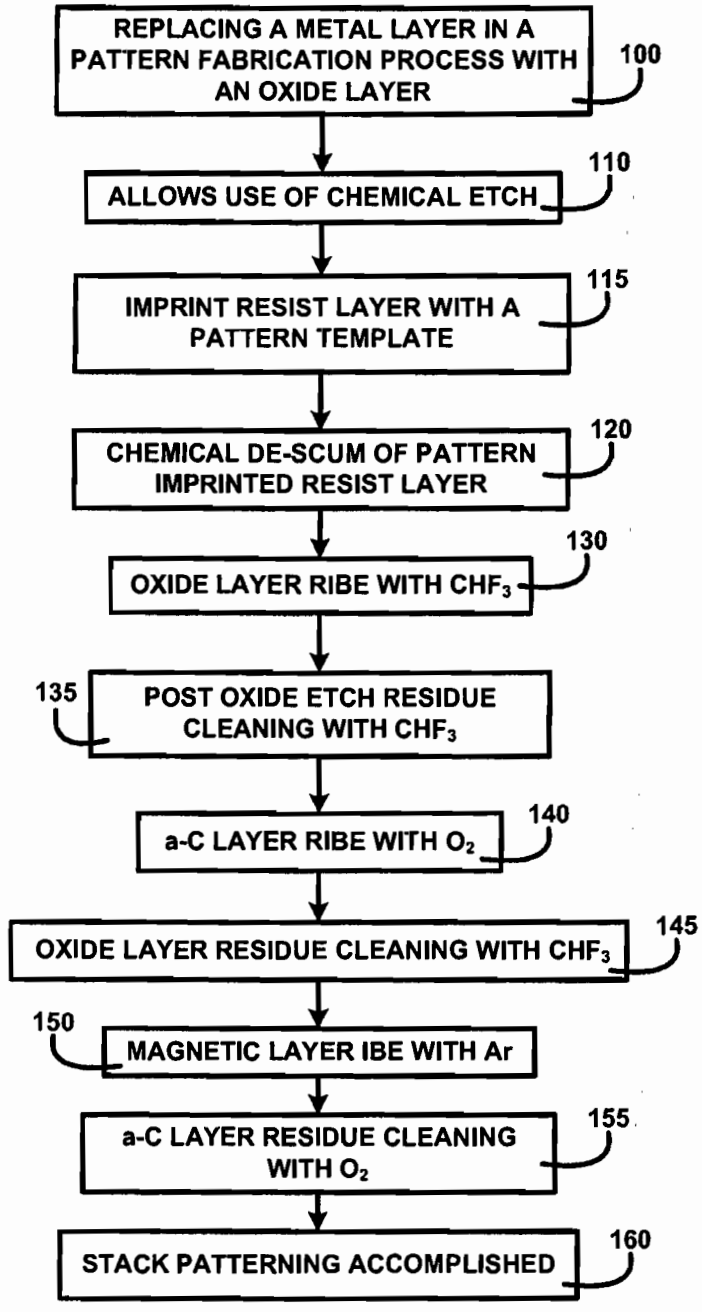

REPLACING A METAL LAYER IN A PATTERN FABRICATION PROCESS WITH AN OXIDE LAYER
100
ALLOWS USE OF CHEMICAL ETCH
110
IMPRINT RESIST LAYER WITH A PATTERN TEMPLATE
115
CHEMICAL DE-SCUM OF PATTERN IMPRINTED RESIST LAYER
120
OXIDE LAYER RIBE WITH CHF_3
130
135
POST OXIDE ETCH RESIDUE CLEANING WITH CHF_3
a-C LAYER RIBE WITH O_2
140
OXIDE LAYER RESIDUE CLEANING WITH CHF_3
145
150
MAGNETIC LAYER IBE WITH Ar
a-C LAYER RESIDUE CLEANING WITH O_2
155
STACK PATTERNING ACCOMPLISHED
160

FIG. 1

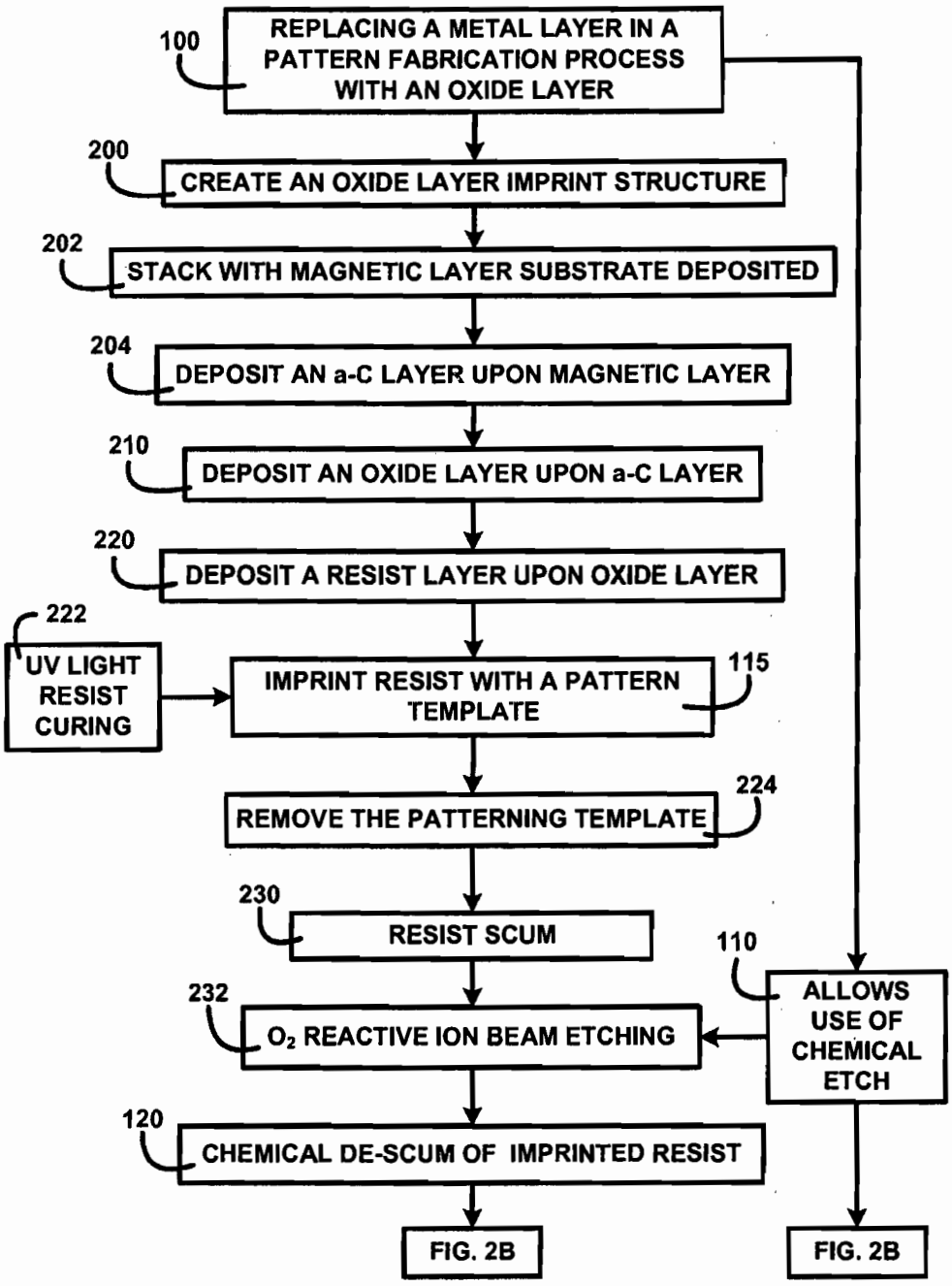

100
REPLACING A METAL LAYER IN A PATTERN FABRICATION PROCESS WITH AN OXIDE LAYER
200
CREATE AN OXIDE LAYER IMPRINT STRUCTURE
202
STACK WITH MAGNETIC LAYER SUBSTRATE DEPOSITED
204
DEPOSIT AN a-C LAYER UPON MAGNETIC LAYER
210
DEPOSIT AN OXIDE LAYER UPON a-C LAYER
220
DEPOSIT A RESIST LAYER UPON OXIDE LAYER
222
UV LIGHT RESIST CURING
IMPRINT RESIST WITH A PATTERN TEMPLATE
115
REMOVE THE PATTERNING TEMPLATE
224
230
RESIST SCUM
110
232
O_2 REACTIVE ION BEAM ETCHING
ALLOWS USE OF CHEMICAL ETCH
120
CHEMICAL DE-SCUM OF IMPRINTED RESIST
FIG. 2B
FIG. 2B

FIG. 2A

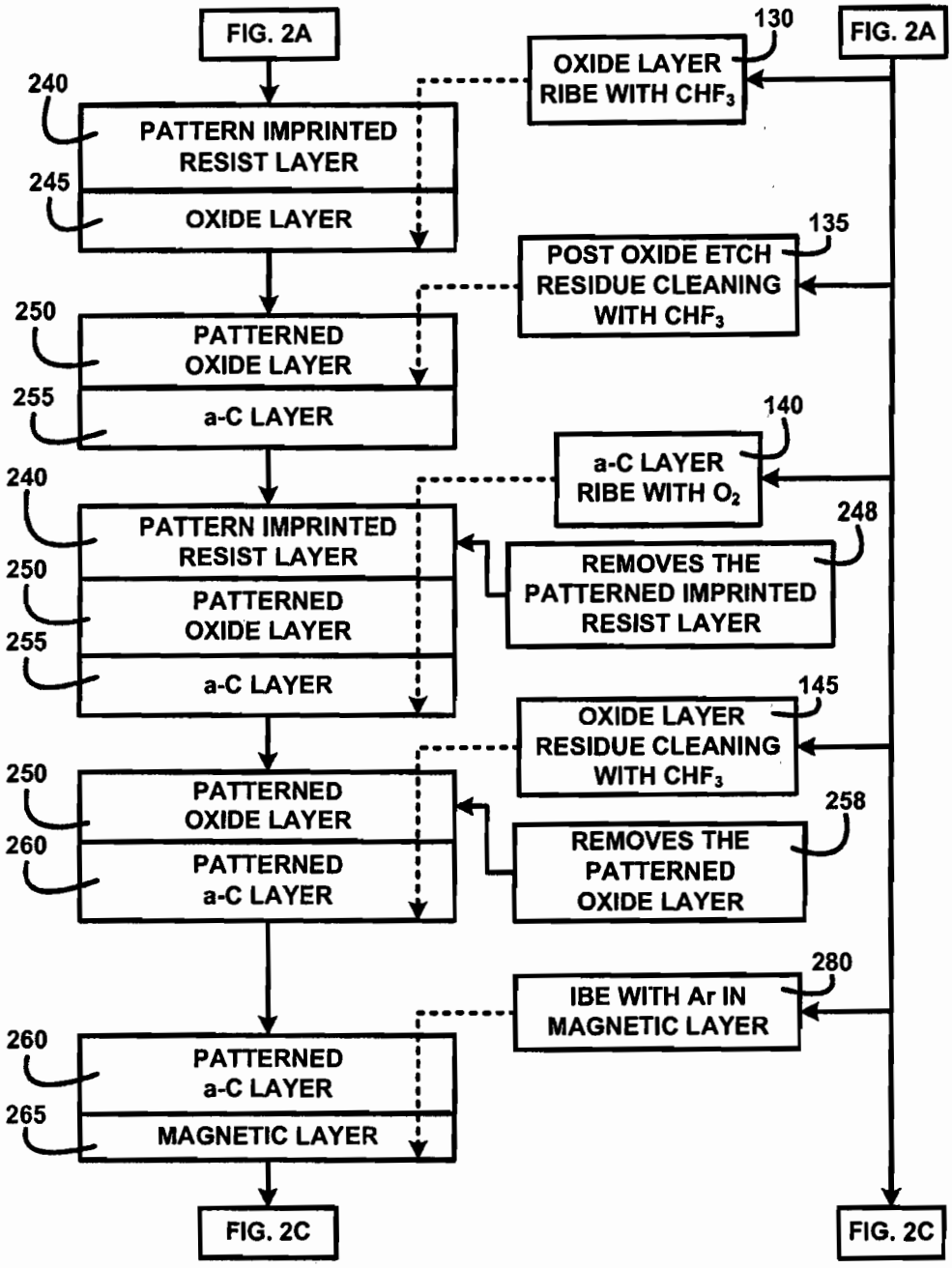

FIG. 2A
240
PATTERN IMPRINTED RESIST LAYER
245
OXIDE LAYER
130
OXIDE LAYER RIBE WITH CHF_3
FIG. 2A
135
POST OXIDE ETCH RESIDUE CLEANING WITH CHF_3
250
PATTERNED OXIDE LAYER
255
a-C LAYER
140
a-C LAYER RIBE WITH O_2
240
PATTERN IMPRINTED RESIST LAYER
248
REMOVES THE PATTERNED IMPRINTED RESIST LAYER
250
PATTERNED OXIDE LAYER
255
a-C LAYER
145
OXIDE LAYER RESIDUE CLEANING WITH CHF_3
250
PATTERNED OXIDE LAYER
258
REMOVES THE PATTERNED OXIDE LAYER
260
PATTERNED a-C LAYER
280
IBE WITH Ar IN MAGNETIC LAYER
260
PATTERNED a-C LAYER
265
MAGNETIC LAYER
FIG. 2C
FIG. 2C

FIG. 2B

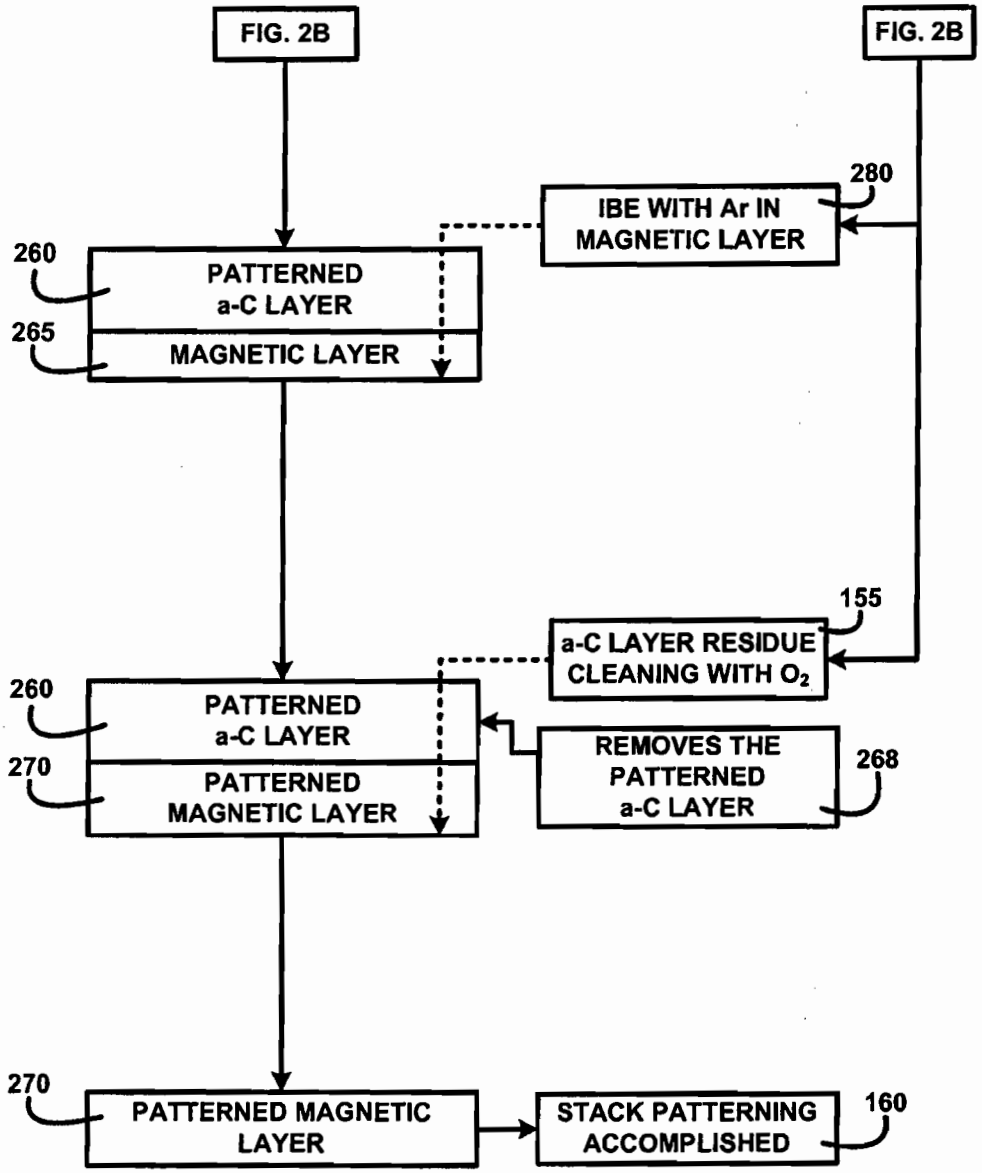

FIG. 2B
FIG. 2B
280
IBE WITH Ar IN MAGNETIC LAYER
260
PATTERNED a-C LAYER
265
MAGNETIC LAYER
155
a-C LAYER RESIDUE CLEANING WITH O_2
260
PATTERNED a-C LAYER
270
PATTERNED MAGNETIC LAYER
REMOVES THE PATTERNED a-C LAYER
268
270
PATTERNED MAGNETIC LAYER
STACK PATTERNING ACCOMPLISHED
160

FIG. 2C

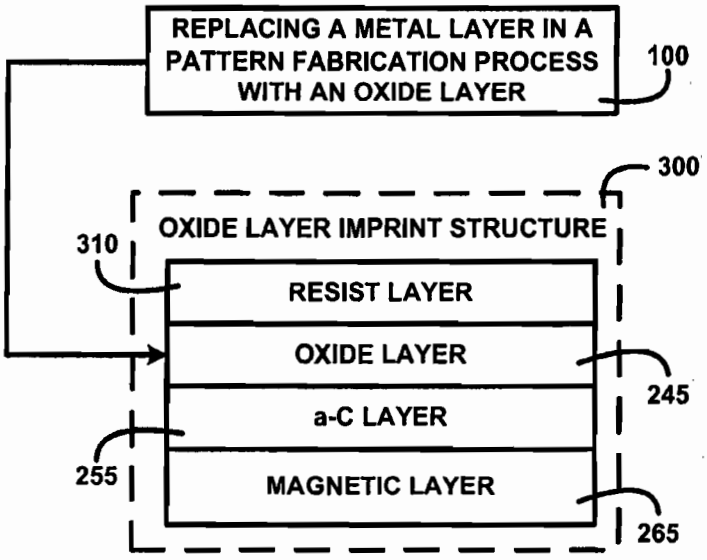

REPLACING A METAL LAYER IN A PATTERN FABRICATION PROCESS WITH AN OXIDE LAYER
100
300
OXIDE LAYER IMPRINT STRUCTURE
310
RESIST LAYER
OXIDE LAYER
245
a-C LAYER
255
MAGNETIC LAYER
265

FIG. 3A

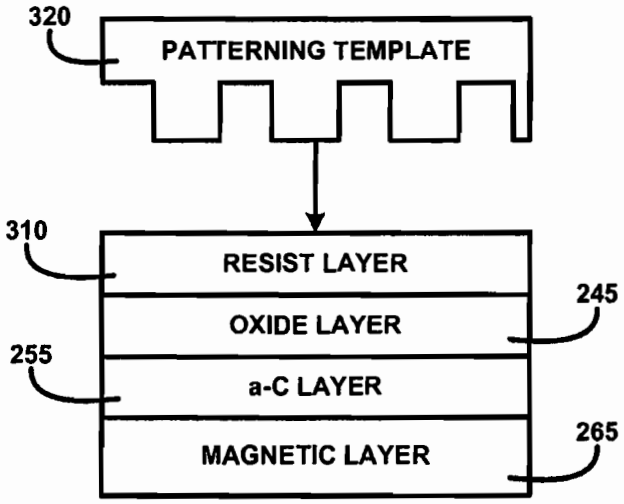

320
PATTERNING TEMPLATE
310
RESIST LAYER
245
OXIDE LAYER
255
a-C LAYER
265
MAGNETIC LAYER

FIG. 3B

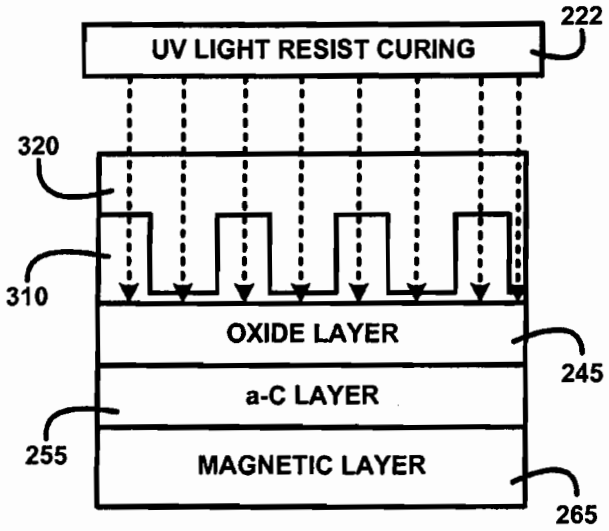

UV LIGHT RESIST CURING
222
320
310
OXIDE LAYER
245
a-C LAYER
255
MAGNETIC LAYER
265

FIG. 4A

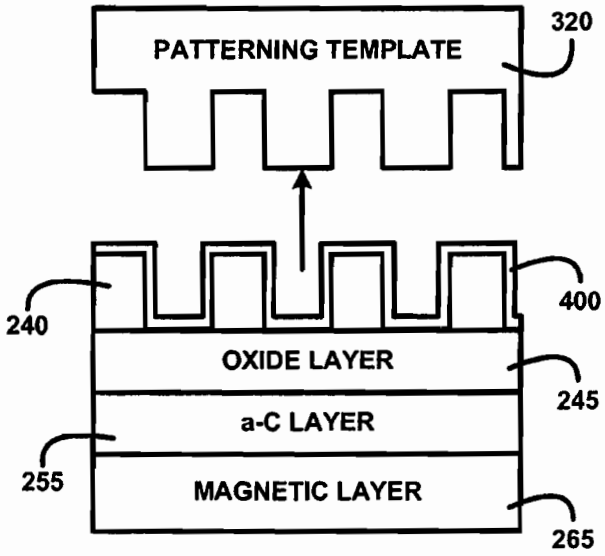

PATTERNING TEMPLATE
320
400
240
OXIDE LAYER
245
a-C LAYER
255
MAGNETIC LAYER
265

FIG. 4B

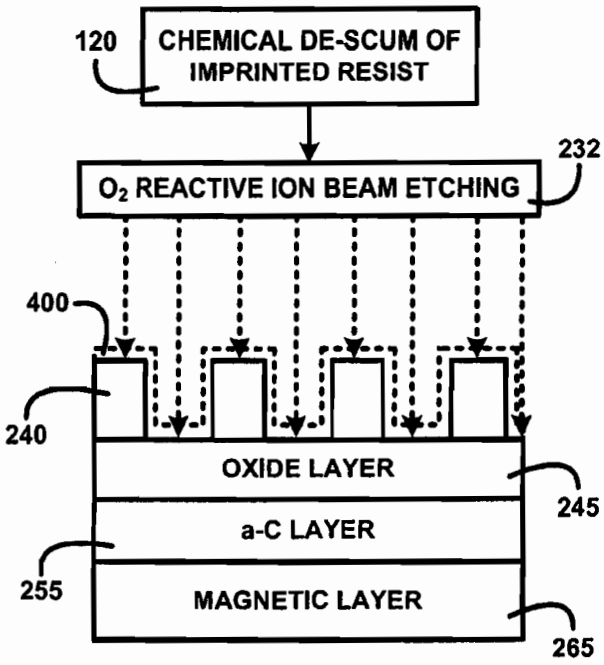

120
CHEMICAL DE-SCUM OF IMPRINTED RESIST
232
O_2 REACTIVE ION BEAM ETCHING
400
240
OXIDE LAYER
245
a-C LAYER
255
MAGNETIC LAYER
265

FIG. 5A

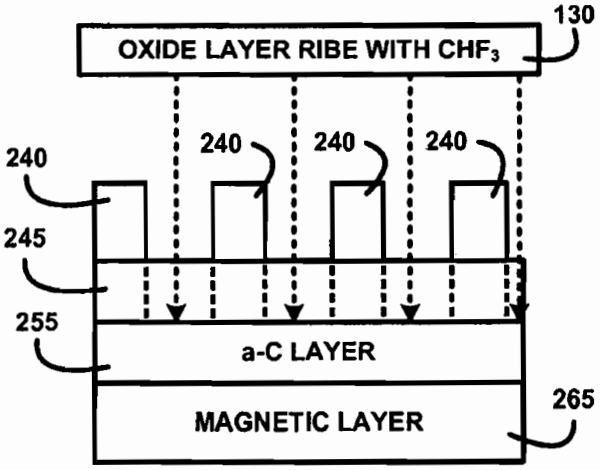

130
OXIDE LAYER RIBE WITH CHF_3
240
240
240
240
245
255
a-C LAYER
MAGNETIC LAYER
265

FIG. 5B

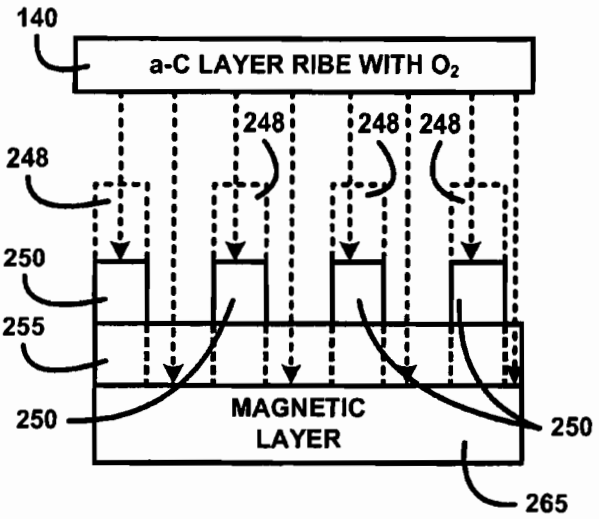

140
a-C LAYER RIBE WITH O_2
248
248
248
248
250
255
250
MAGNETIC LAYER
250
265

FIG. 6A

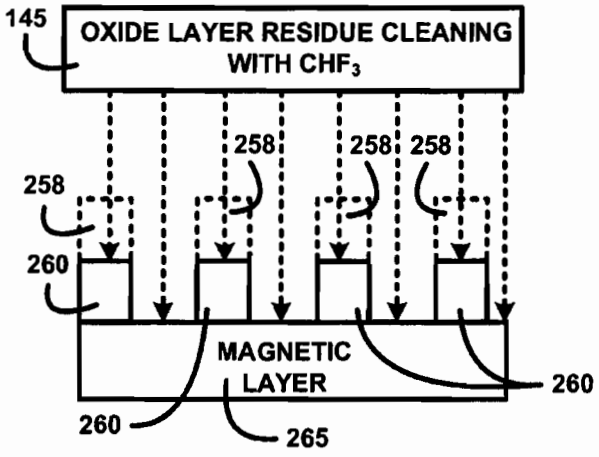

145
OXIDE LAYER RESIDUE CLEANING WITH CHF_3
258
258
258
258
260
MAGNETIC LAYER
260
260
265

FIG. 6B

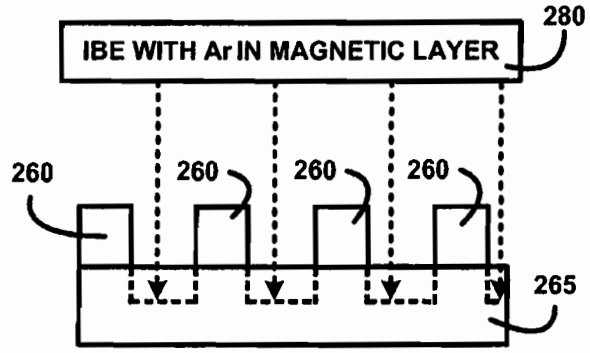


FIG. 7A

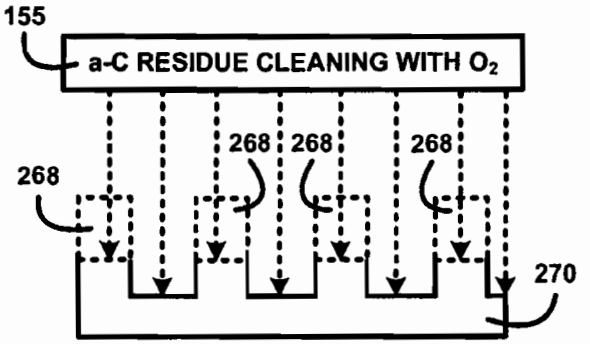


FIG. 7B

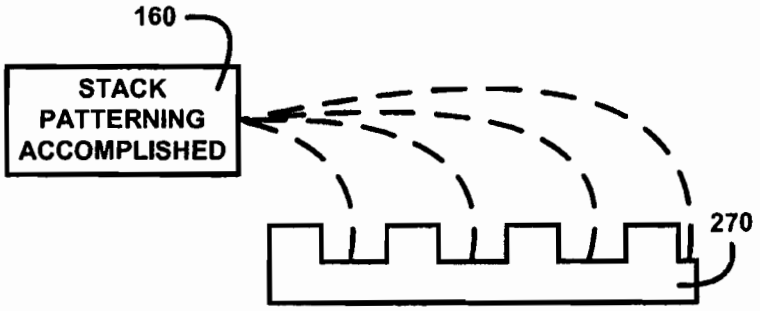


FIG. 7C