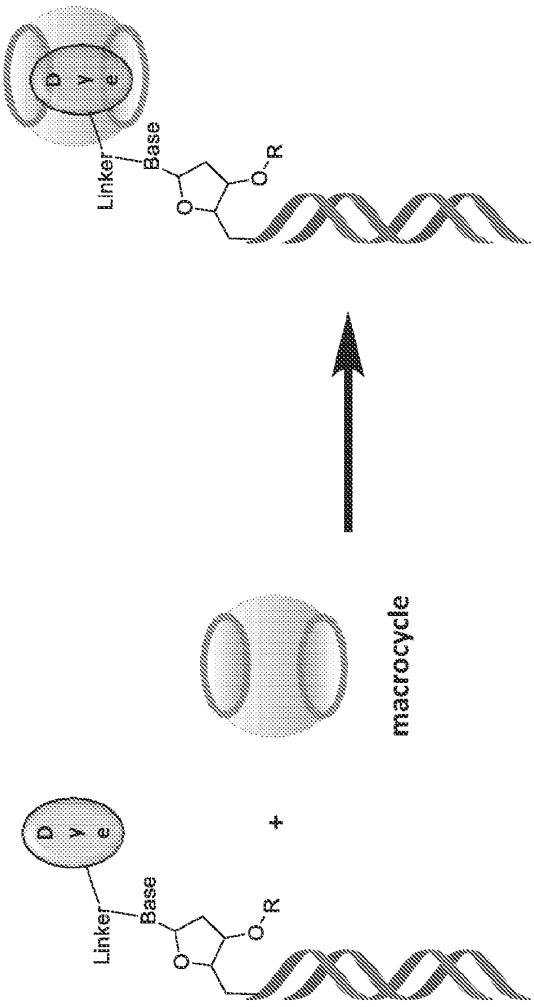

FIG. 1

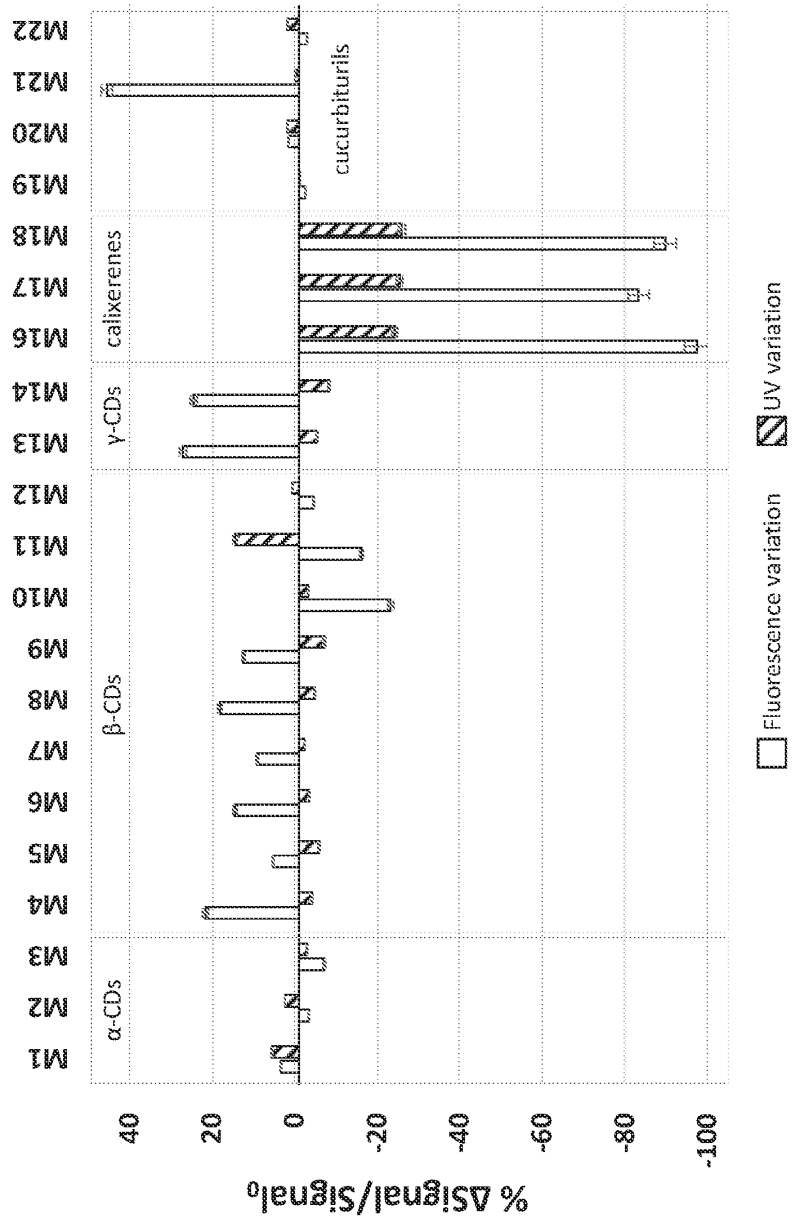
% ΔSignal/Signal0
40
20
0
-20
-40
-60
-80
-100
α-CDs
β-CDs
γ-CDs
calixerenes
cucurbiturils
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11
M12
M13
M14
M16
M17
M18
M19
M20
M21
M22
Fluorescence variation
UV variation

FIG. 2A

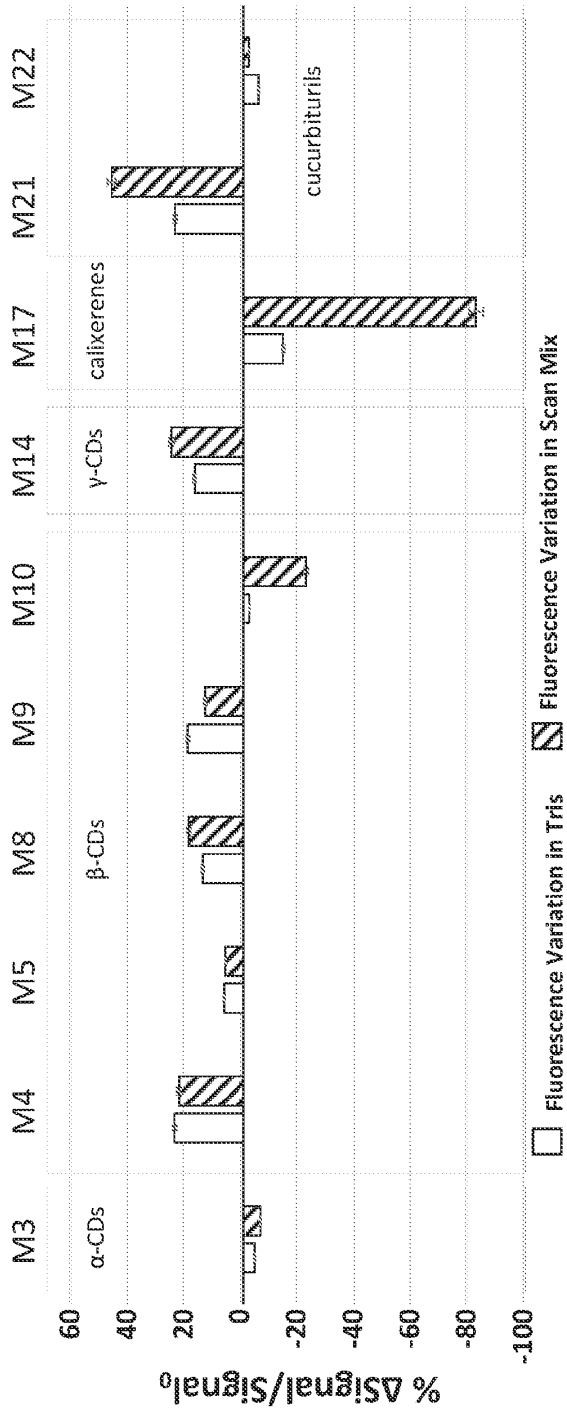
% ΔSignal/Signal0
60
40
20
0
-20
-40
-60
-80
-100
M3
M4
M5
M8
M9
M10
M14
M17
M21
M22
α-CDs
β-CDs
γ-CDs
calixerenes
cucurbiturils
Fluorescence Variation in Tris
Fluorescence Variation in Scan Mix

FIG. 2B

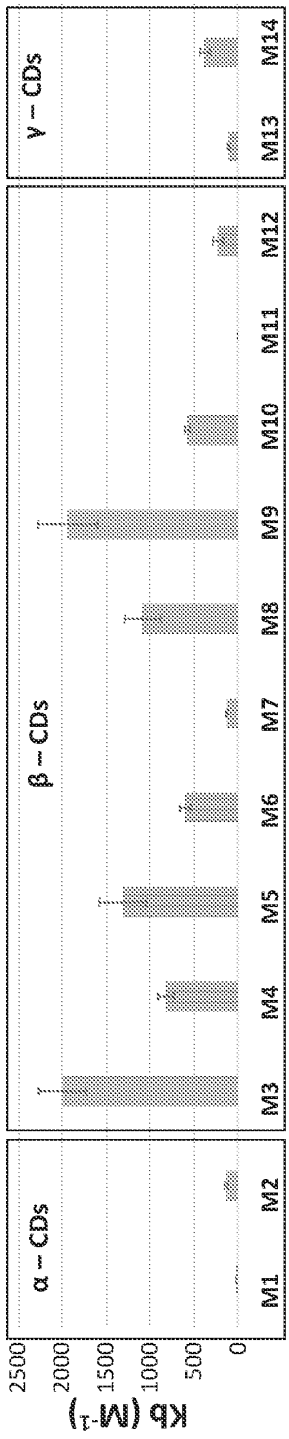

FIG. 3A

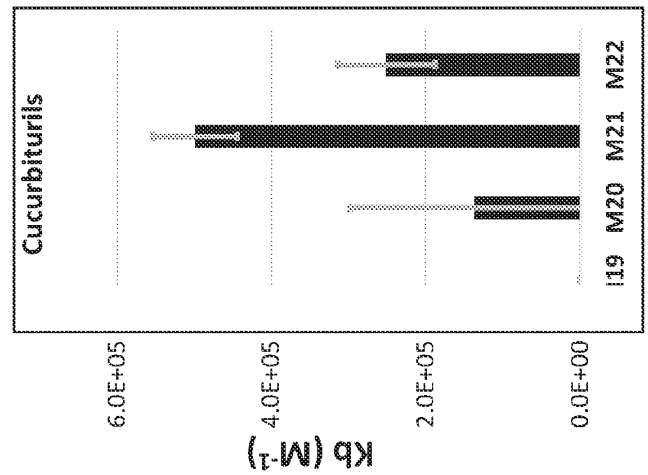

FIG. 3C

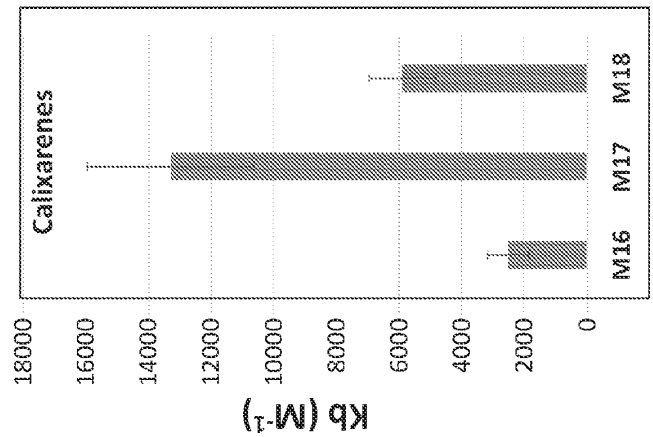

FIG. 3B

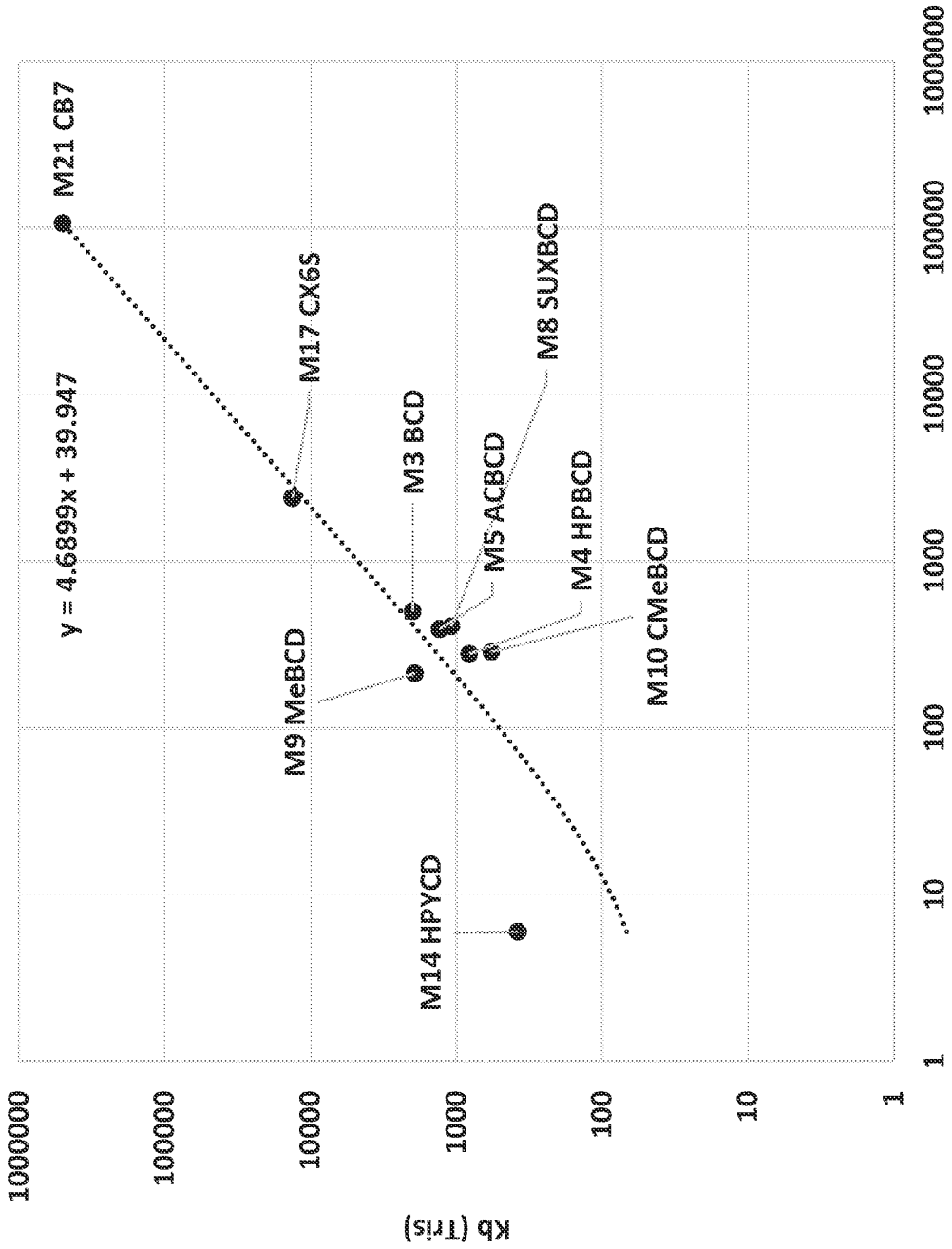
y = 4.6899x + 39.947
M21 CB7
M17 CX6S
M3 BCD
M8 SUXBCD
M5 ACBCD
M4 HPBCD
M10 CMeBCD
M9 MeBCD
M14 HPYCD
Kb (Tris)
Kb (scan mix)
1000000
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000
1000000

FIG. 3D

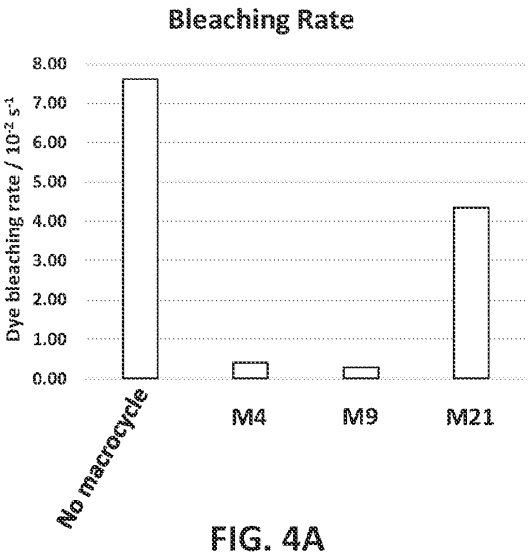

FIG. 4A

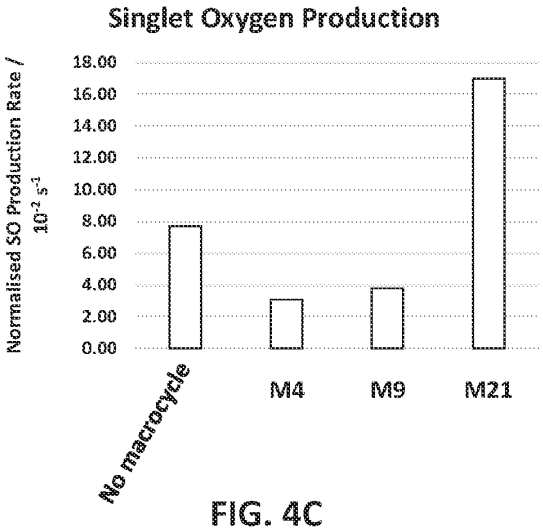

FIG. 4C

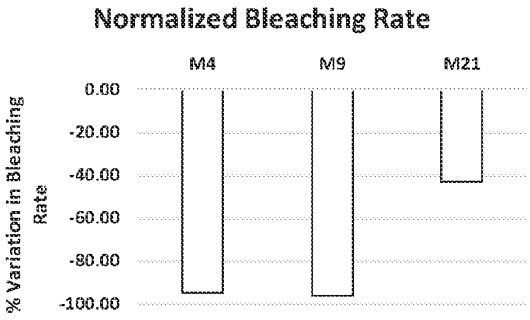

FIG. 4B

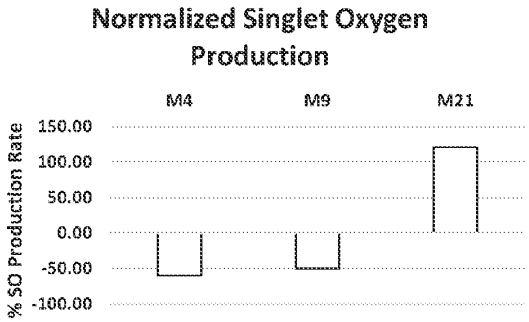

FIG. 4D

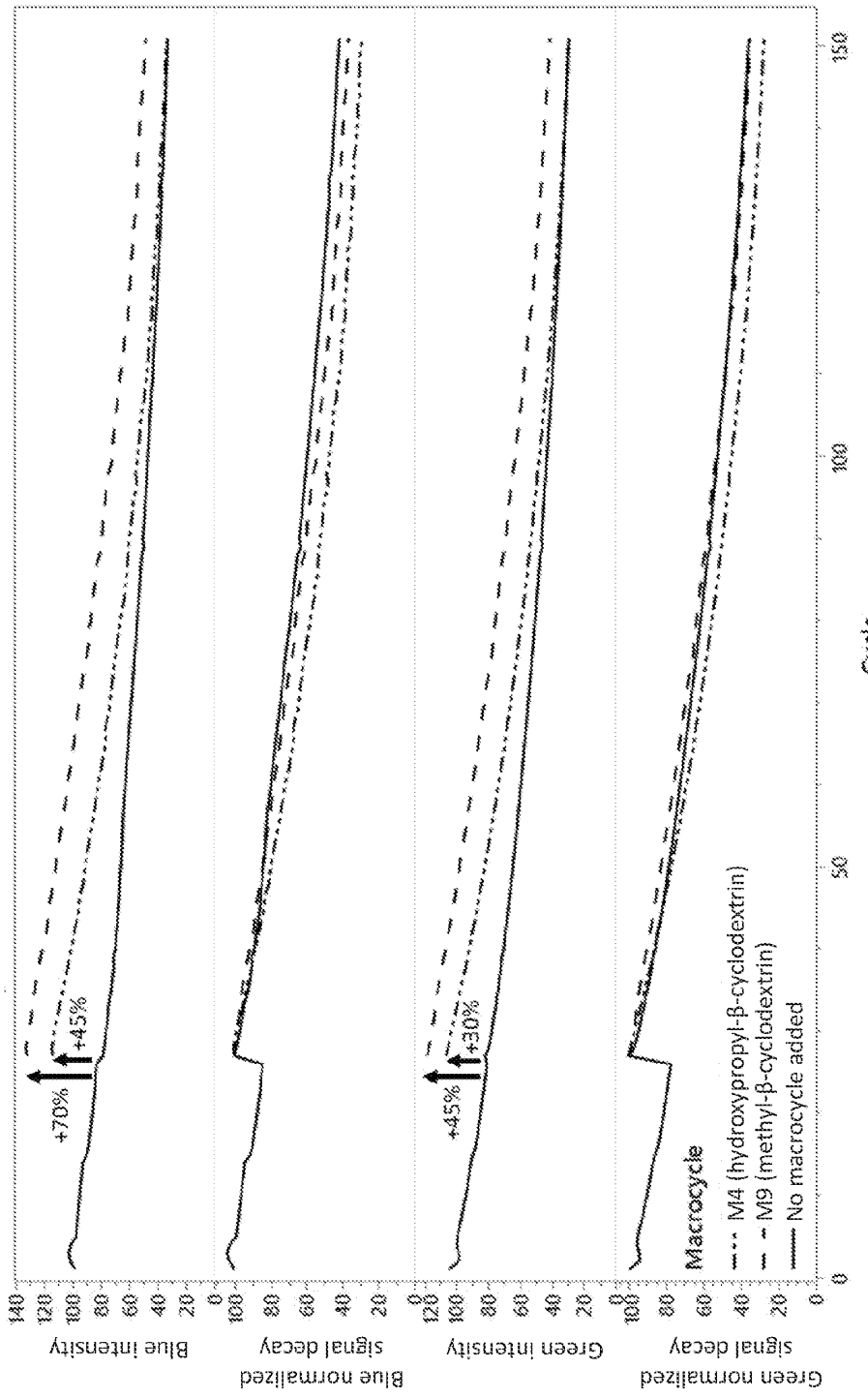
Green normalized signal decay
Green intensity
Blue normalized signal decay
Blue intensity
Cycle
Macrocycle
M4 (hydroxypropyl-β-cyclodextrin)
M9 (methyl-β-cyclodextrin)
No macrocycle added
+45%
+30%
+45%
+70%
0
50
100
150
0
20
40
60
80
100
120
140

FIG. 5A

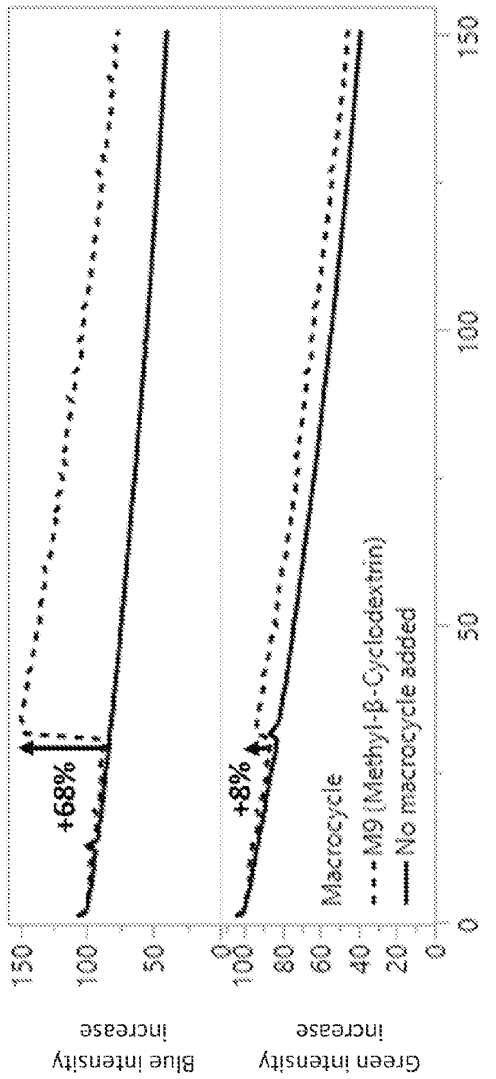
Blue intensity increase
Green intensity increase
150
100
50
0
100
60
40
20
0
0
50
100
150
Cycle
+68%
+8%
Macrocycle
M9 (Methyl-β-Cyclodextrin)
No macrocycle added

FIG. 5B

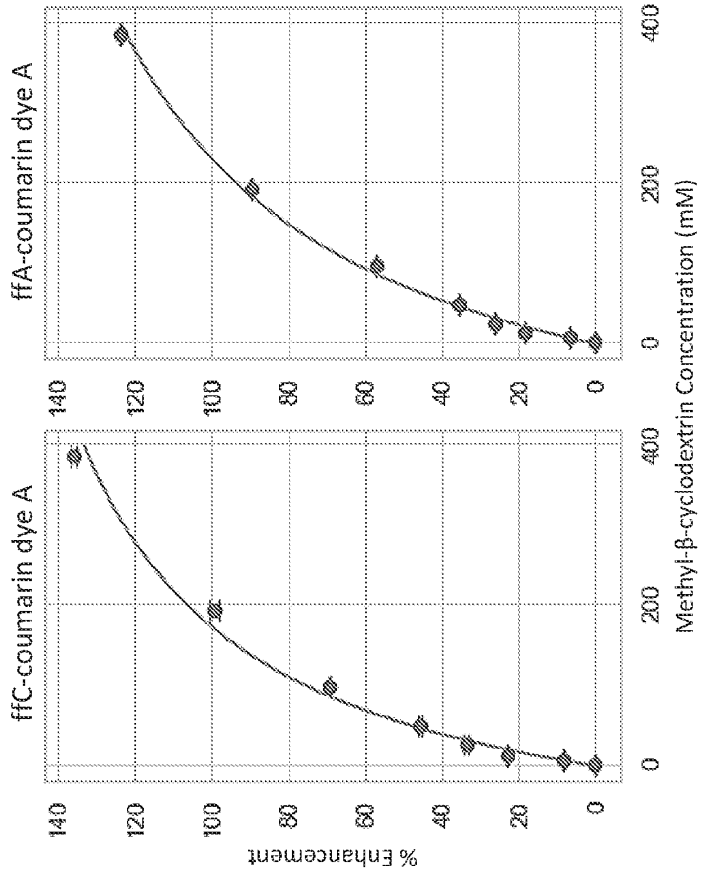
ffC-coumarin dye A
ffA-coumarin dye A
% Enhancement
0
20
40
60
80
100
120
140
0
200
400
Methyl-β-cyclodextrin Concentration (mM)

FIG. 6A

FIG. 6B

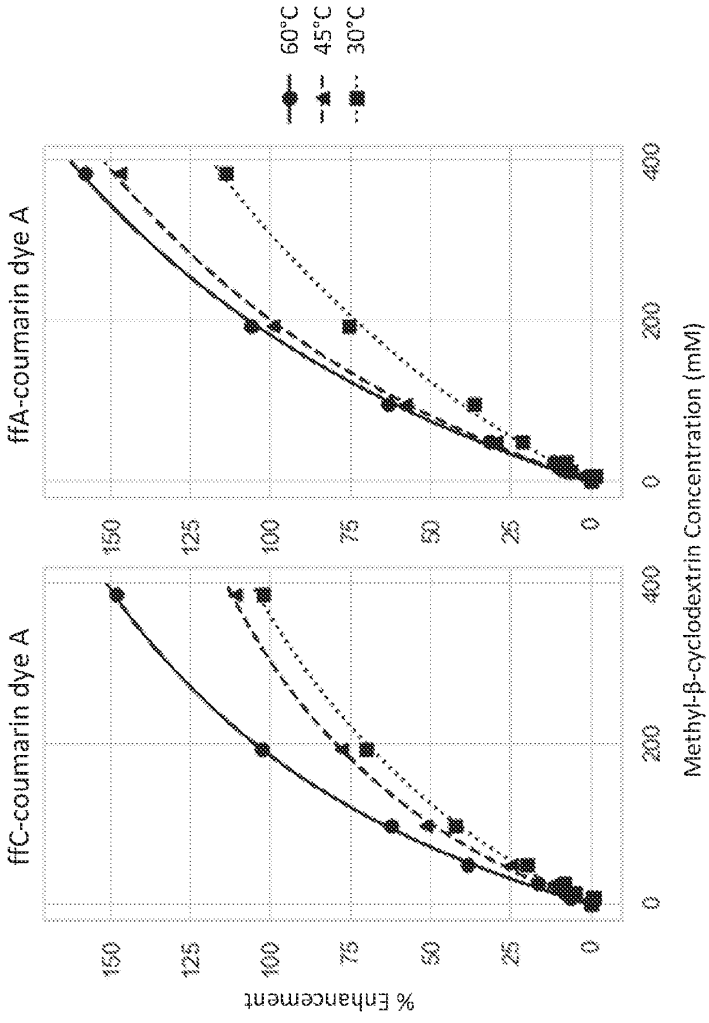
60°C
45°C
30°C
ffA-coumarin dye A
ffC-coumarin dye A
% Enhancement
0
25
50
75
100
125
150
0
200
400
Methyl-β-cyclodextrin Concentration (mM)

FIG. 7A

FIG. 7B