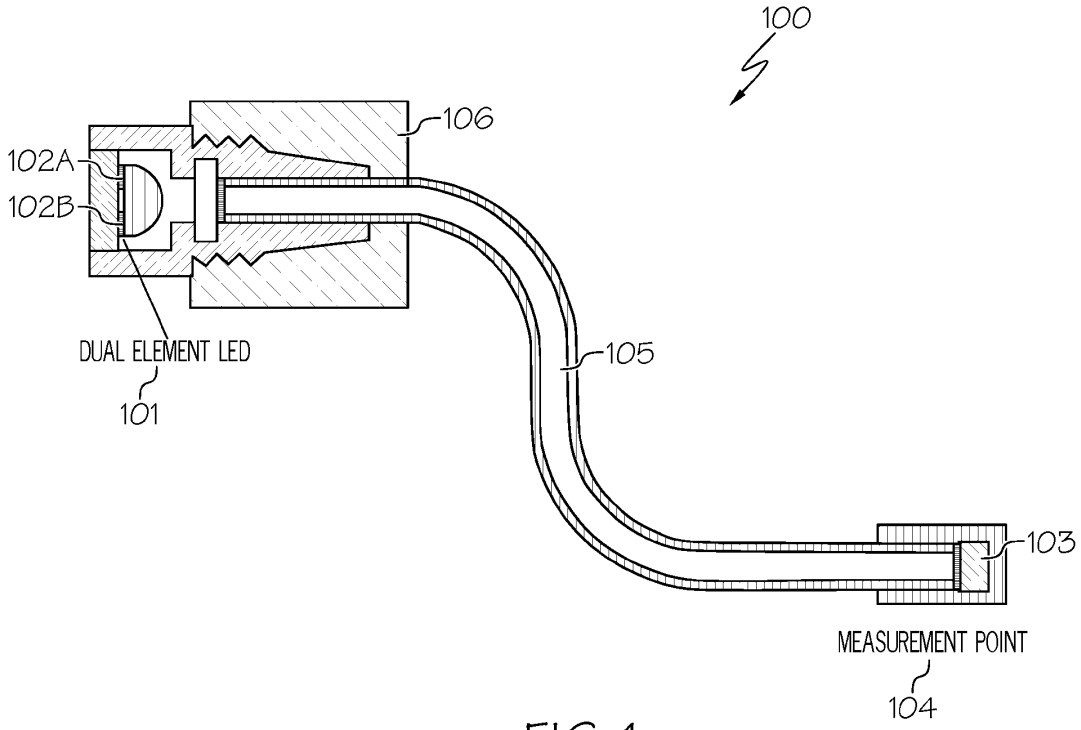

100
106
102A
102B
DUAL ELEMENT LED
101
105
103
MEASUREMENT POINT
104

FIG. 1

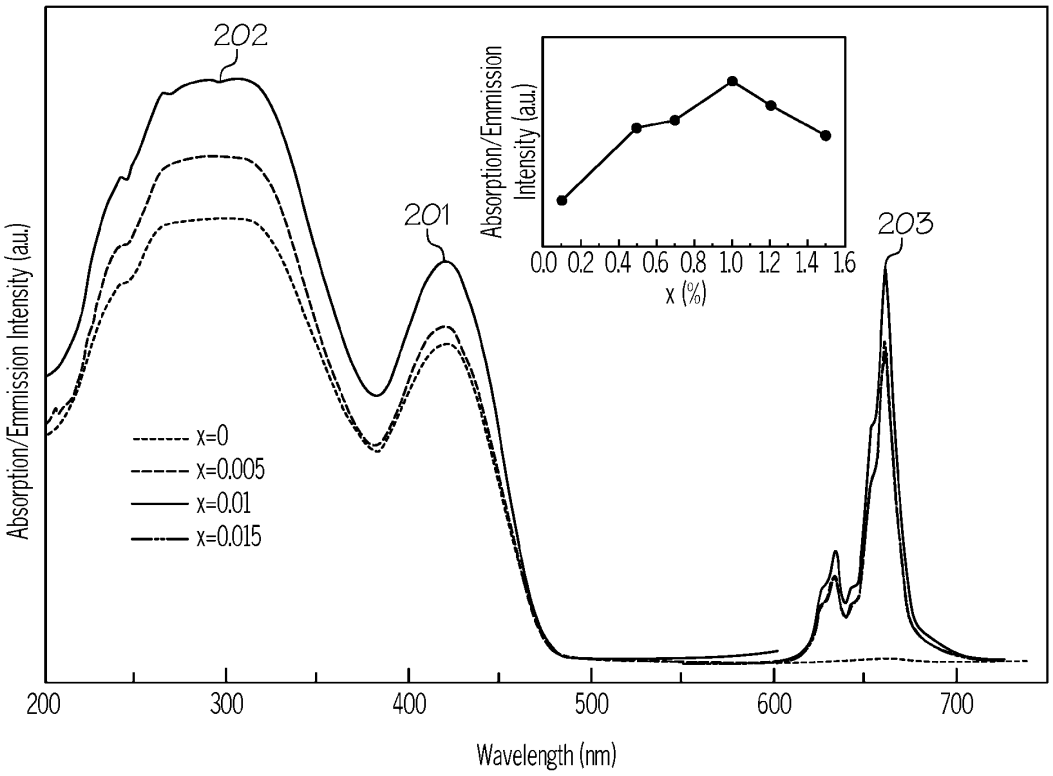

202
201
203
Absorption/Emmission Intensity (a.u.)
x=0
x=0.005
x=0.01
x=0.015
200
300
400
500
600
700
Wavelength (nm)
Absorption/Emmission Intensity (a.u.)
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
x (%)

FIG. 2

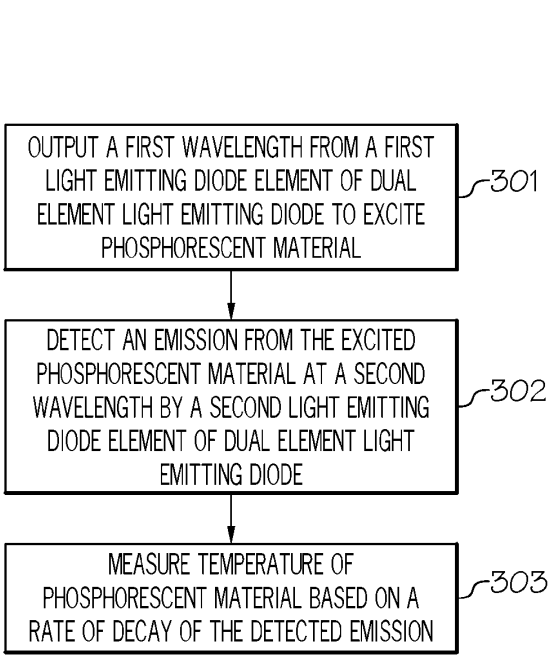

300
OUTPUT A FIRST WAVELENGTH FROM A FIRST LIGHT EMITTING DIODE ELEMENT OF DUAL ELEMENT LIGHT EMITTING DIODE TO EXCITE PHOSPHORESCENT MATERIAL
301
DETECT AN EMISSION FROM THE EXCITED PHOSPHORESCENT MATERIAL AT A SECOND WAVELENGTH BY A SECOND LIGHT EMITTING DIODE ELEMENT OF DUAL ELEMENT LIGHT EMITTING DIODE
302
MEASURE TEMPERATURE OF PHOSPHORESCENT MATERIAL BASED ON A RATE OF DECAY OF THE DETECTED EMISSION
303

FIG. 3