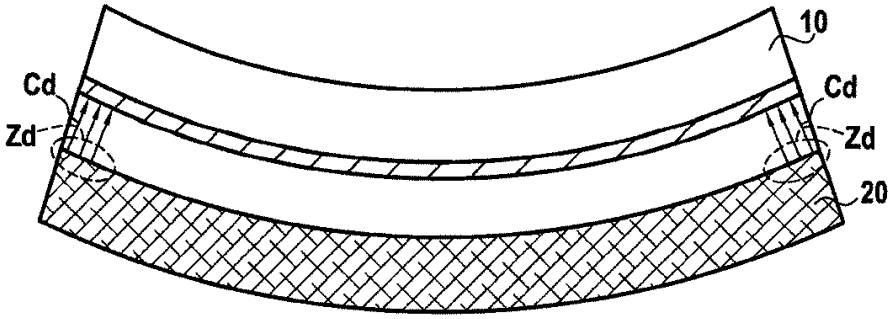


FIG.1

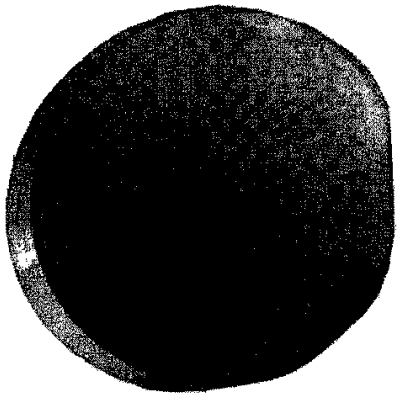


FIG.2

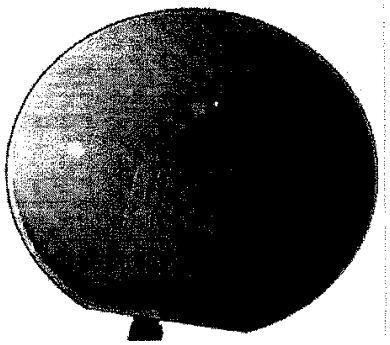


FIG.3

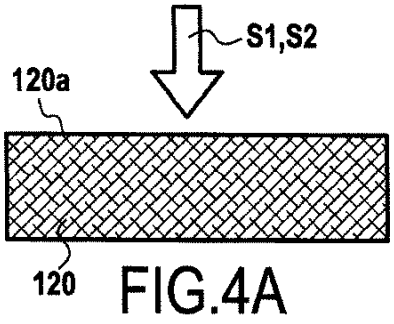


FIG.4A

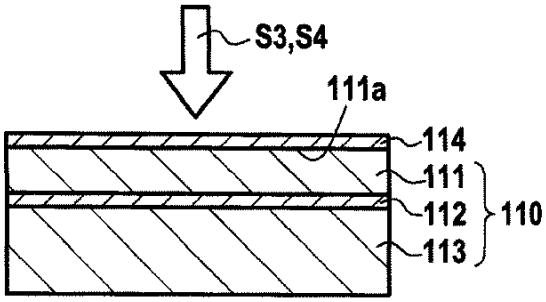


FIG.4B

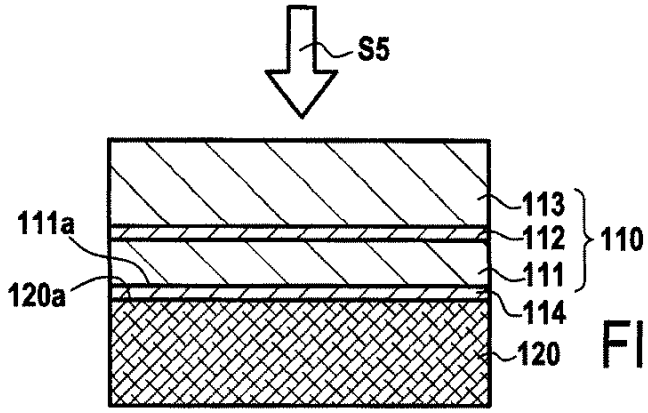


FIG.4C

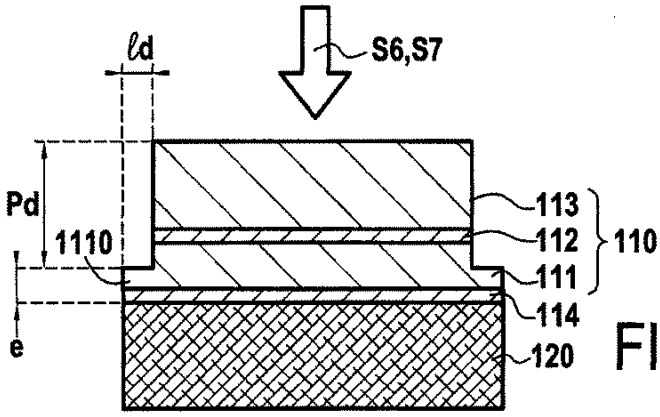


FIG.4D

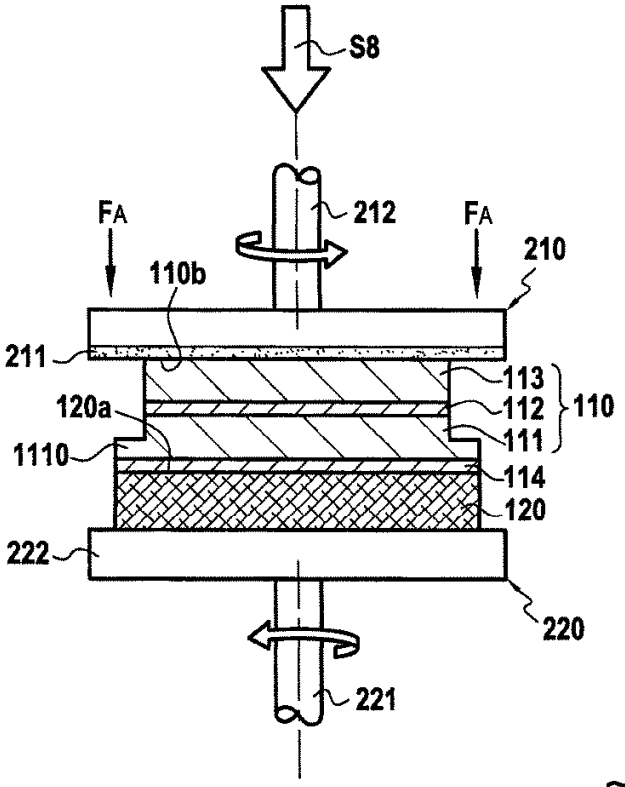


FIG.4E

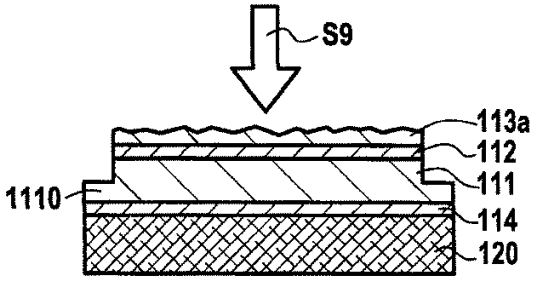


FIG.4F

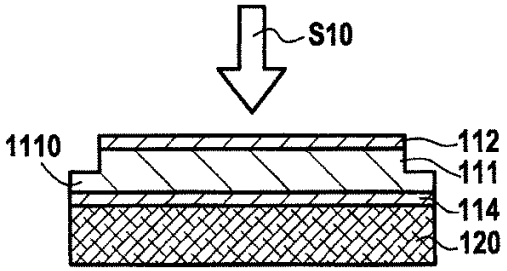


FIG.4G

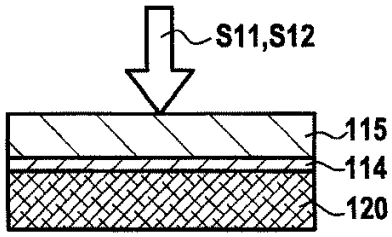


FIG.4H

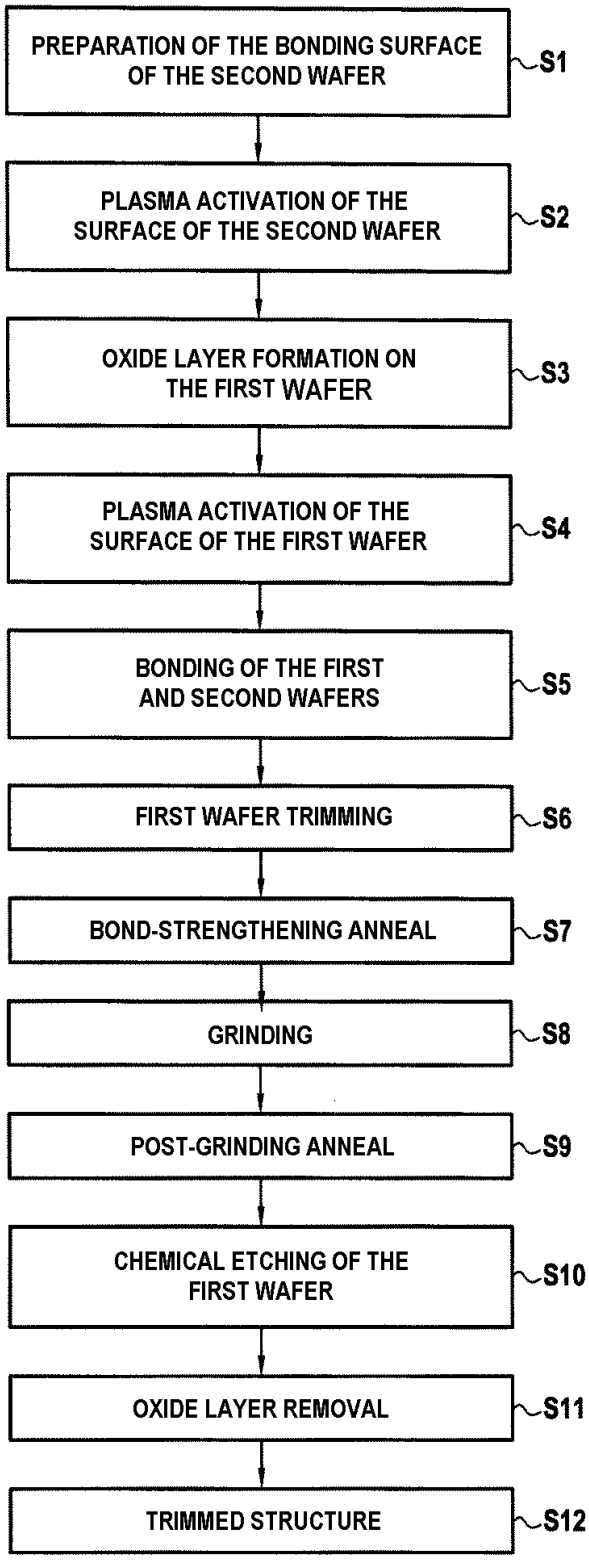

PREPARATION OF THE BONDING SURFACE OF THE SECOND WAFER
S1
PLASMA ACTIVATION OF THE SURFACE OF THE SECOND WAFER
S2
OXIDE LAYER FORMATION ON THE FIRST WAFER
S3
PLASMA ACTIVATION OF THE SURFACE OF THE FIRST WAFER
S4
BONDING OF THE FIRST AND SECOND WAFERS
S5
FIRST WAFER TRIMMING
S6
BOND-STRENGTHENING ANNEAL
S7
GRINDING
S8
POST-GRINDING ANNEAL
S9
CHEMICAL ETCHING OF THE FIRST WAFER
S10
OXIDE LAYER REMOVAL
S11
TRIMMED STRUCTURE
S12

FIG.5

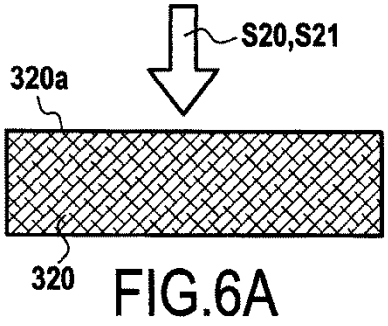


FIG.6A

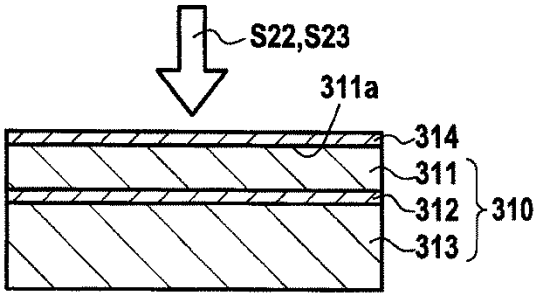


FIG.6B

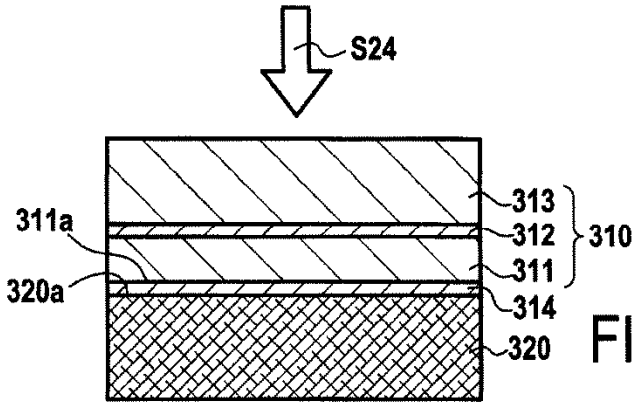


FIG.6C

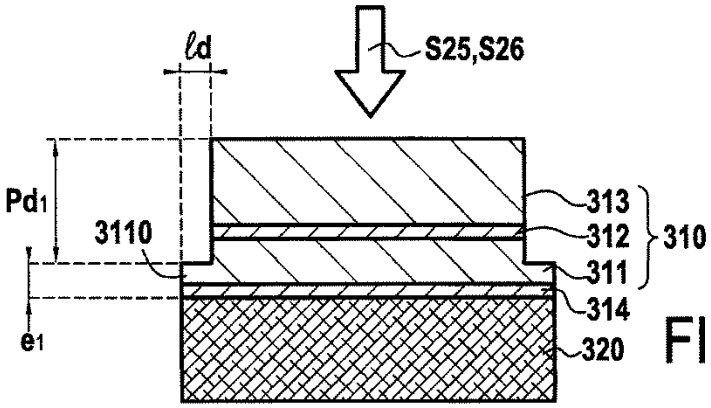


FIG.6D

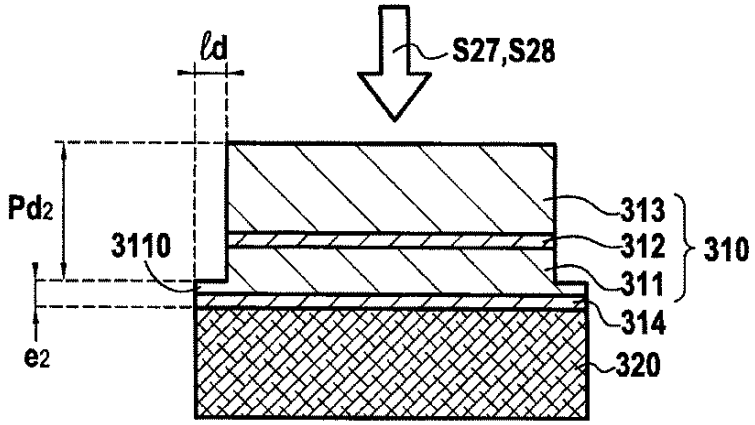

ℓd
S27,S28
Pd2
3110
313
312
311
310
314
320
e2

FIG.6E

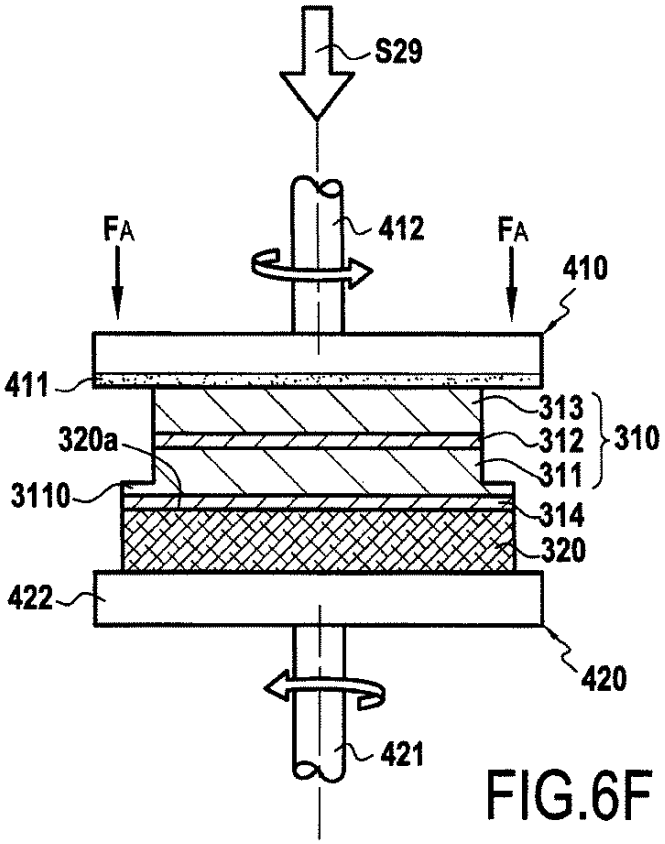

S29
FA
412
FA
410
411
313
320a
312
310
311
3110
314
320
422
420
421

FIG.6F

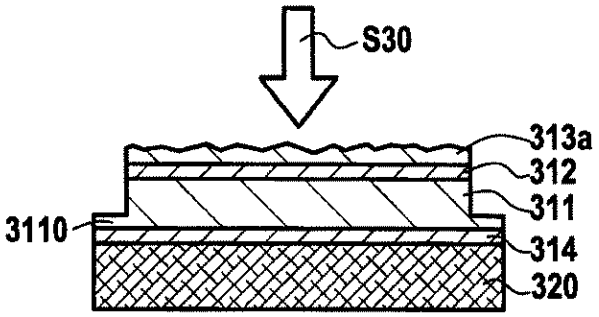


FIG.6G

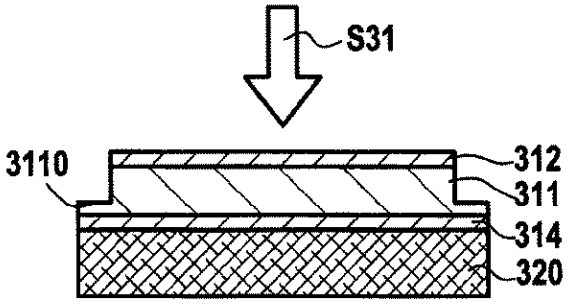


FIG.6H

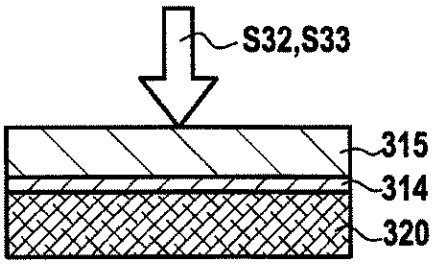


FIG.6I

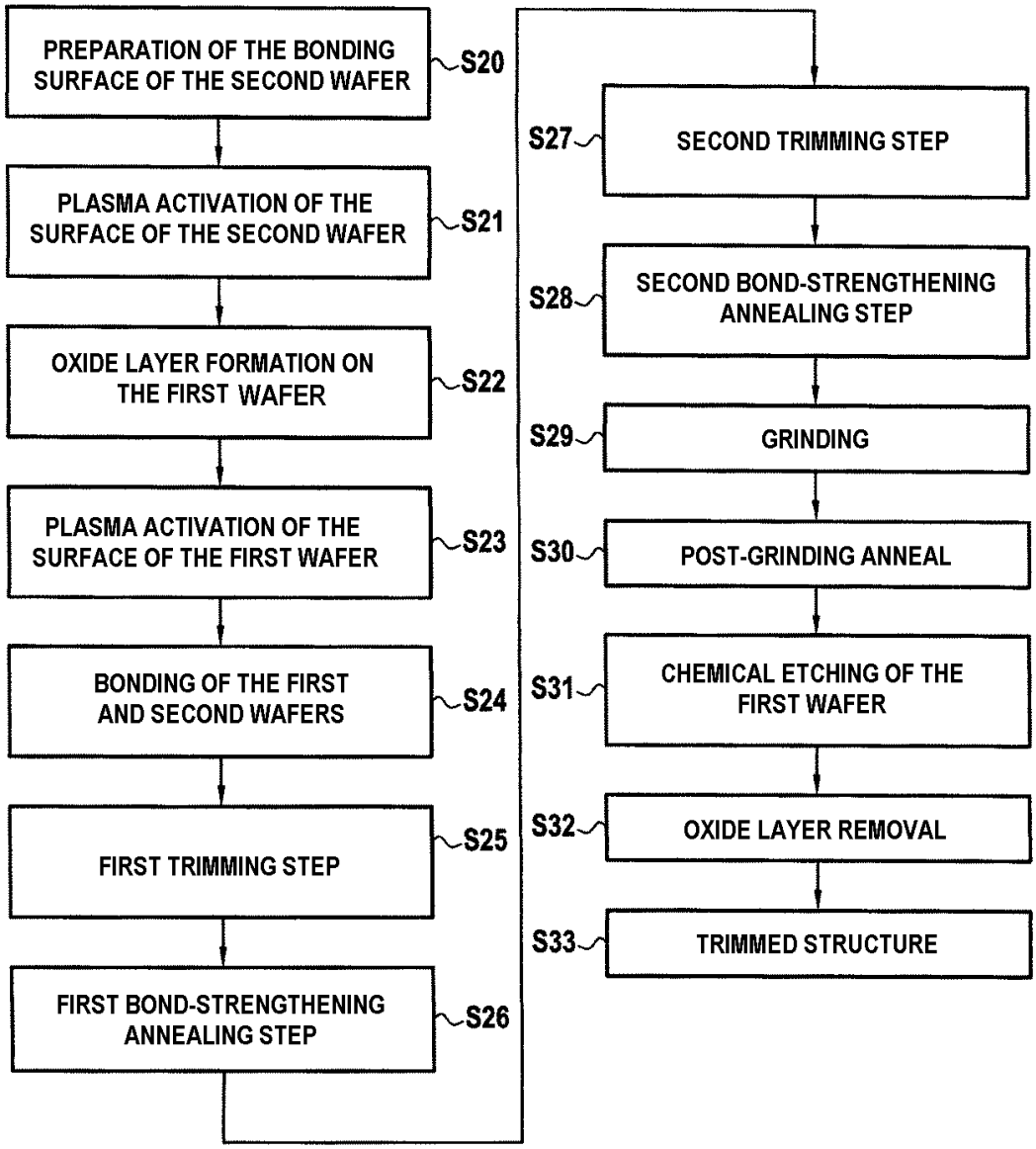

PREPARATION OF THE BONDING SURFACE OF THE SECOND WAFER
S20
PLASMA ACTIVATION OF THE SURFACE OF THE SECOND WAFER
S21
OXIDE LAYER FORMATION ON THE FIRST WAFER
S22
PLASMA ACTIVATION OF THE SURFACE OF THE FIRST WAFER
S23
BONDING OF THE FIRST AND SECOND WAFERS
S24
FIRST TRIMMING STEP
S25
FIRST BOND-STRENGTHENING ANNEALING STEP
S26
S27
SECOND TRIMMING STEP
S28
SECOND BOND-STRENGTHENING ANNEALING STEP
S29
GRINDING
S30
POST-GRINDING ANNEAL
S31
CHEMICAL ETCHING OF THE FIRST WAFER
S32
OXIDE LAYER REMOVAL
S33
TRIMMED STRUCTURE

FIG.7