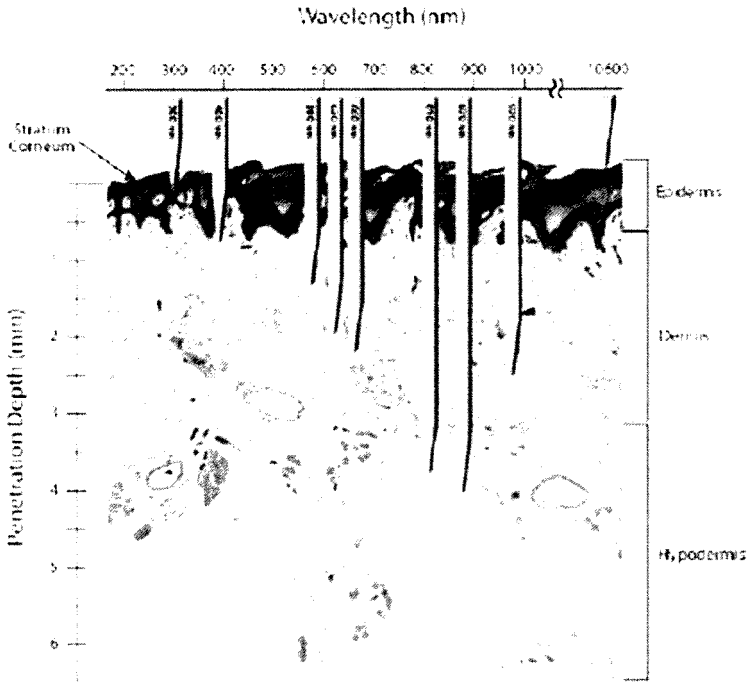

Wavelength (nm)
200
300
400
500
600
700
800
900
1000
1600
Stratum Corneum
Epidermis
Dermis
Hypodermis
Penetration Depth (mm)
2
4
6

FIG. 1

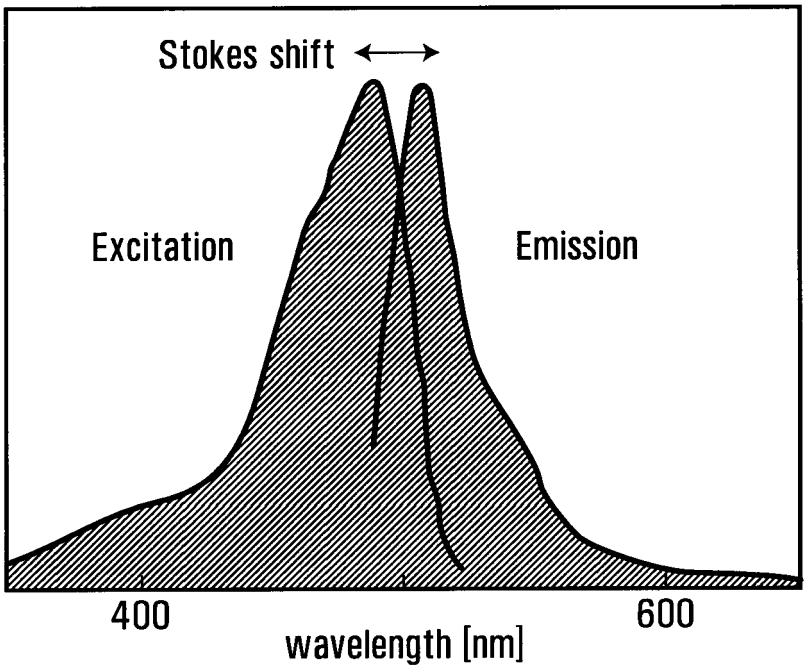

Stokes shift
Excitation
Emission
400
600
wavelength [nm]

FIG. 2

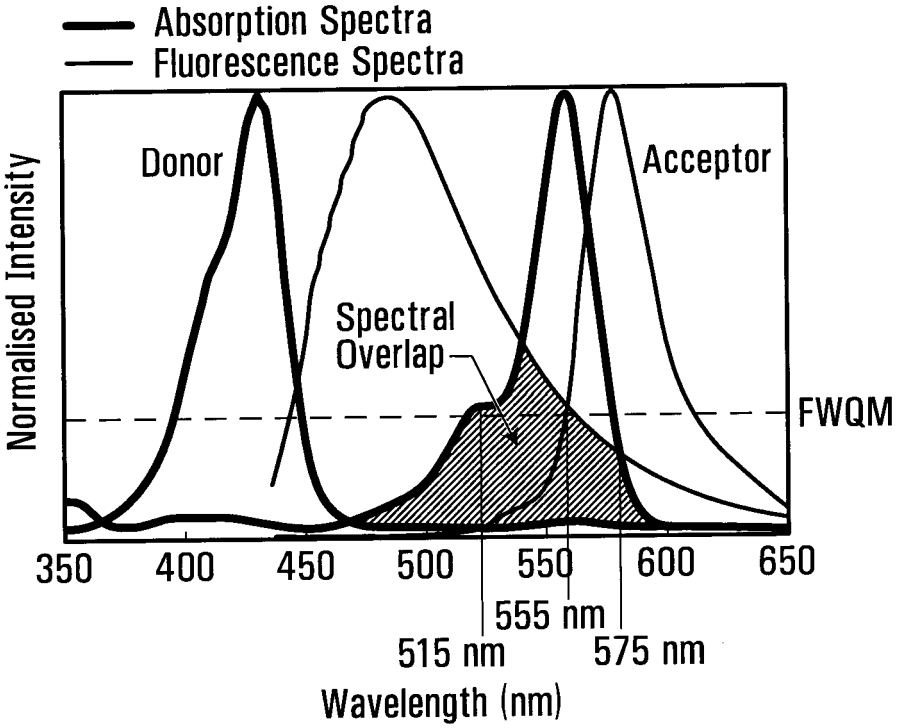

Absorption Spectra
Fluorescence Spectra
Donor
Acceptor
Normalised Intensity
Spectral Overlap
FWQM
350
400
450
500
550
600
650
555 nm
515 nm
575 nm
Wavelength (nm)

FIG. 3

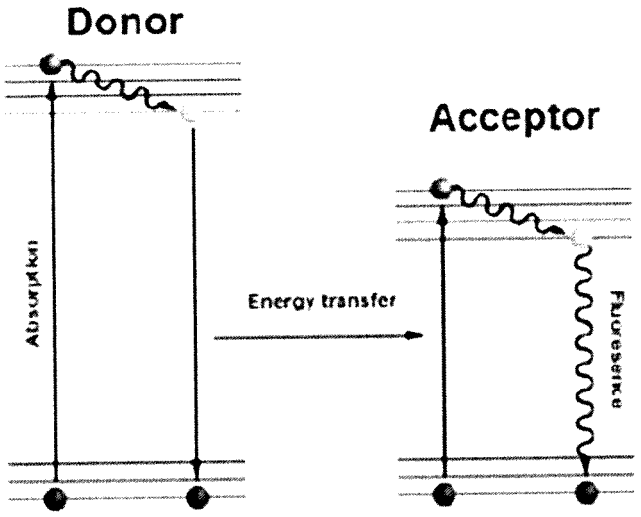

Donor
Acceptor
Energy transfer

FIG. 4

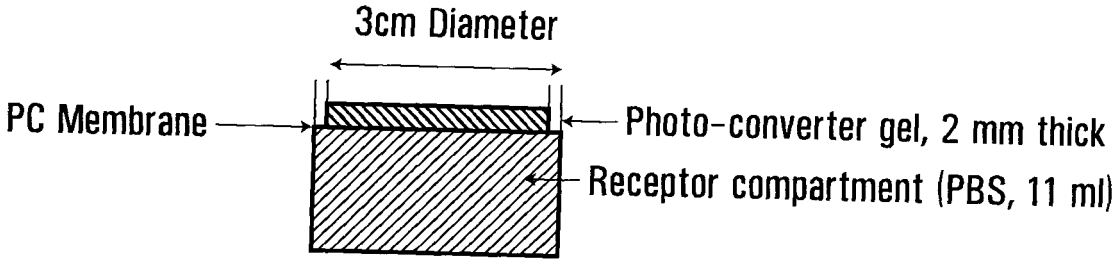


FIG. 5

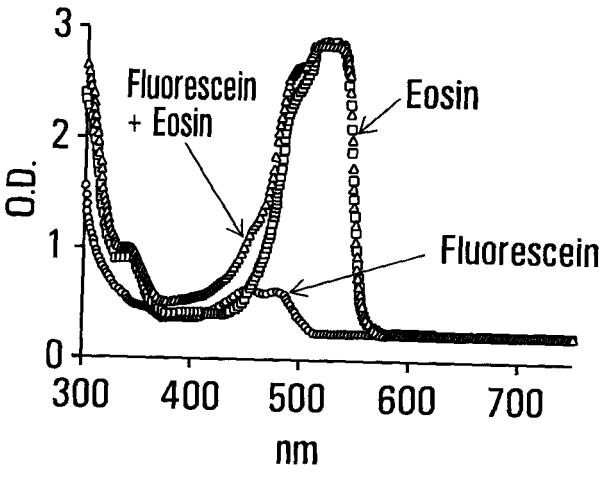


FIG. 6A

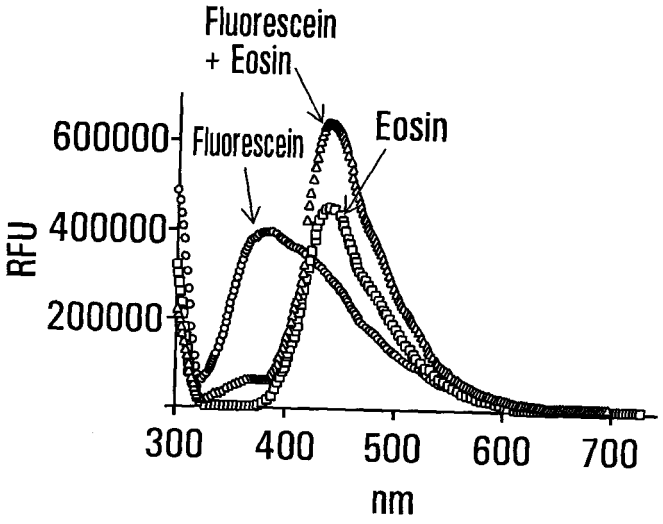


FIG. 6B

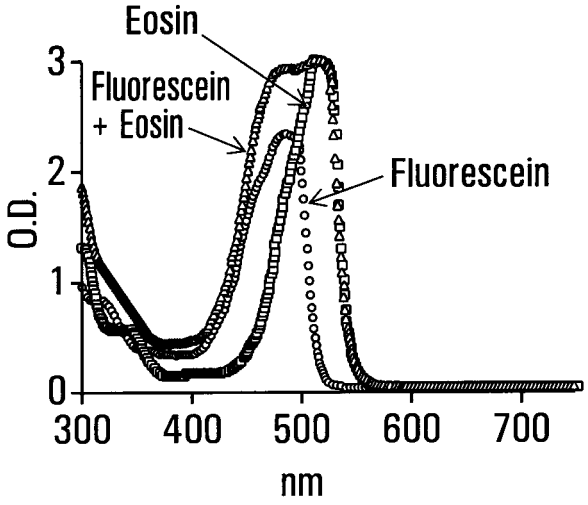

Eosin
Fluorescein
+ Eosin
Fluorescein
O.D.
3
2
1
0
300
400
500
600
700
nm

FIG. 7A

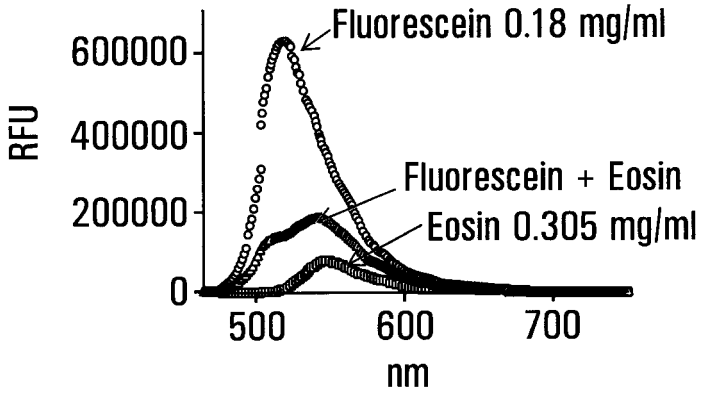

Fluorescein 0.18 mg/ml
Fluorescein + Eosin
Eosin 0.305 mg/ml
RFU
600000
400000
200000
0
500
600
700
nm

FIG. 7B

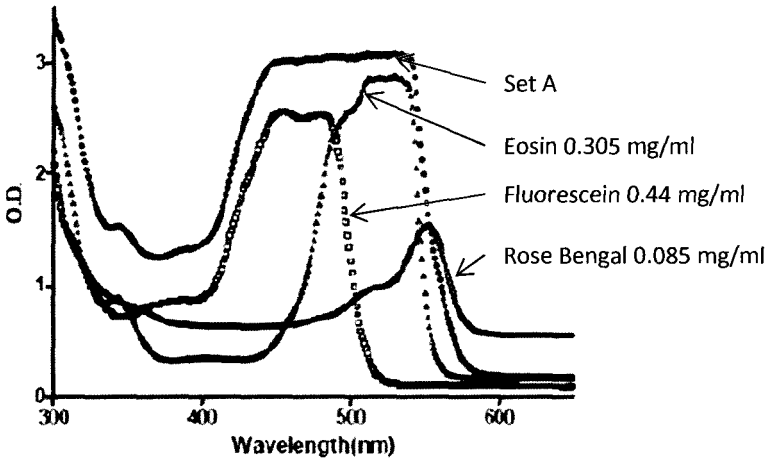

O.D.
Wavelength(nm)
Set A
Eosin 0.305 mg/ml
Fluorescein 0.44 mg/ml
Rose Bengal 0.085 mg/ml

FIG. 8A

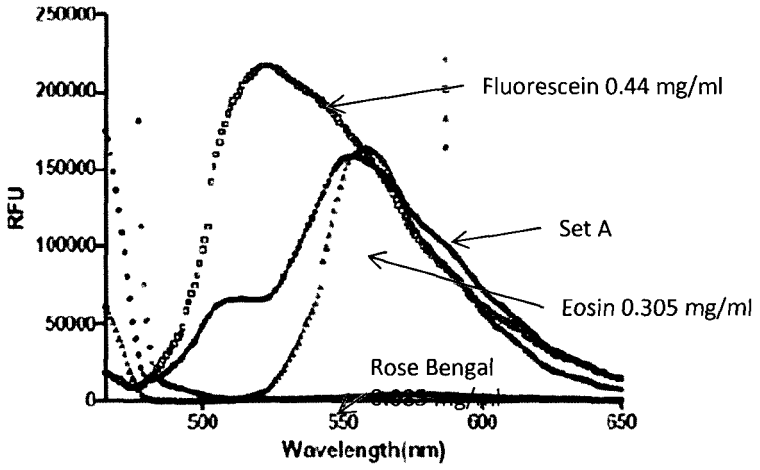

RFU
Wavelength(nm)
Fluorescein 0.44 mg/ml
Set A
Eosin 0.305 mg/ml
Rose Bengal

FIG. 8B

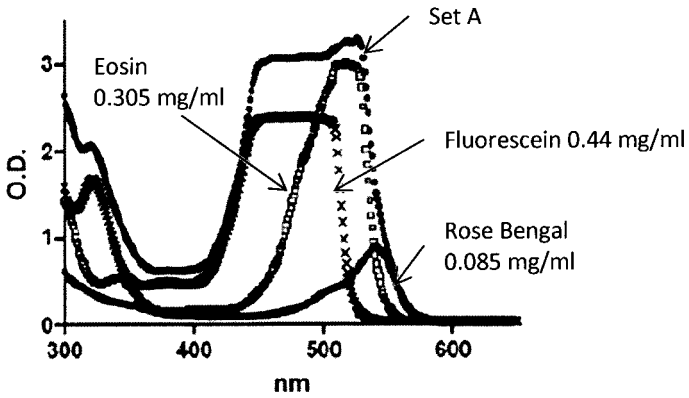

Set A
Eosin
0.305 mg/ml
Fluorescein 0.44 mg/ml
Rose Bengal
0.085 mg/ml
O.D.
3
2
1
0
300
400
500
600
nm

FIG. 9A

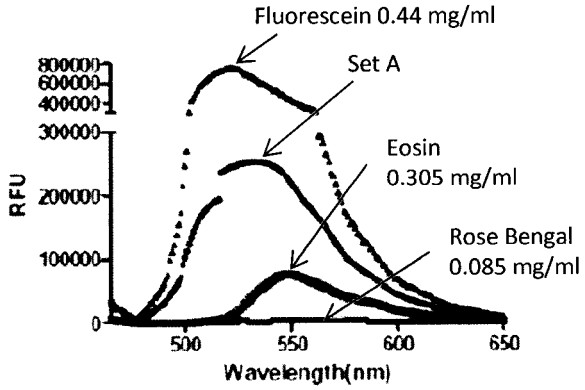

Fluorescein 0.44 mg/ml
Set A
Eosin
0.305 mg/ml
Rose Bengal
0.085 mg/ml
RFU
800000
600000
400000
300000
200000
100000
0
500
550
600
650
Wavelength(nm)

FIG. 9B

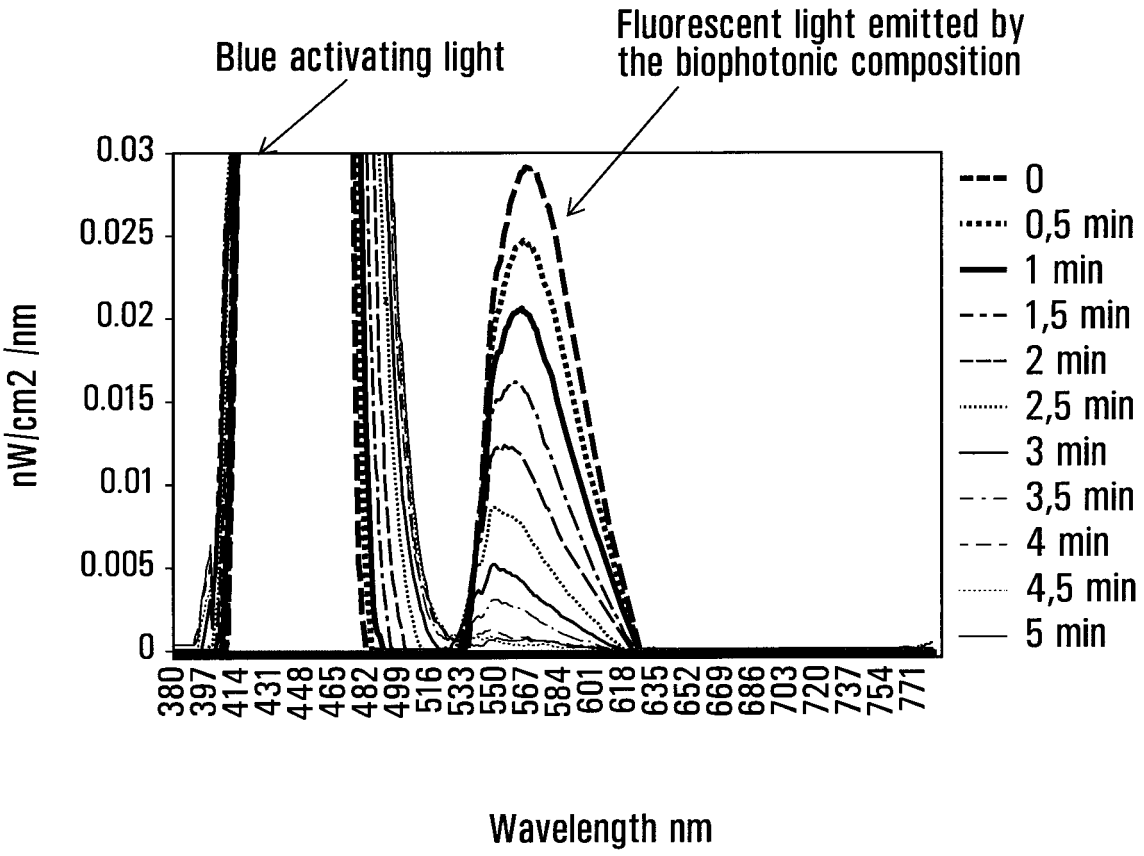

Blue activating light
Fluorescent light emitted by the biophotonic composition
nW/cm2 /nm
0.03
0.025
0.02
0.015
0.01
0.005
0
380 397 414 431 448 465 482 499 516 533 550 567 584 601 618 635 652 669 686 703 720 737 754 771
Wavelength nm
0
0,5 min
1 min
1,5 min
2 min
2,5 min
3 min
3,5 min
4 min
4,5 min
5 min

FIG. 10

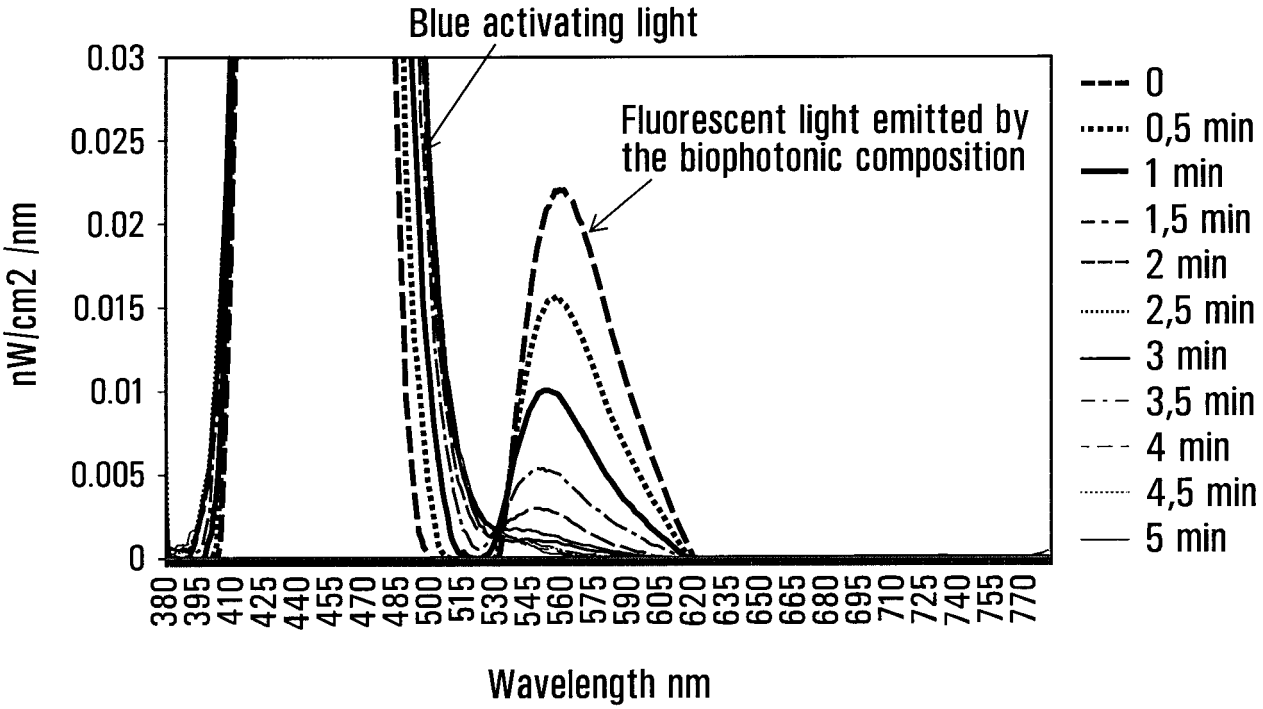

Blue activating light
Fluorescent light emitted by the biophotonic composition
nW/cm2 /nm
0.03
0.025
0.02
0.015
0.01
0.005
0
380 395 410 425 440 455 470 485 500 515 530 545 560 575 590 605 620 635 650 665 680 695 710 725 740 755 770
Wavelength nm
0
0,5 min
1 min
1,5 min
2 min
2,5 min
3 min
3,5 min
4 min
4,5 min
5 min

FIG. 11

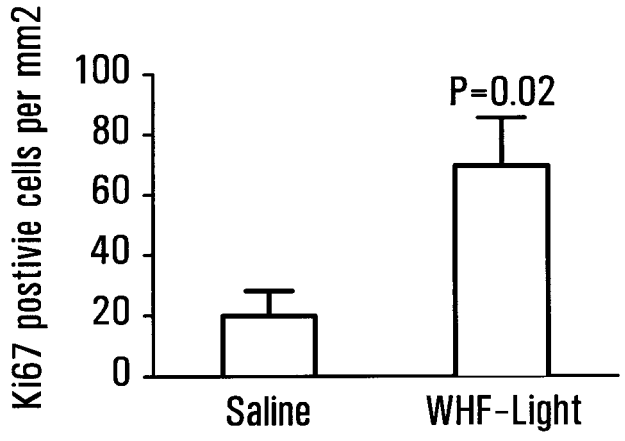
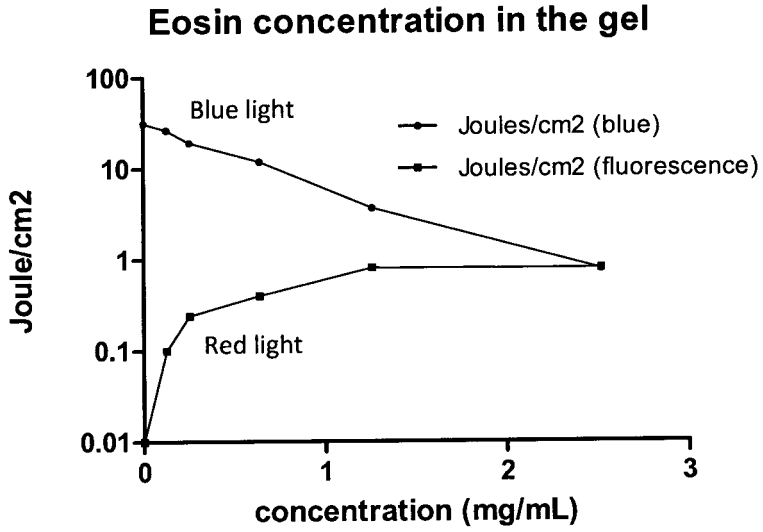

Ki67 postivie cells per mm2
100
80
60
40
20
0
P=0.02
Saline
WHF-Light

FIG. 12


Eosin concentration in the gel
100
10
1
0.1
0.01
Joule/cm2
Blue light
Red light
Joules/cm2 (blue)
Joules/cm2 (fluorescence)
0
1
2
3
concentration (mg/mL)

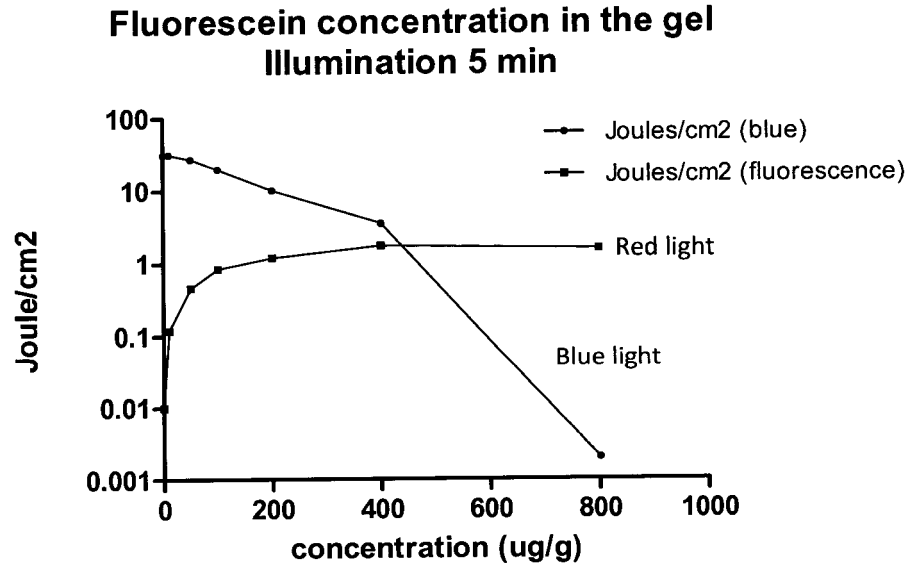

Fluorescein concentration in the gel
Illumination 5 min
100
10
1
0.1
0.01
0.001
Joule/cm2
Joules/cm2 (blue)
Joules/cm2 (fluorescence)
Red light
Blue light
0
200
400
600
800
1000
concentration (ug/g)

FIG. 13

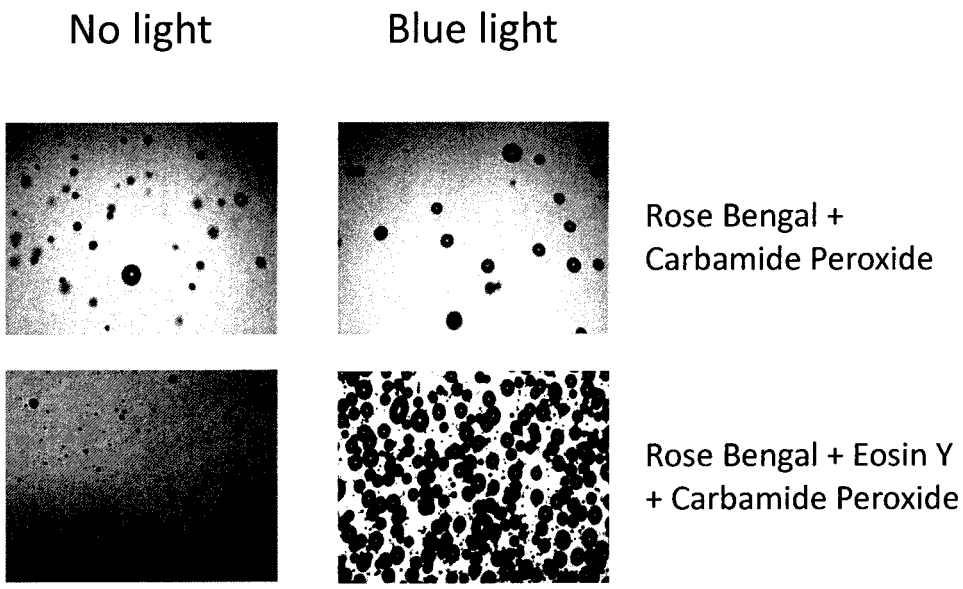

No light
Blue light
Rose Bengal +
Carbamide Peroxide
Rose Bengal + Eosin Y
+ Carbamide Peroxide

FIG. 14