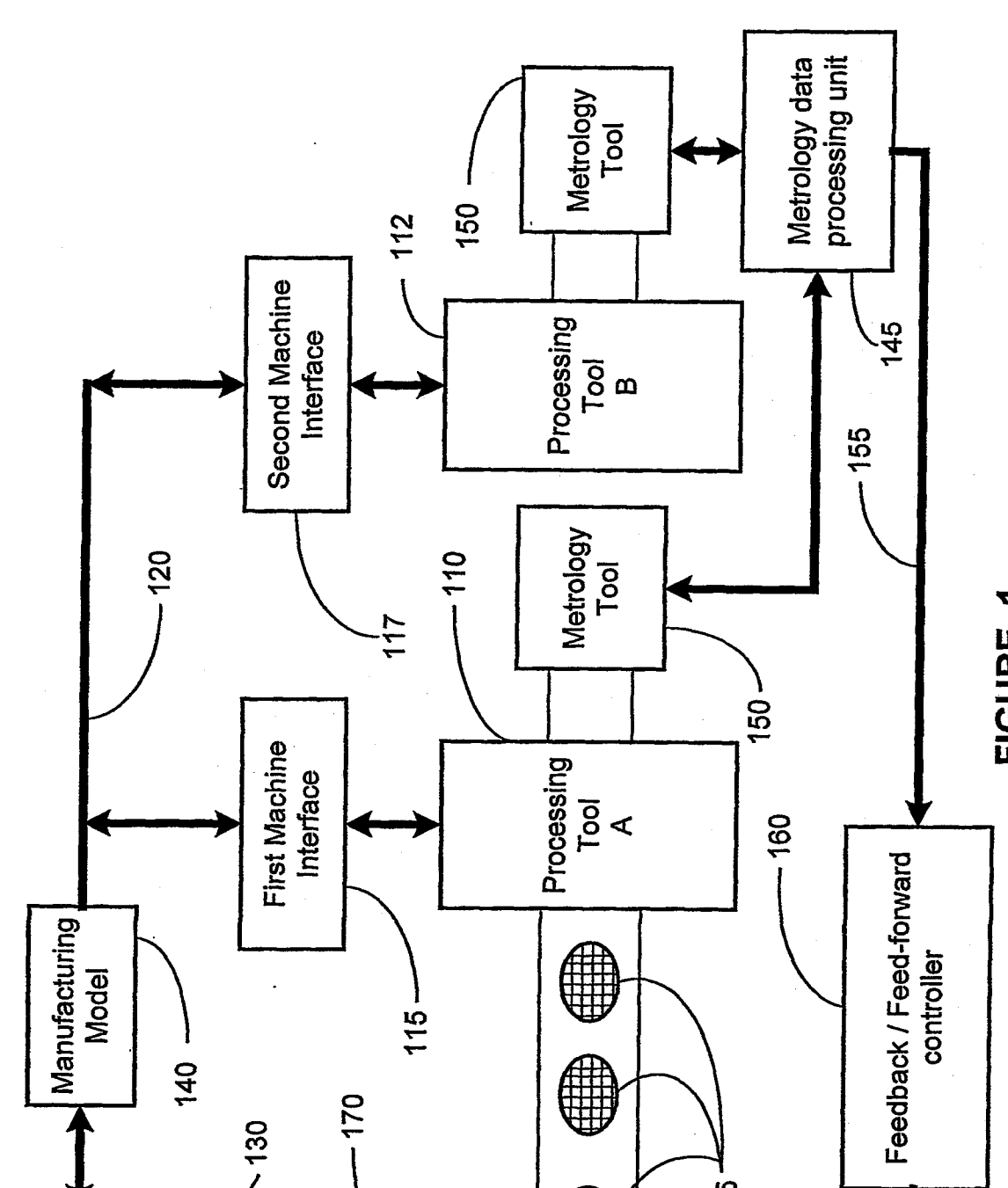

Metrology data processing unit
Metrology Tool
150
112
Second Machine Interface
Processing Tool B
145
155
120
117
110
Metrology Tool
150
First Machine Interface
Processing Tool A
160
Manufacturing Model
140
115
105
Feedback / Feed-forward controller
130
170

FIGURE 1

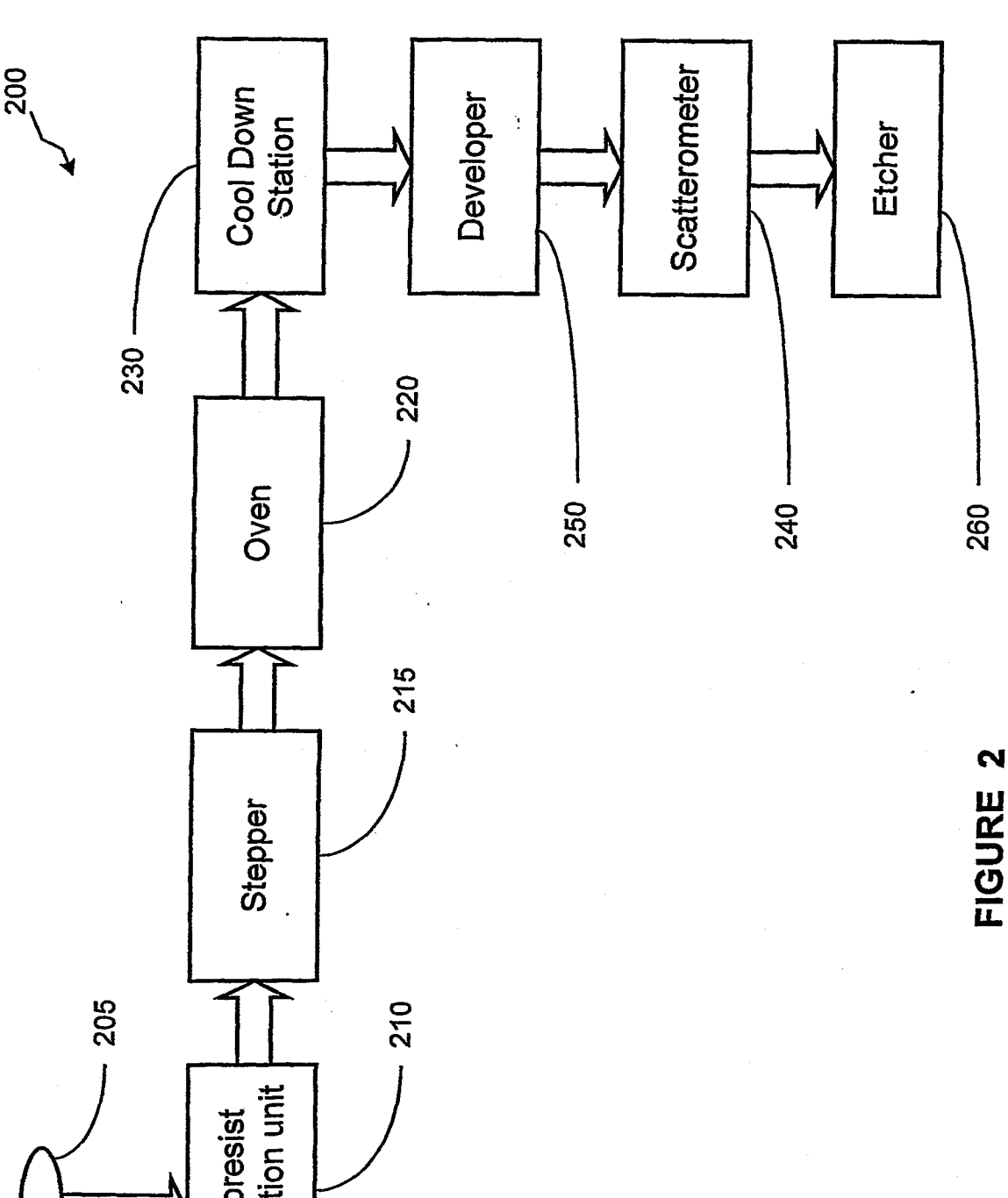

200
Photoresist deposition unit
Stepper
Oven
Cool Down Station
Developer
Scatterometer
Etcher
205
210
215
220
230
250
240
260

FIGURE 2

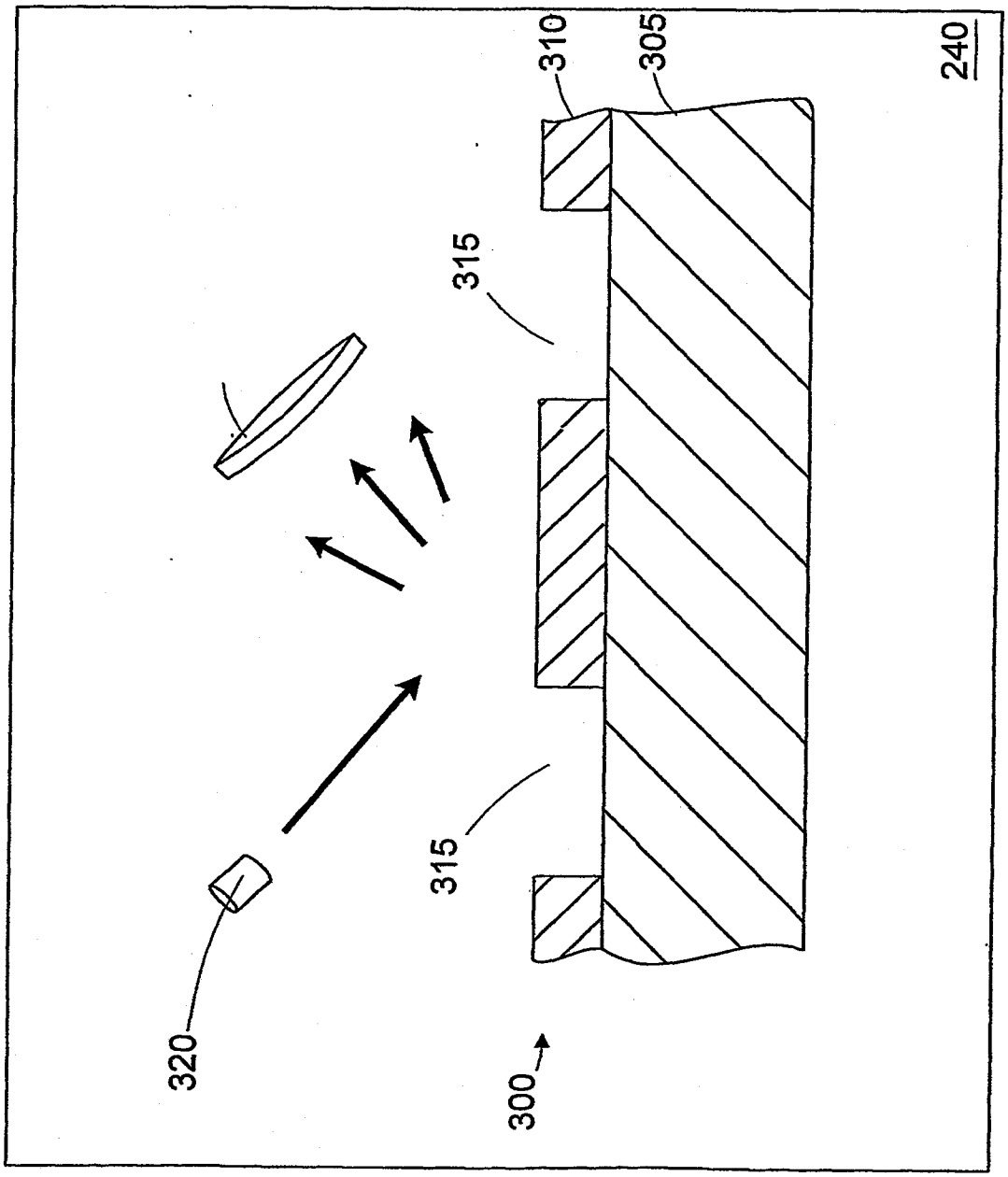


FIGURE 3

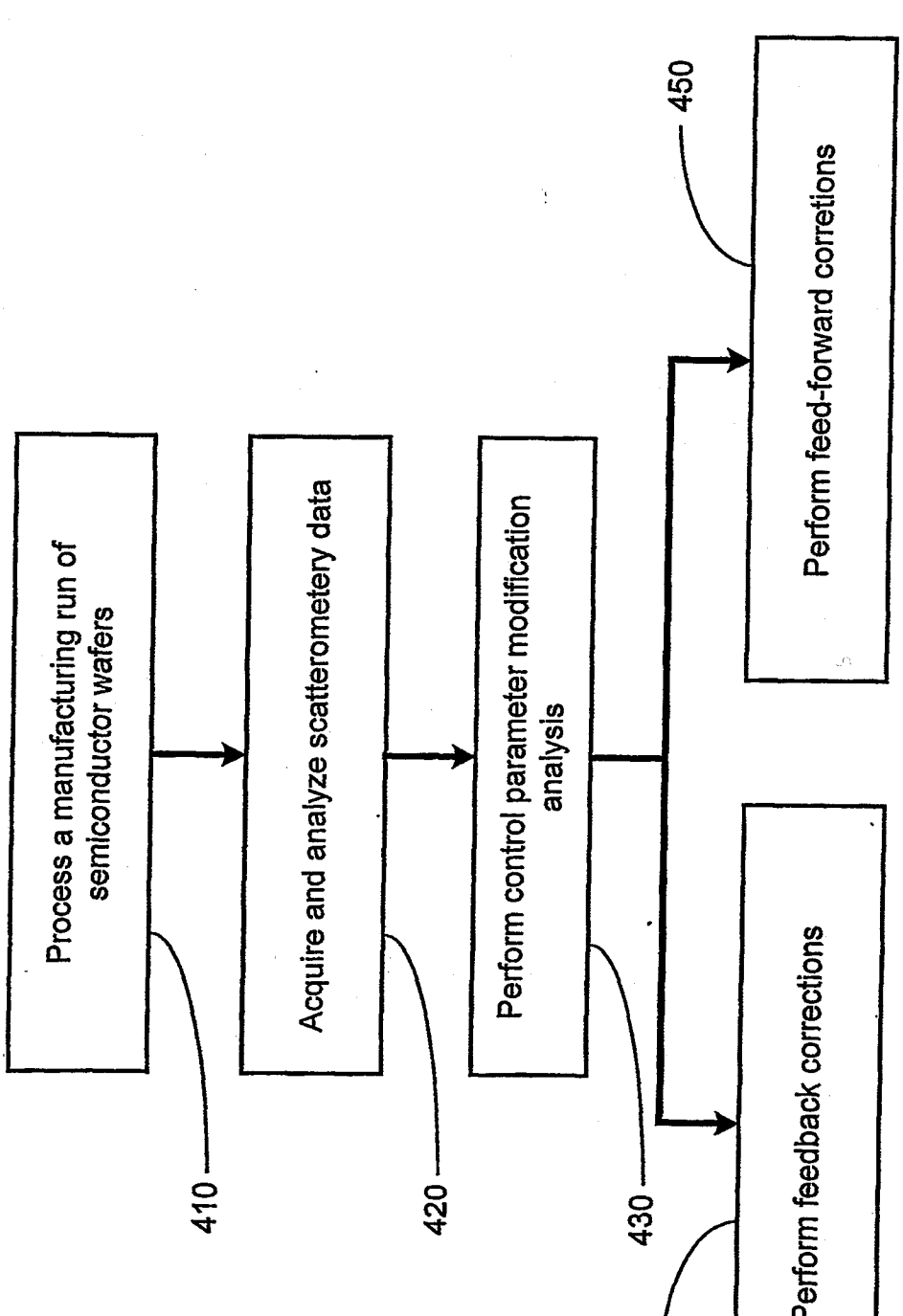

Process a manufacturing run of semiconductor wafers
Acquire and analyze scatterometery data
Perform control parameter modification analysis
Perform feed-forward corretions
Perform feedback corrections
410
420
430
440
450

FIGURE 4

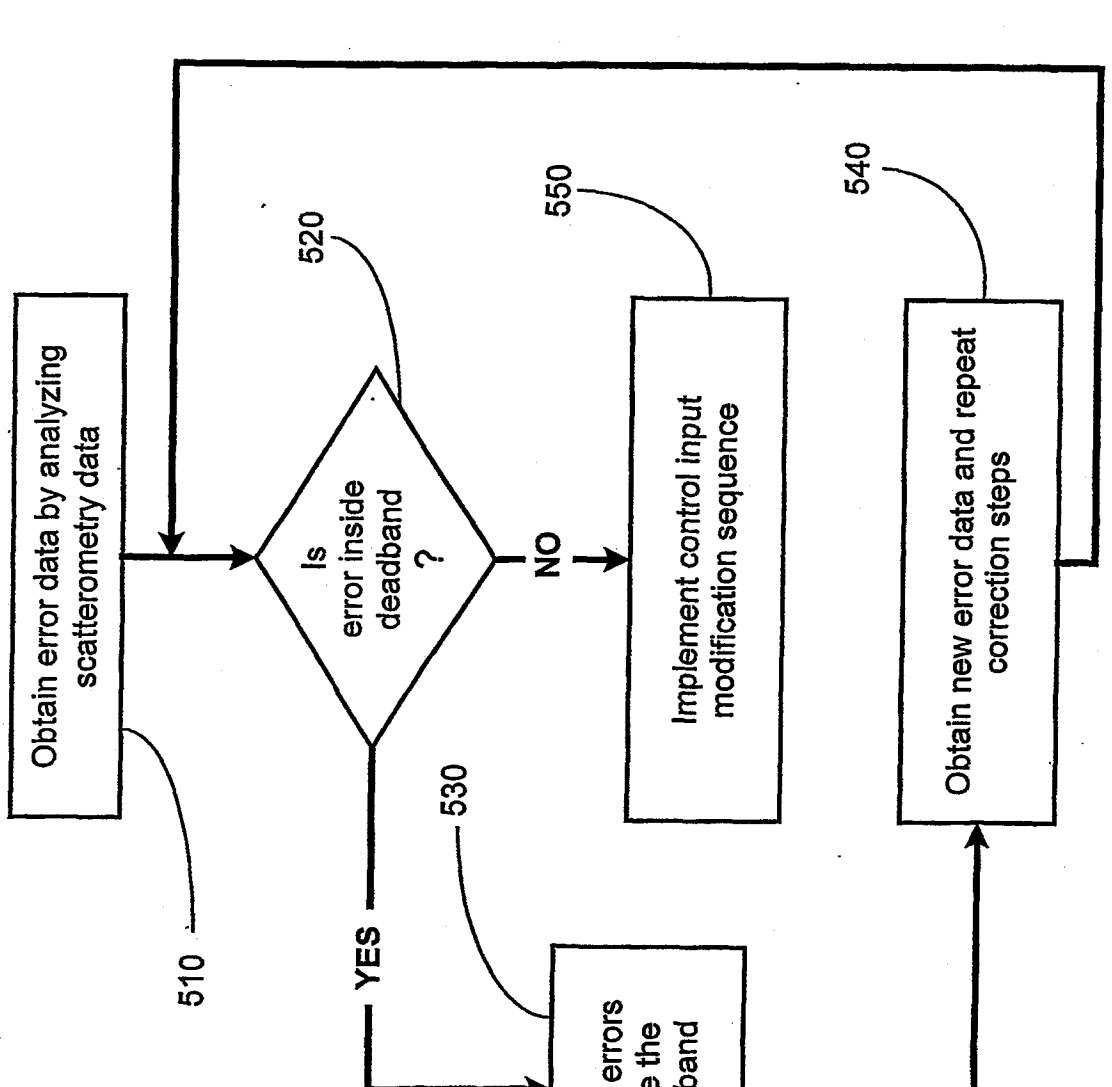

Obtain error data by analyzing scatterometry data
510
Is error inside deadband ?
520
NO
YES
Implement control input modification sequence
550
Ignore errors inside the deadband
530
Obtain new error data and repeat correction steps
540

FIGURE 5