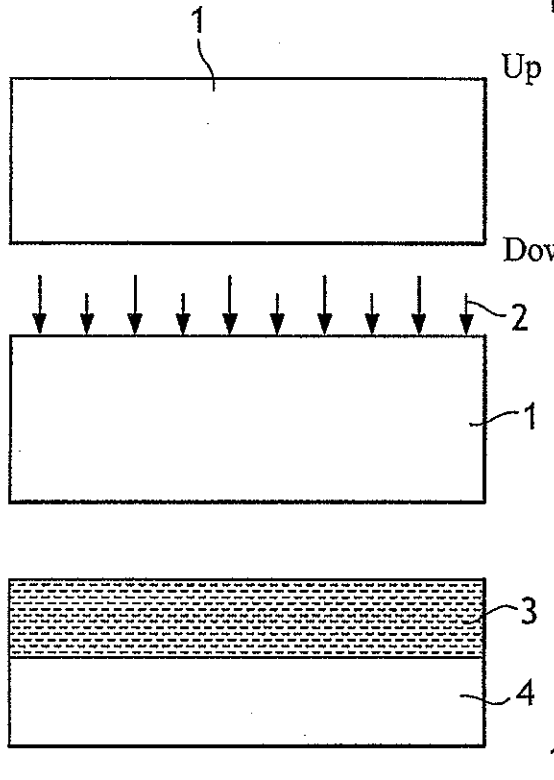


FIG.1
PRIOR ART

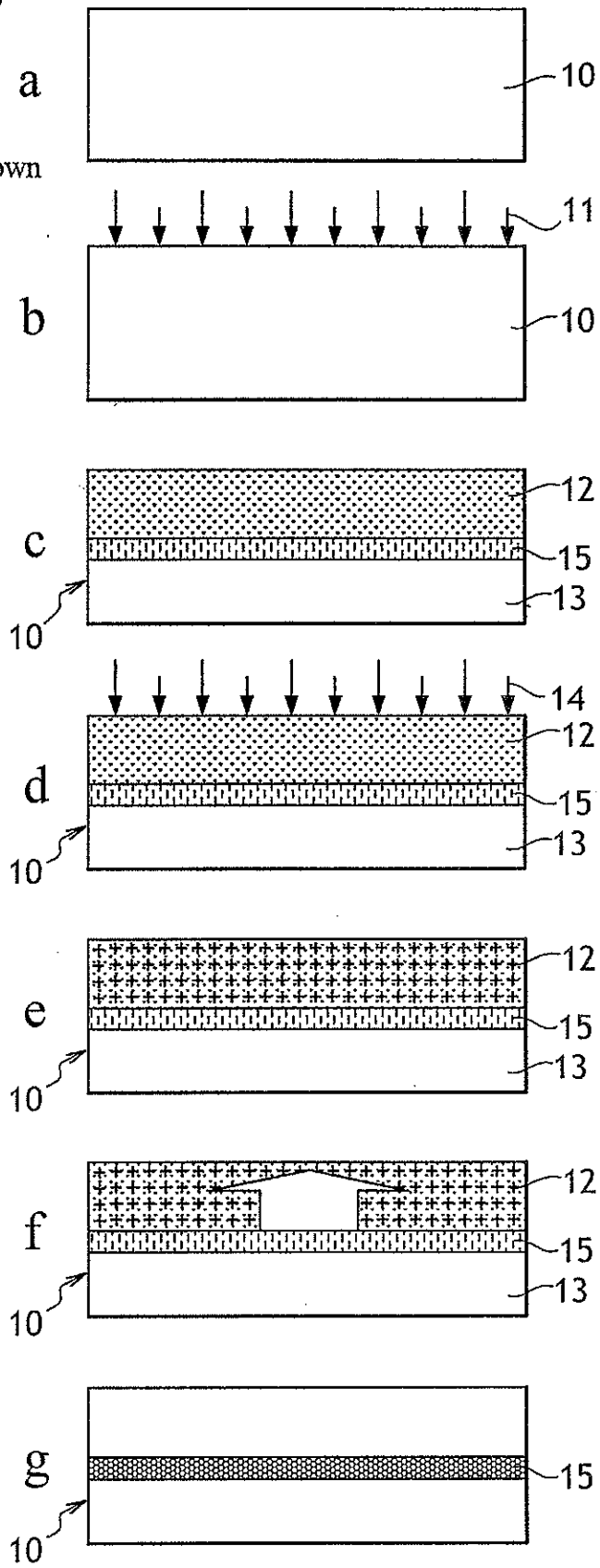


FIG.2
PRIOR ART

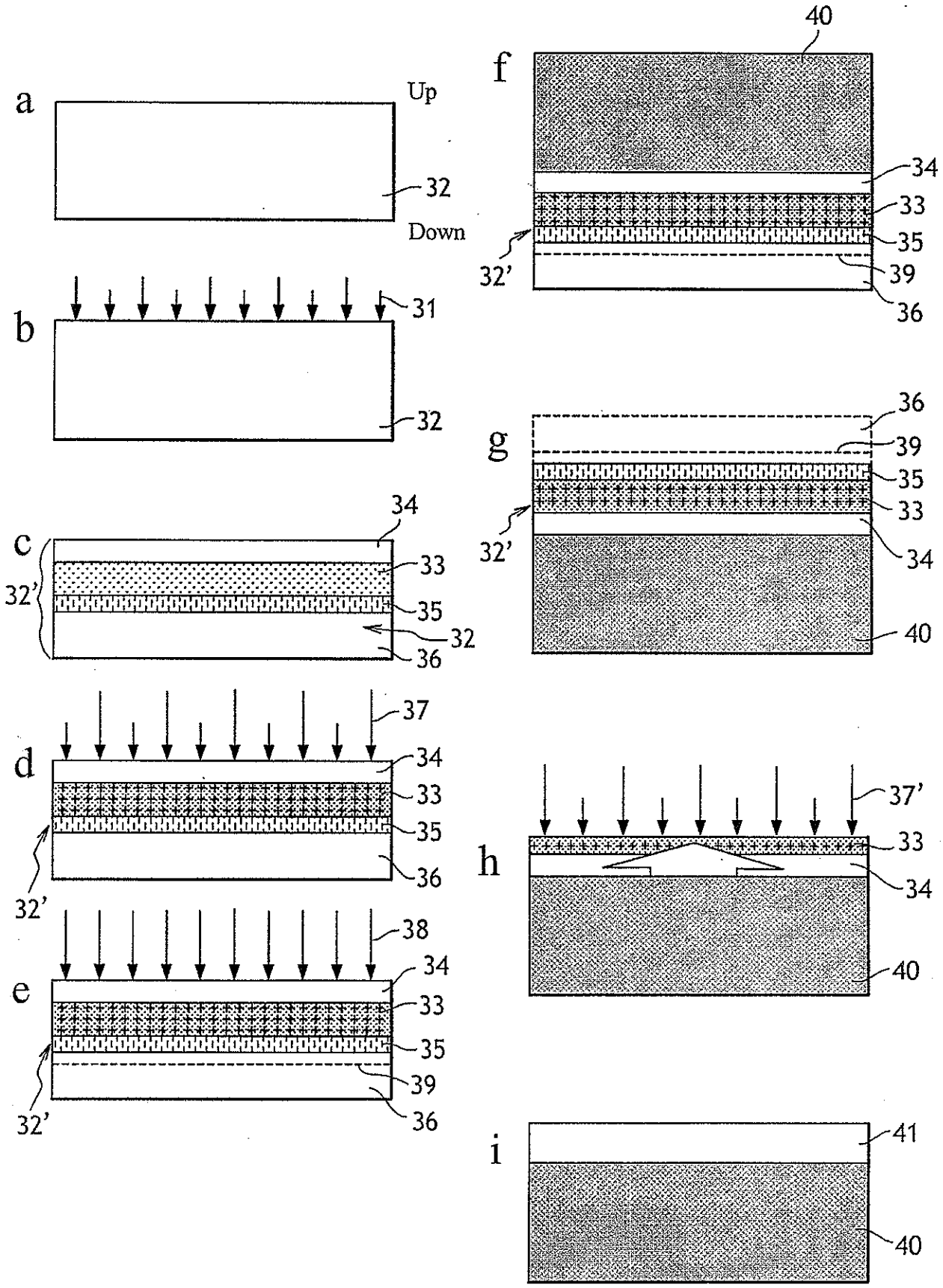

a
Up
32
Down
b
31
32
c
34
33
32'
35
32
36
d
37
34
33
35
36
32'
e
38
34
33
35
39
36
32'
f
40
34
33
35
32'
39
36
g
36
39
35
33
32'
34
40
h
37'
33
34
40
i
41
40

FIG.3

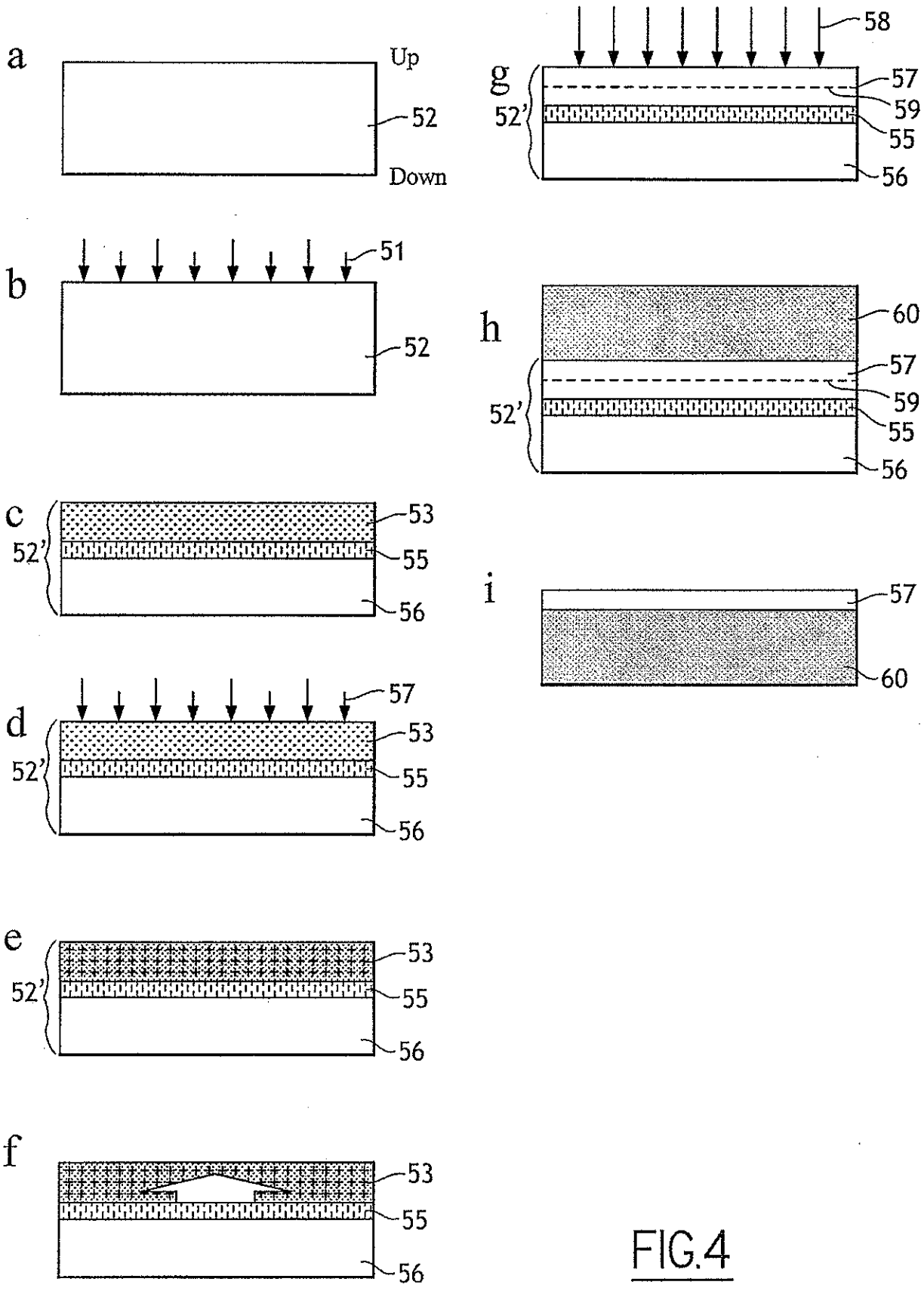

a
Up
52
Down
b
51
52
c
52'
53
55
56
d
57
52'
53
55
56
e
52'
53
55
56
f
53
55
56
g
58
52'
57
59
55
56
h
60
52'
57
59
55
56
i
57
60

FIG.4

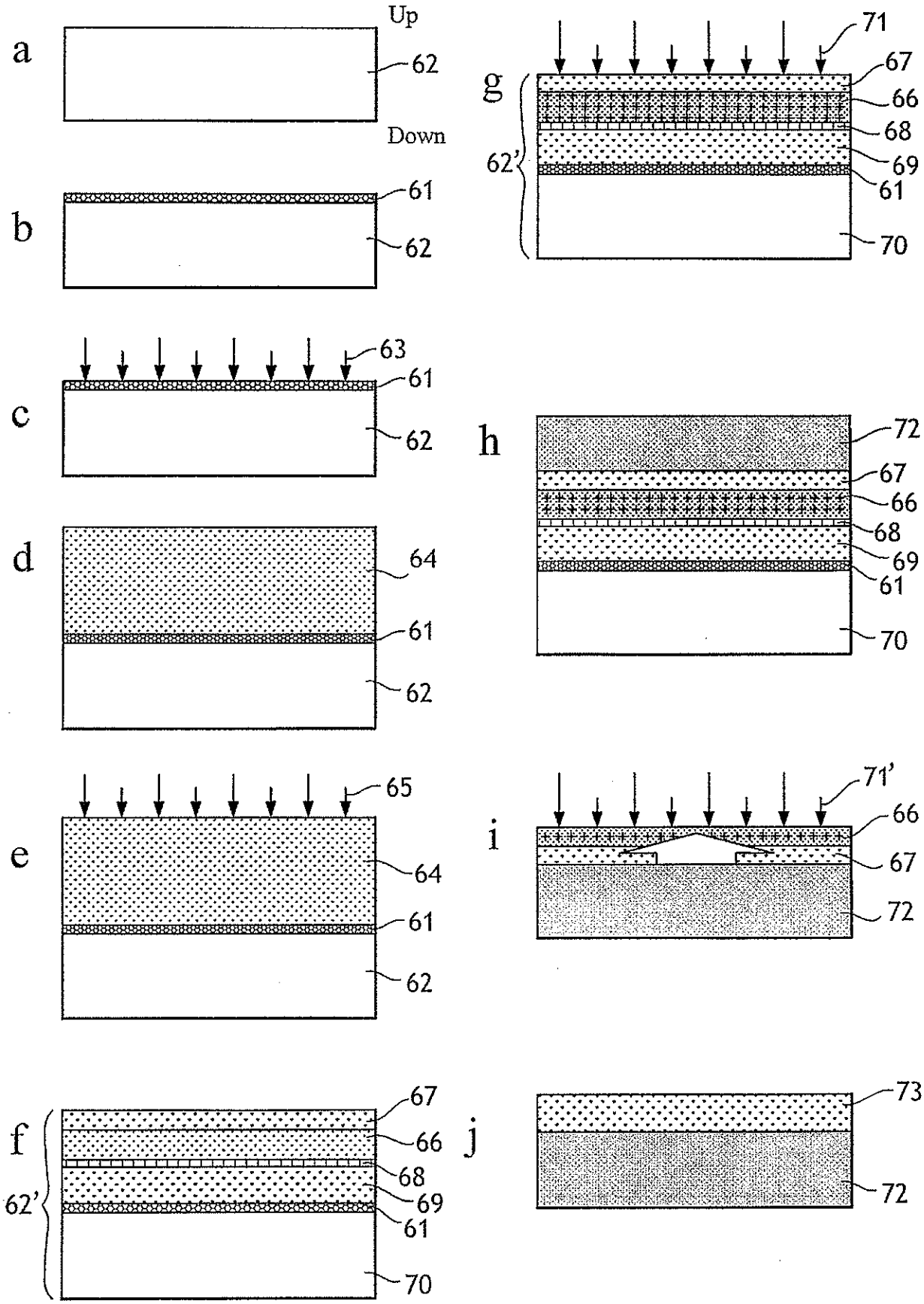

a
Up
62
Down
b
61
62
c
63
61
62
d
64
61
62
e
65
64
61
62
f
67
66
68
69
61
62'
70
g
71
67
66
68
69
61
62'
70
h
72
67
66
68
69
61
70
i
71'
66
67
72
j
73
72

FIG.5

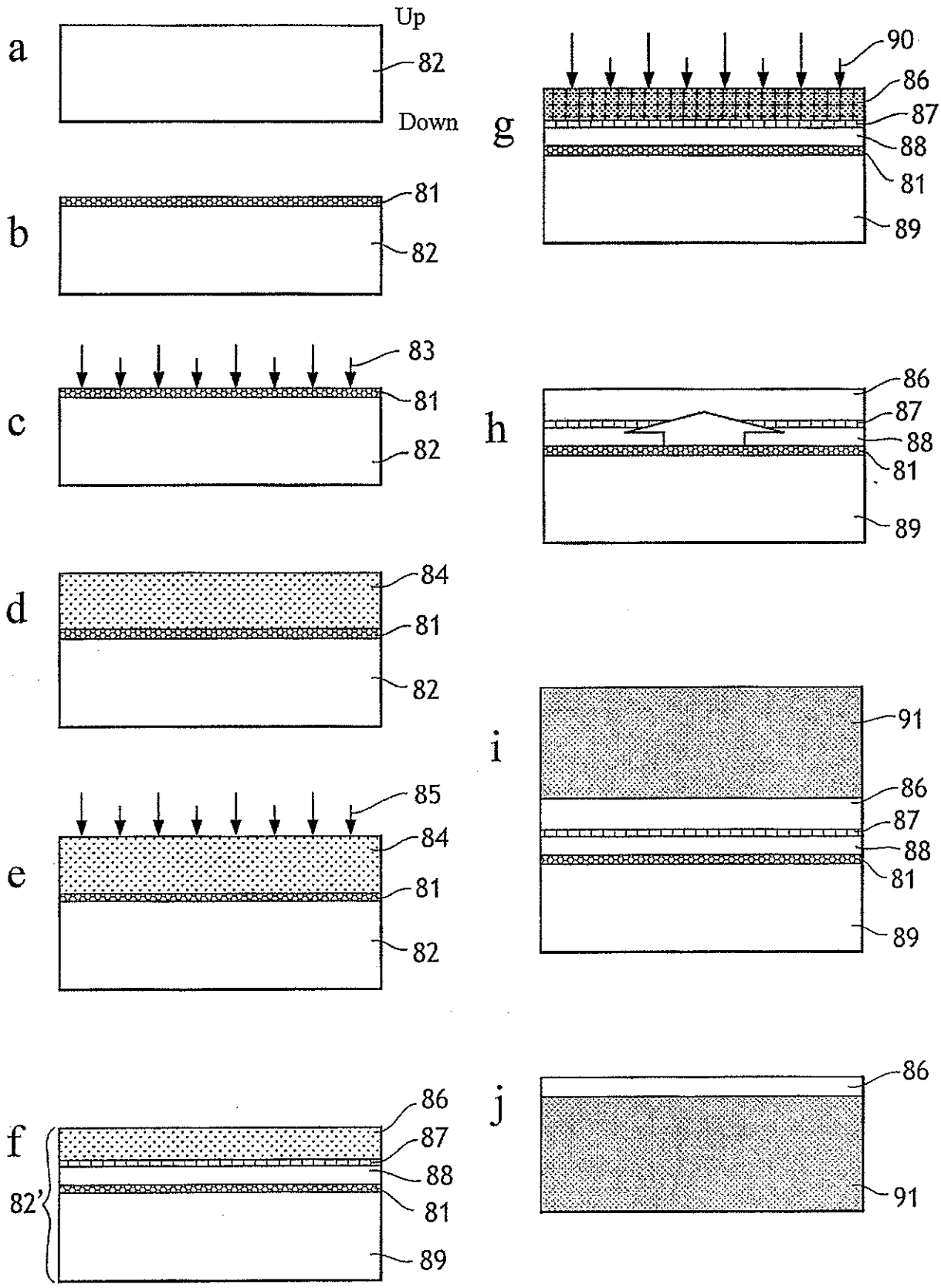

a
Up
82
Down
b
81
82
c
83
81
82
d
84
81
82
e
85
84
81
82
f
86
87
88
81
82'
89
g
90
86
87
88
81
89
h
86
87
88
81
89
i
91
86
87
88
81
89
j
86
91

FIG.6

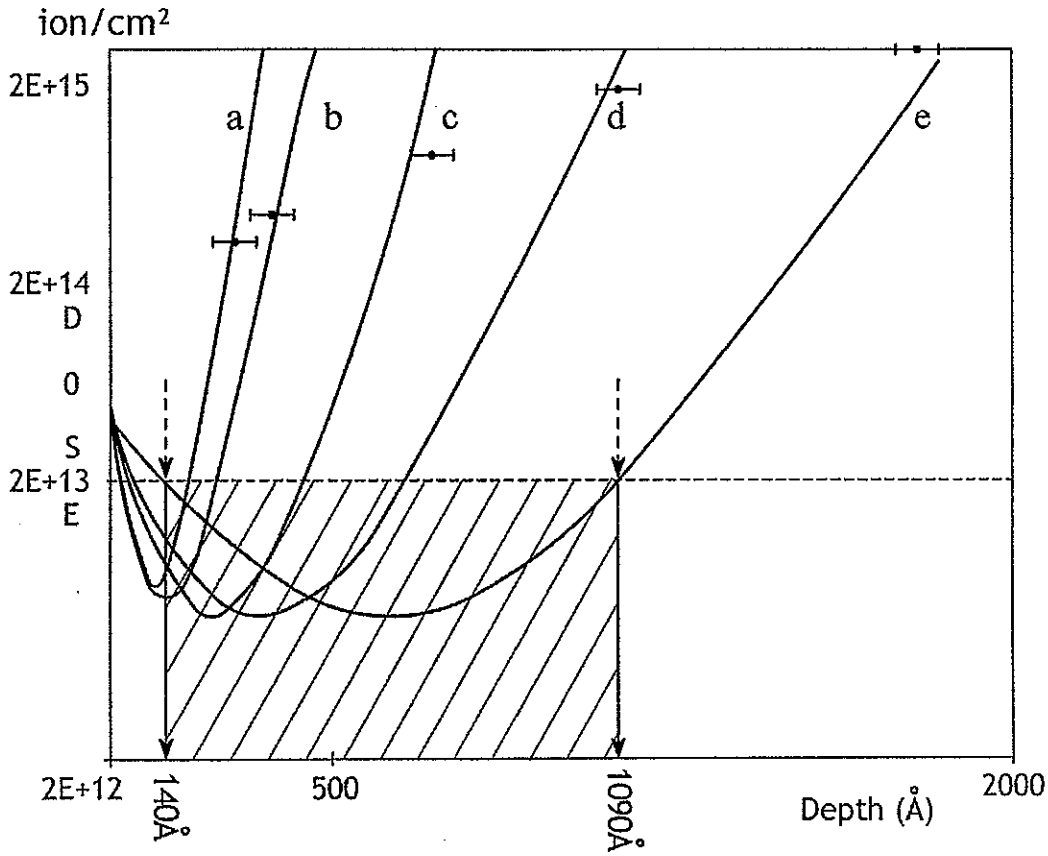

ion/cm²
2E+15
2E+14
D
0
S
2E+13
E
2E+12
a
b
c
d
e
140Å
500
1090Å
2000
Depth (Å)

FIG.7

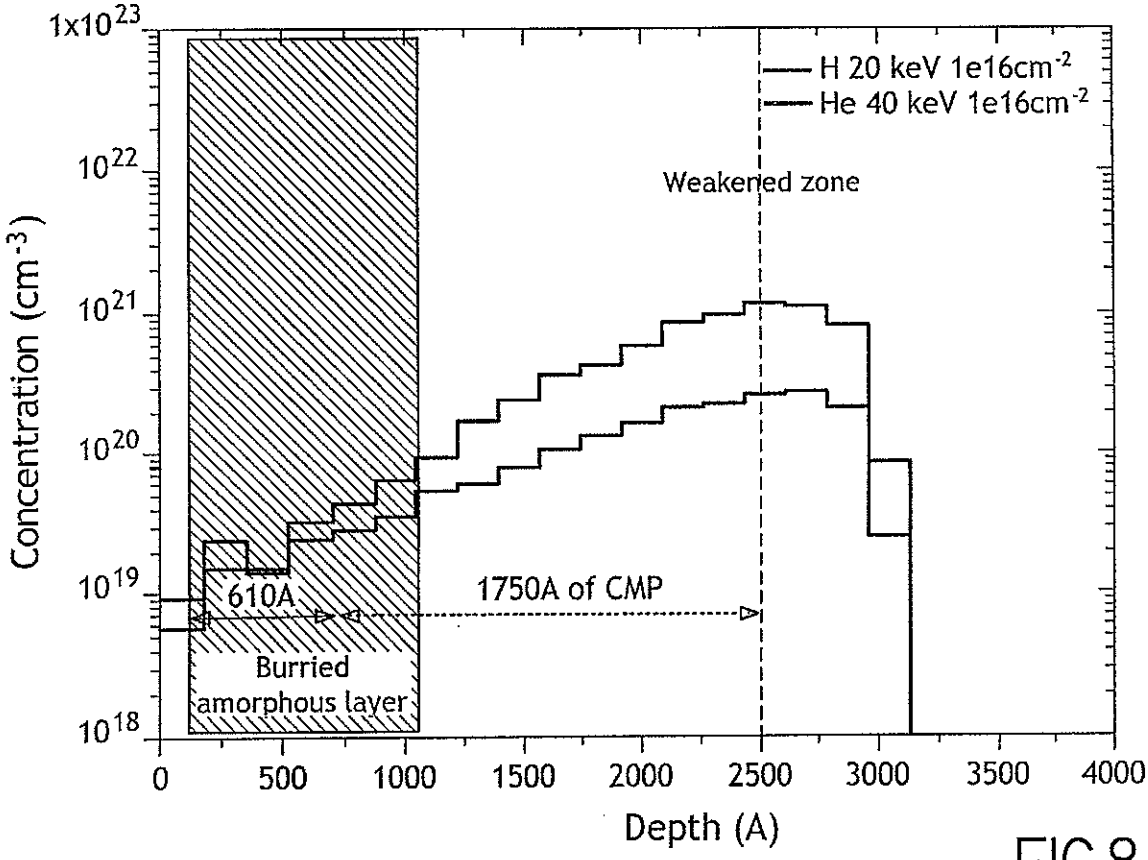

1x10²³
10²²
10²¹
10²⁰
10¹⁹
10¹⁸
Concentration (cm⁻³)
H 20 keV 1e16cm⁻²
He 40 keV 1e16cm⁻²
Weakened zone
610A
1750A of CMP
Burried
amorphous layer
0
500
1000
1500
2000
2500
3000
3500
4000
Depth (A)

FIG.8