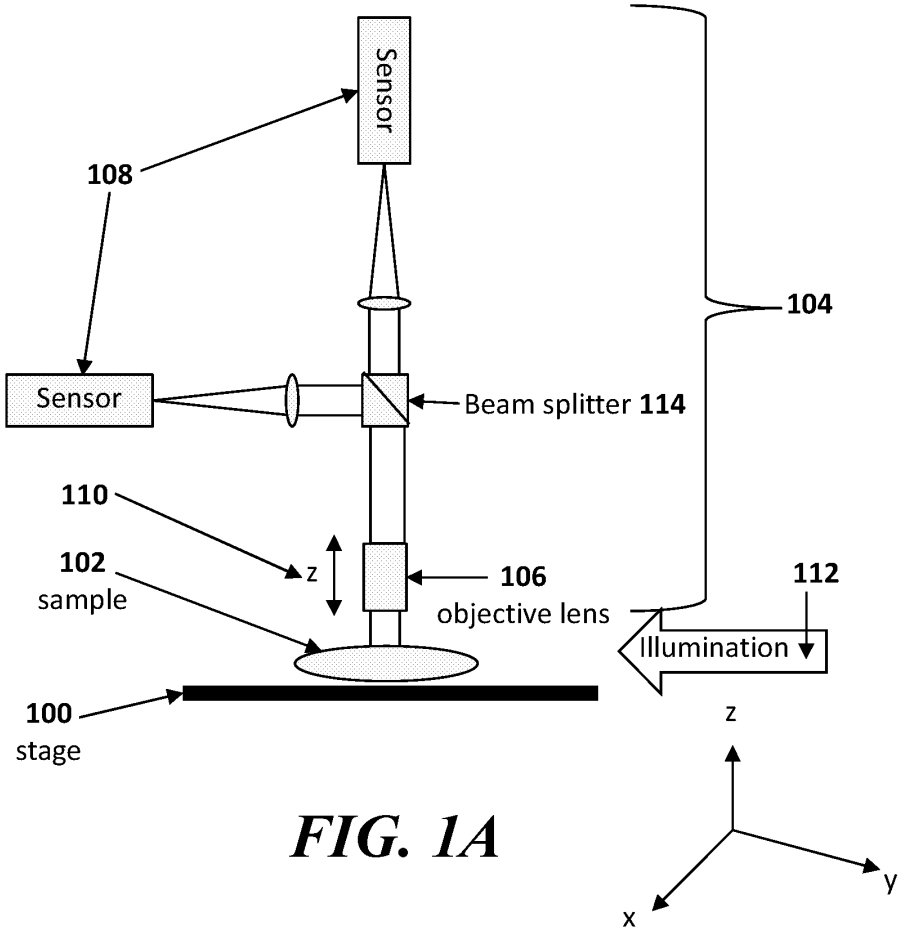

Sensor
108
Sensor
104
Beam splitter 114
110
102
sample
z
106
objective lens
112
Illumination
100
stage
z
y
x

FIG. 1A

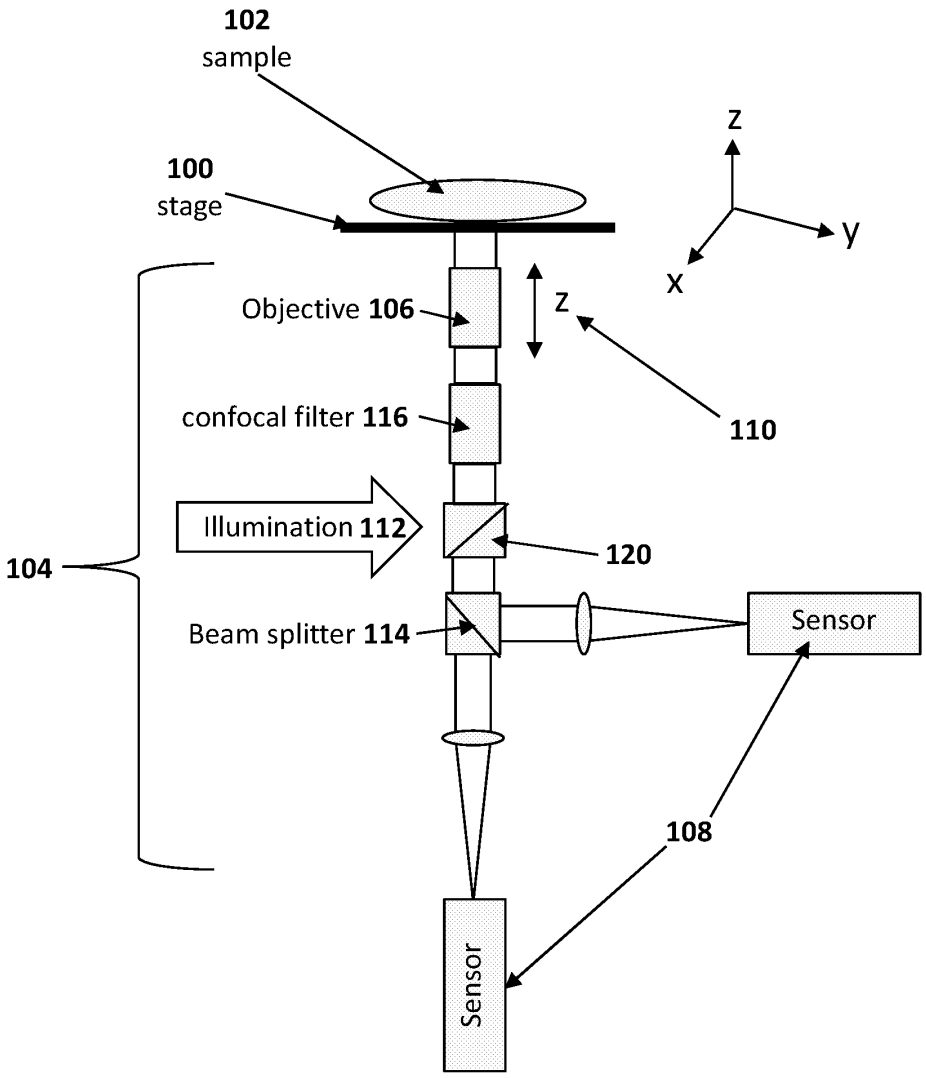

102
sample
100
stage
z
y
x
Objective 106
z
110
confocal filter 116
Illumination 112
120
104
Beam splitter 114
Sensor
108
Sensor

FIG. 1B

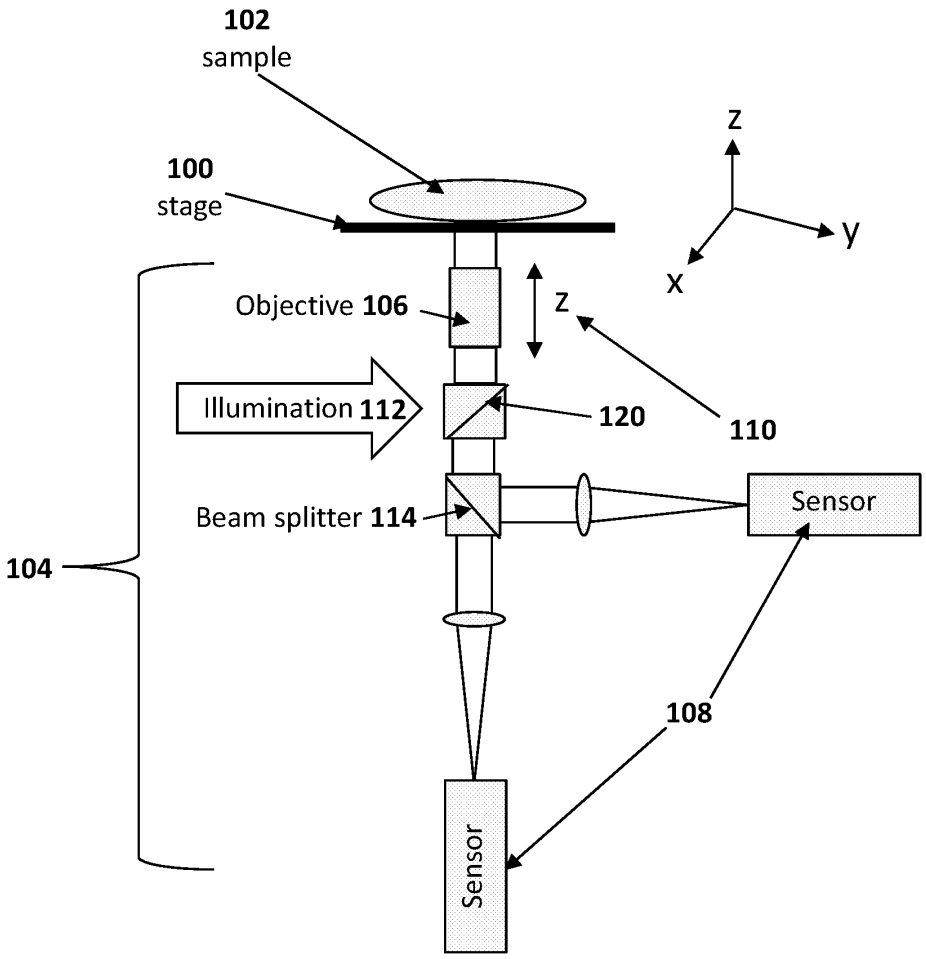

102
sample
100
stage
z
y
x
Objective 106
z
Illumination 112
120
110
Beam splitter 114
Sensor
104
108
Sensor

FIG. 1C

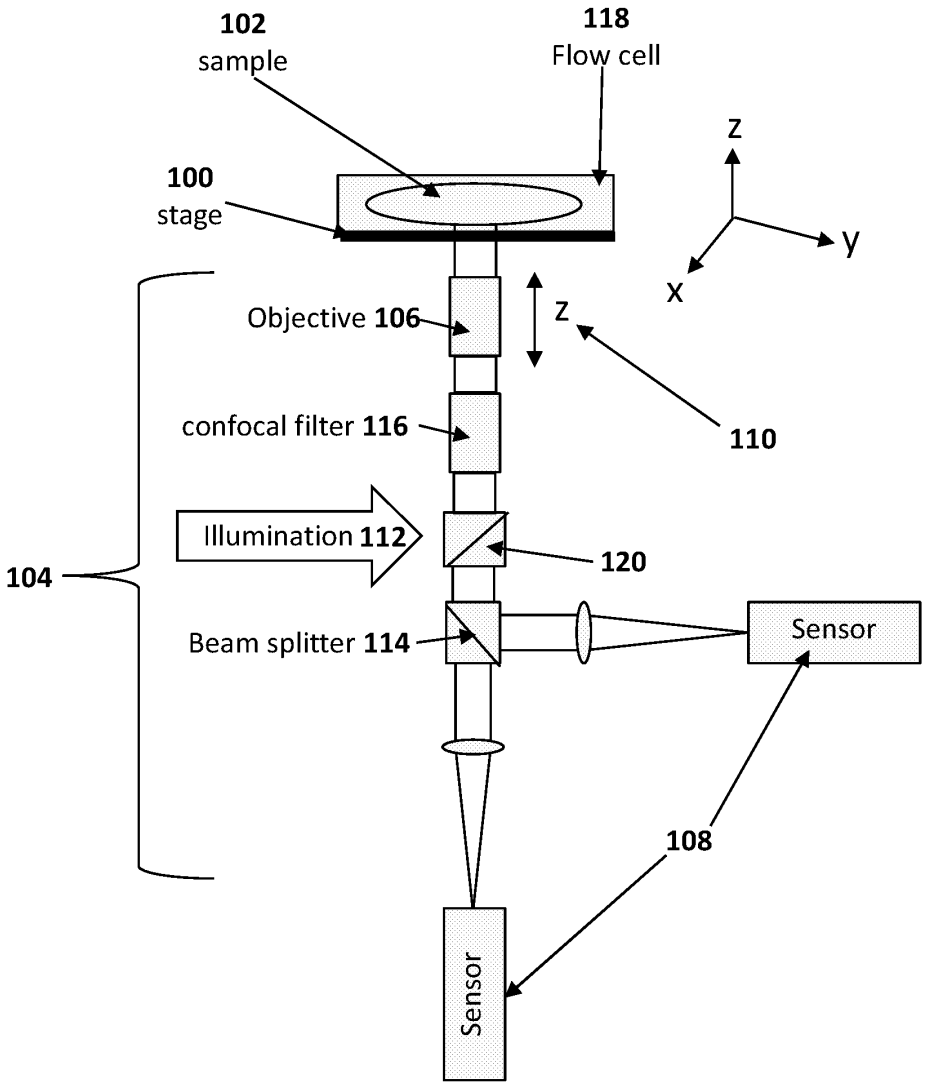

102
sample
118
Flow cell
100
stage
z
y
x
Objective 106
z
110
confocal filter 116
Illumination 112
120
104
Beam splitter 114
Sensor
108
Sensor

FIG. 1D

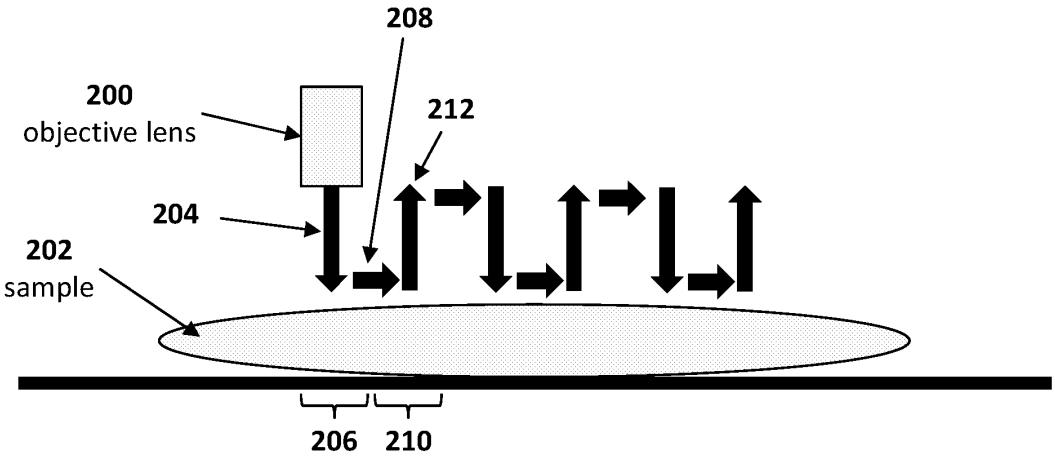


FIG. 2

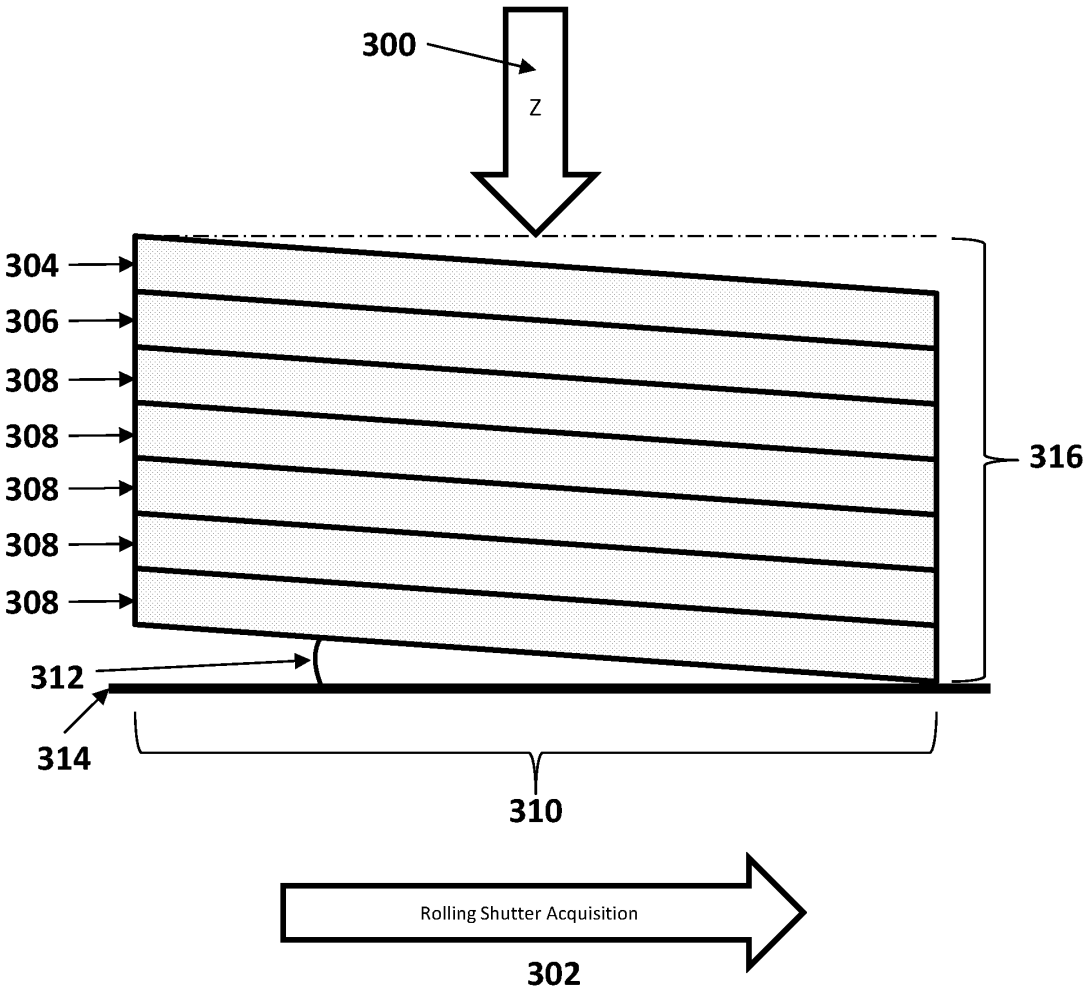

300
Z
304
306
308
308
308
308
308
316
312
314
310
Rolling Shutter Acquisition
302

FIG. 3

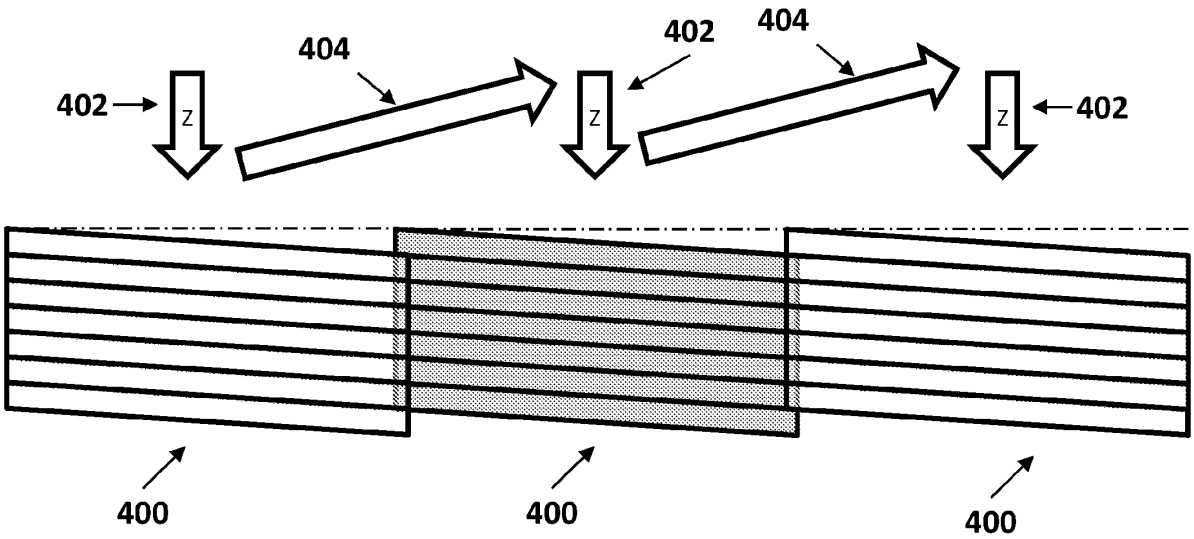


FIG. 4

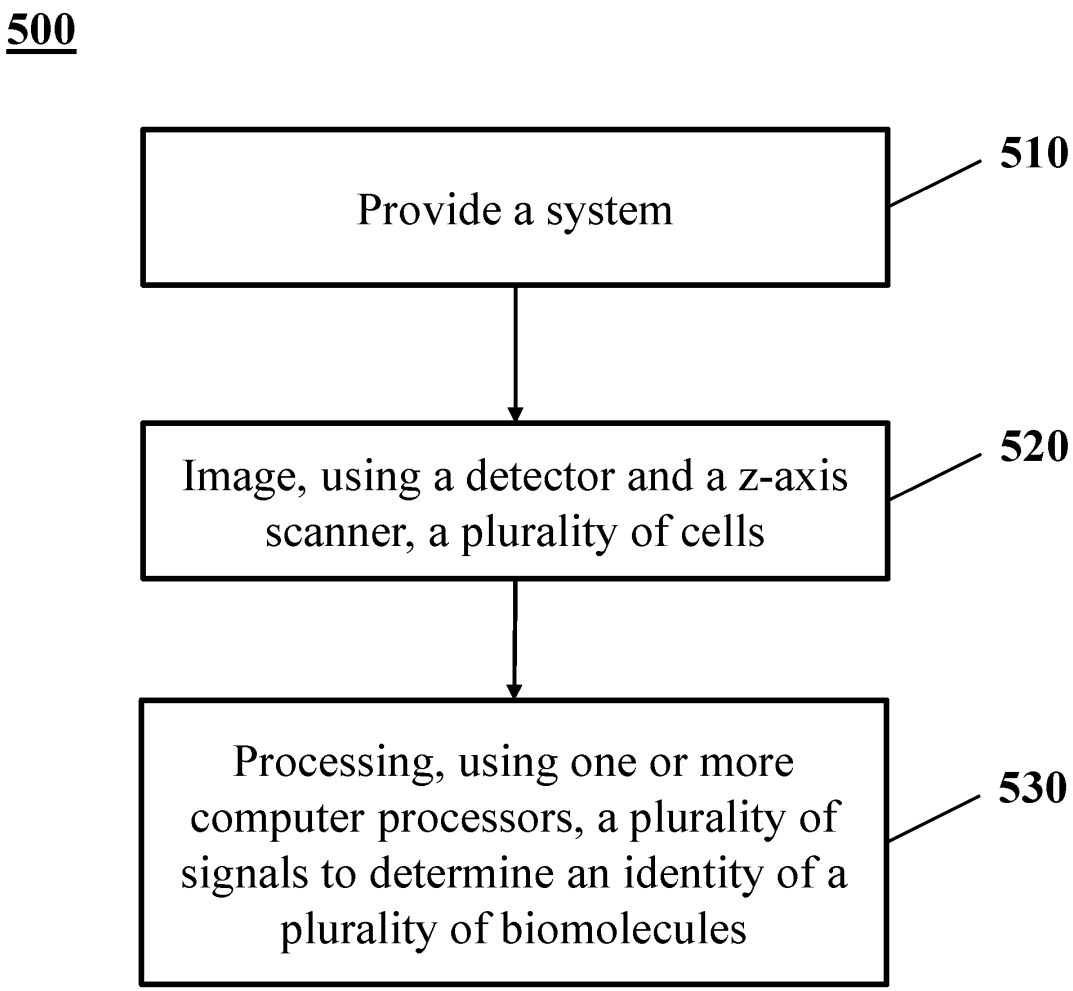

500
Provide a system
510
Image, using a detector and a z-axis scanner, a plurality of cells
520
Processing, using one or more computer processors, a plurality of signals to determine an identity of a plurality of biomolecules
530

FIG. 5

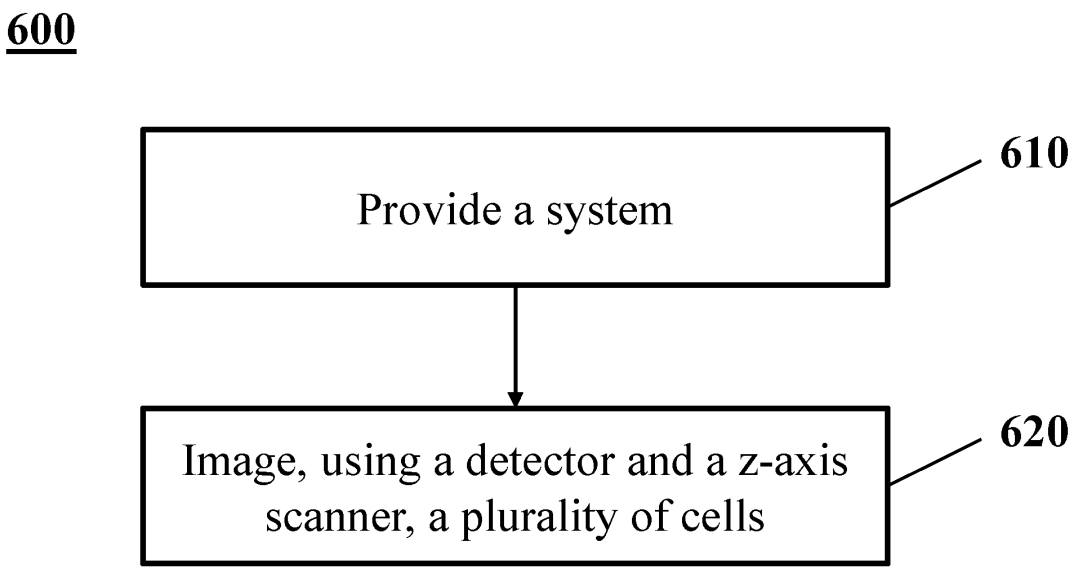

600
Provide a system
610
Image, using a detector and a z-axis scanner, a plurality of cells
620

FIG. 6

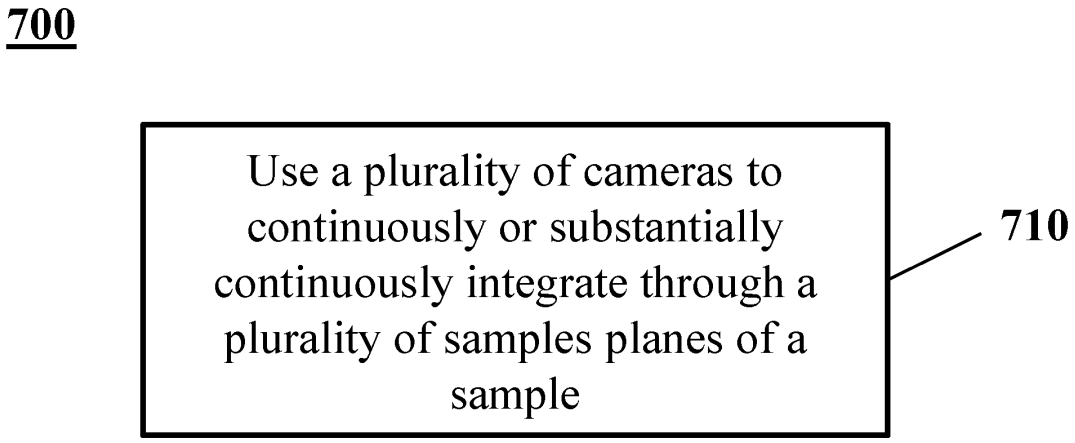

700
Use a plurality of cameras to continuously or substantially continuously integrate through a plurality of samples planes of a sample
710

FIG. 7

800

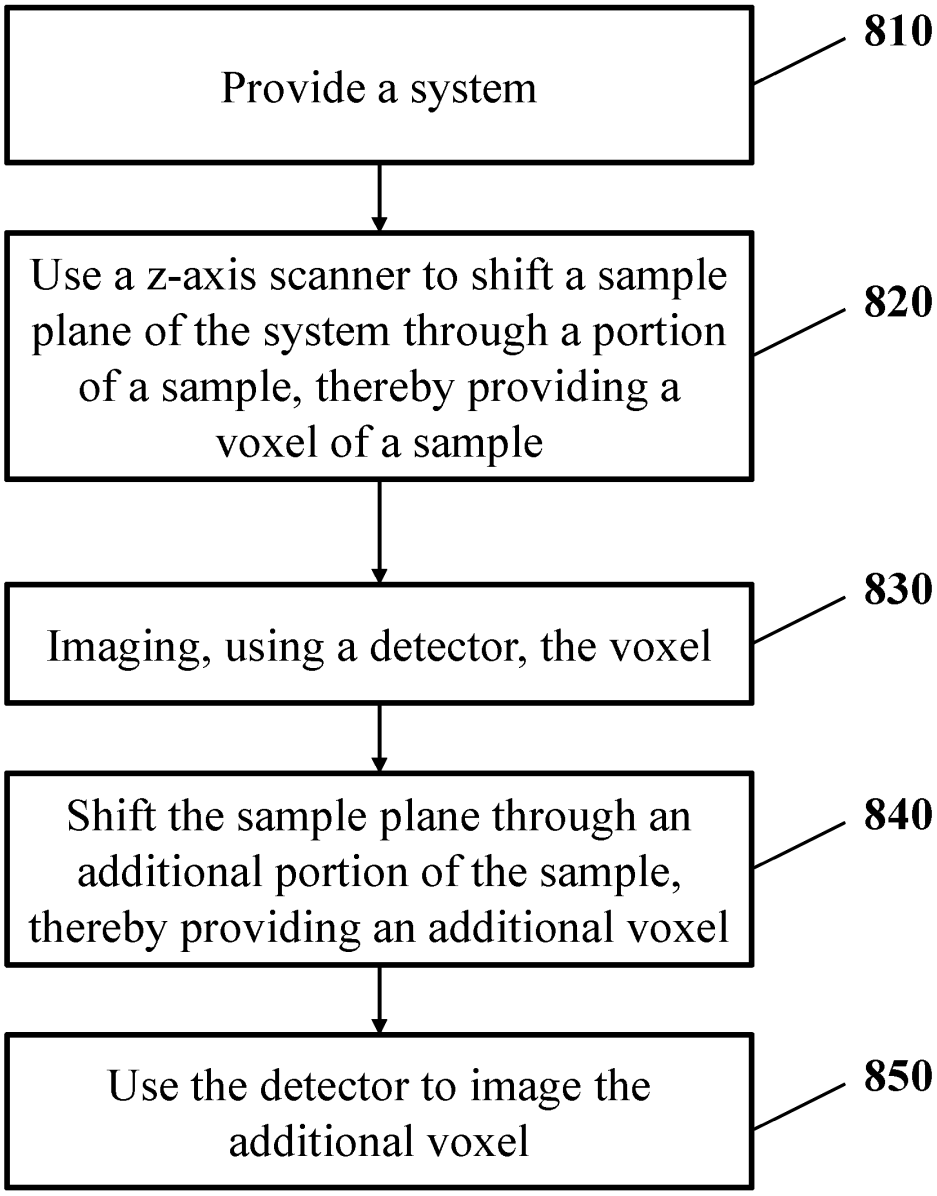

Provide a system
810
Use a z-axis scanner to shift a sample plane of the system through a portion of a sample, thereby providing a voxel of a sample
820
Imaging, using a detector, the voxel
830
Shift the sample plane through an additional portion of the sample, thereby providing an additional voxel
840
Use the detector to image the additional voxel
850

FIG. 8

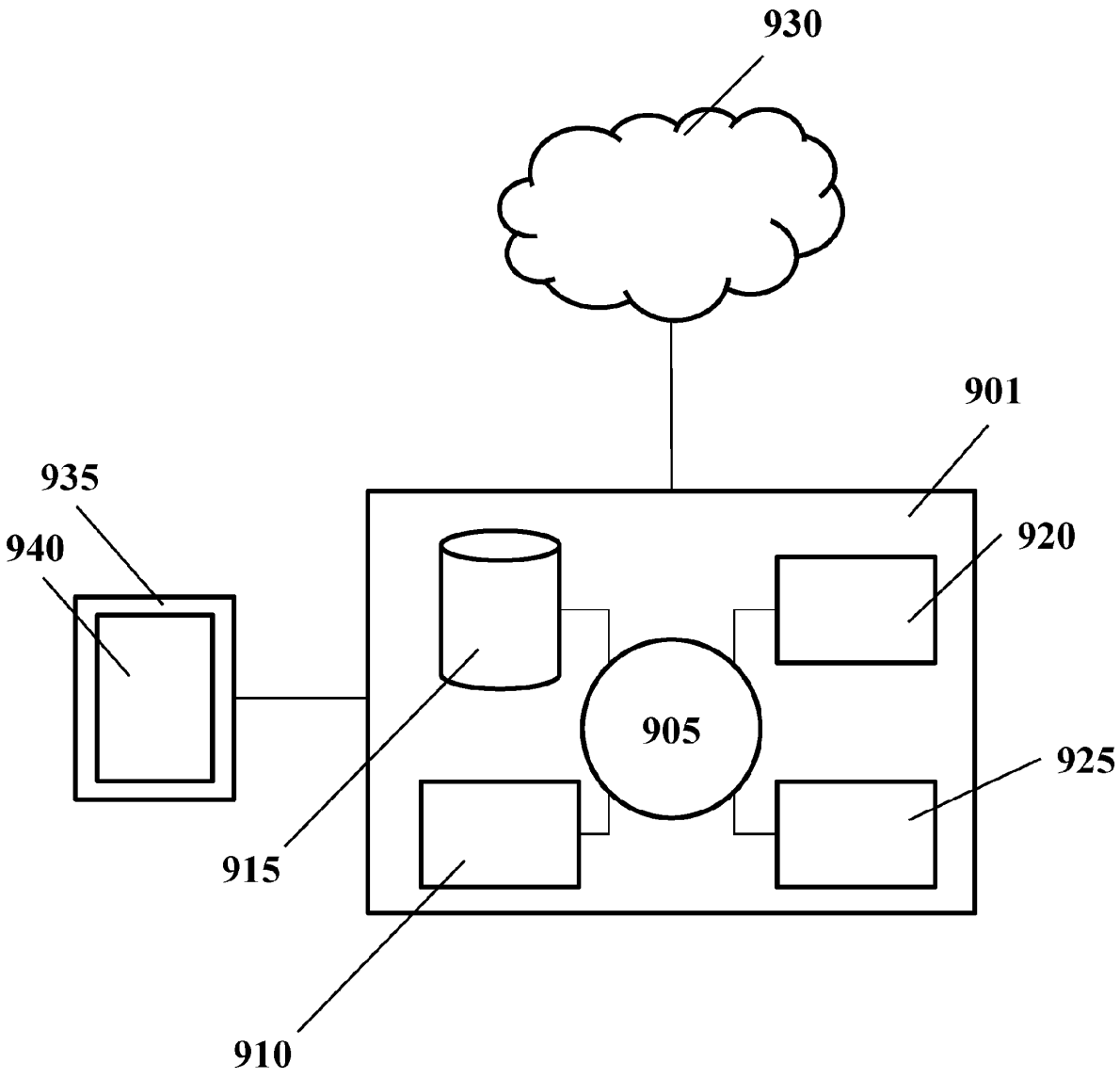


FIG. 9

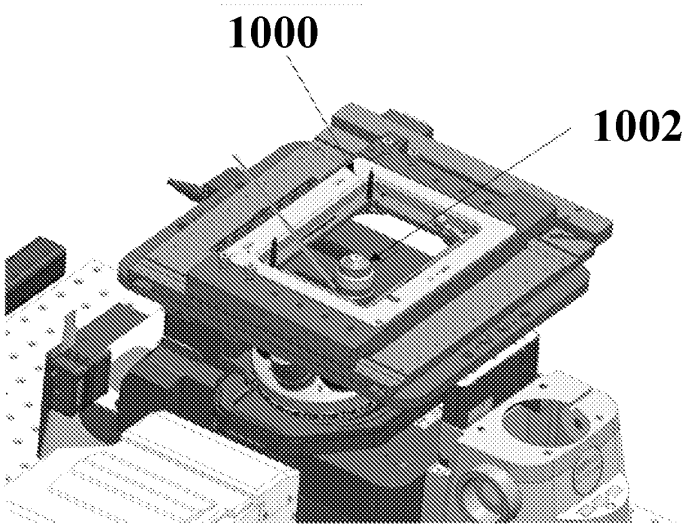


FIG. 10

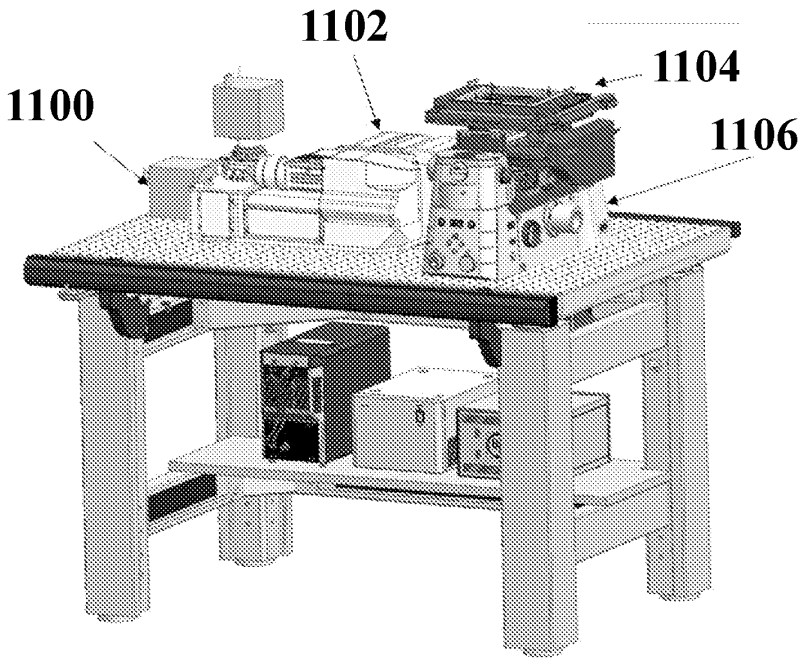


FIG. 11