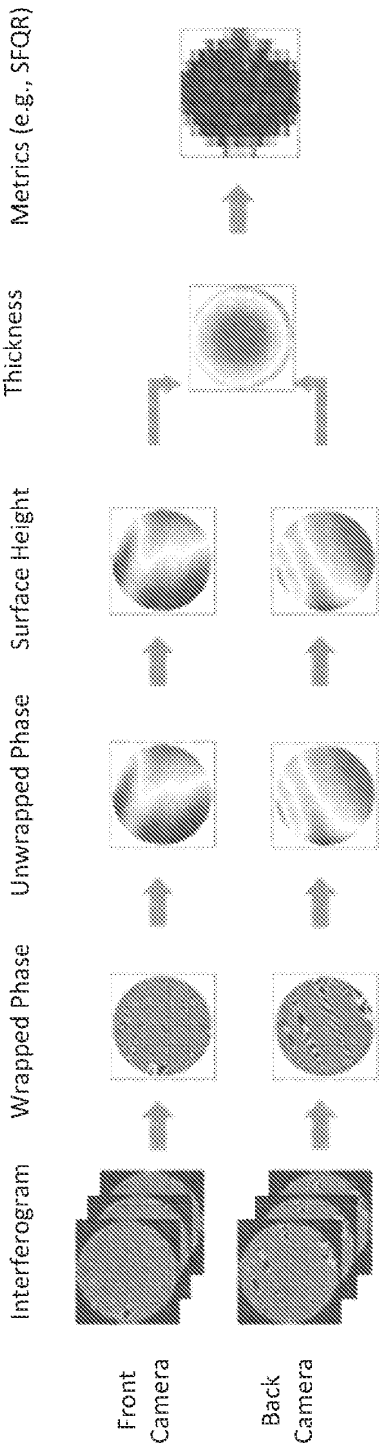


FIG. 1
(PRIOR ART)

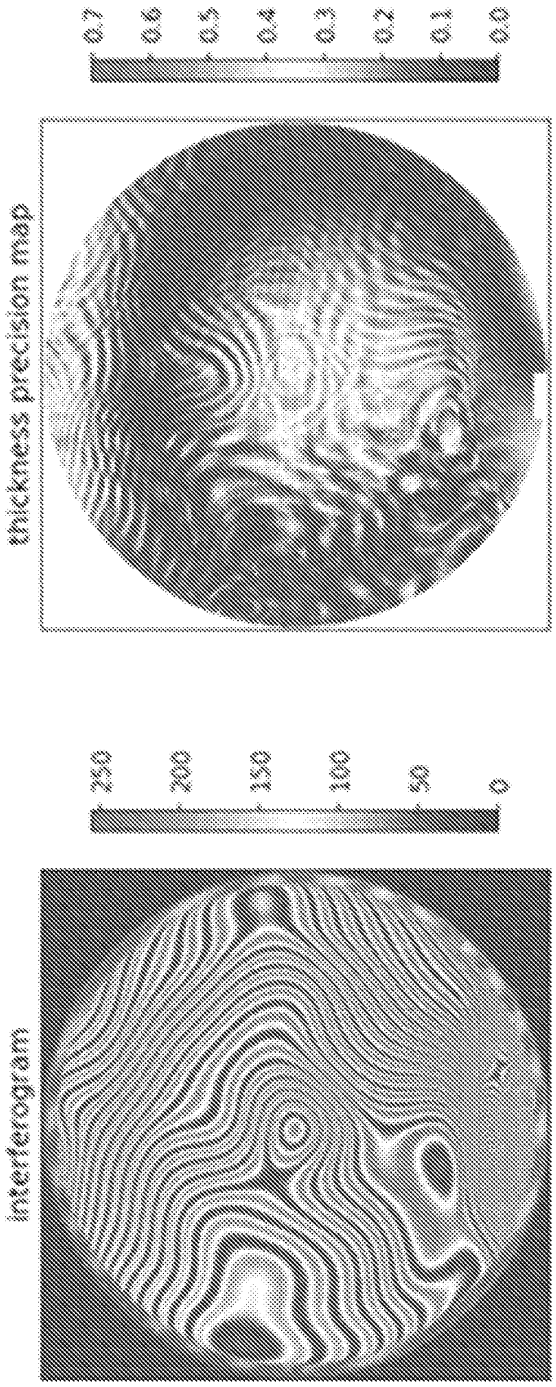


FIG. 2
(PRIOR ART)

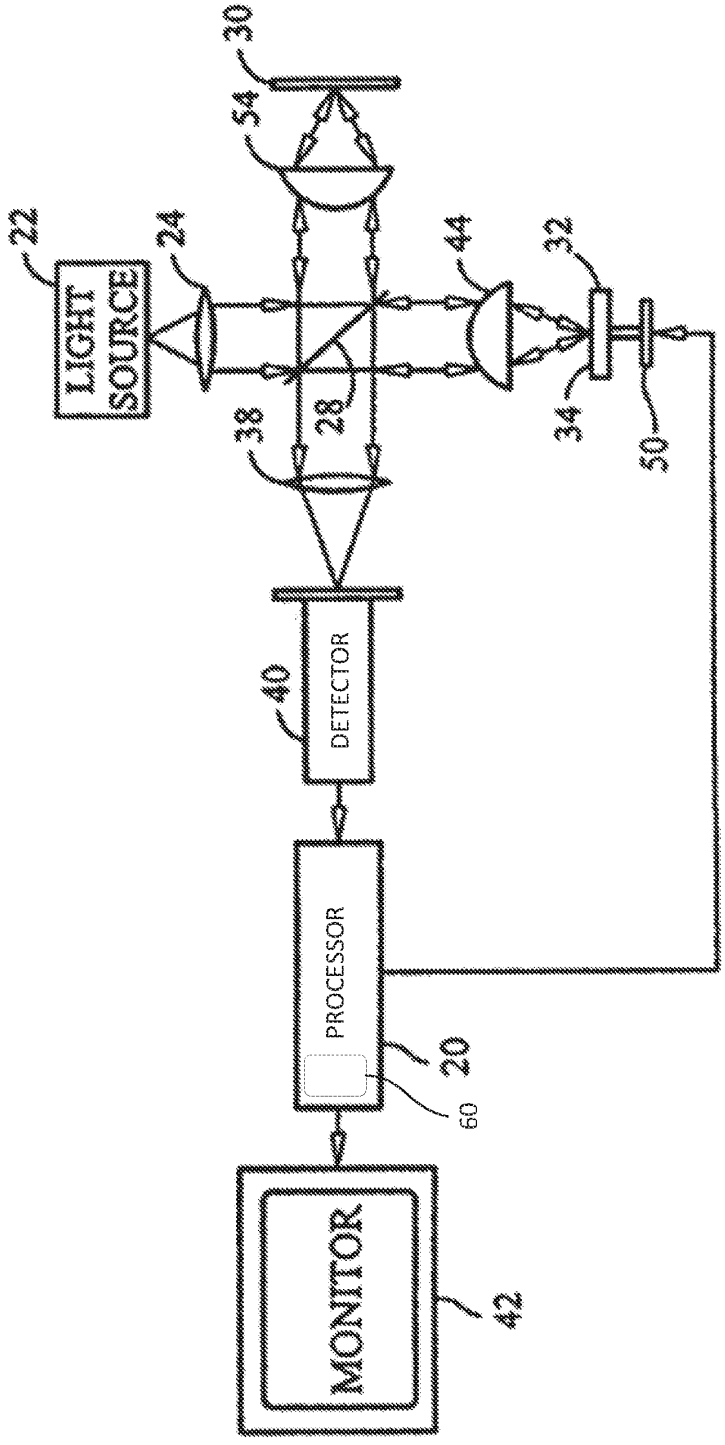

30
54
22
LIGHT SOURCE
24
44
32
38
28
34
50
40
DETECTOR
PROCESSOR
20
60
MONITOR
42

FIG. 3

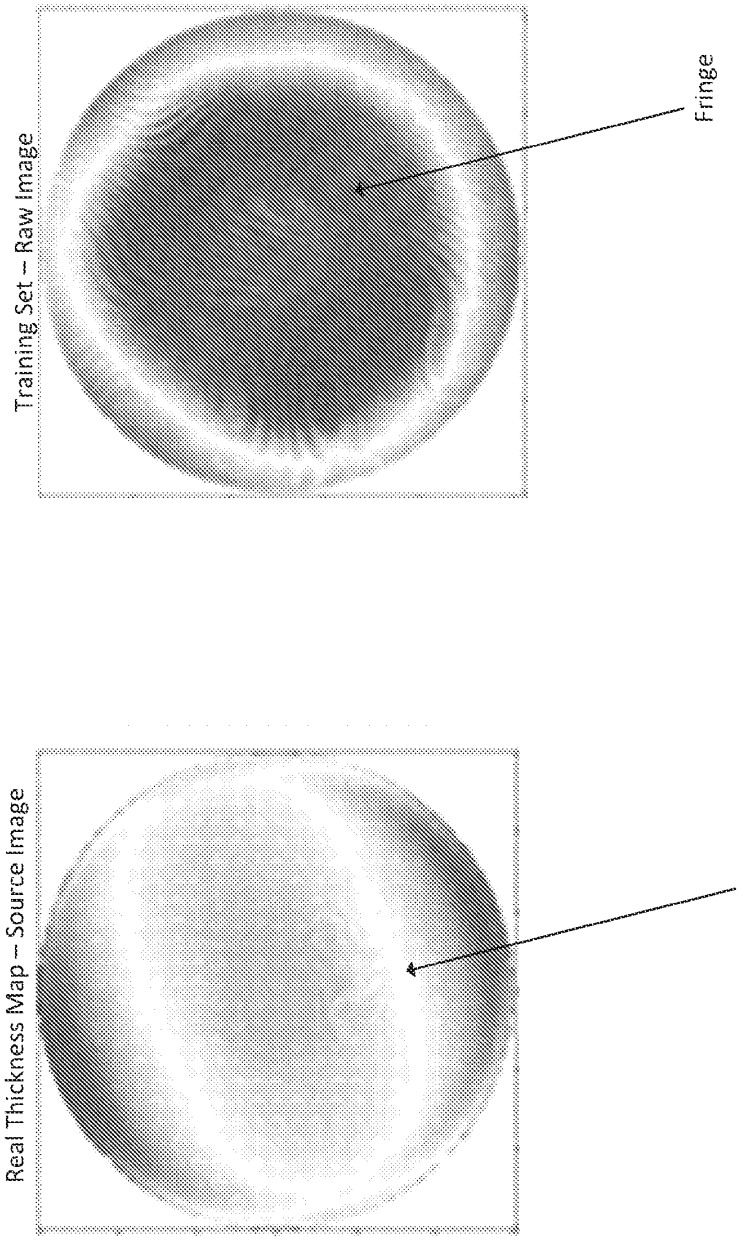

Training Set – Raw Image
Fringe
Real Thickness Map – Source Image
Fringe

FIG. 4

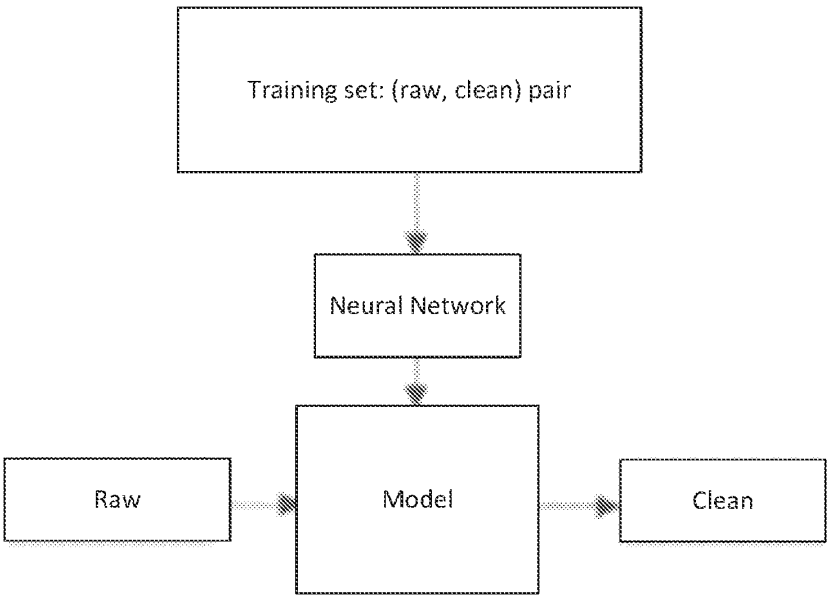


FIG. 5

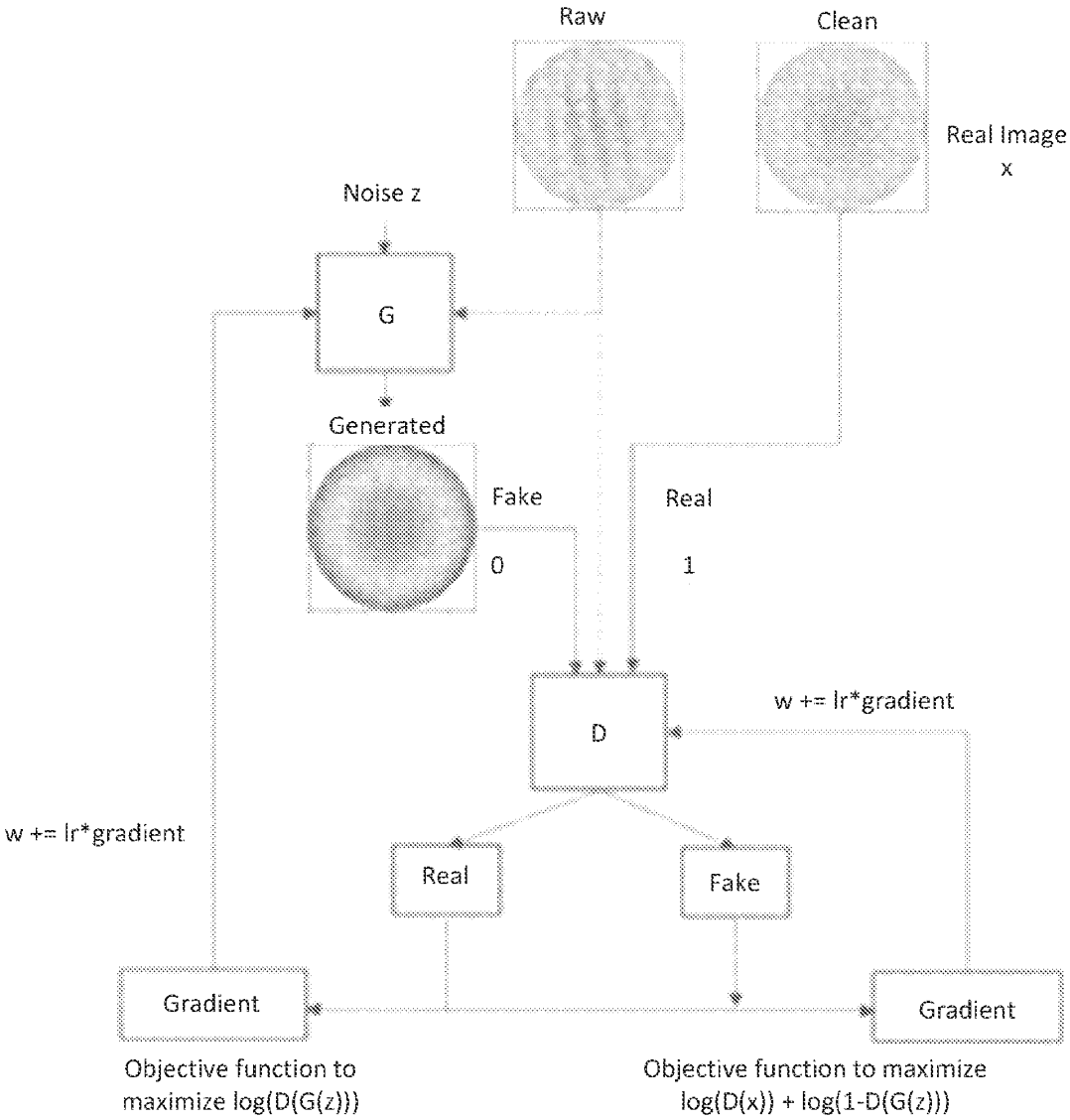

Raw
Clean
Real Image
x
Noise z
G
Generated
Fake
0
Real
1
D
w += lr*gradient
w += lr*gradient
Real
Fake
Gradient
Gradient
Objective function to
maximize log(D(G(z)))
Objective function to maximize
log(D(x)) + log(1-D(G(z)))

FIG. 6

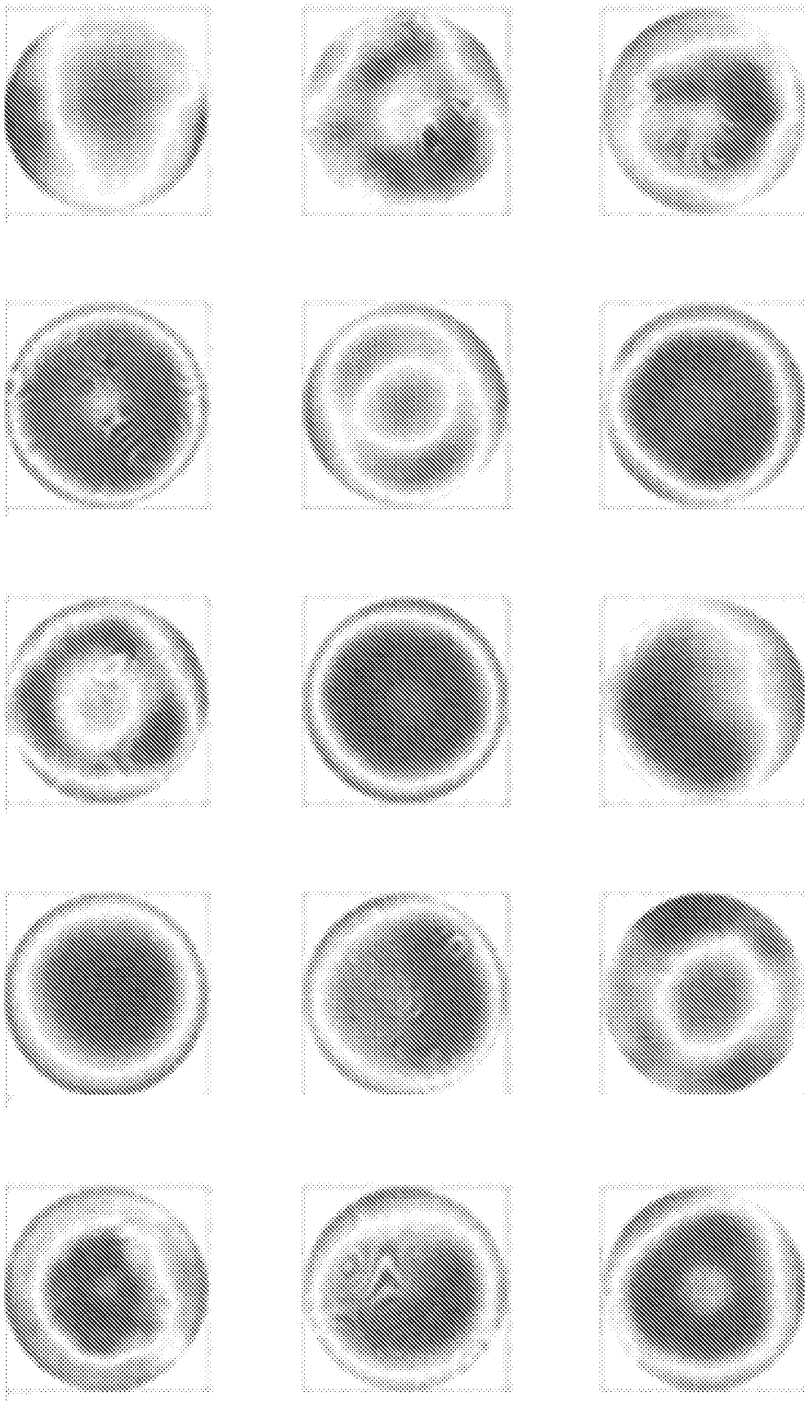


FIG. 7

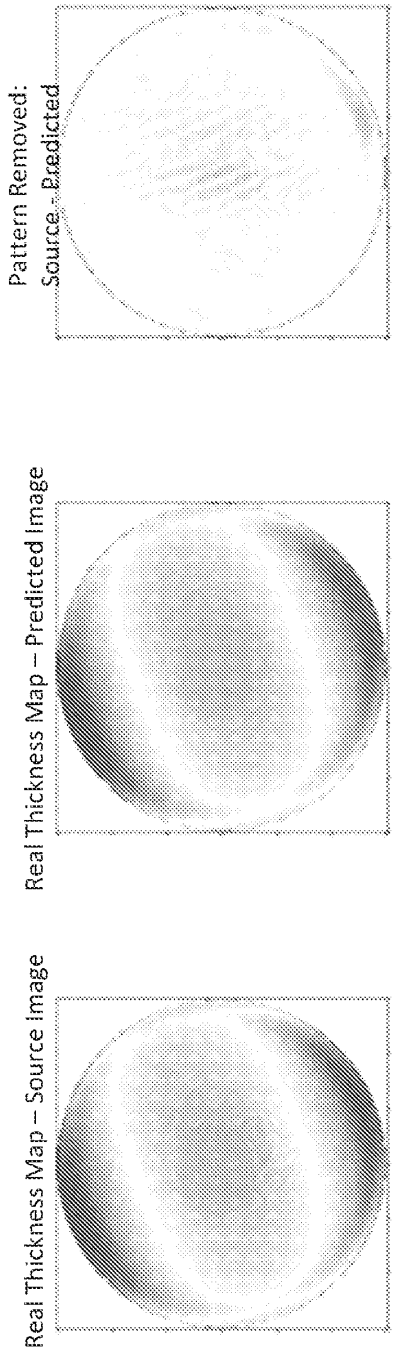

Pattern Removed:
Source – Predicted
Real Thickness Map – Predicted Image
Real Thickness Map – Source Image

FIG. 8

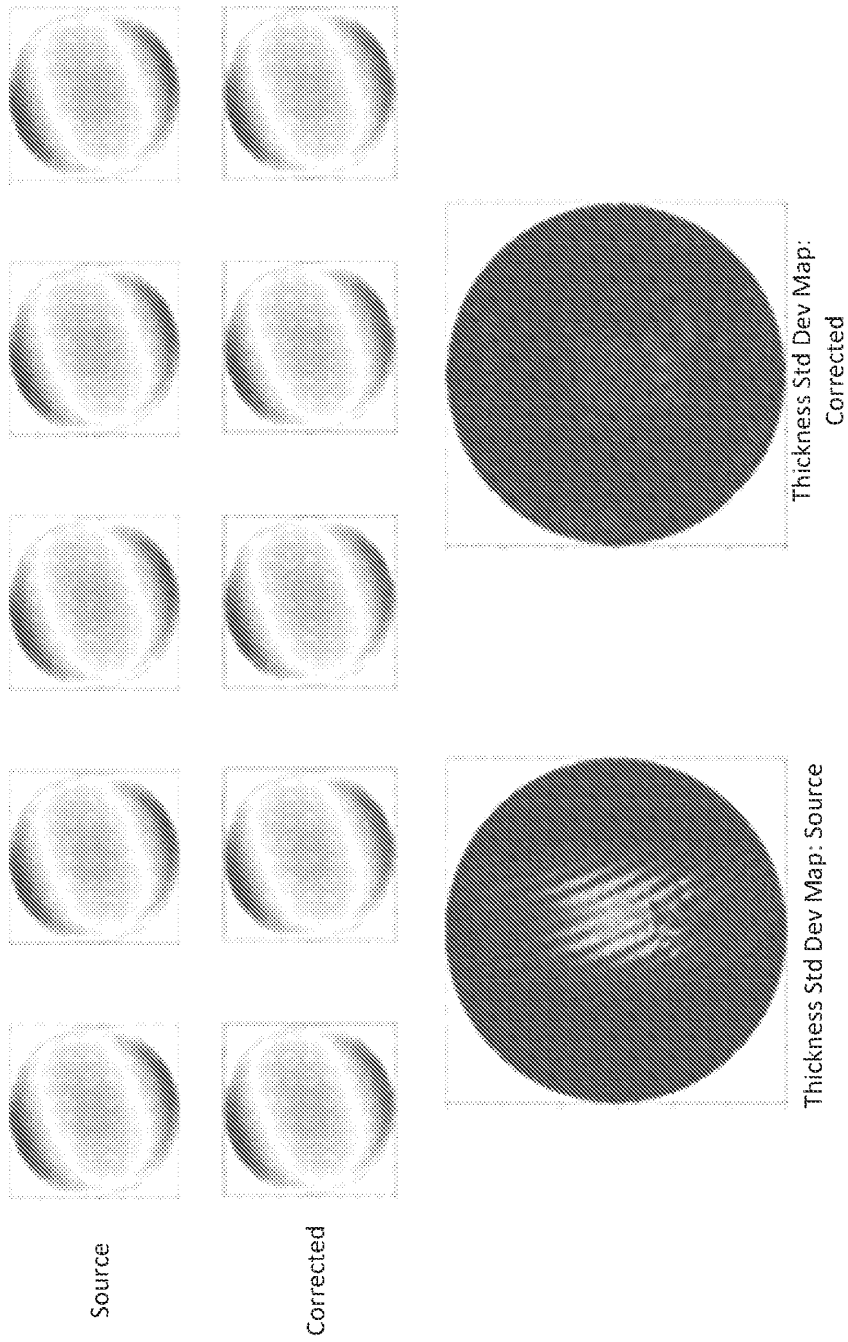

Source
Corrected
Thickness Std Dev Map: Source
Thickness Std Dev Map: Corrected

FIG. 9

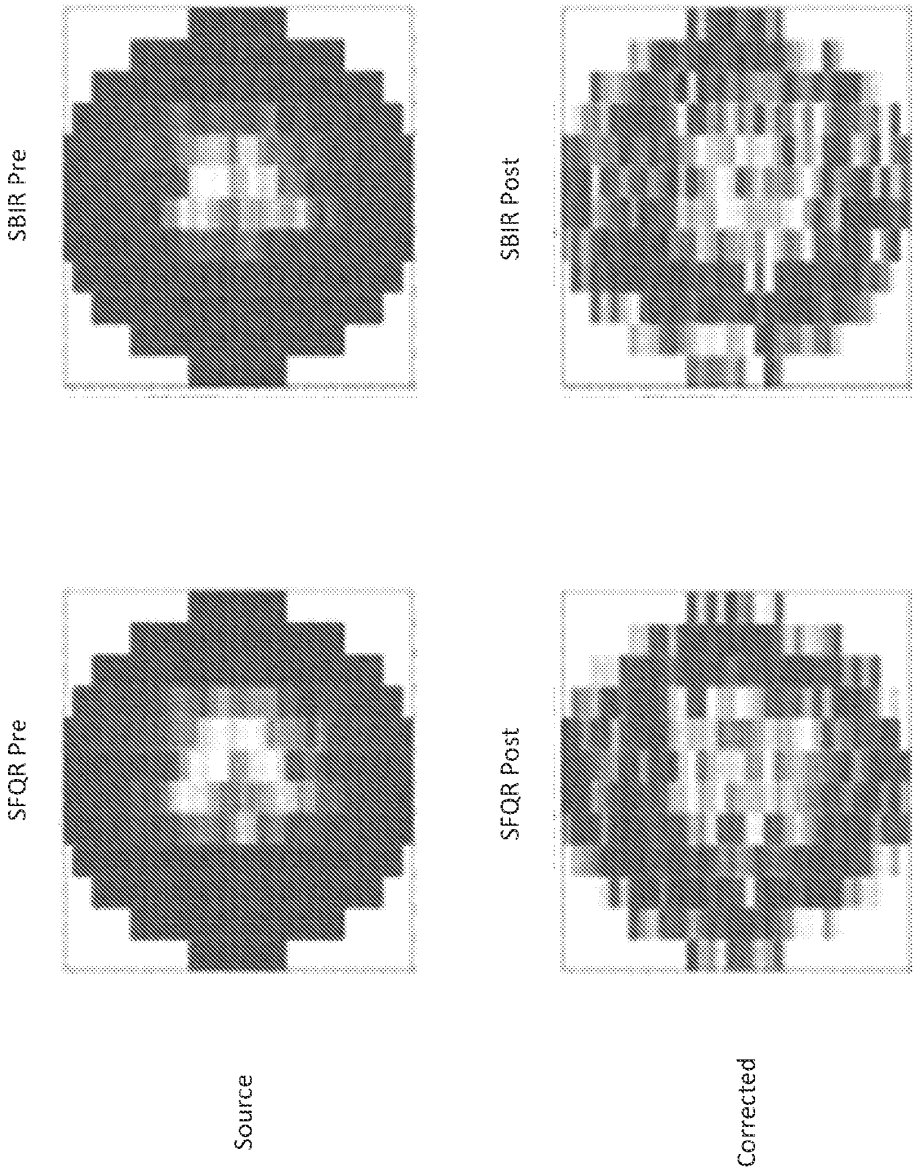


FIG. 10

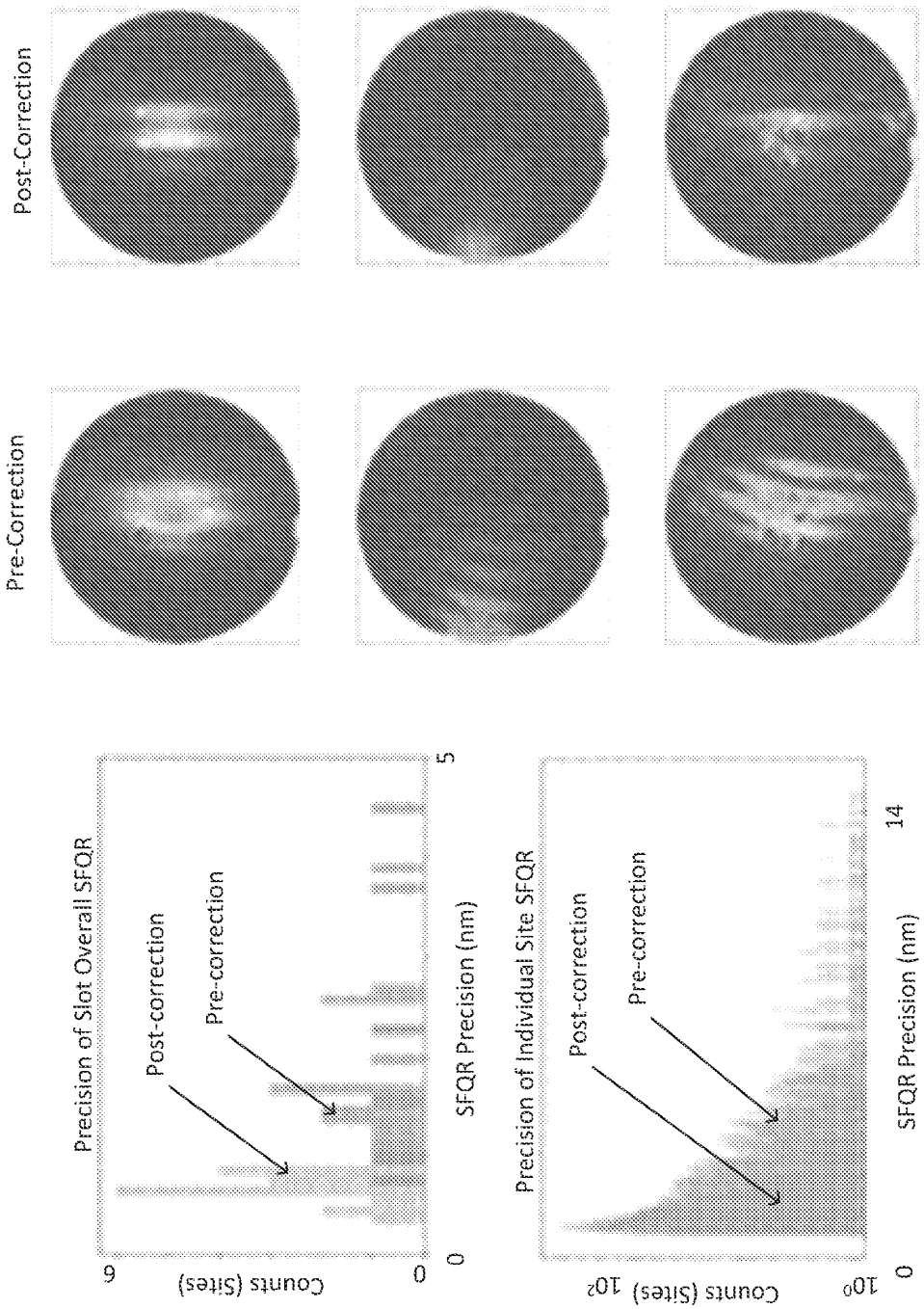

Post-Correction
Pre-Correction
Precision of Slot Overall SFQR
Post-correction
Pre-correction
Counts (Sites)
SFQR Precision (nm)
0
6
0
5
Precision of Individual Site SFQR
Post-correction
Pre-correction
Counts (Sites)
SFQR Precision (nm)
0
10⁰
10²
0
14

FIG. 11

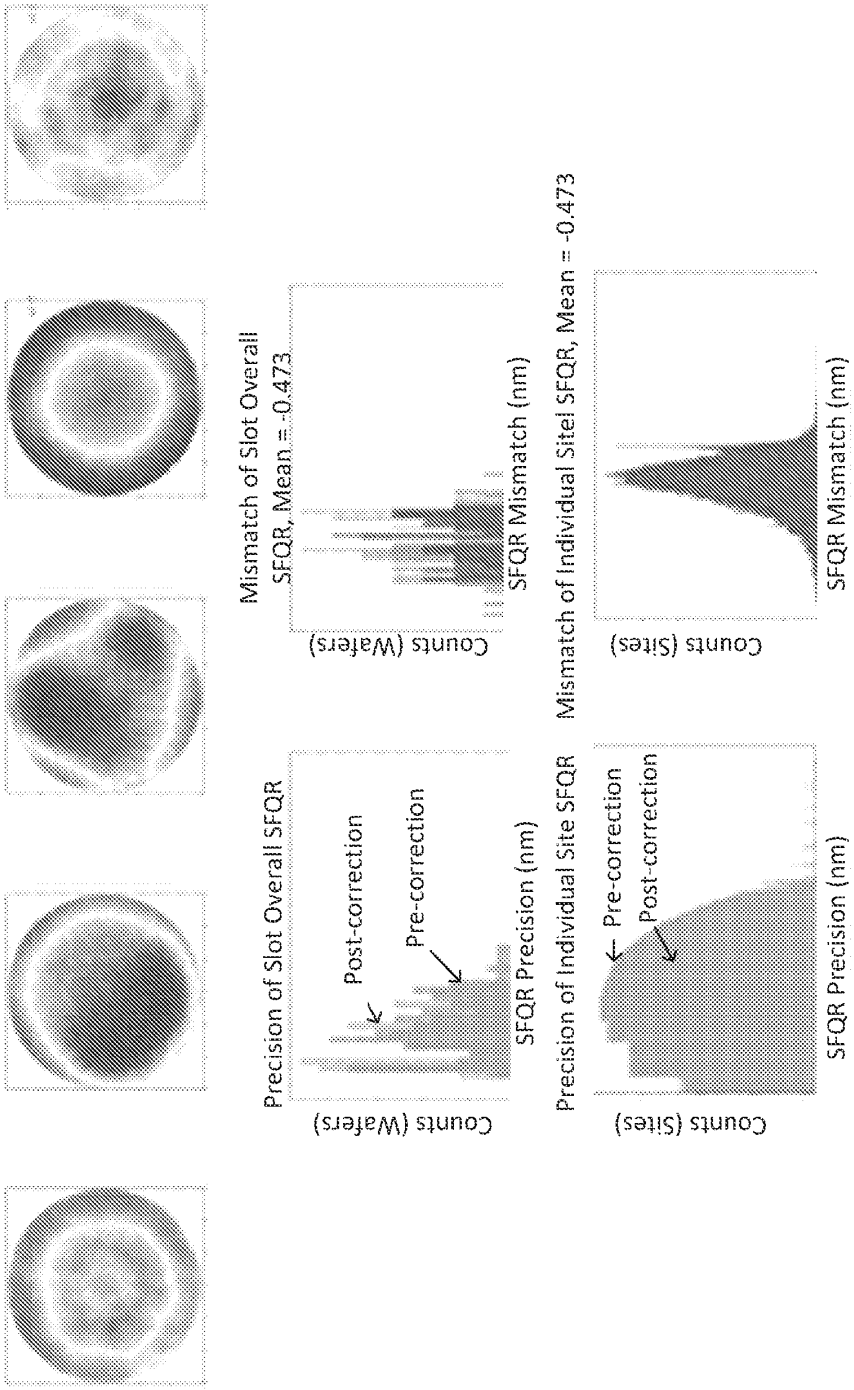

Precision of Slot Overall SFQR
Post-correction
Pre-correction
Counts (Wafers)
SFQR Precision (nm)
Mismatch of Slot Overall SFQR, Mean = -0.473
Counts (Wafers)
SFQR Mismatch (nm)
Precision of Individual Site SFQR
Pre-correction
Post-correction
Counts (Sites)
SFQR Precision (nm)
Mismatch of Individual Sitel SFQR, Mean = -0.473
Counts (Sites)
SFQR Mismatch (nm)

FIG. 12