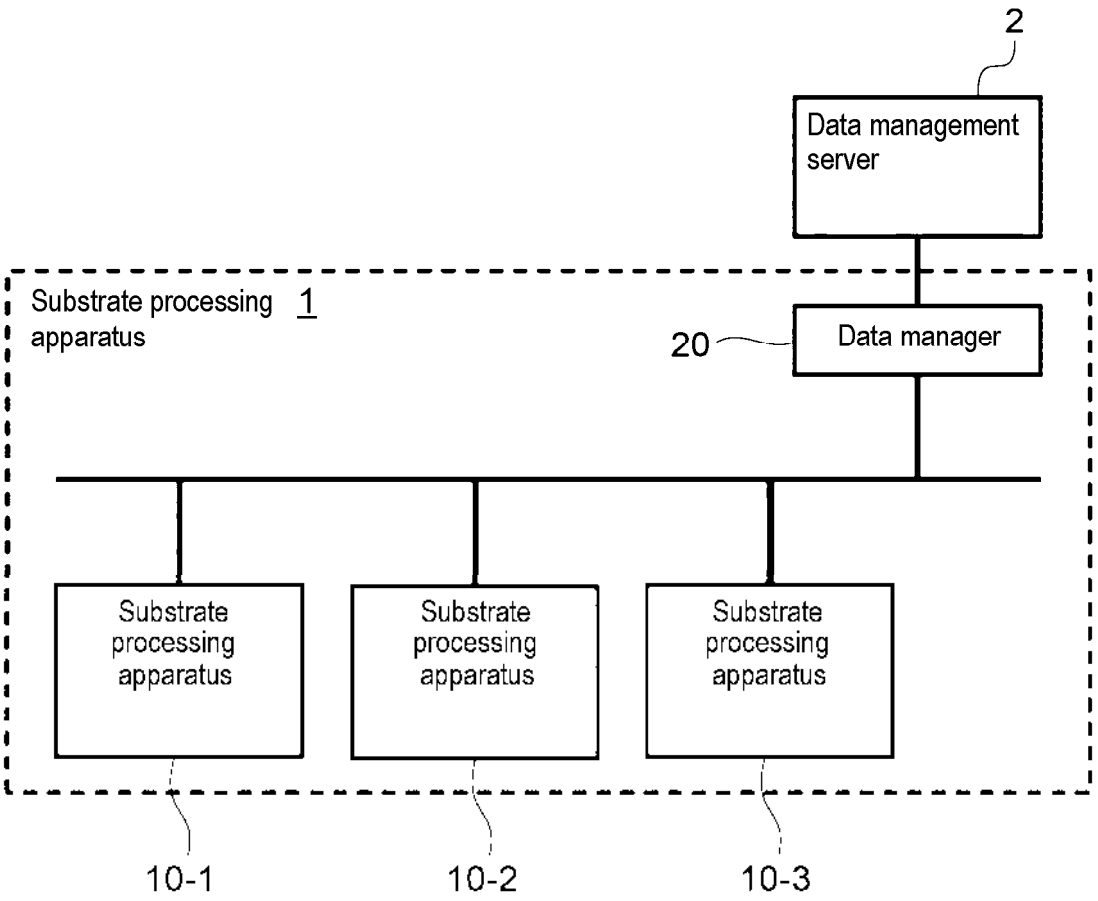

2
Data management server
Substrate processing apparatus 1
20
Data manager
Substrate processing apparatus
Substrate processing apparatus
Substrate processing apparatus
10-1
10-2
10-3

FIG. 2

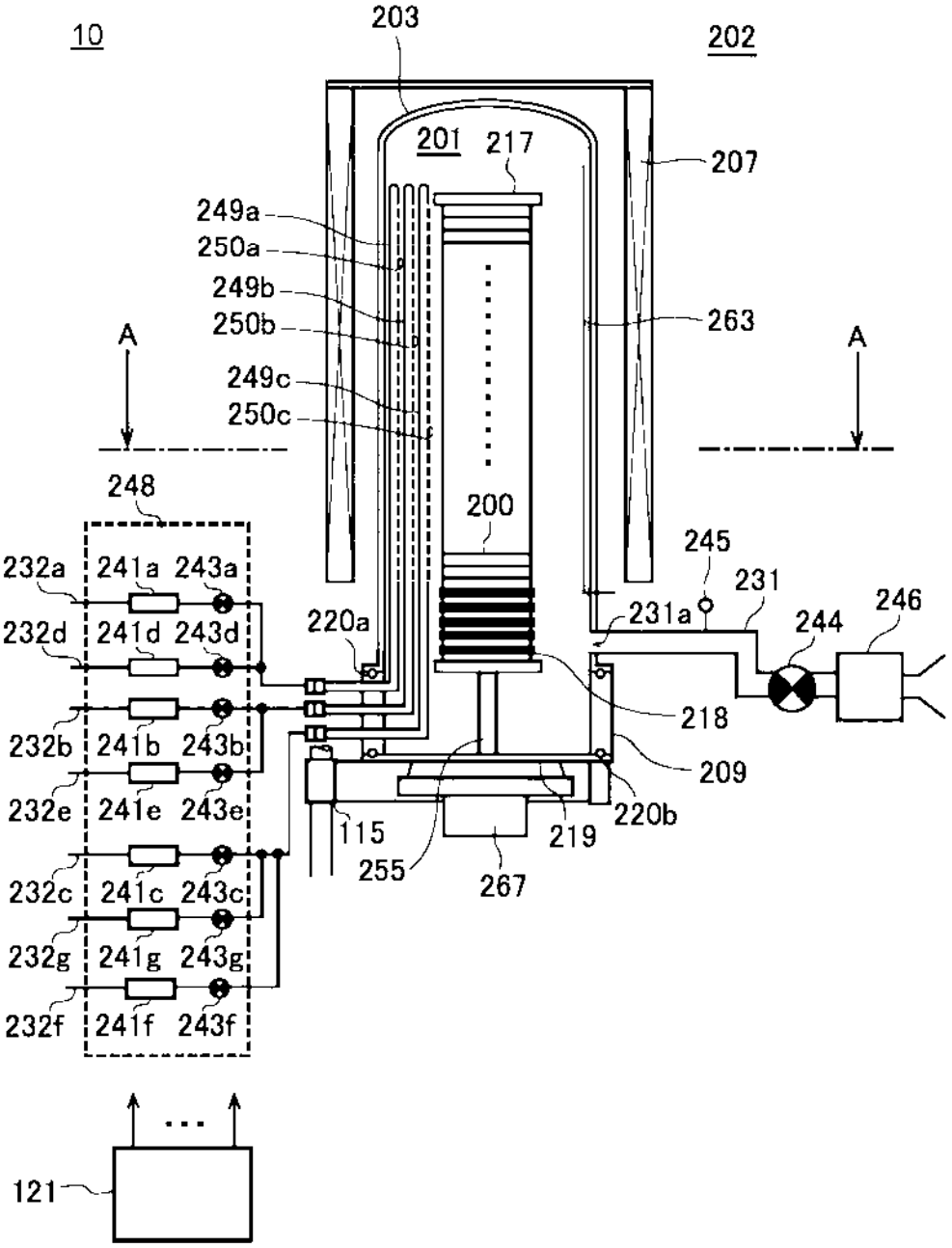

10
203
202
201
217
207
249a
250a
249b
250b
263
A
A
249c
250c
248
200
245
231
246
232a
241a
243a
220a
231a
244
232d
241d
243d
218
232b
241b
243b
209
232e
241e
243e
115
219
220b
255
267
232c
241c
243c
232g
241g
243g
232f
241f
243f
121

FIG. 3

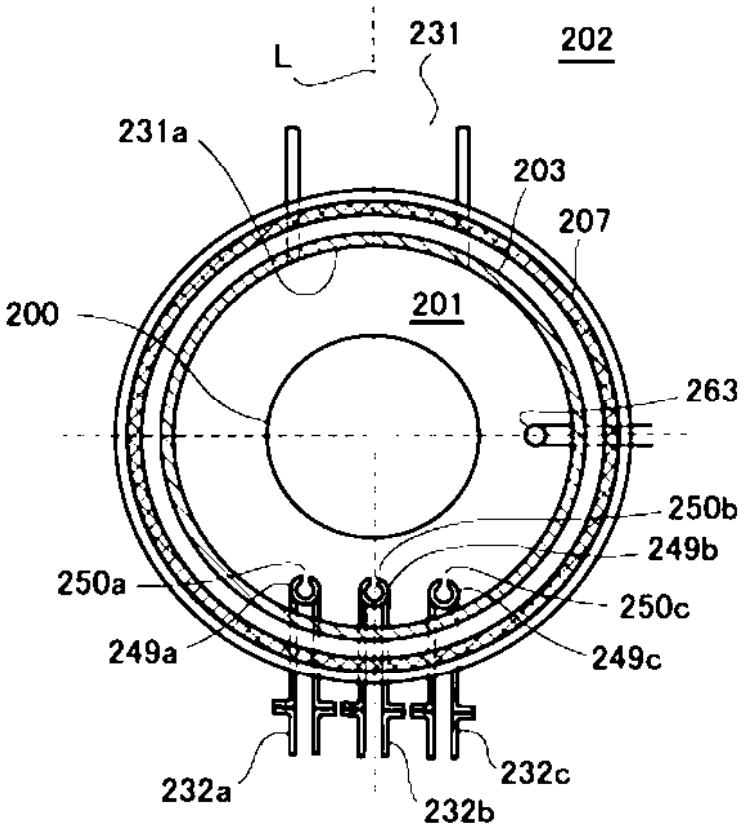

L
231
202
231a
203
207
200
201
263
250b
249b
250a
250c
249a
249c
232a
232b
232c

FIG. 4

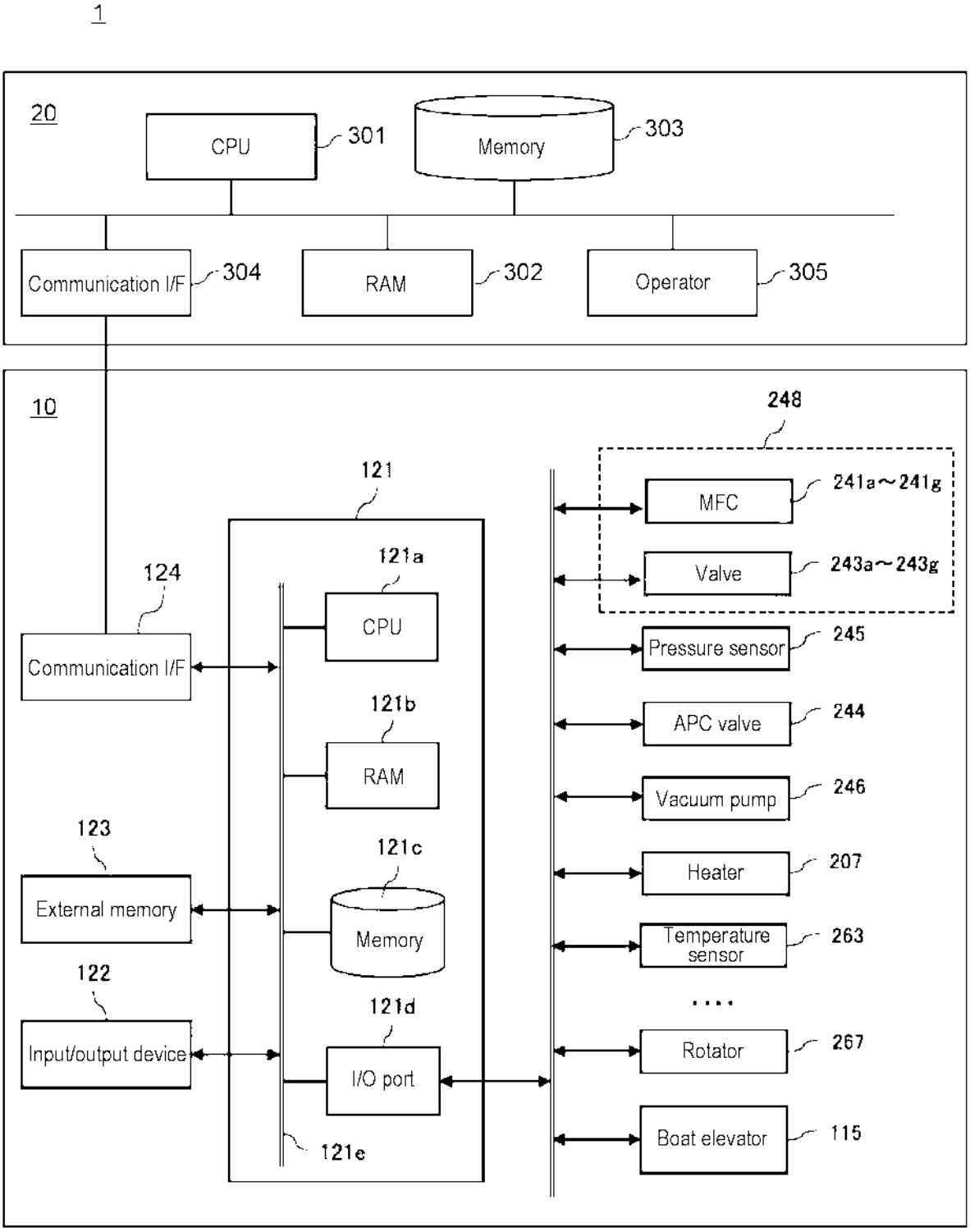

1
20
CPU
301
Memory
303
Communication I/F
304
RAM
302
Operator
305
10
248
121
121a
124
CPU
MFC
241a~241g
Valve
243a~243g
Communication I/F
Pressure sensor
245
121b
APC valve
244
RAM
Vacuum pump
246
123
121c
Heater
207
External memory
Memory
Temperature sensor
263
122
121d
Rotator
267
Input/output device
I/O port
Boat elevator
115
121e

FIG. 5

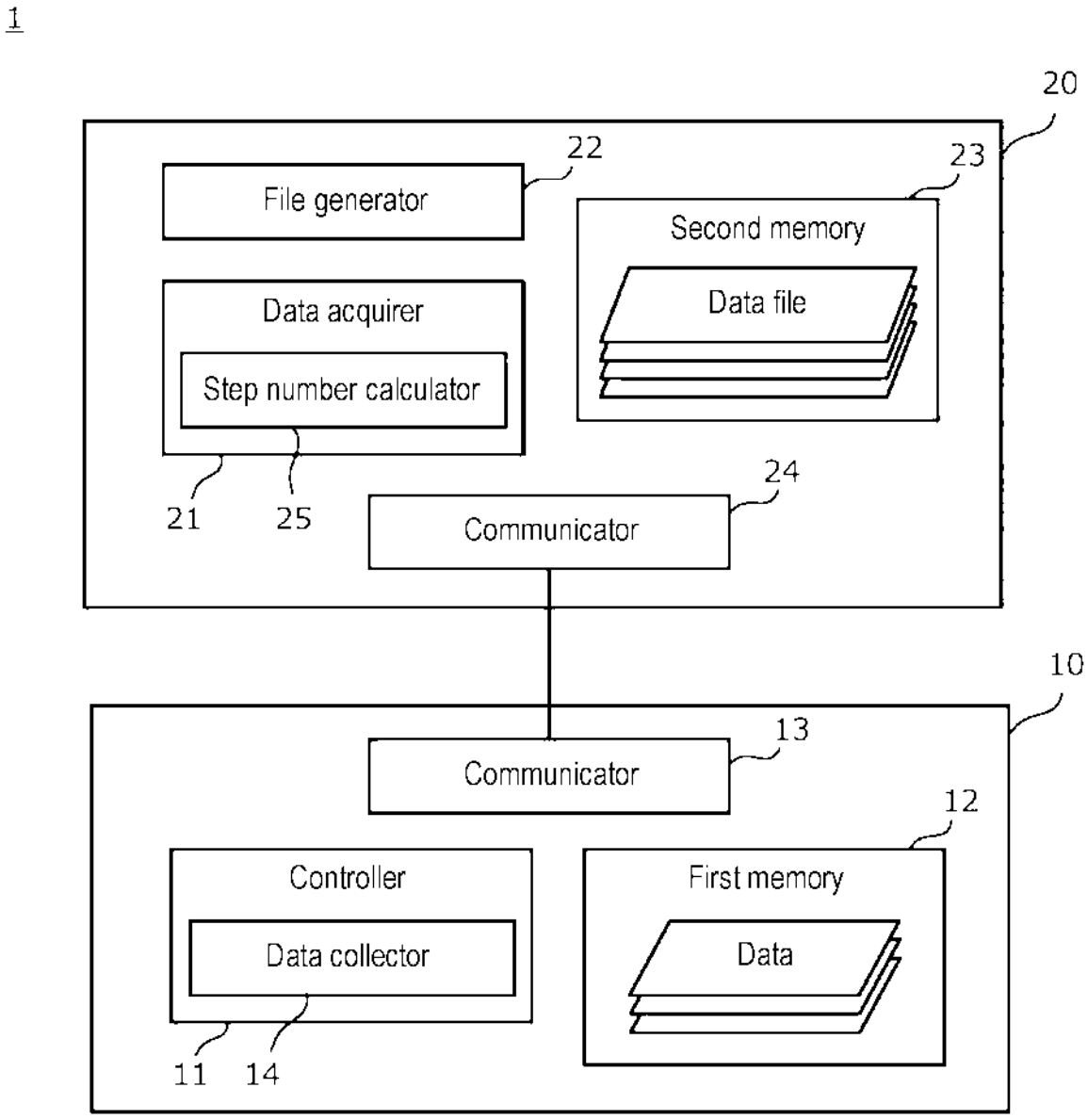

1
20
22
23
File generator
Second memory
Data file
Data acquirer
Step number calculator
21
25
24
Communicator
10
13
Communicator
12
Controller
Data collector
First memory
Data
11
14

FIG. 6

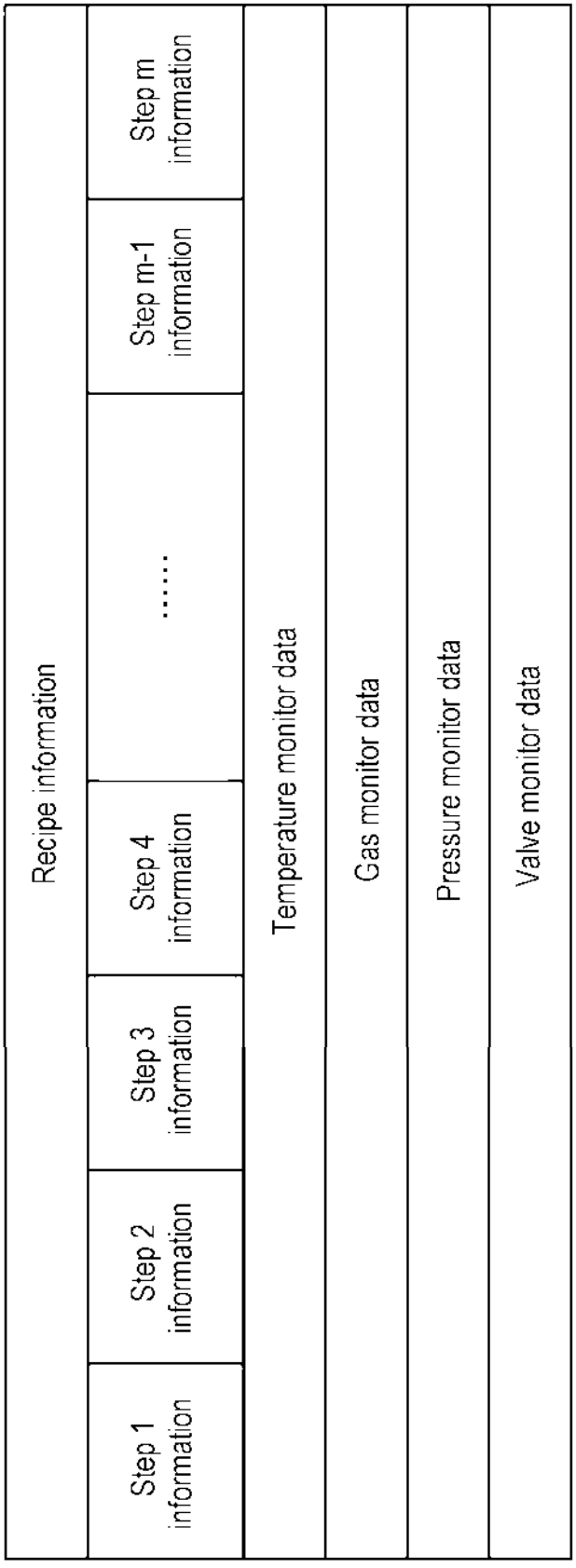

Recipe information
Step 1 information
Step 2 information
Step 3 information
Step 4 information
.....
Step m-1 information
Step m information
Temperature monitor data
Gas monitor data
Pressure monitor data
Valve monitor data

FIG. 7

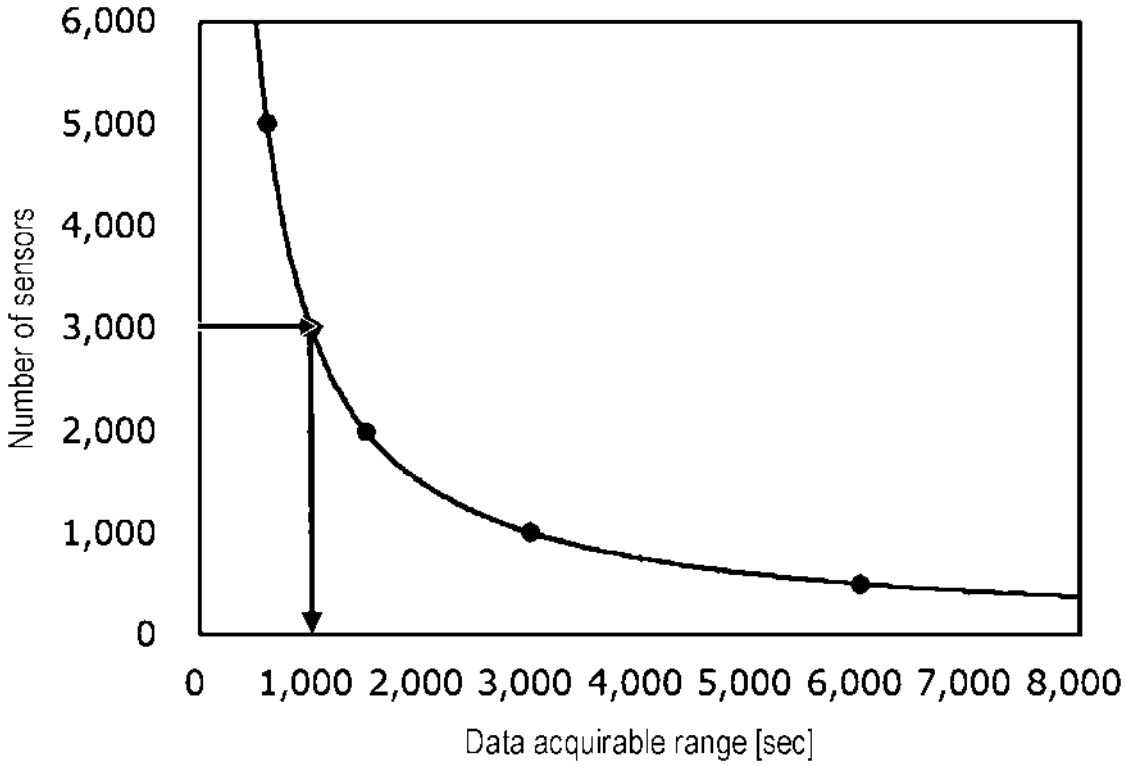
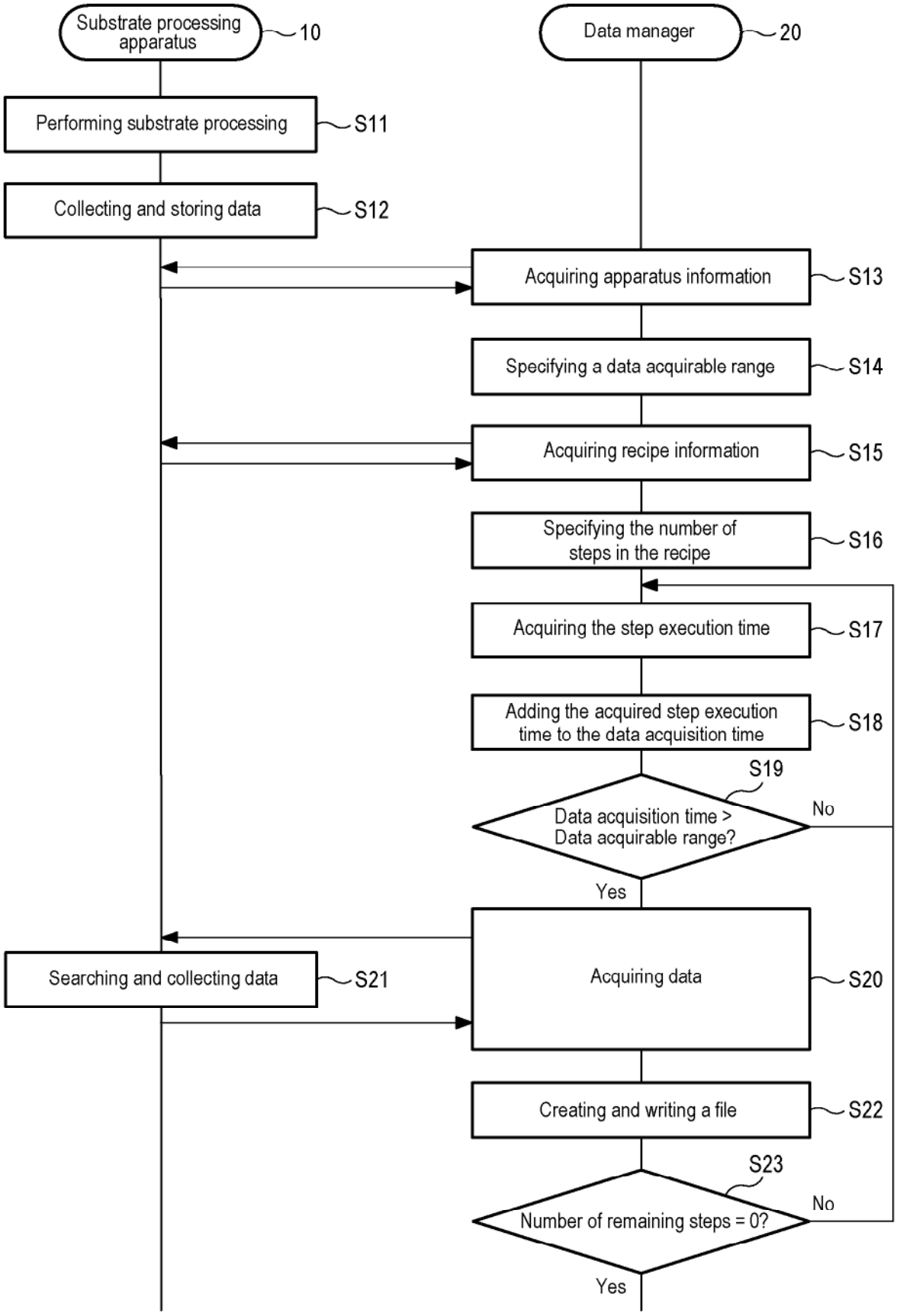

6,000
5,000
4,000
3,000
2,000
1,000
0
Number of sensors
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Data acquirable range [sec]

FIG. 8


Substrate processing apparatus
10
Data manager
20
Performing substrate processing
S11
Collecting and storing data
S12
Acquiring apparatus information
S13
Specifying a data acquirable range
S14
Acquiring recipe information
S15
Specifying the number of steps in the recipe
S16
Acquiring the step execution time
S17
Adding the acquired step execution time to the data acquisition time
S18
S19
Data acquisition time > Data acquirable range?
No
Yes
Searching and collecting data
S21
Acquiring data
S20
Creating and writing a file
S22
S23
Number of remaining steps = 0?
No
Yes