FIG. 1
(PRIOR ART)

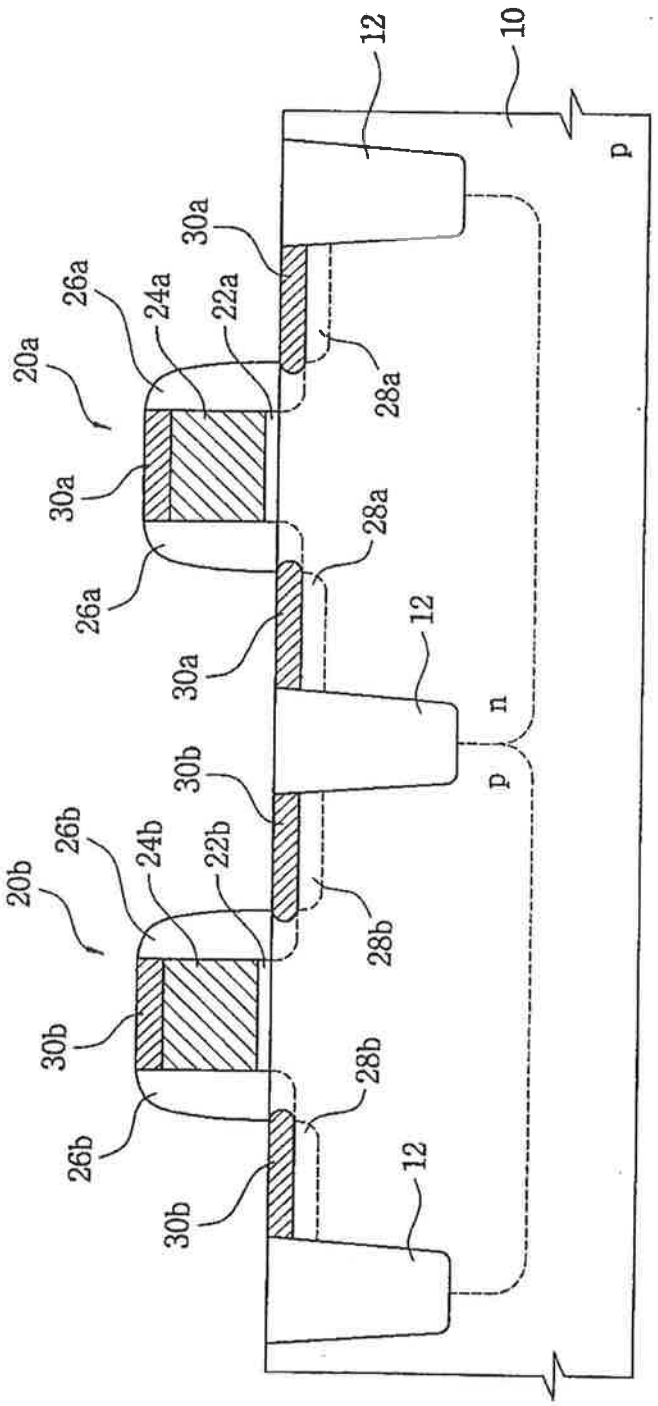


FIG. 2
(PRIOR ART)

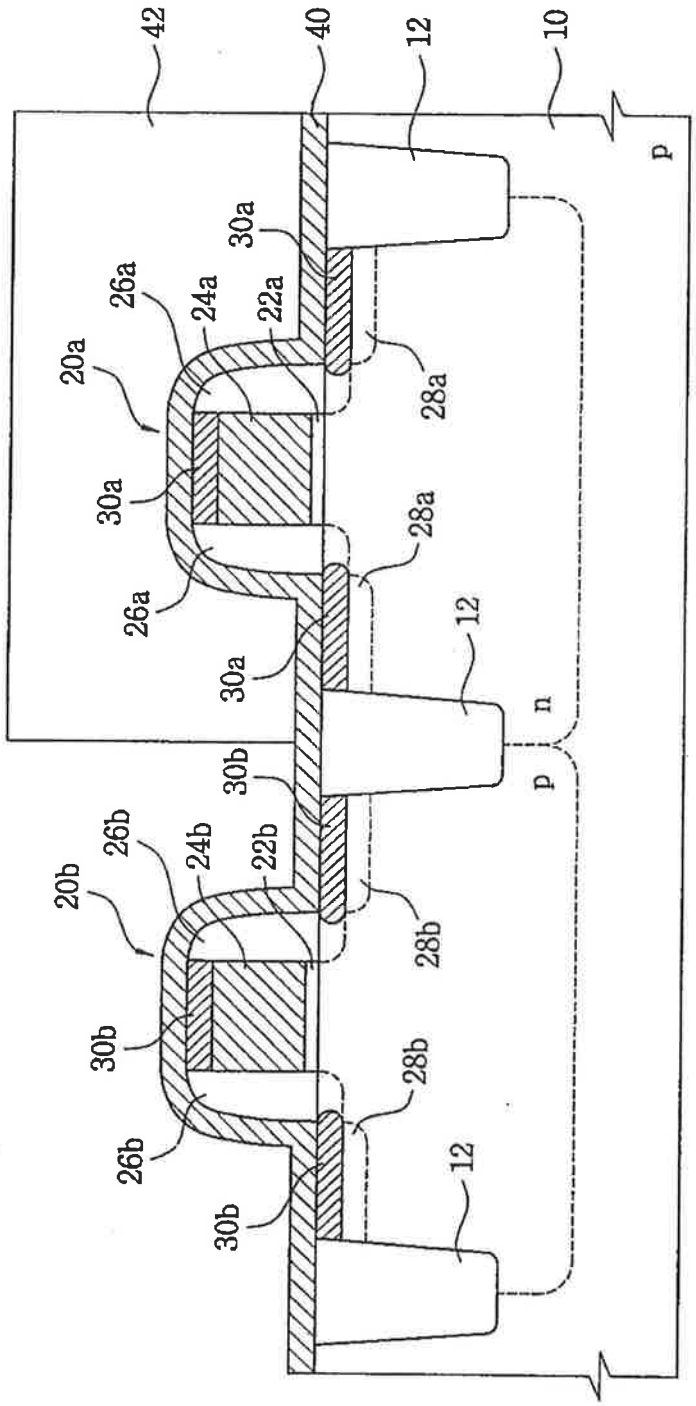


FIG. 3
(PRIOR ART)

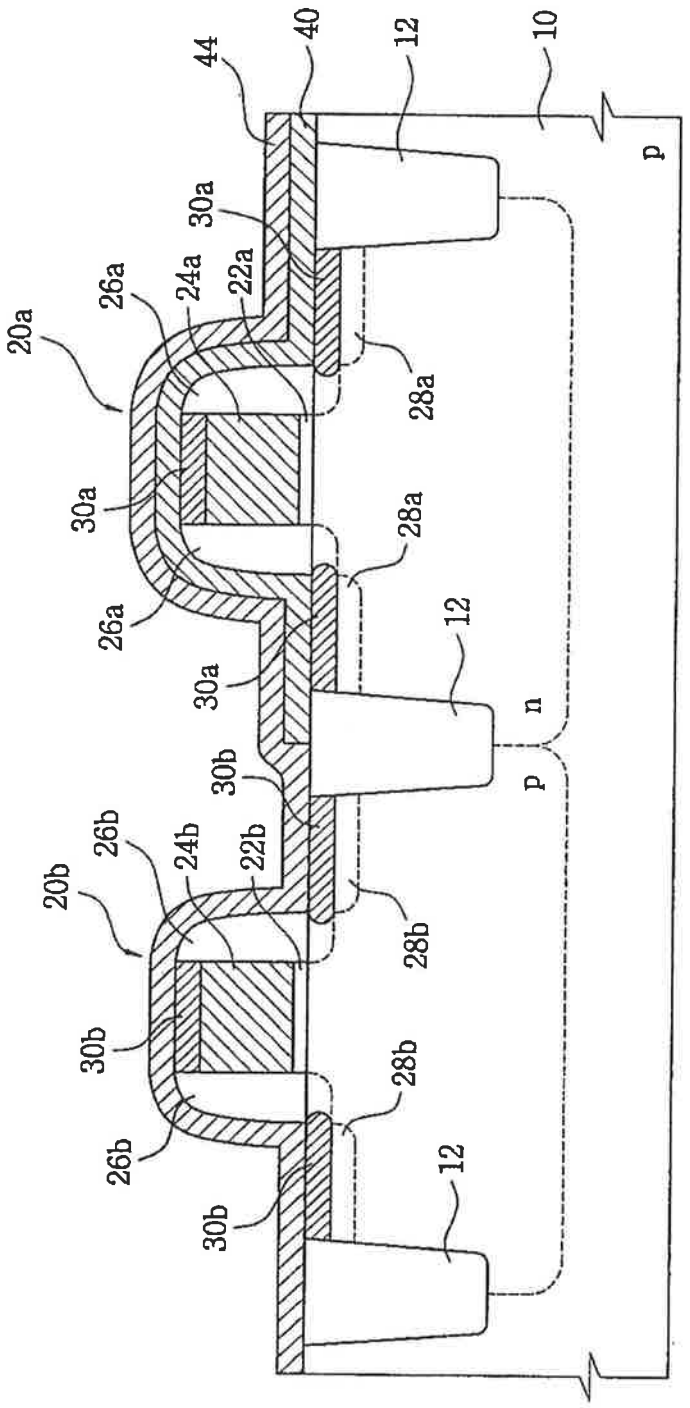


FIG. 4
(PRIOR ART)

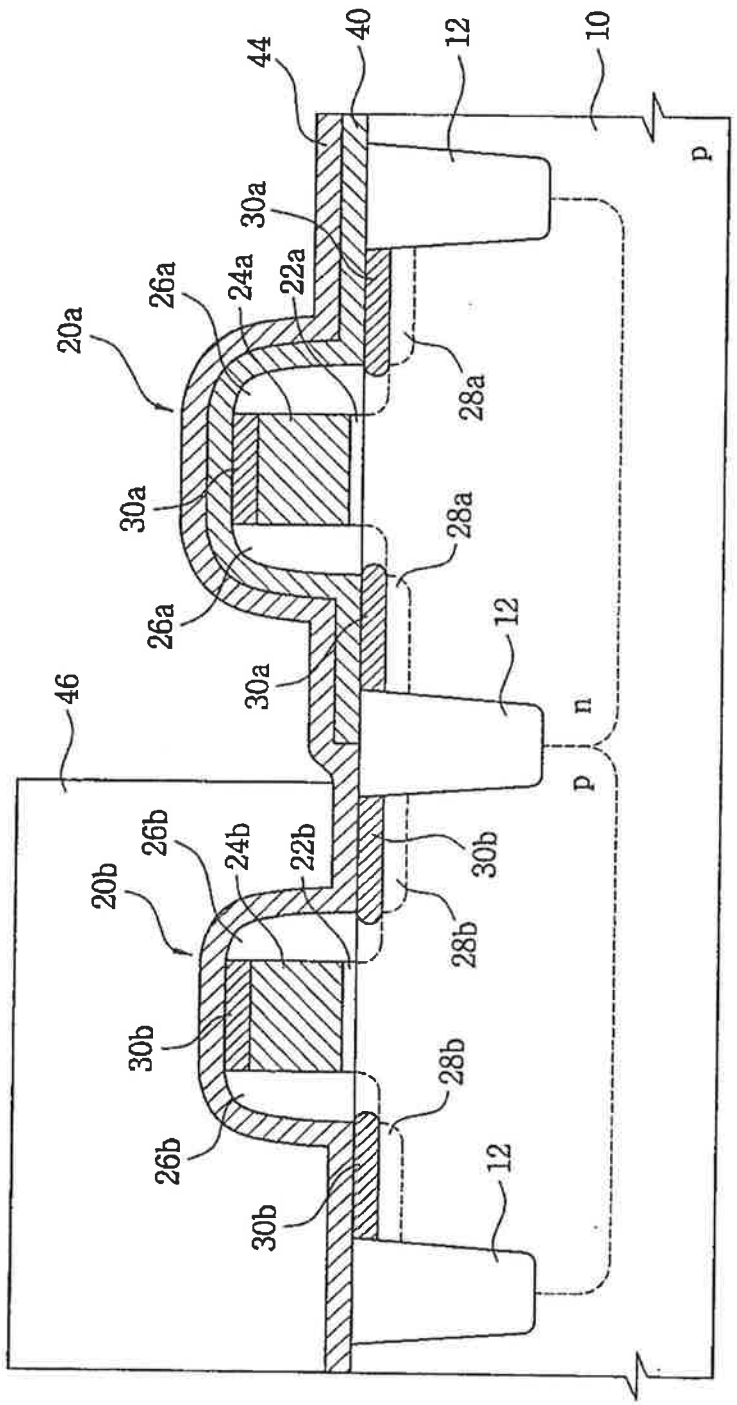


FIG. 5
(PRIOR ART)

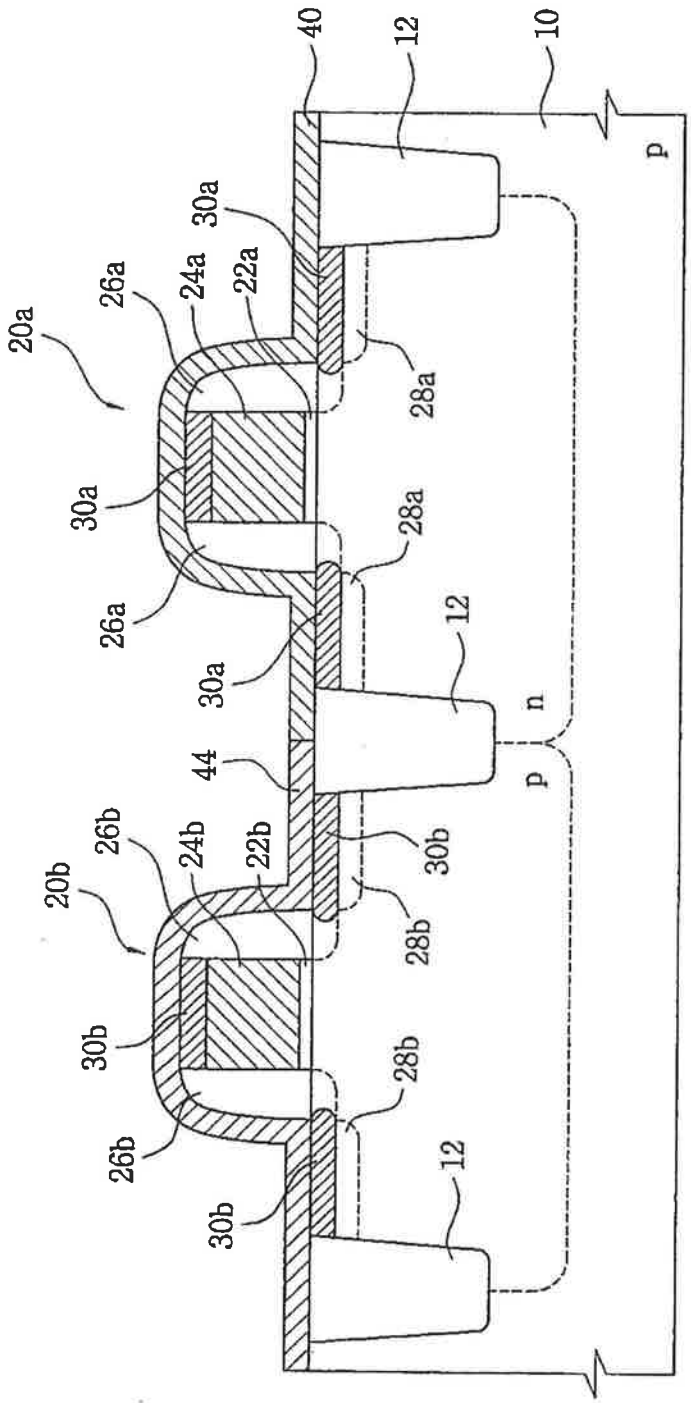


FIG. 6

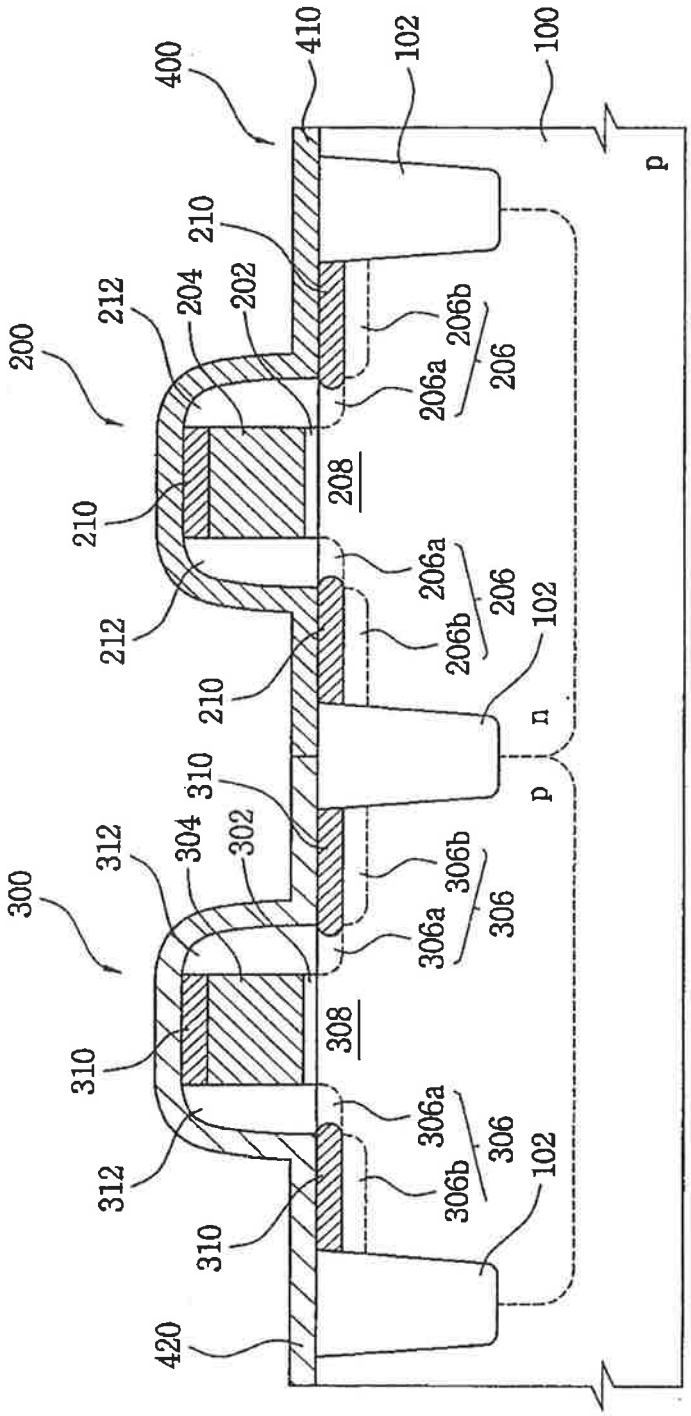

400
410
102
100
p
200
210
212
204
202
206b
206
206a
208
210
212
206a
206b
206
102
n
210
p
300
310
312
304
302
306b
306
306a
308
310
312
306a
306b
306
102
310
420

FIG. 7

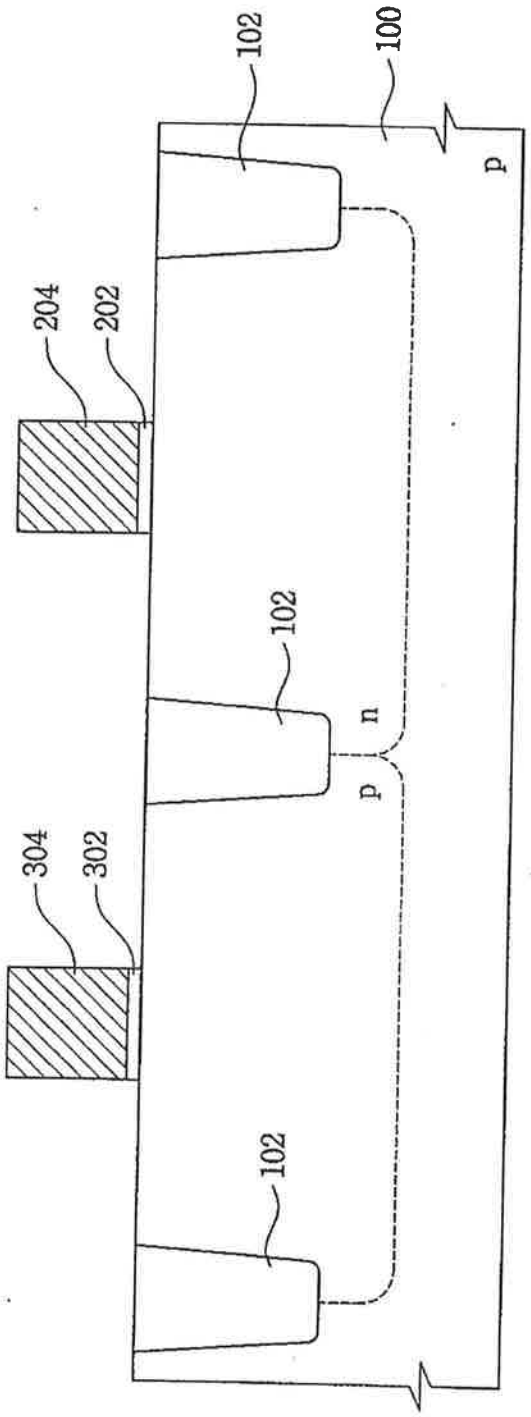


FIG. 8

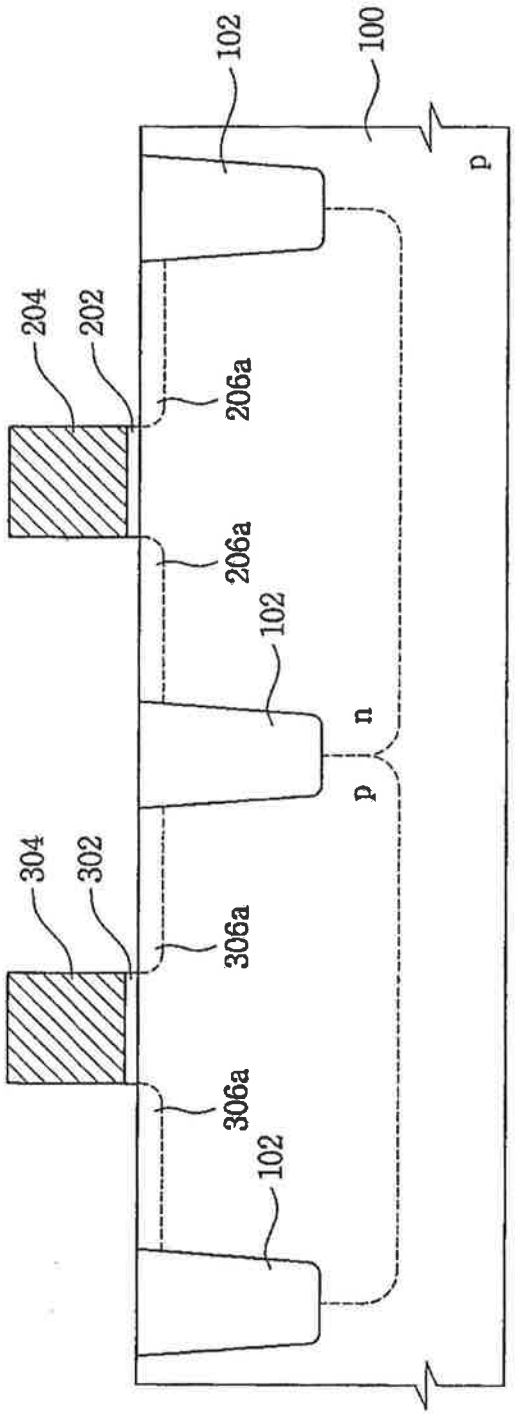


FIG. 9

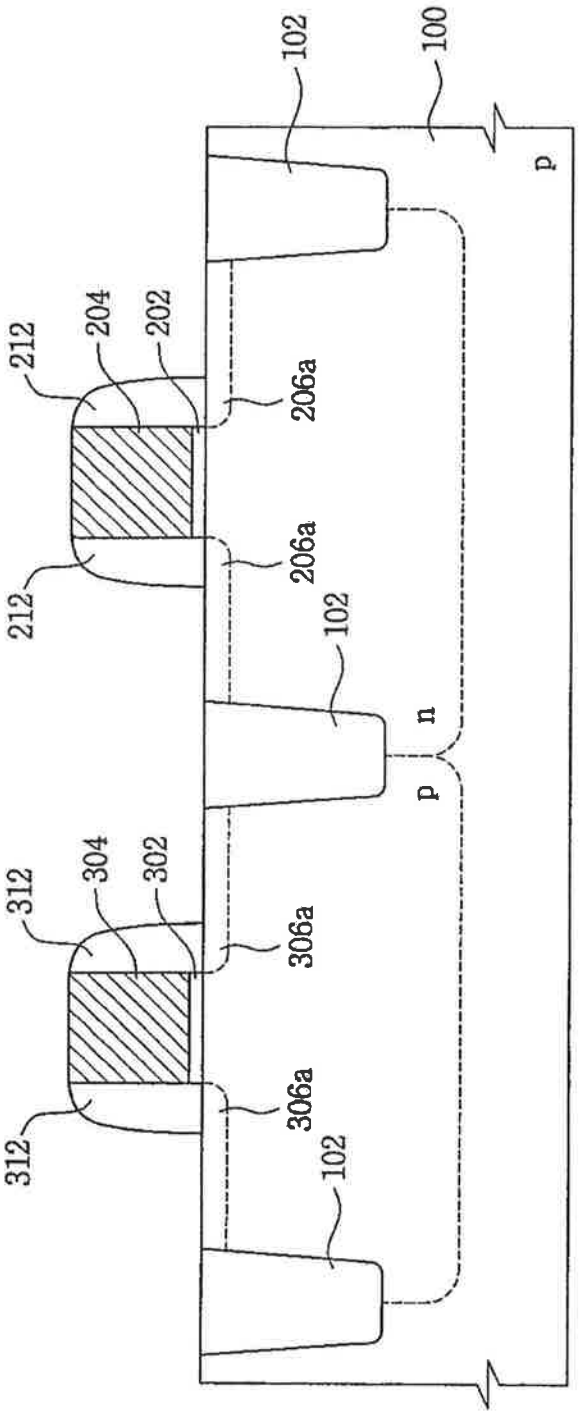

102
100
p
212
204
202
206a
206a
212
102
n
p
312
304
302
306a
306a
312
102

FIG. 10

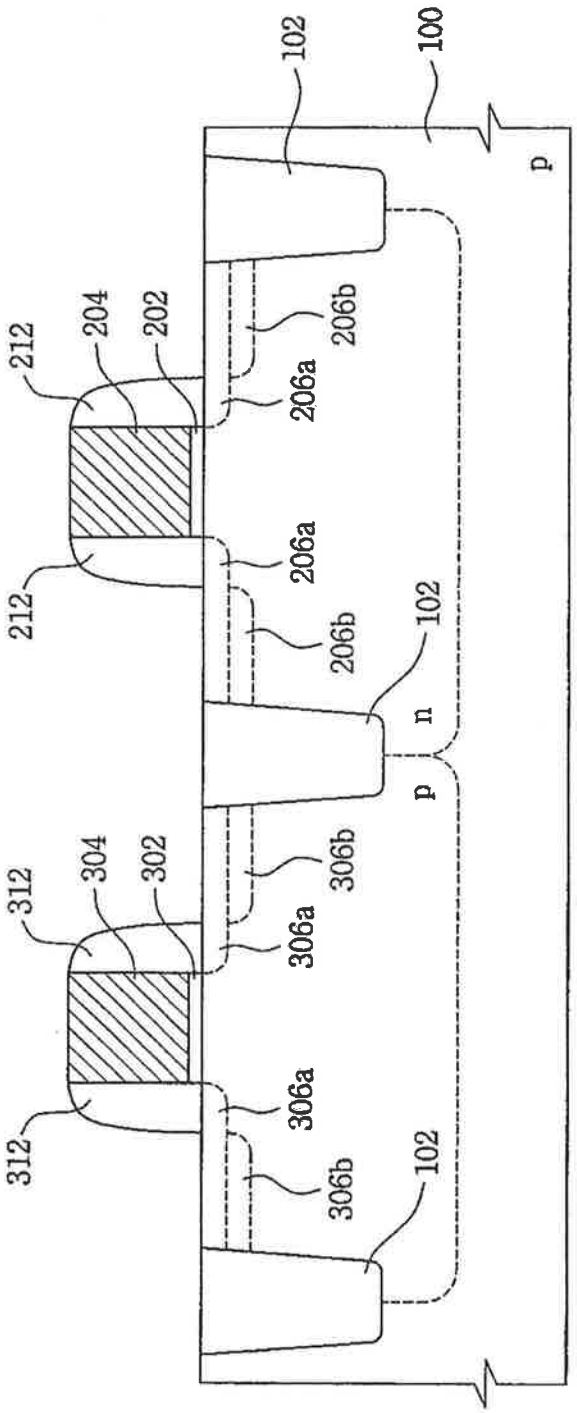

102
100
p
212
204
202
206b
206a
206a
212
206b
102
n
p
312
304
302
306b
306a
306a
312
306b
102

FIG. 11

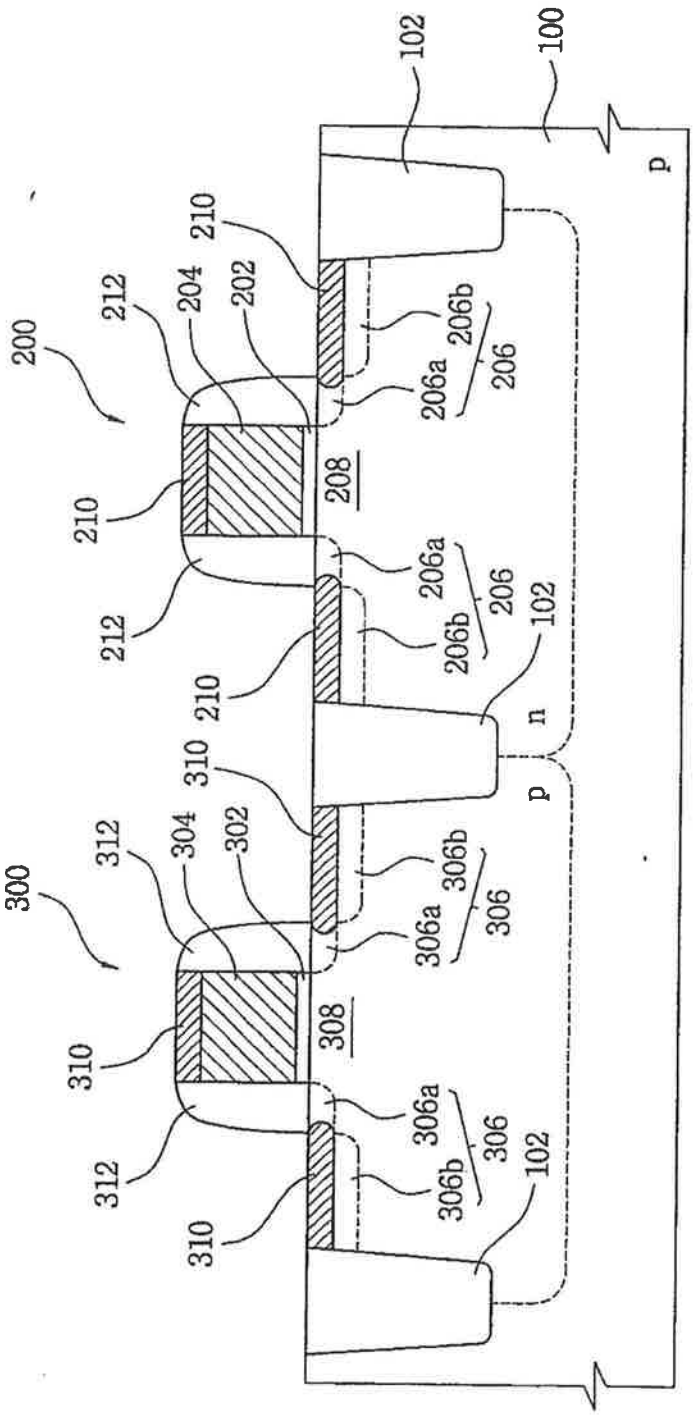

102
100
p
210
212
204
202
200
206b
206a
206
208
210
212
206a
206b
206
102
210
n
310
304
302
312
300
306b
306a
306
p
308
310
306a
306b
306
312
102
310

FIG. 12

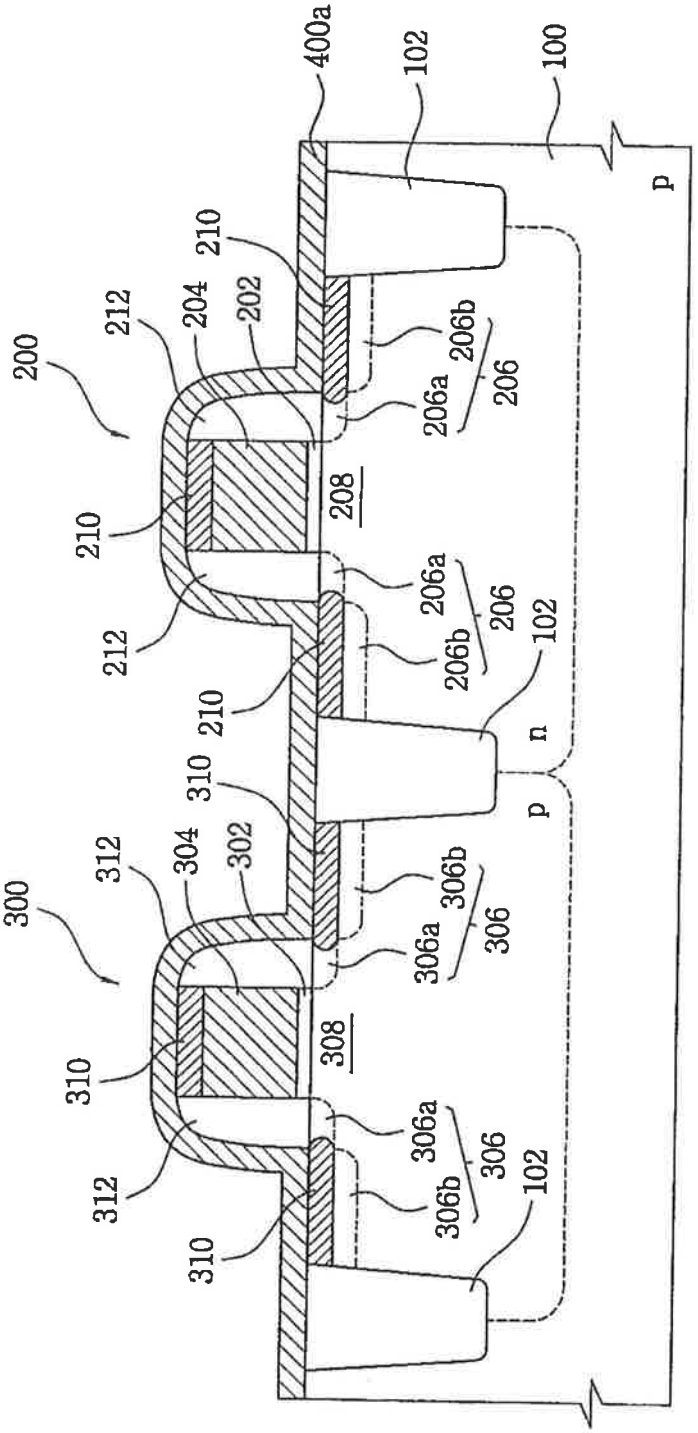

400a
102
100
p
210
212
204
202
200
206b
206a
206
208
210
212
206a
206b
206
102
210
n
310
312
304
302
300
306b
306a
306
308
310
312
306a
306b
306
102
310
p

FIG. 13

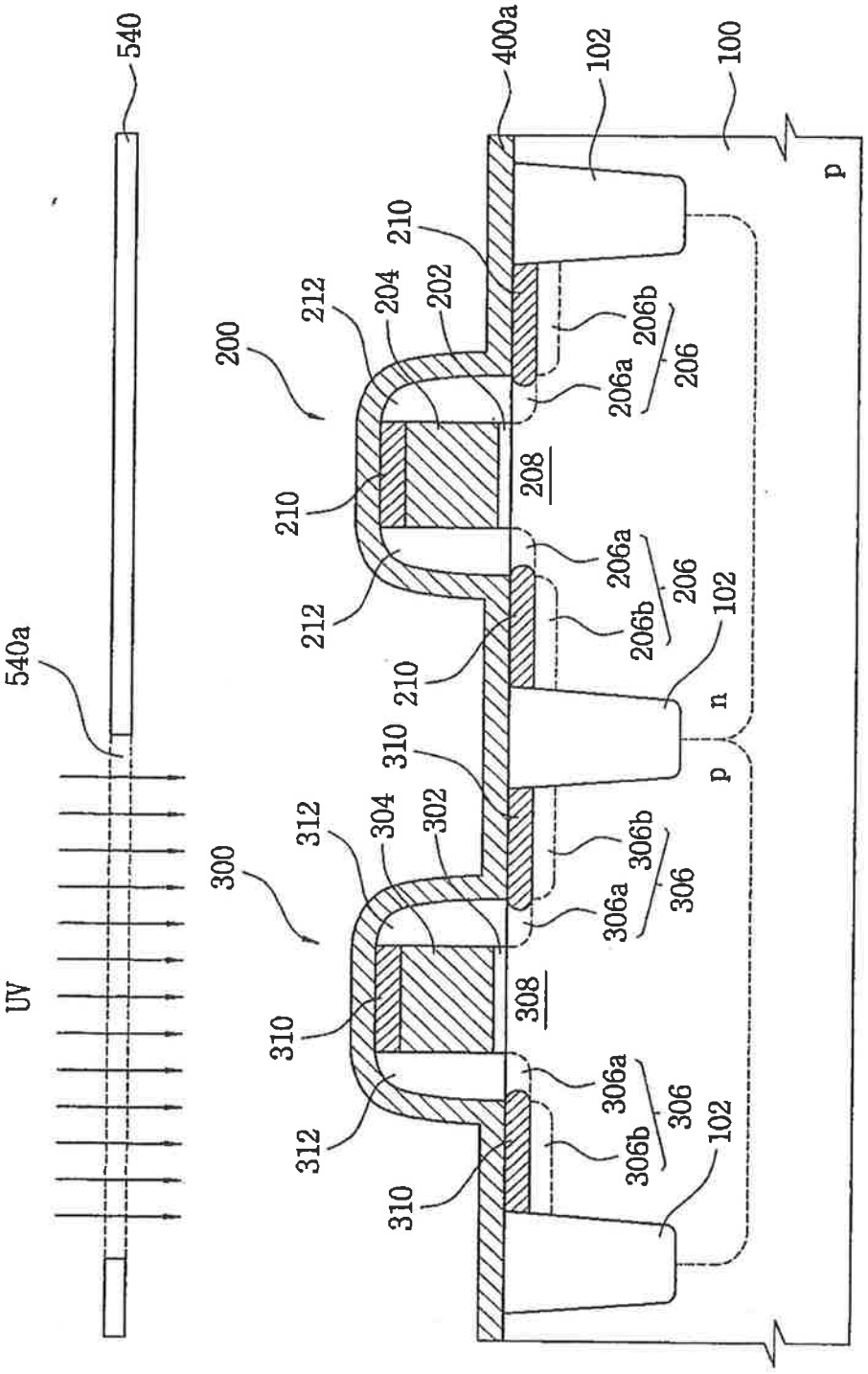

540
540a
UV
400a
102
100
p
200
210
212
204
202
206b
206a
206
208
n
300
310
312
304
302
306b
306a
306
308

FIG. 14

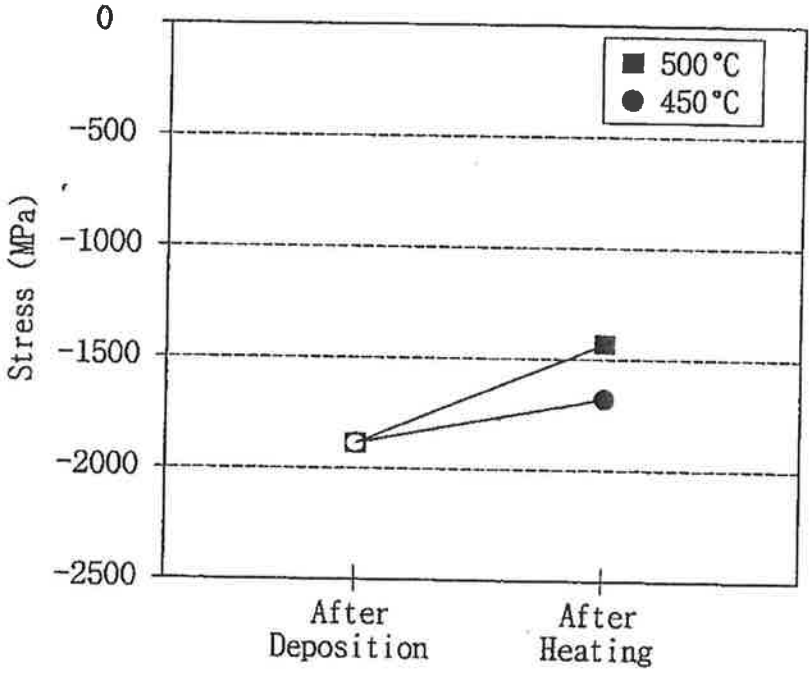

0
-500
-1000
-1500
-2000
-2500
Stress (MPa)
500°C
450°C
After Deposition
After Heating

FIG. 15

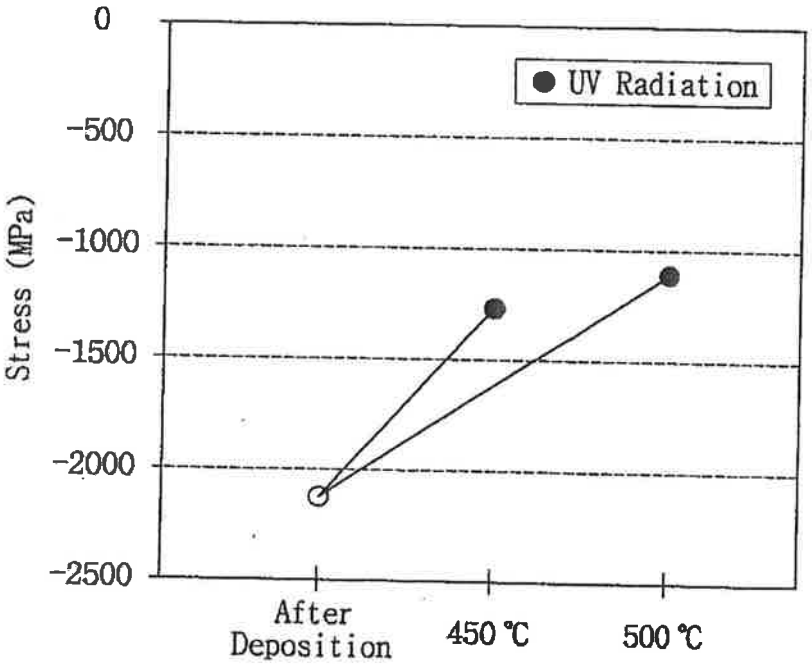
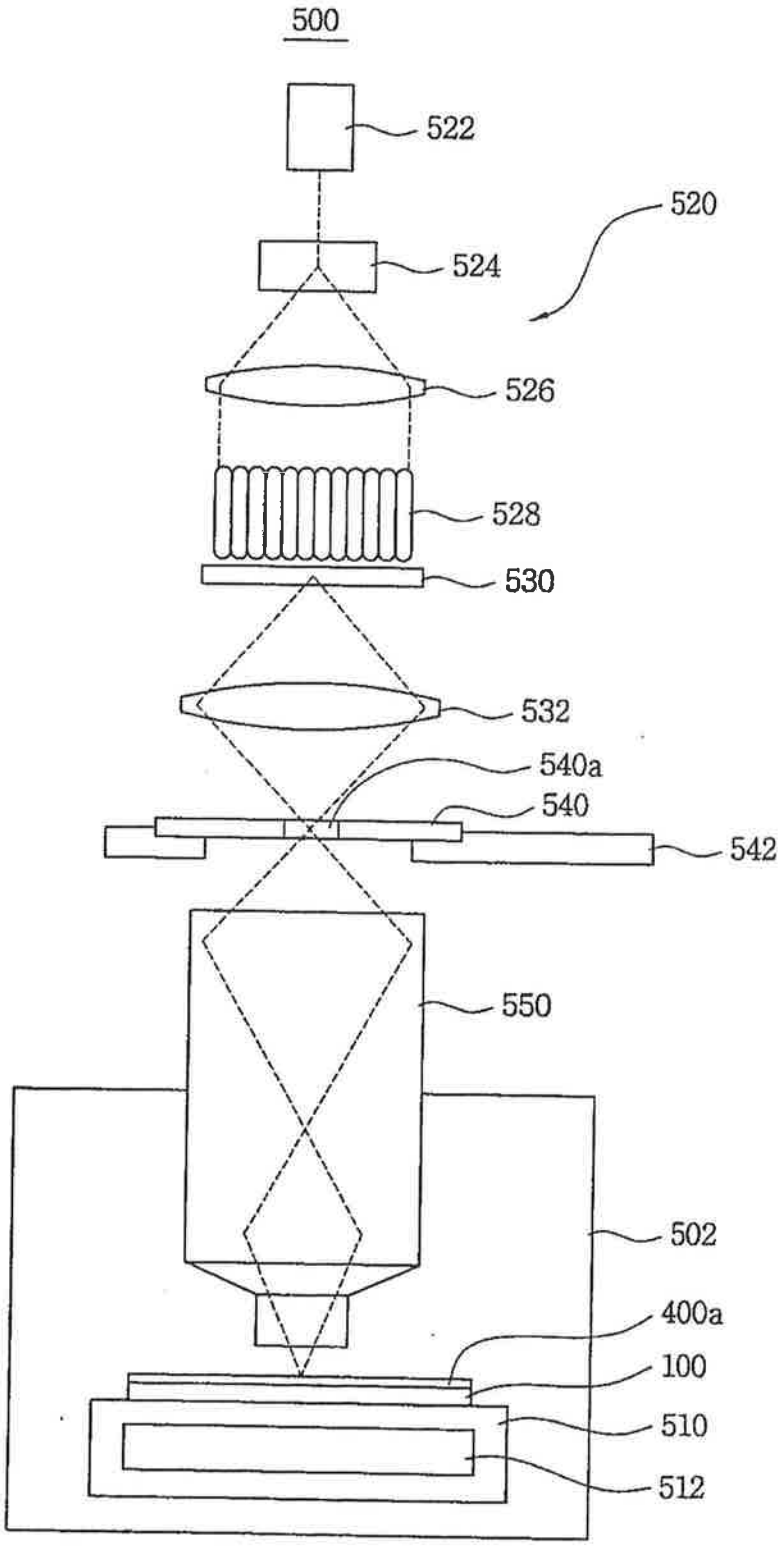

0
-500
-1000
-1500
-2000
-2500
Stress (MPa)
UV Radiation
After Deposition
450 ℃
500 ℃

FIG. 16


500
522
520
524
526
528
530
532
540a
540
542
550
502
400a
100
510
512