| Top Si thickness after anneal [Å] | Anneal time [min] | Max rate of BOX dissolution [Å/sec] | Dit $x10^{11}$ [$cm^{-2}$ $eV^{-1}$] | Dit control $x10^{11}$ [$cm^{-2}$ $eV^{-1}$] | μe [$cm^2$/Vs] | μe control [$cm^2$/Vs] | μh [$cm^2$/Vs] | μh control [$cm^2$/Vs] |
|---|---|---|---|---|---|---|---|---|
| 2300 | 5 | 0.01 | 2 | 2.5 | 692 | 750 | 202 | 200 |
| 2250 | 40 | 0.01 | 2.4 | 2.5 | 661 | 750 | 195 | 200 |
| 550 | 40 | 0.06 | 8.3 | 6 | 414 | 520 | 116 | 140 |
| 400 | 60 | 0.08 | 35 | 8.5 | 170 | 400 | 55 | 110 |
| 310 | 6 | 0.1 | - | 10 | - | 350 | - | 90 |

FIG. 1

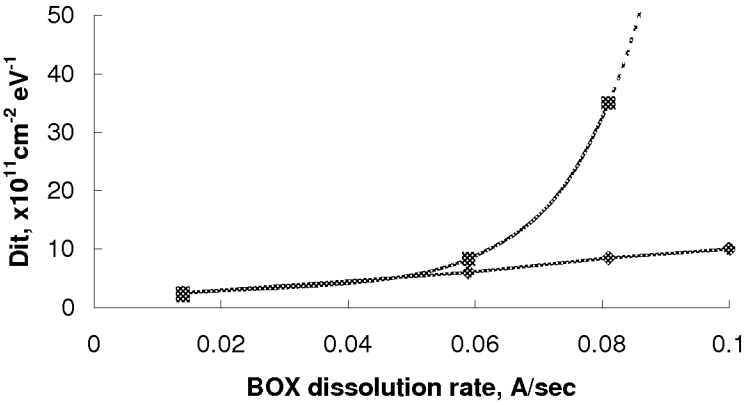



FIG. 2

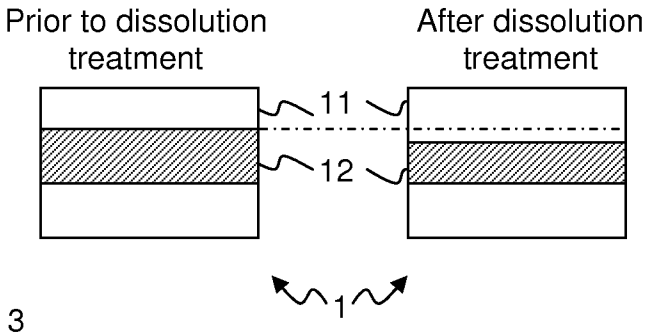

Prior to dissolution treatment
After dissolution treatment
11
12
1

FIG. 3

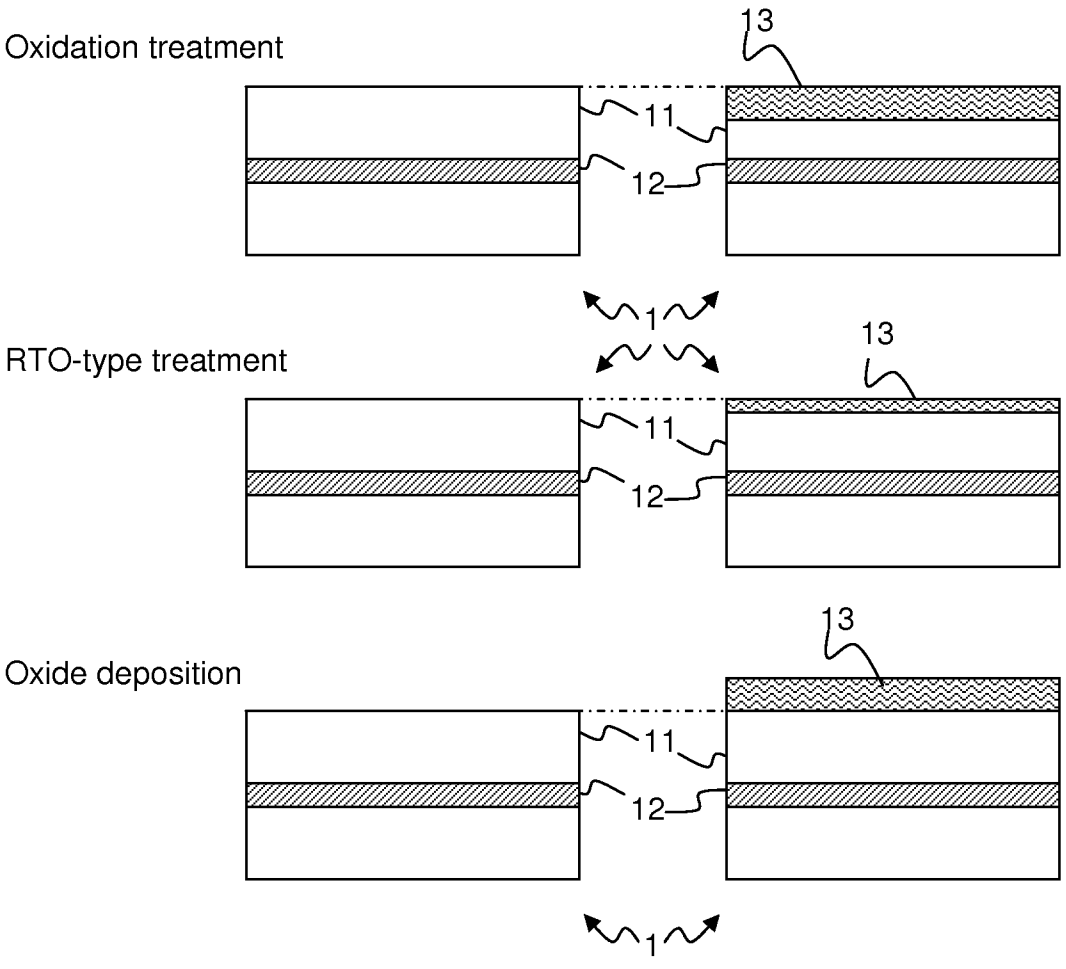

Oxidation treatment
13
11
12
1
RTO-type treatment
13
11
12
Oxide deposition
13
11
12
1

FIG. 4