FIG. 1A

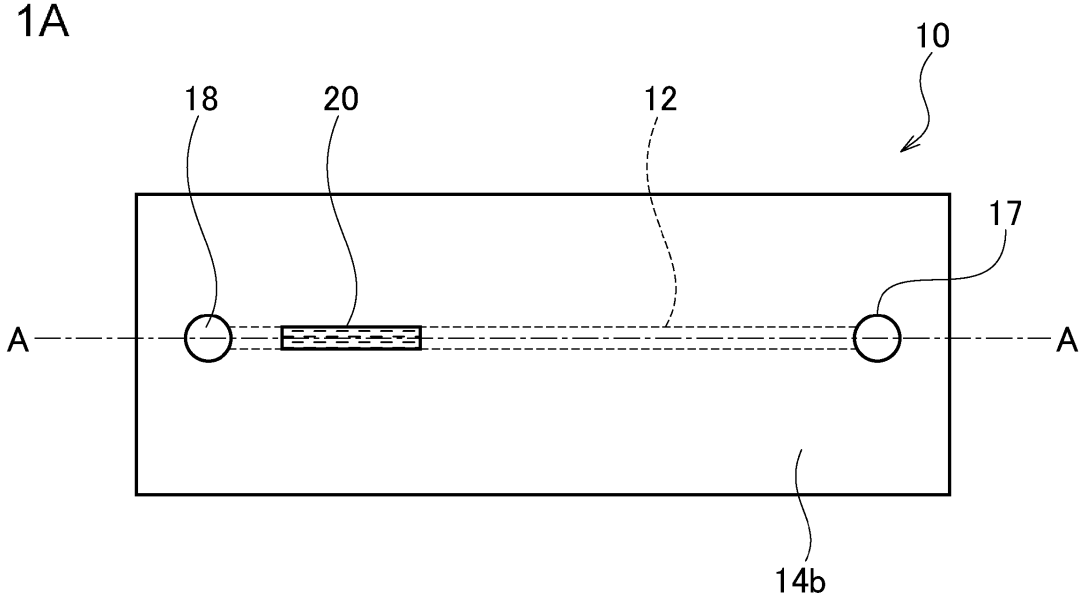

10
18
20
12
17
A
A
14b

FIG. 1B

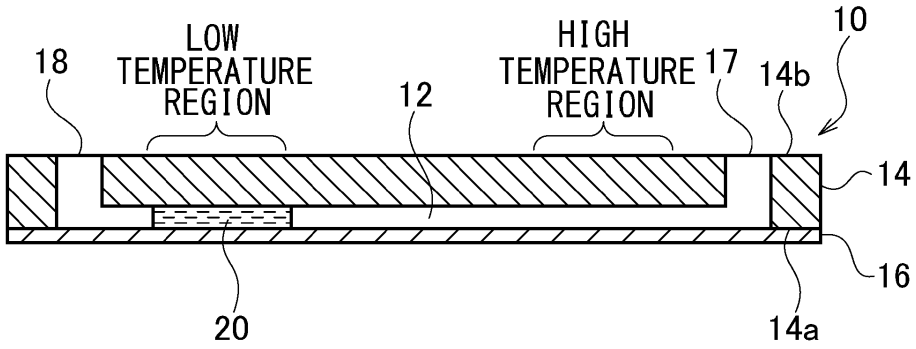

10
18
LOW
TEMPERATURE
REGION
12
HIGH
TEMPERATURE
REGION
17
14b
14
16
20
14a

FIG. 2

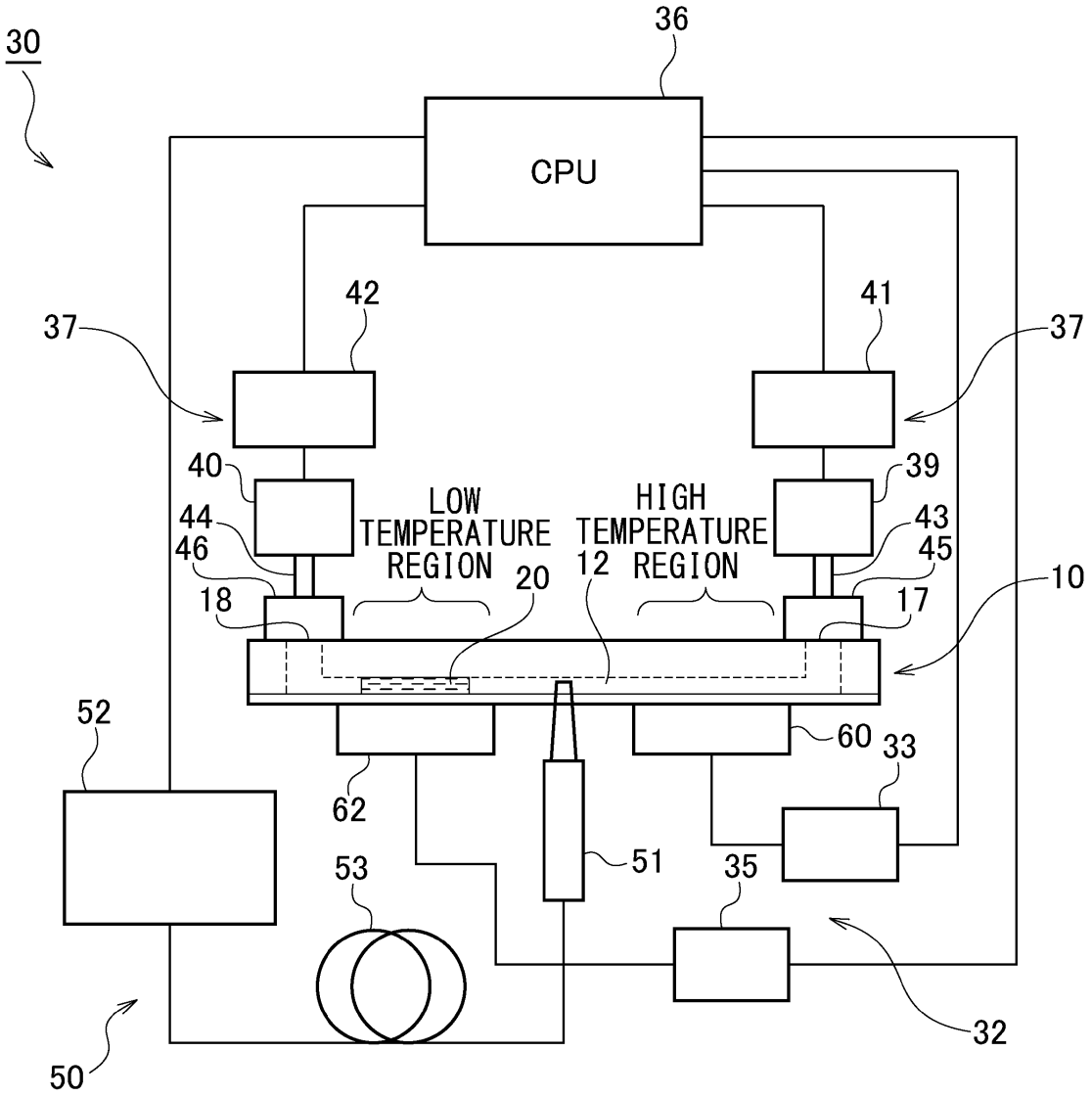

30
36
CPU
42
41
37
37
40
39
LOW
TEMPERATURE
REGION
HIGH
TEMPERATURE
REGION
44
46
43
45
18
20
12
17
10
52
60
33
62
51
53
35
32
50

FIG. 3A

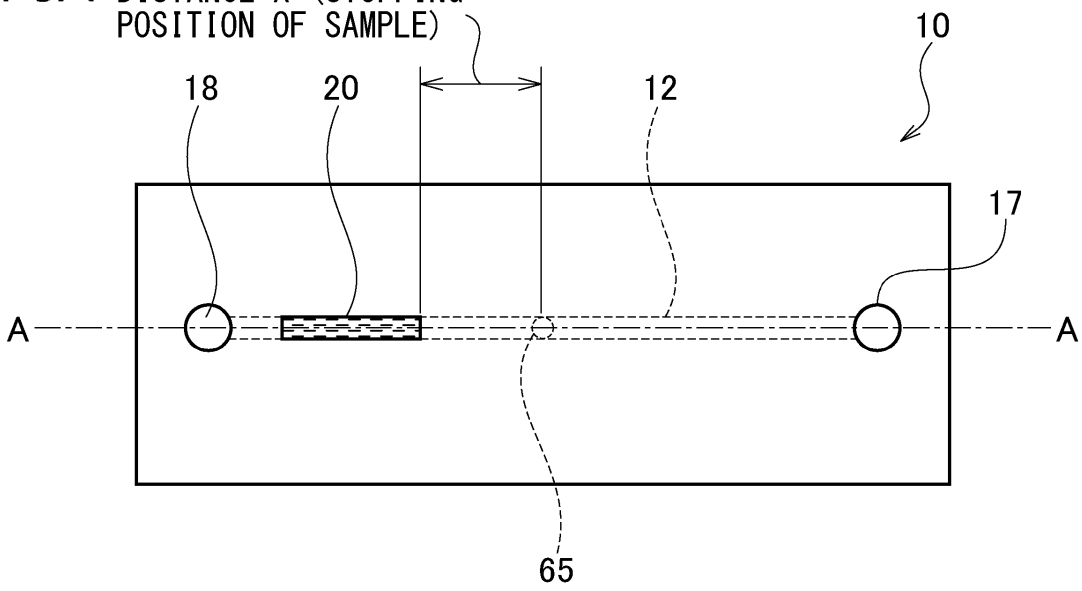

DISTANCE X (STOPPING POSITION OF SAMPLE)
10
18
20
12
17
A
A
65

FIG. 3B

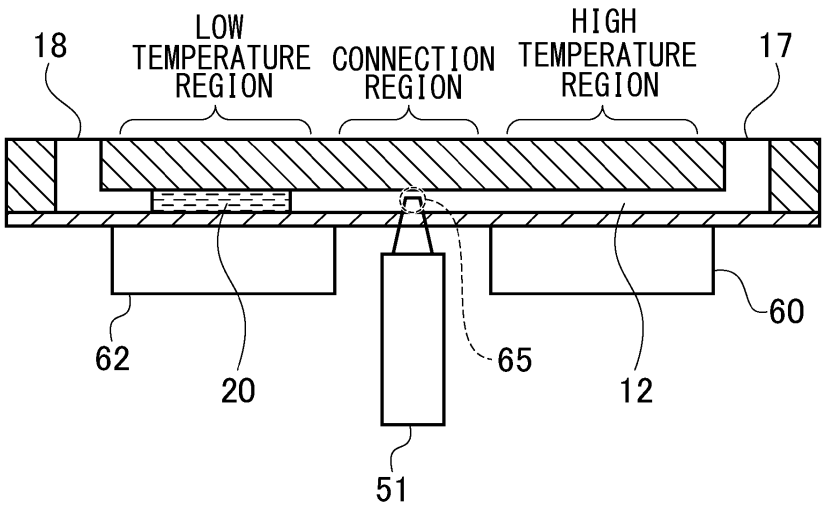

18
LOW TEMPERATURE REGION
CONNECTION REGION
HIGH TEMPERATURE REGION
17
60
62
20
65
12
51

FIG. 4A

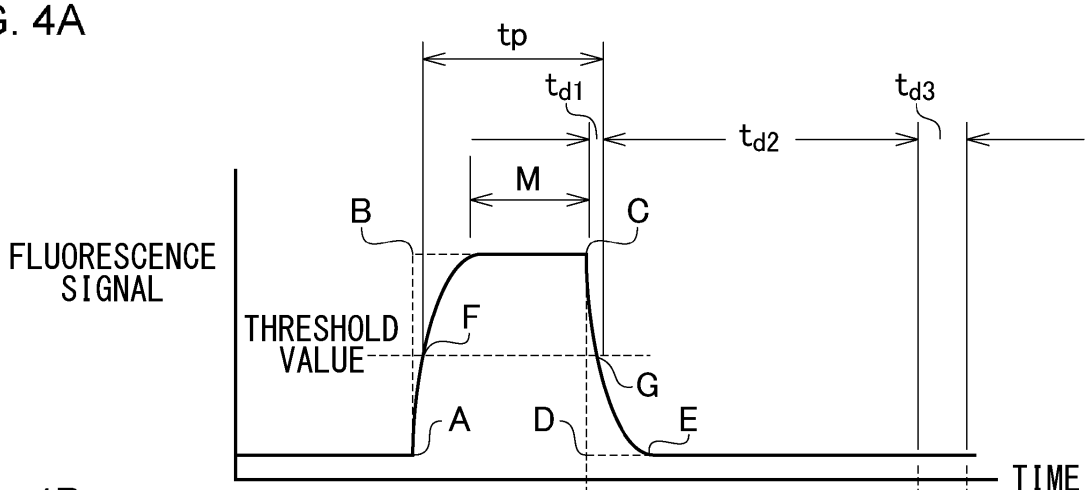


FIG. 4B

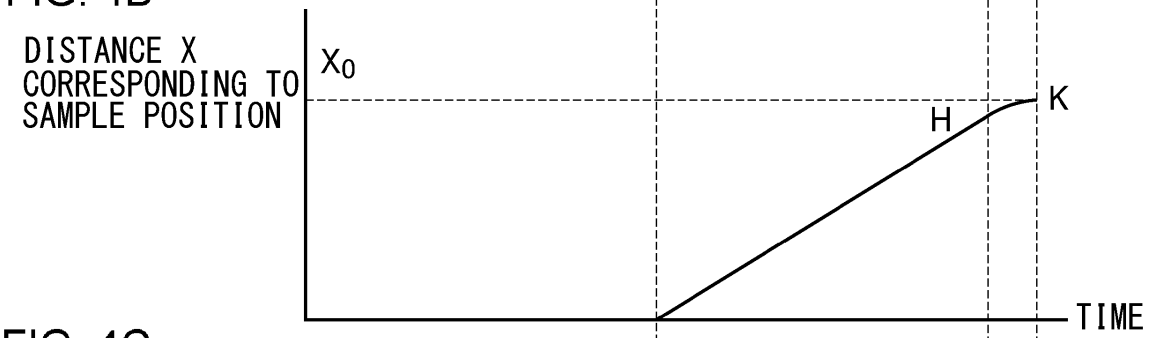


FIG. 4C

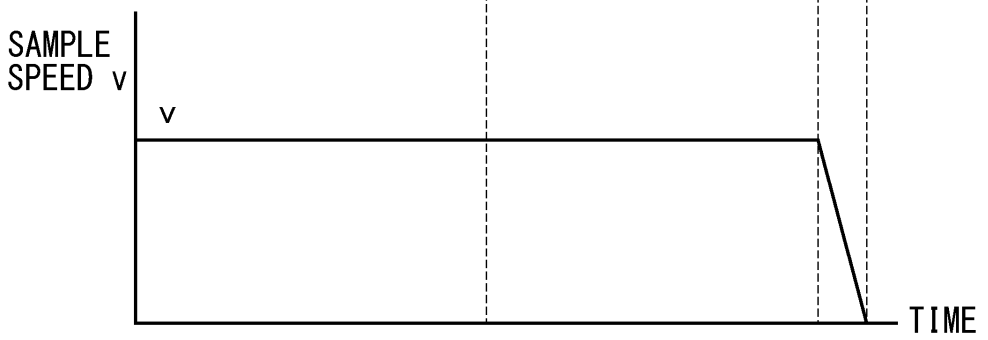


FIG. 5

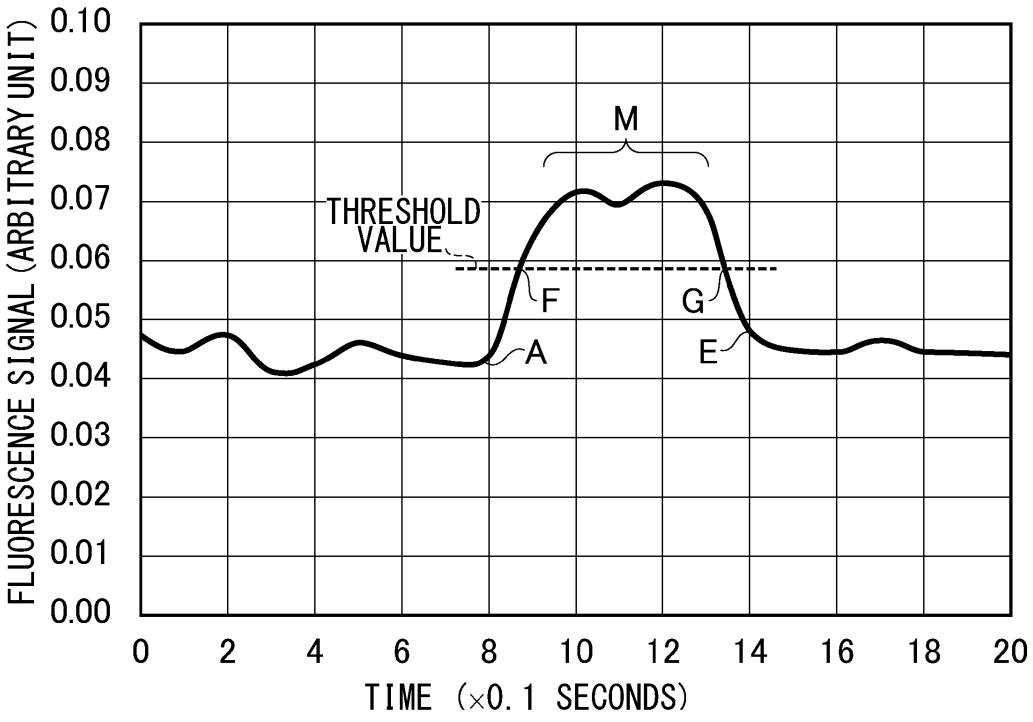

FLUORESCENCE SIGNAL (ARBITRARY UNIT)
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
M
THRESHOLD VALUE
F
G
A
E
0
2
4
6
8
10
12
14
16
18
20
TIME (×0.1 SECONDS)

FIG. 6

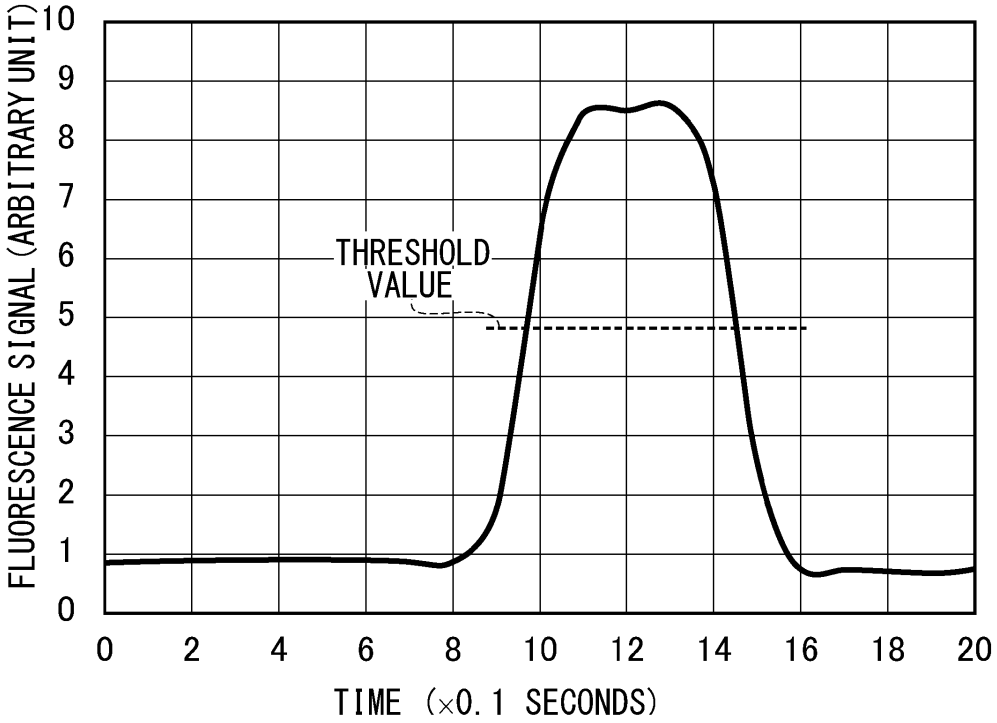

FLUORESCENCE SIGNAL (ARBITRARY UNIT)
10
9
8
7
6
5
4
3
2
1
0
THRESHOLD VALUE
0
2
4
6
8
10
12
14
16
18
20
TIME (×0.1 SECONDS)

FIG. 7A

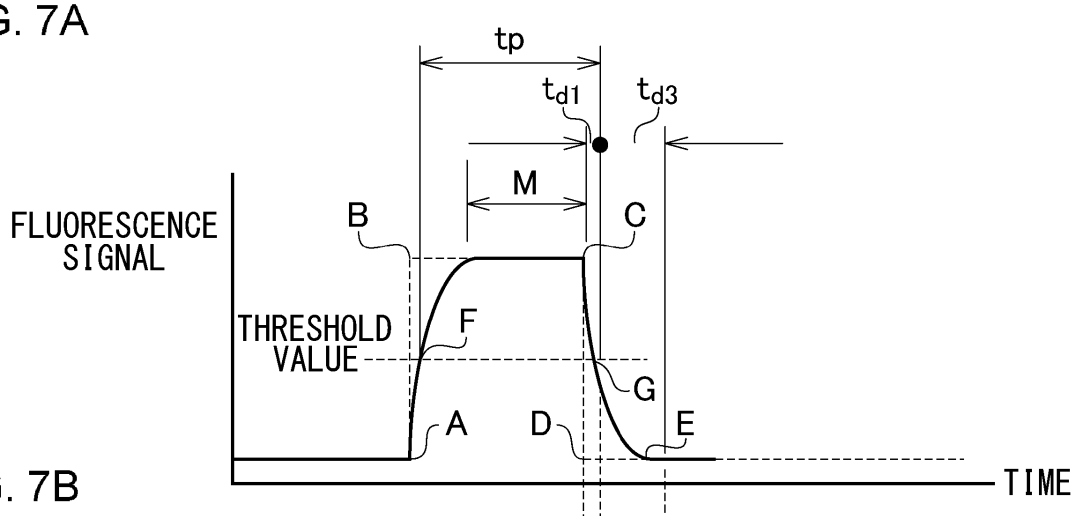


FIG. 7B

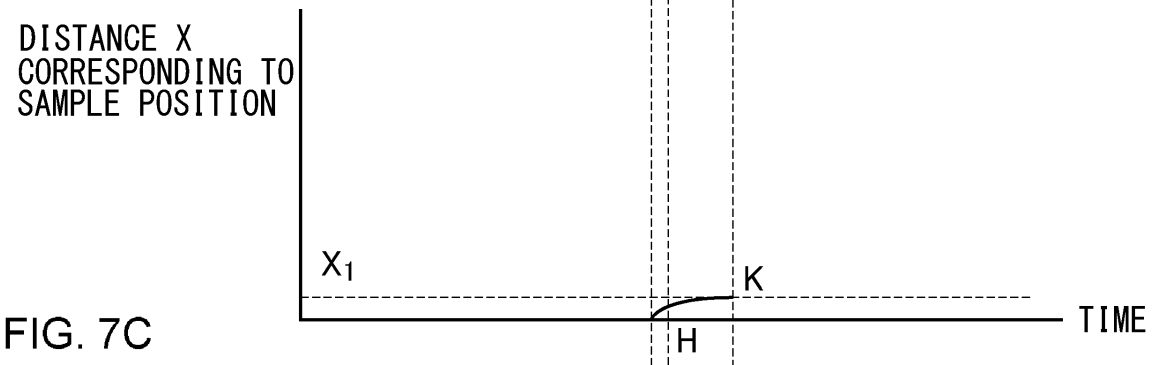


FIG. 7C

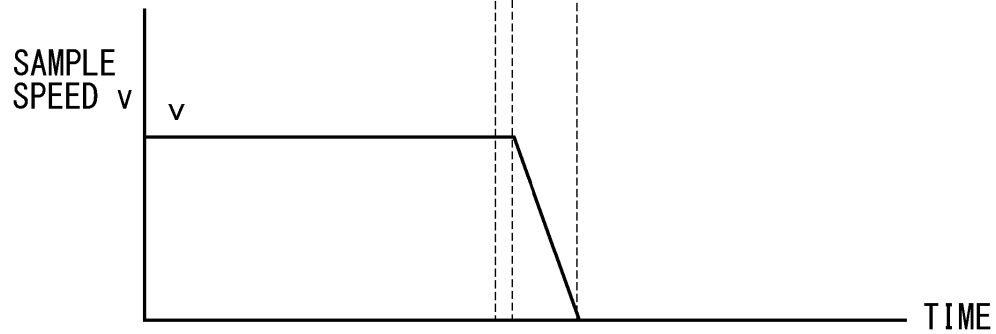
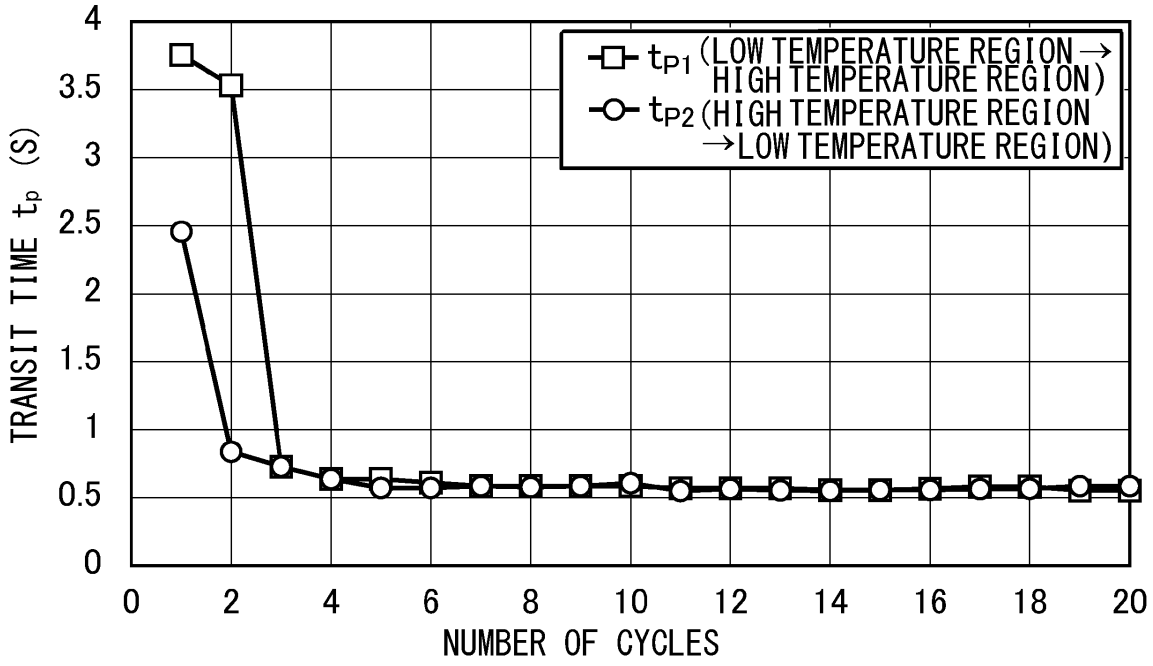


FIG. 8


4
3.5
3
2.5
2
1.5
1
0.5
0
TRANSIT TIME t_p (S)
0
2
4
6
8
10
12
14
16
18
20
NUMBER OF CYCLES
t_{P1} (LOW TEMPERATURE REGION → HIGH TEMPERATURE REGION)
t_{P2} (HIGH TEMPERATURE REGION → LOW TEMPERATURE REGION)