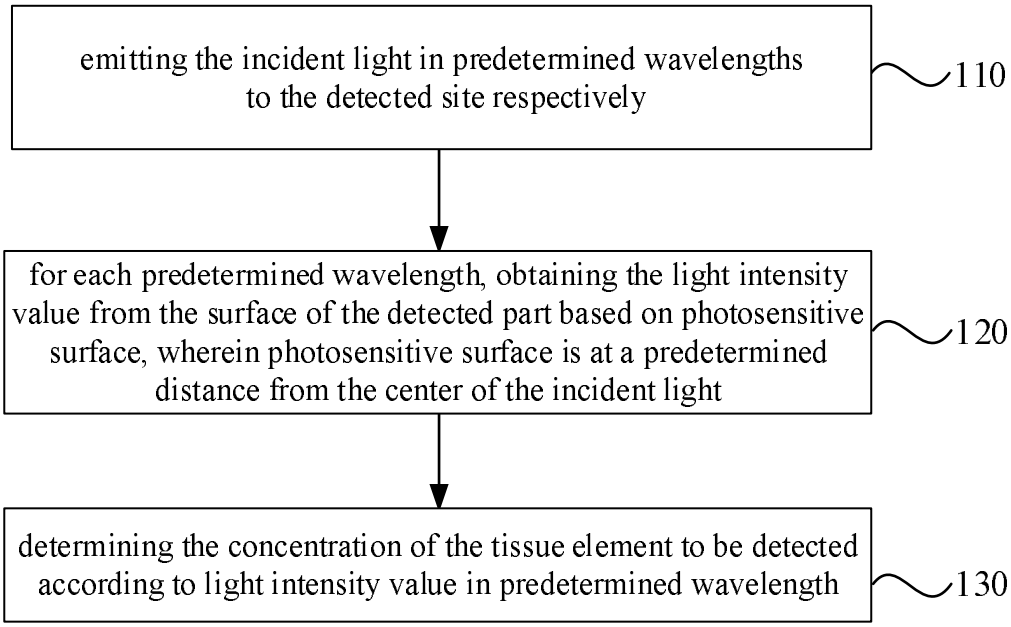
emitting the incident light in predetermined wavelengths to the detected site respectively
110
for each predetermined wavelength, obtaining the light intensity value from the surface of the detected part based on photosensitive surface, wherein photosensitive surface is at a predetermined distance from the center of the incident light
120
determining the concentration of the tissue element to be detected according to light intensity value in predetermined wavelength
130

FIG. 1

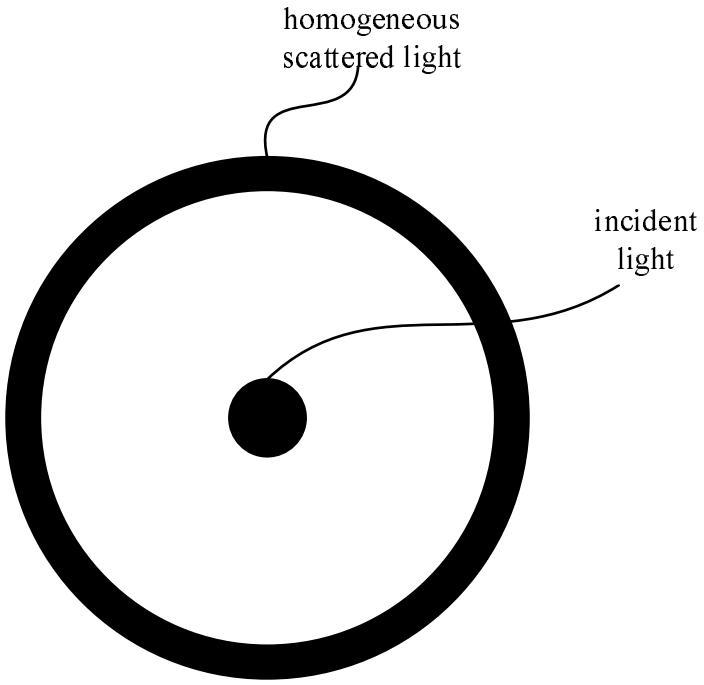
homogeneous scattered light
incident light

FIG. 2

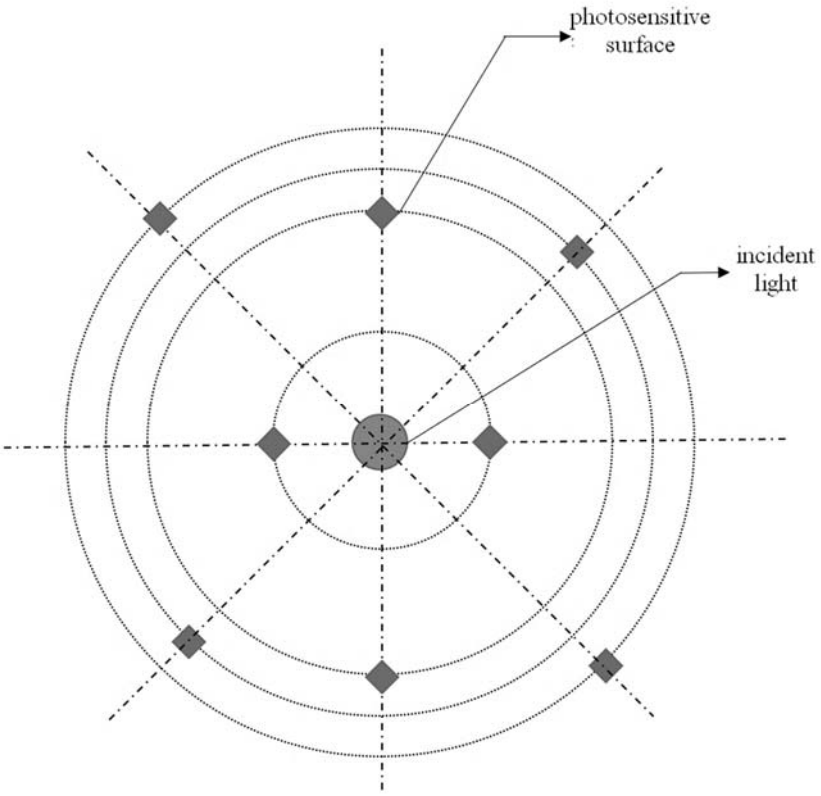
photosensitive
surface
incident
light

FIG. 3

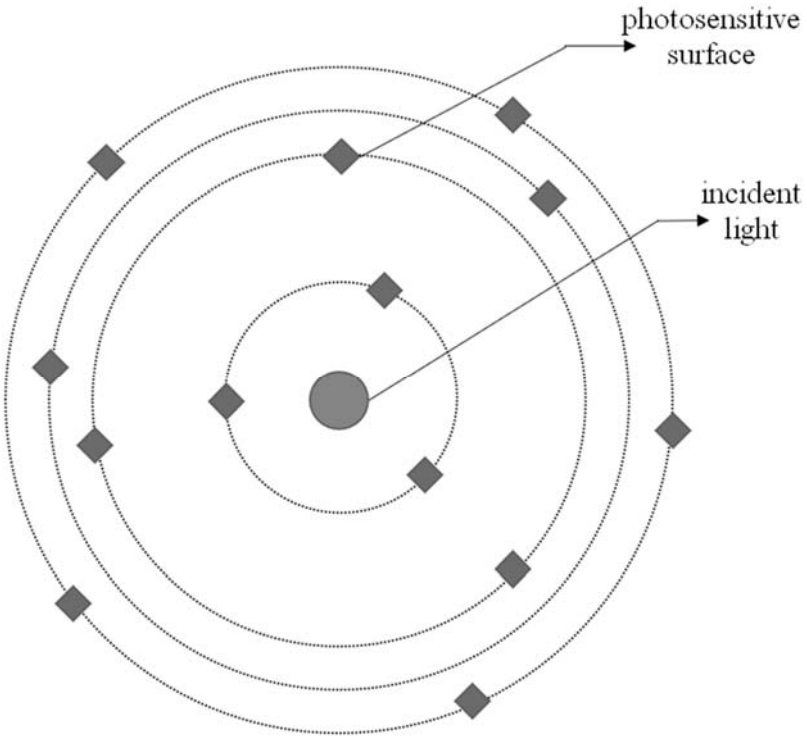
photosensitive
surface
incident
light

FIG. 4

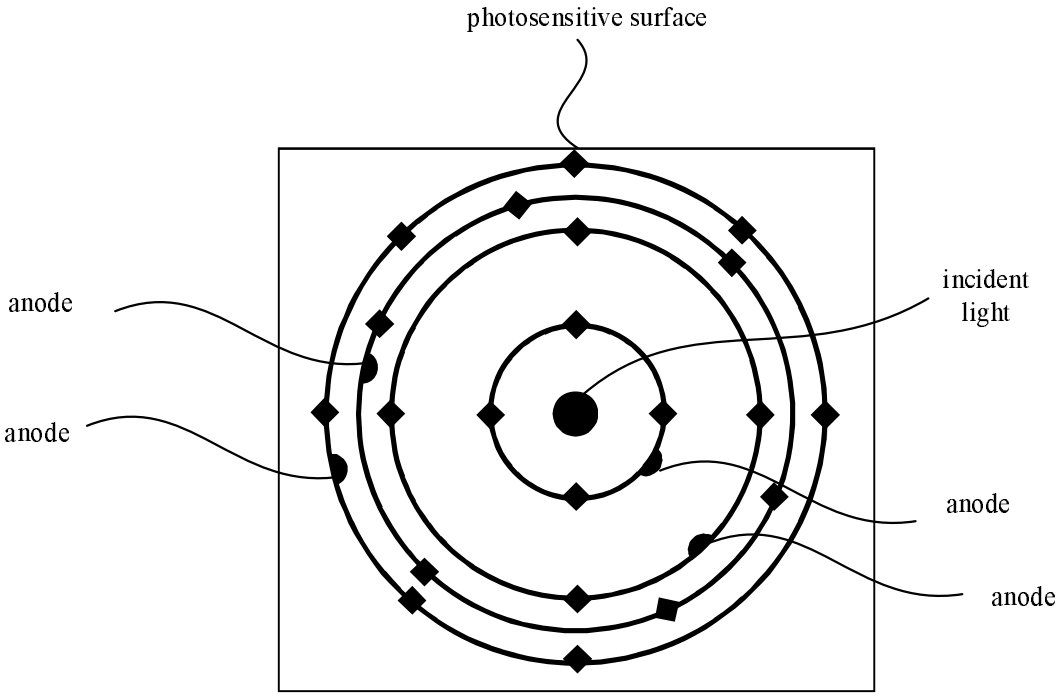
photosensitive surface
anode
anode
incident
light
anode
anode

FIG. 5

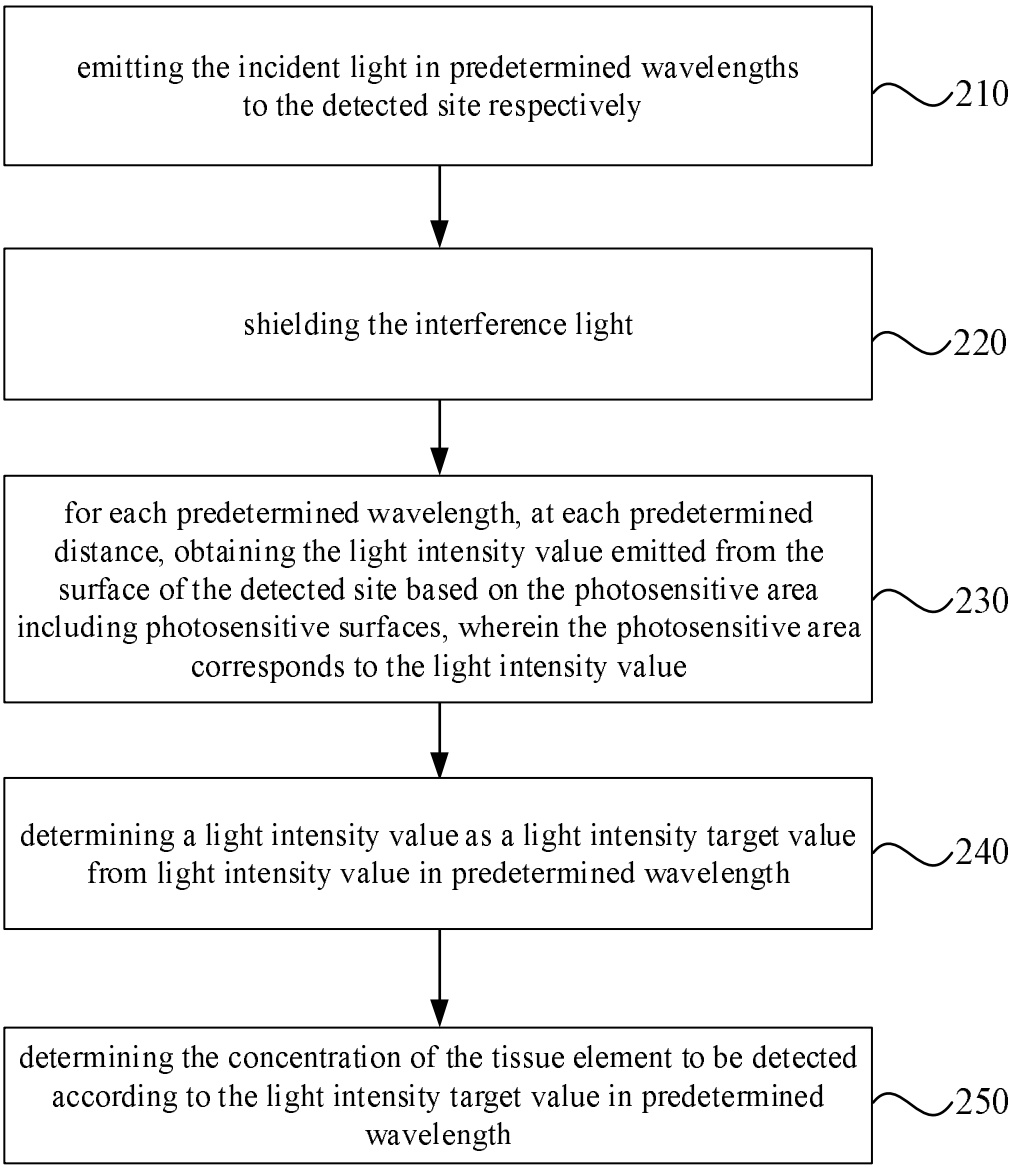
emitting the incident light in predetermined wavelengths to the detected site respectively
210
shielding the interference light
220
for each predetermined wavelength, at each predetermined distance, obtaining the light intensity value emitted from the surface of the detected site based on the photosensitive area including photosensitive surfaces, wherein the photosensitive area corresponds to the light intensity value
230
determining a light intensity value as a light intensity target value from light intensity value in predetermined wavelength
240
determining the concentration of the tissue element to be detected according to the light intensity target value in predetermined wavelength
250

FIG. 6

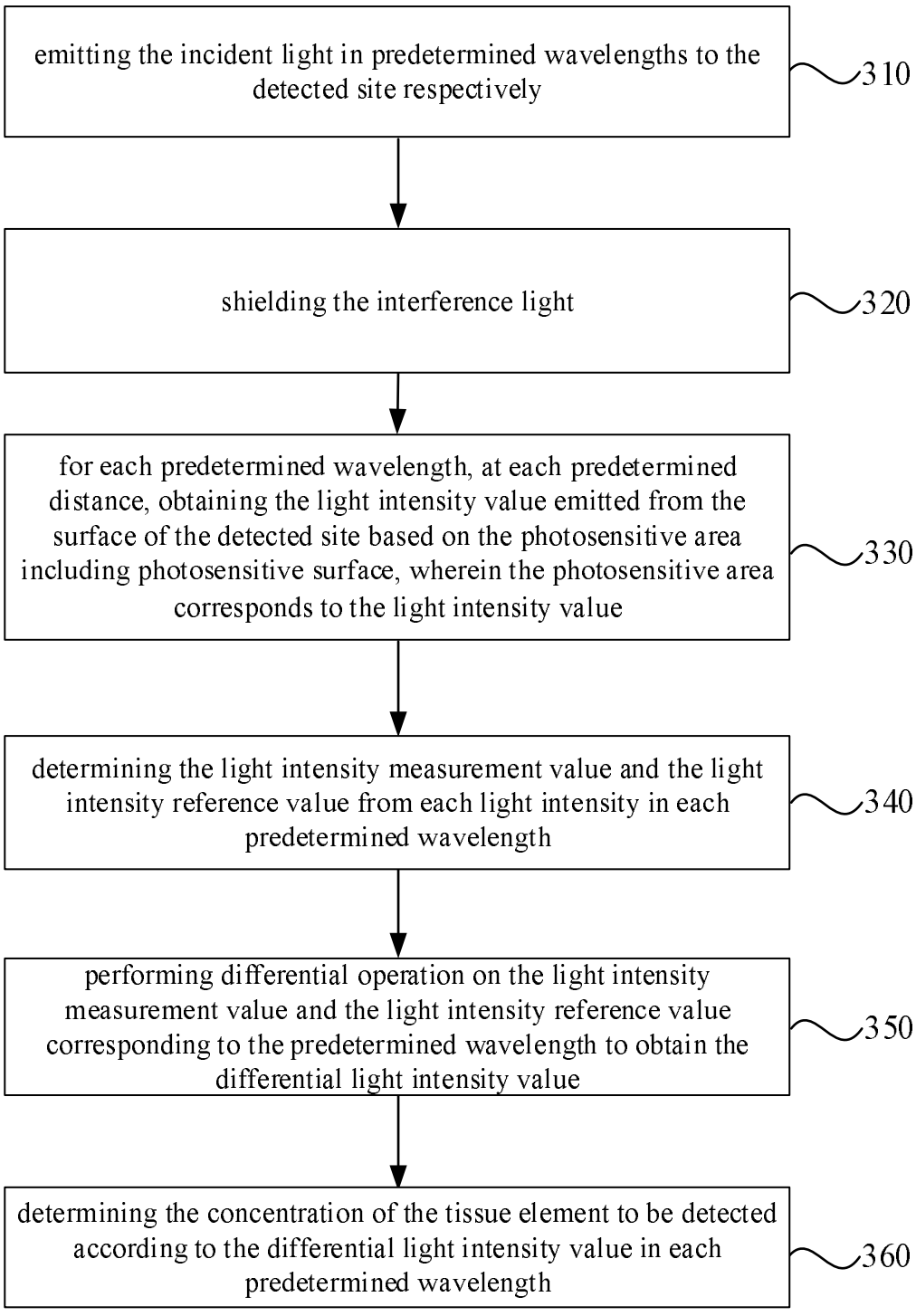
emitting the incident light in predetermined wavelengths to the detected site respectively
310
shielding the interference light
320
for each predetermined wavelength, at each predetermined distance, obtaining the light intensity value emitted from the surface of the detected site based on the photosensitive area including photosensitive surface, wherein the photosensitive area corresponds to the light intensity value
330
determining the light intensity measurement value and the light intensity reference value from each light intensity in each predetermined wavelength
340
performing differential operation on the light intensity measurement value and the light intensity reference value corresponding to the predetermined wavelength to obtain the differential light intensity value
350
determining the concentration of the tissue element to be detected according to the differential light intensity value in each predetermined wavelength
360

FIG. 7

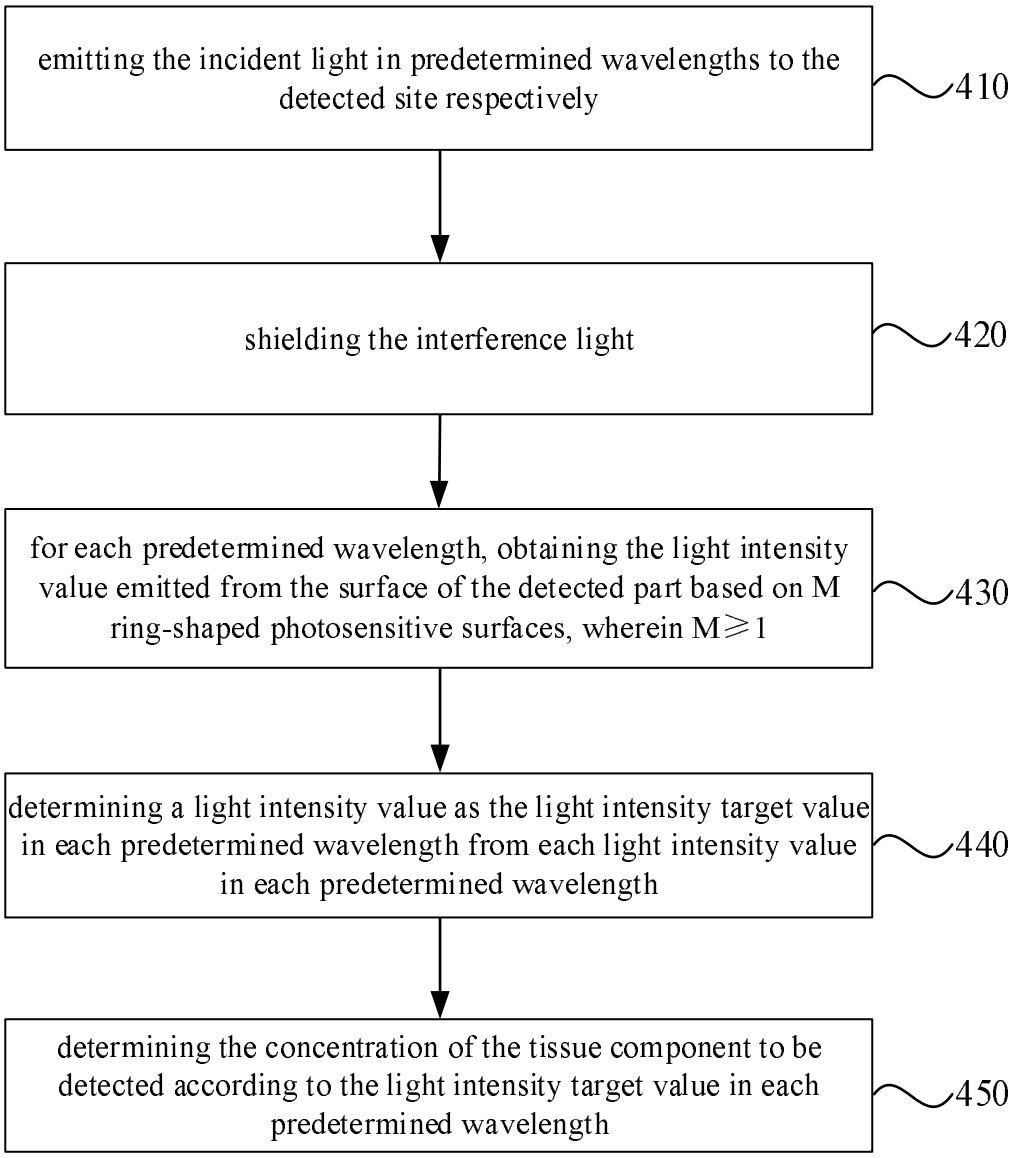
emitting the incident light in predetermined wavelengths to the detected site respectively
410
shielding the interference light
420
for each predetermined wavelength, obtaining the light intensity value emitted from the surface of the detected part based on M ring-shaped photosensitive surfaces, wherein M≥1
430
determining a light intensity value as the light intensity target value in each predetermined wavelength from each light intensity value in each predetermined wavelength
440
determining the concentration of the tissue component to be detected according to the light intensity target value in each predetermined wavelength
450

FIG. 8

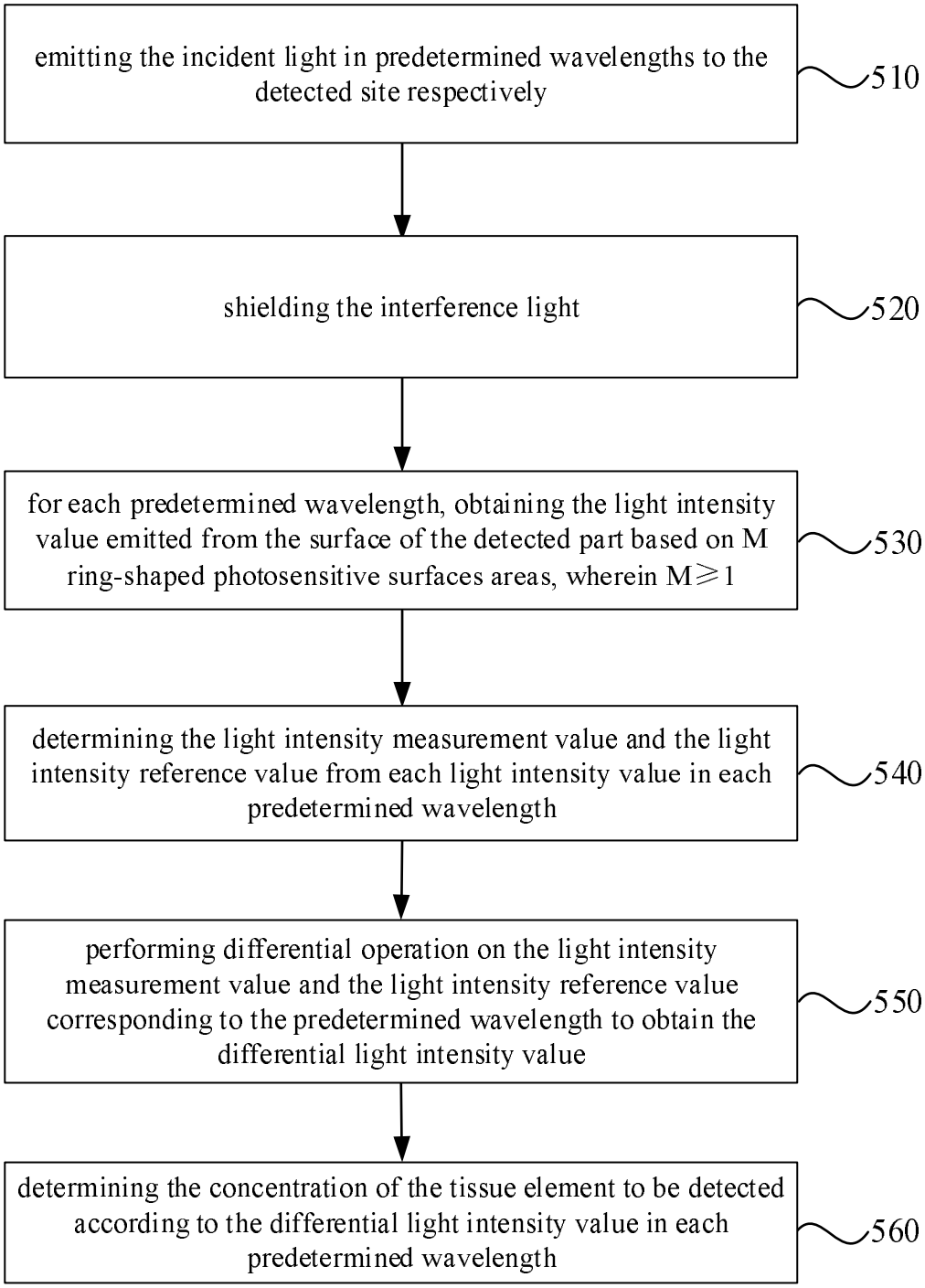
emitting the incident light in predetermined wavelengths to the detected site respectively
510
shielding the interference light
520
for each predetermined wavelength, obtaining the light intensity value emitted from the surface of the detected part based on M ring-shaped photosensitive surfaces areas, wherein M≥1
530
determining the light intensity measurement value and the light intensity reference value from each light intensity value in each predetermined wavelength
540
performing differential operation on the light intensity measurement value and the light intensity reference value corresponding to the predetermined wavelength to obtain the differential light intensity value
550
determining the concentration of the tissue element to be detected according to the differential light intensity value in each predetermined wavelength
560

FIG. 9

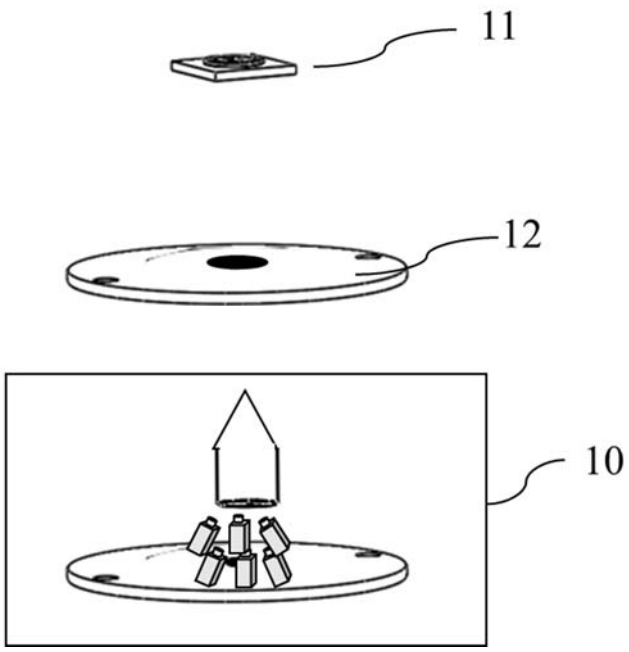

FIG. 10

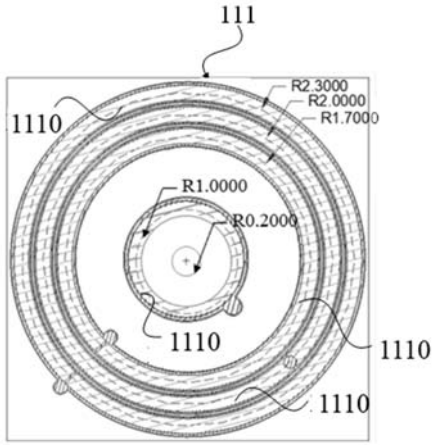

FIG. 11

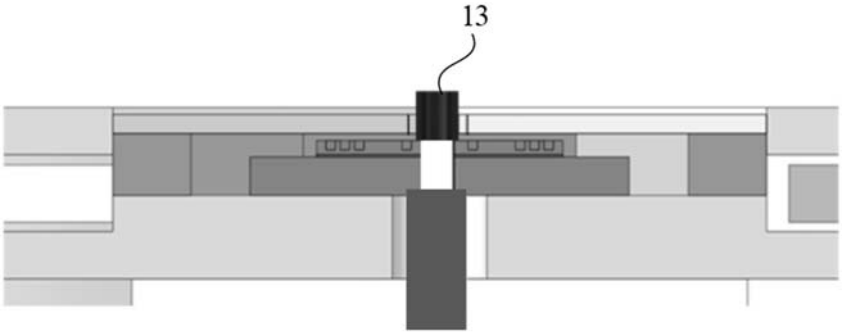

FIG. 12

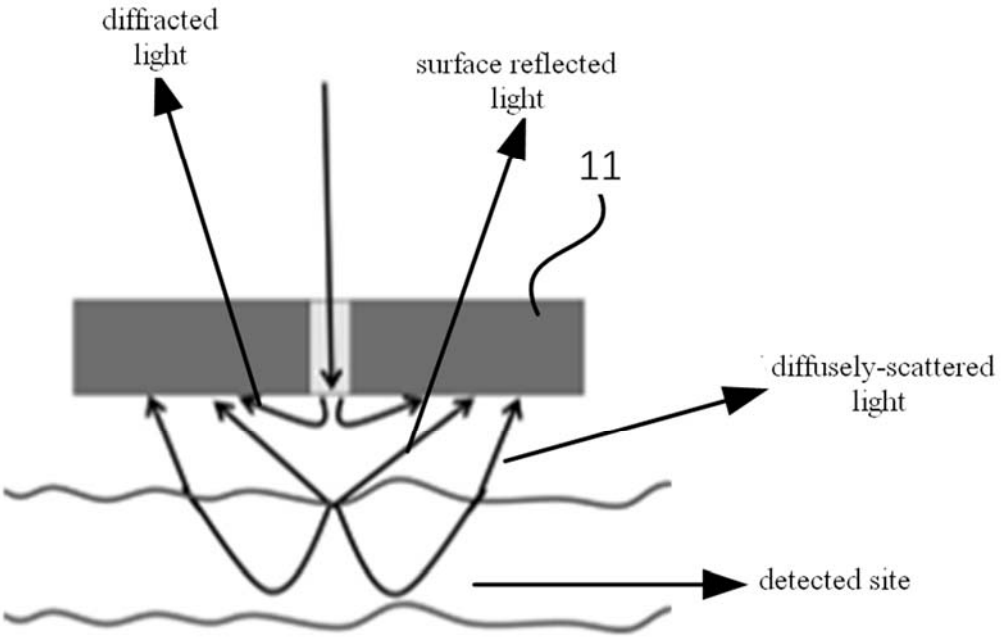
diffracted
light
surface reflected
light
11
diffusely-scattered
light
detected site

FIG. 13

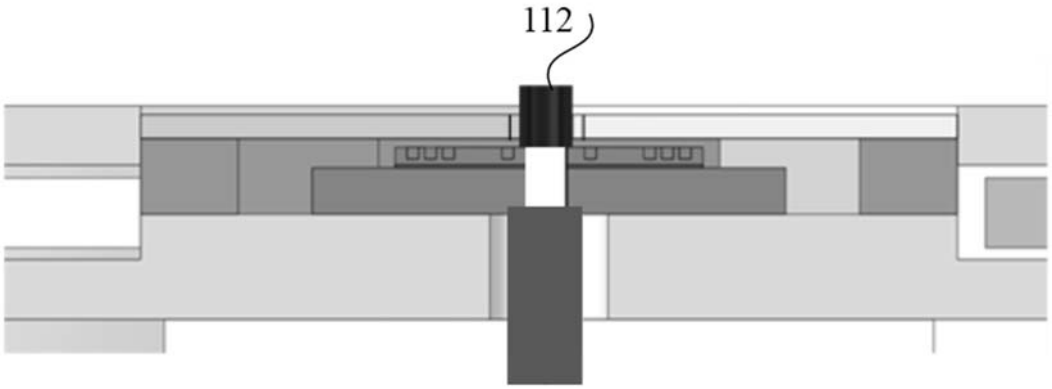
112

FIG. 14

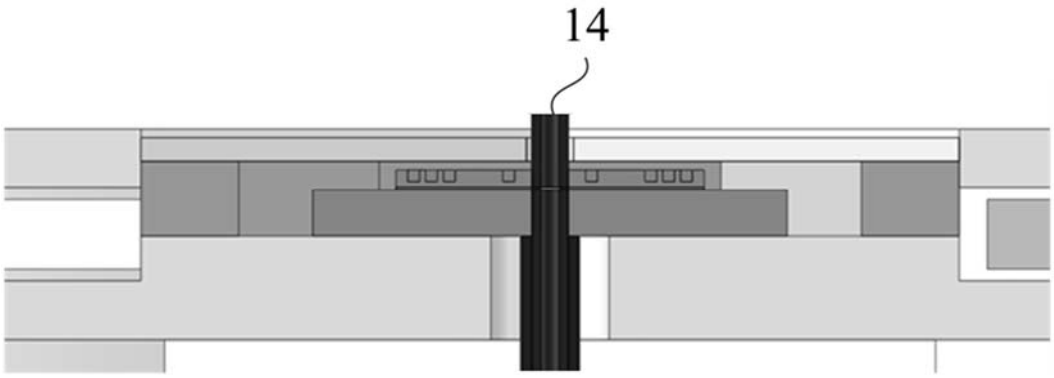

FIG. 15

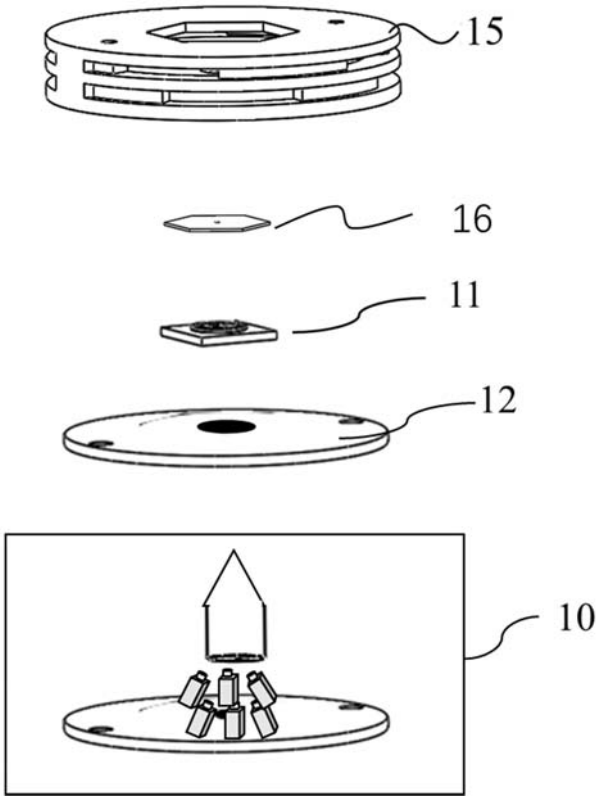

FIG. 16

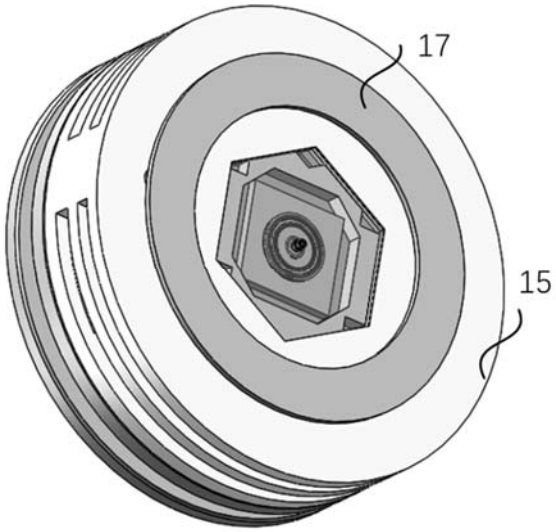

FIG. 17

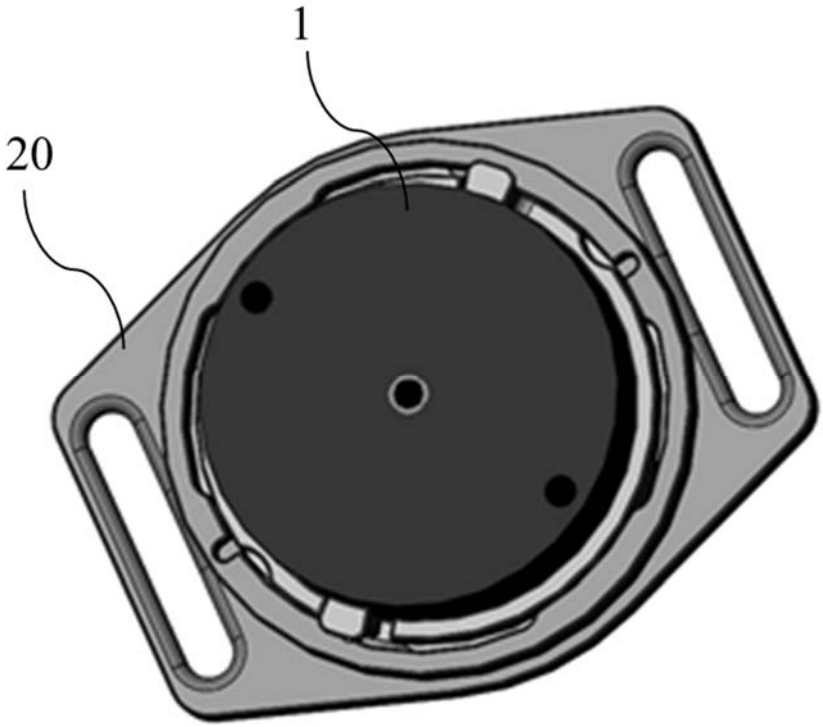

FIG. 18

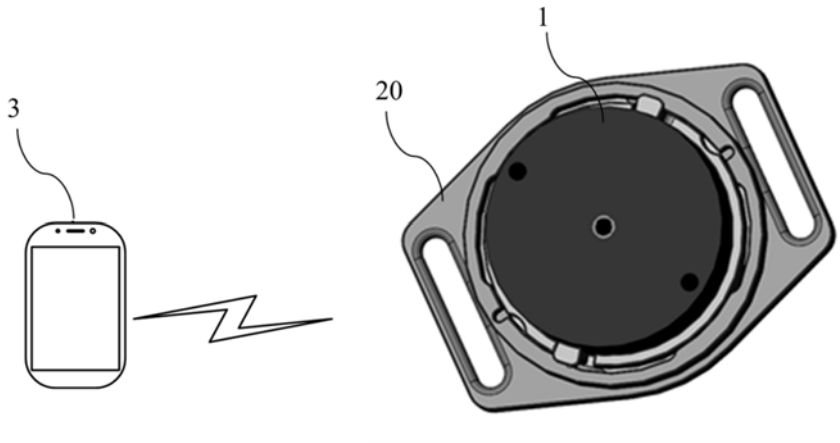

FIG. 19