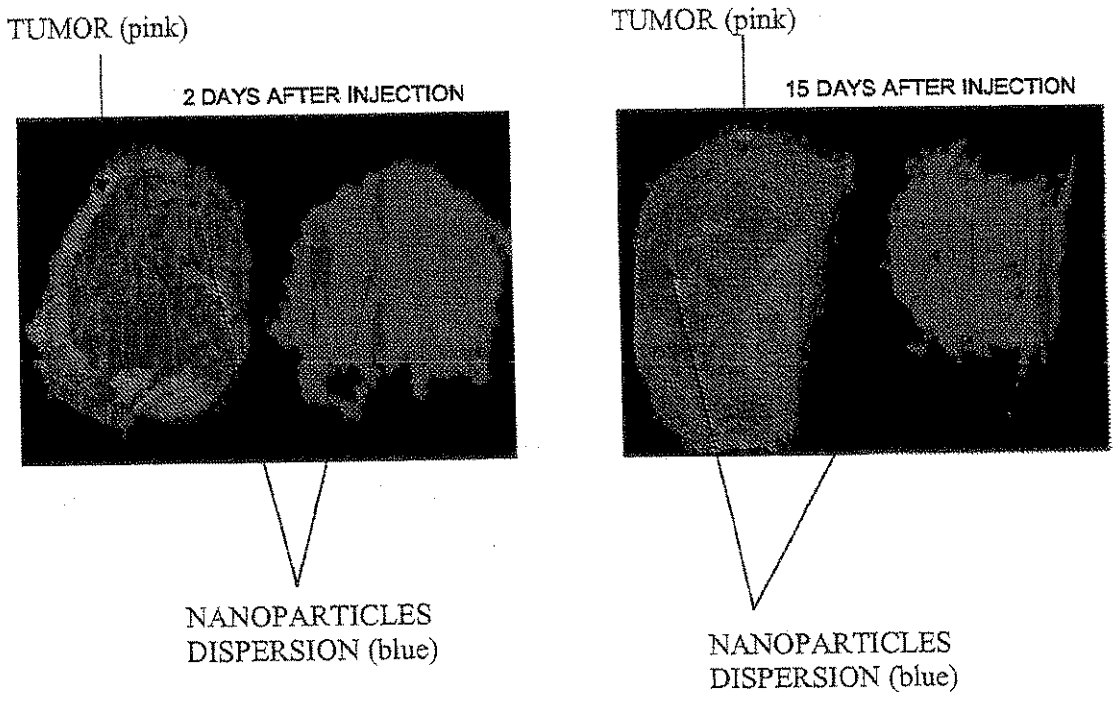
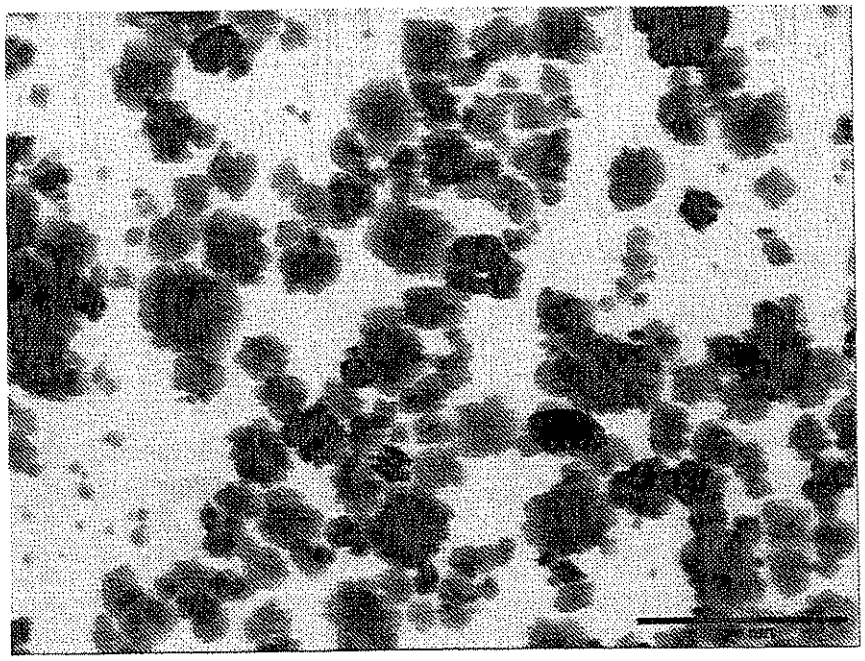

TUMOR (pink)
2 DAYS AFTER INJECTION
NANOPARTICLES
DISPERSION (blue)
TUMOR (pink)
15 DAYS AFTER INJECTION
NANOPARTICLES
DISPERSION (blue)

FIGURE 1

A)



B)

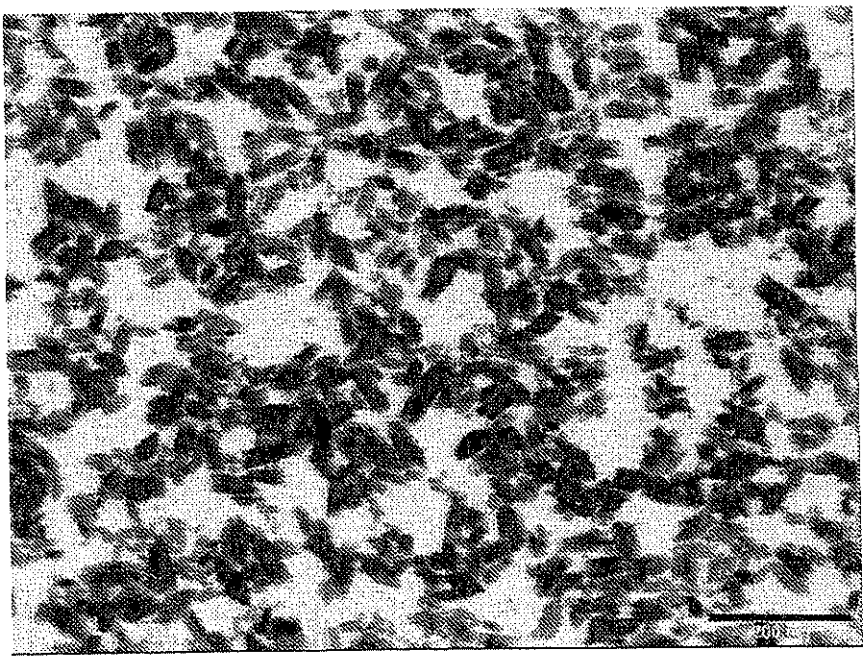


FIGURE 2

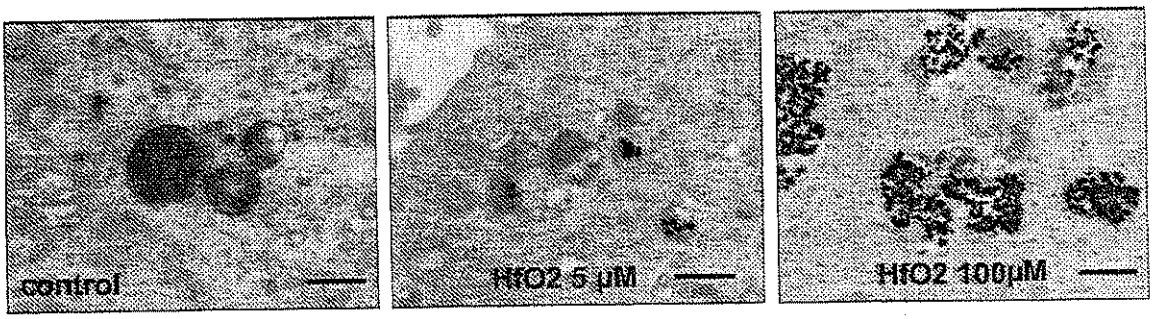


FIGURE 3

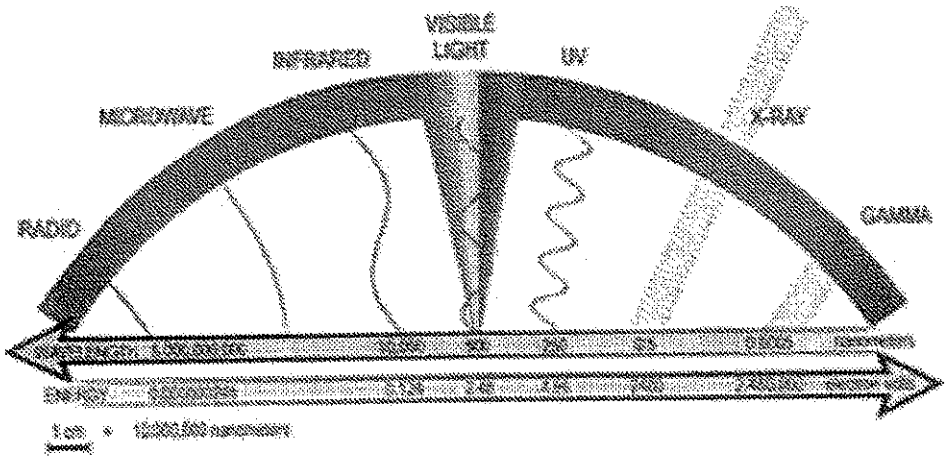


FIGURE 4

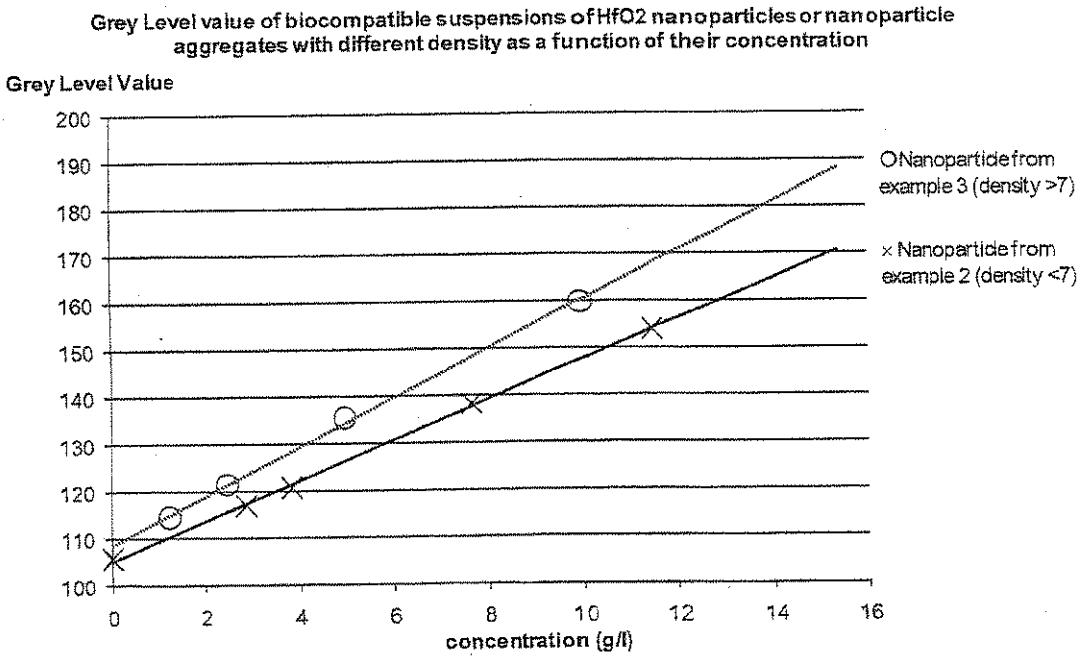


FIGURE 5 A

	density	Product	HCT116 SF2 (%)	HT29 SF4 (%)
Negative control (H_2O)			18	11
HfO_2 (example 2)	<7	400 µM	18	8
HfO_2 (example 1)	>7	400 µM	12	3,5

FIGURE 5B

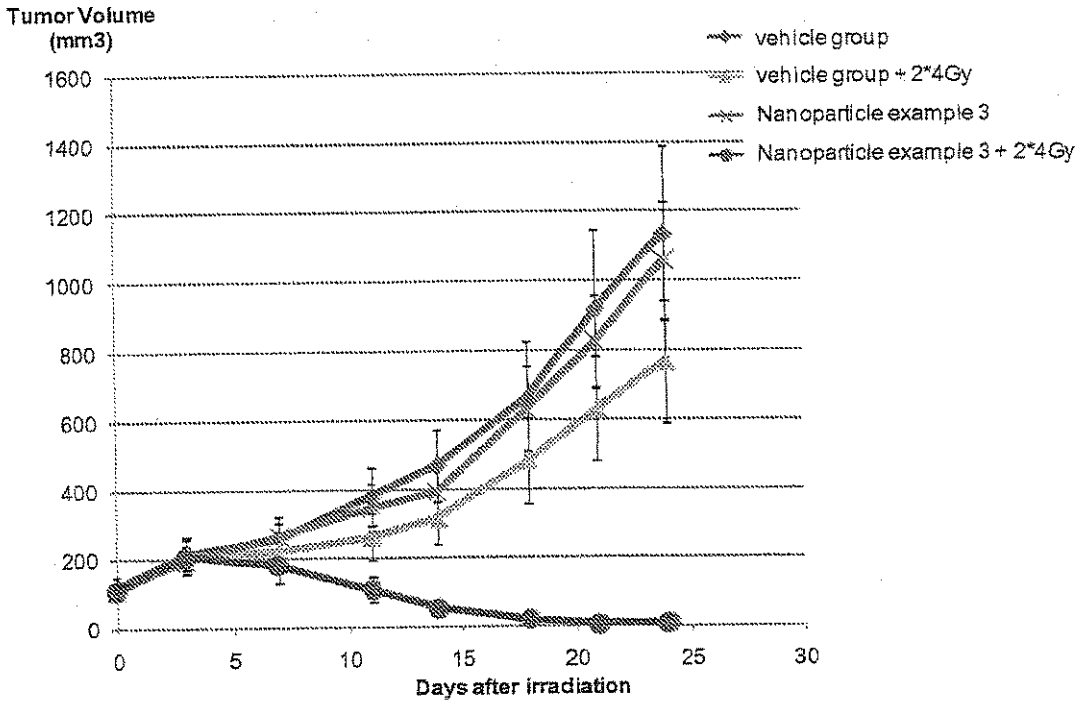

Tumor Volume
(mm3)
1600
1400
1200
1000
800
600
400
200
0
0
5
10
15
20
25
30
Days after irradiation
vehicle group
vehicle group + 2*4Gy
Nanoparticle example 3
Nanoparticle example 3 + 2*4Gy

FIGURE 6

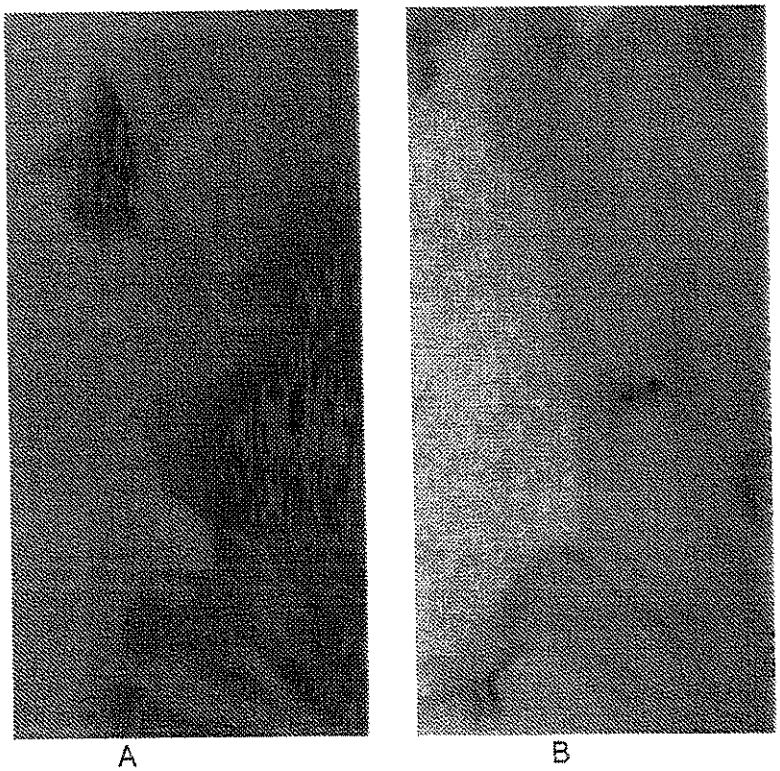


FIGURE 7

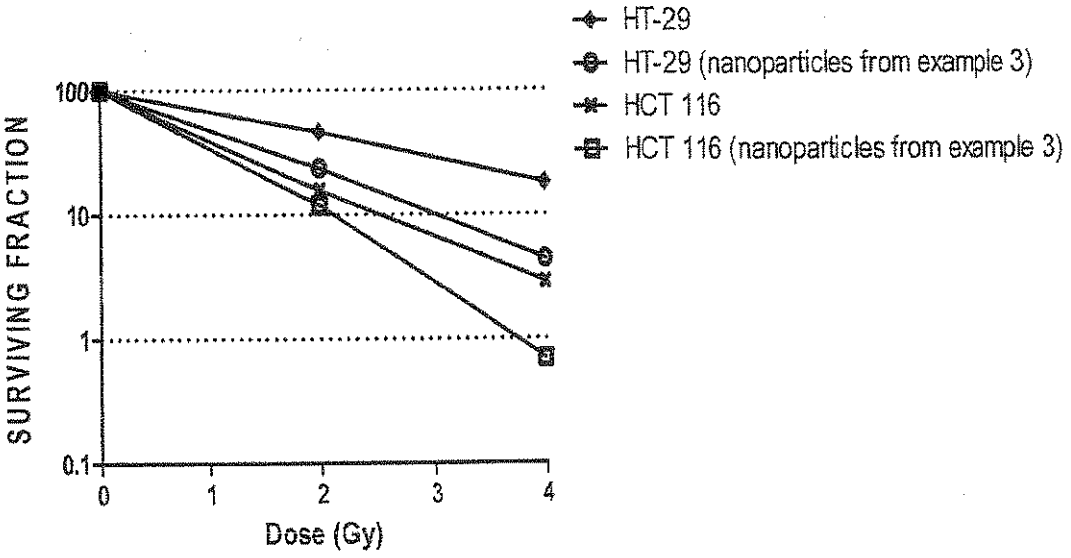

HT-29
HT-29 (nanoparticles from example 3)
HCT 116
HCT 116 (nanoparticles from example 3)
SURVIVING FRACTION
100
10
1
0.1
0
1
2
3
4
Dose (Gy)

FIGURE 8

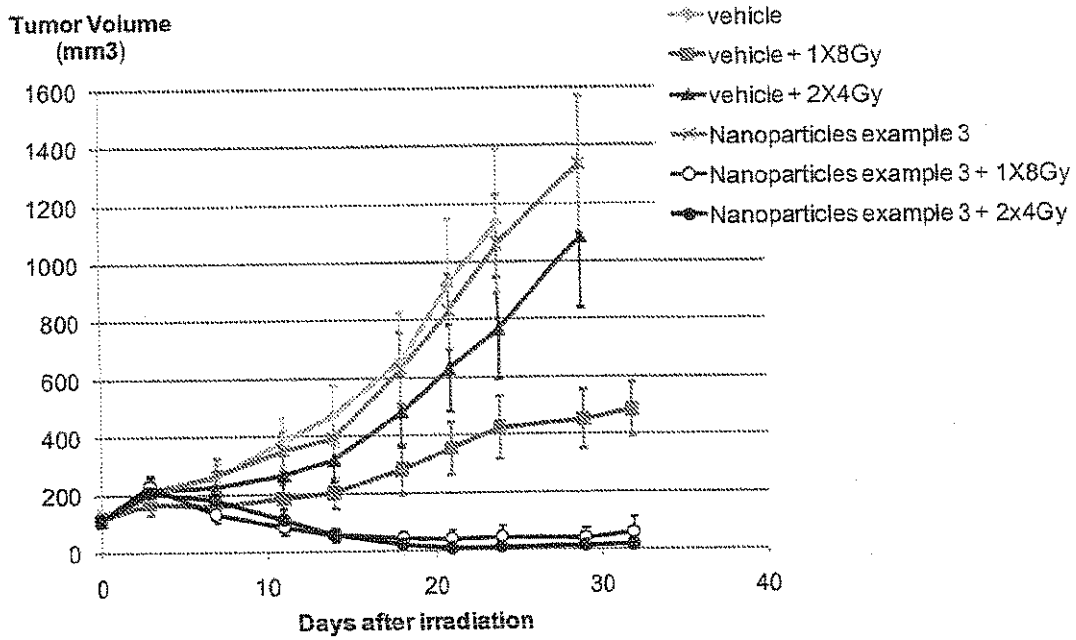

Tumor Volume
(mm3)
1600
1400
1200
1000
800
600
400
200
0
0
10
20
30
40
Days after irradiation
vehicle
vehicle + 1X8Gy
vehicle + 2X4Gy
Nanoparticles example 3
Nanoparticles example 3 + 1X8Gy
Nanoparticles example 3 + 2x4Gy

FIGURE 9

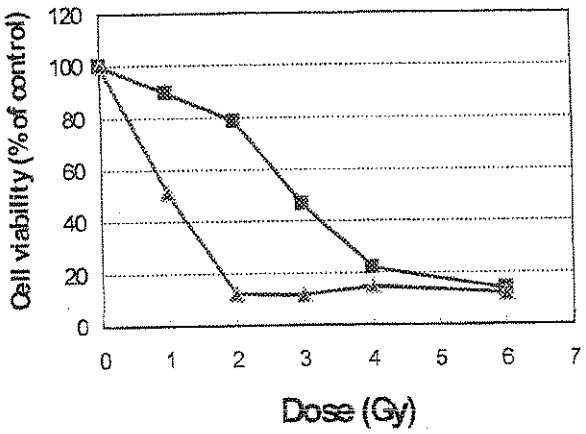

Cell viability (% of control)
120
100
80
60
40
20
0
0
1
2
3
4
5
6
7
Dose (Gy)

FIGURE 10

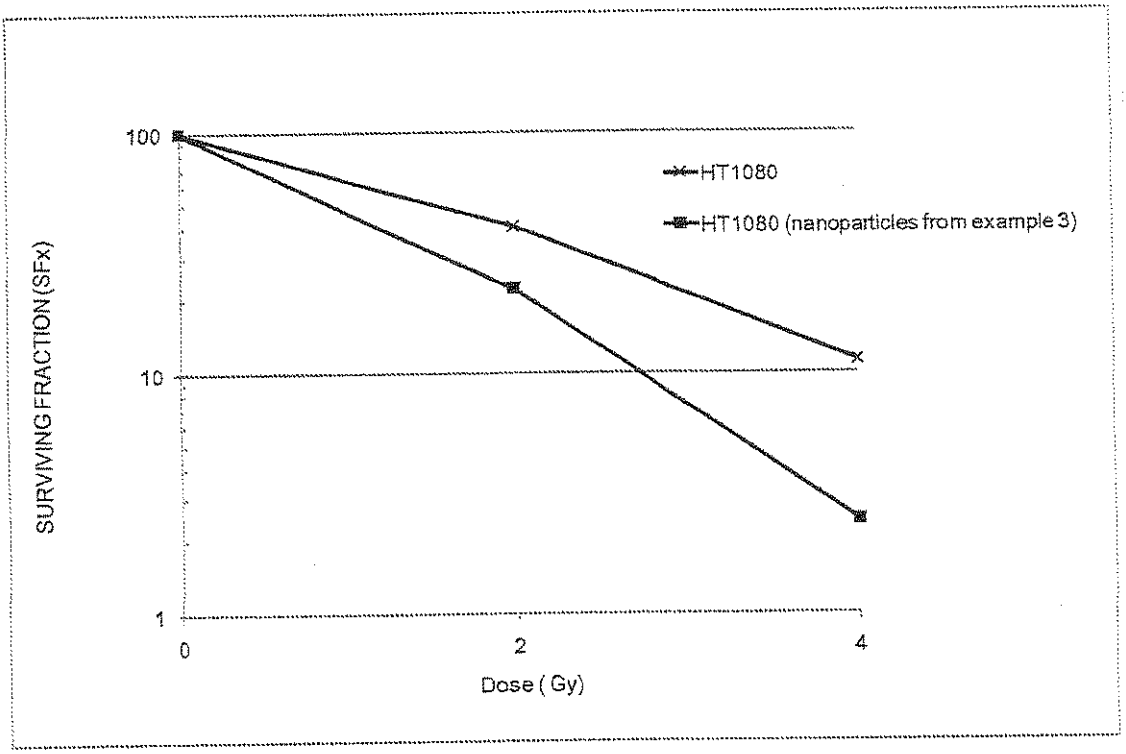


FIGURE 11A

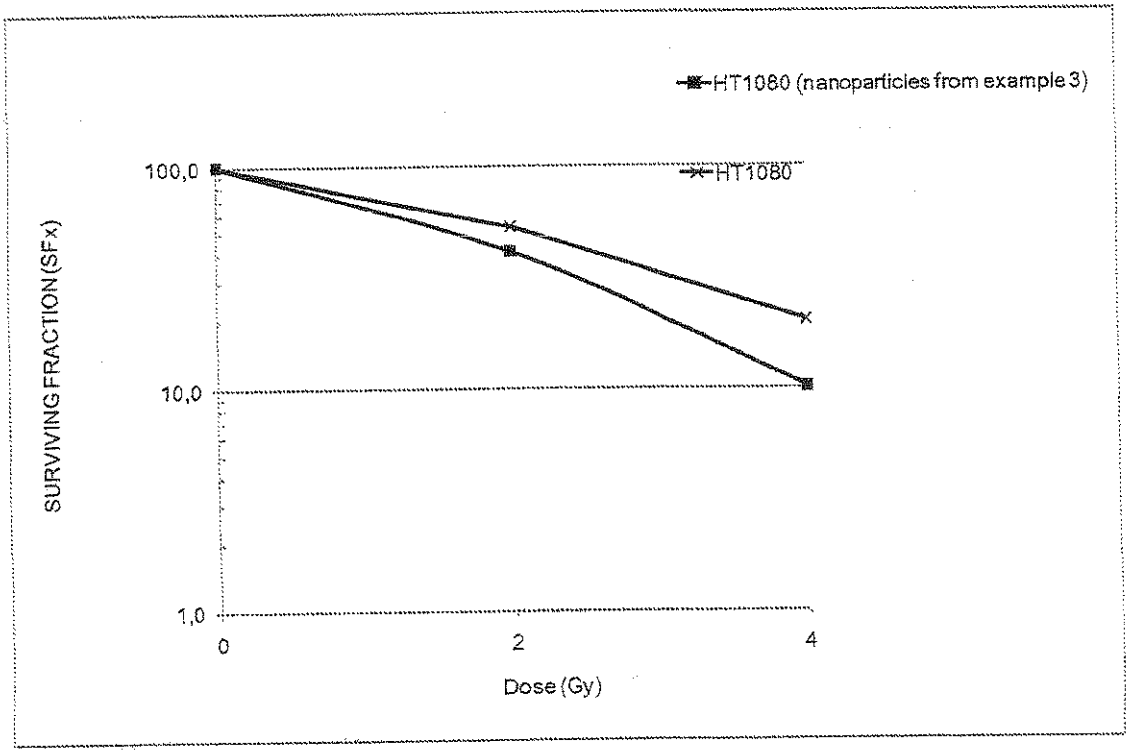


FIGURE 11B

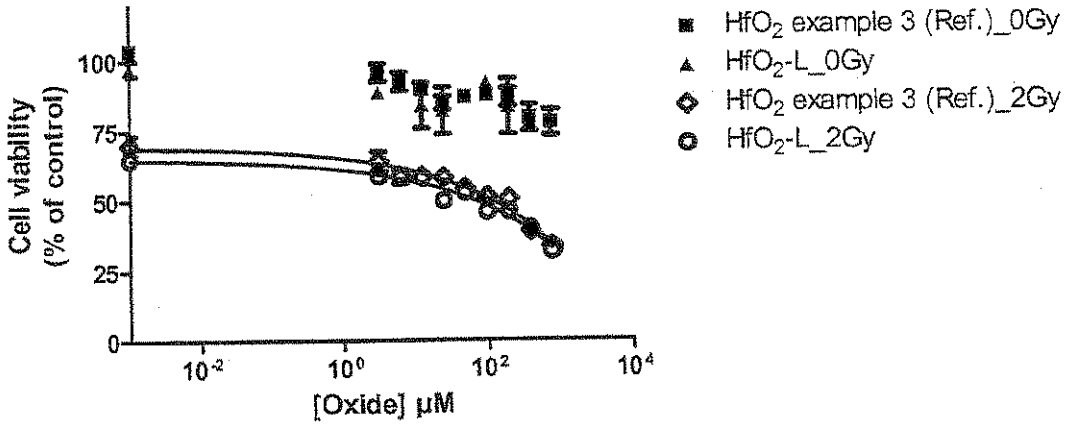


FIGURE 12A

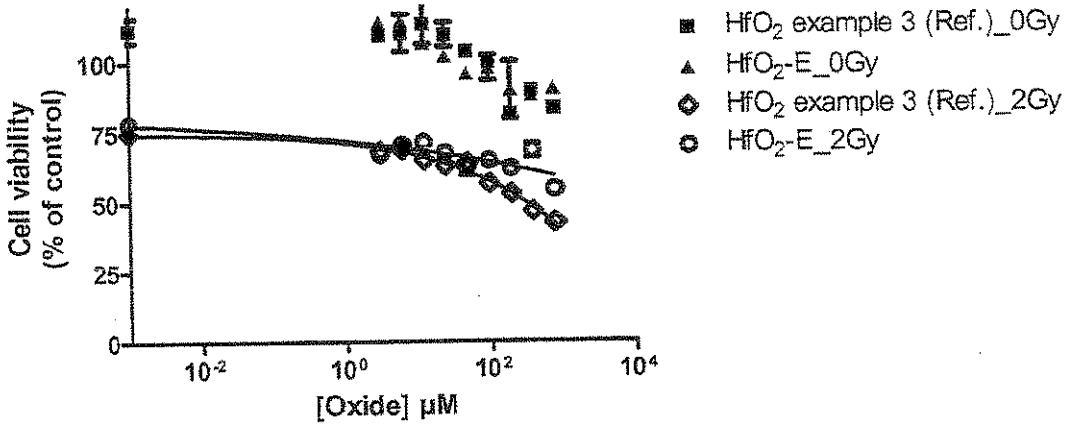


FIGURE 12B

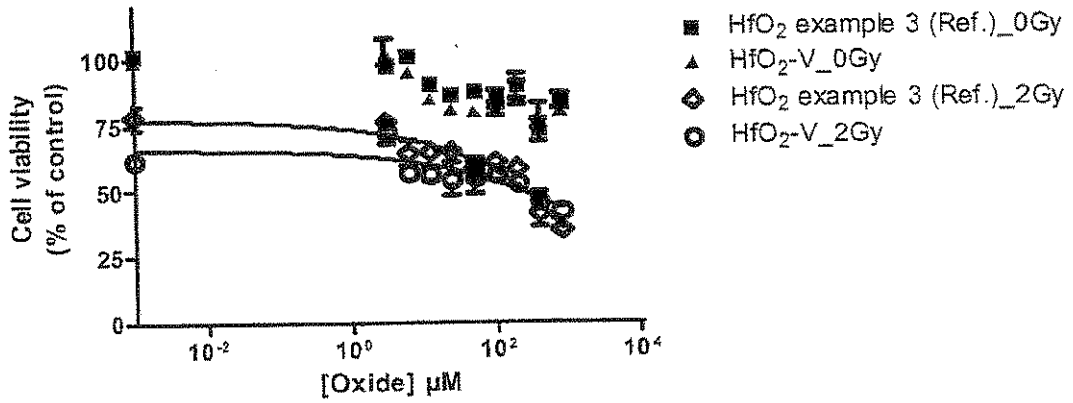


FIGURE 12C

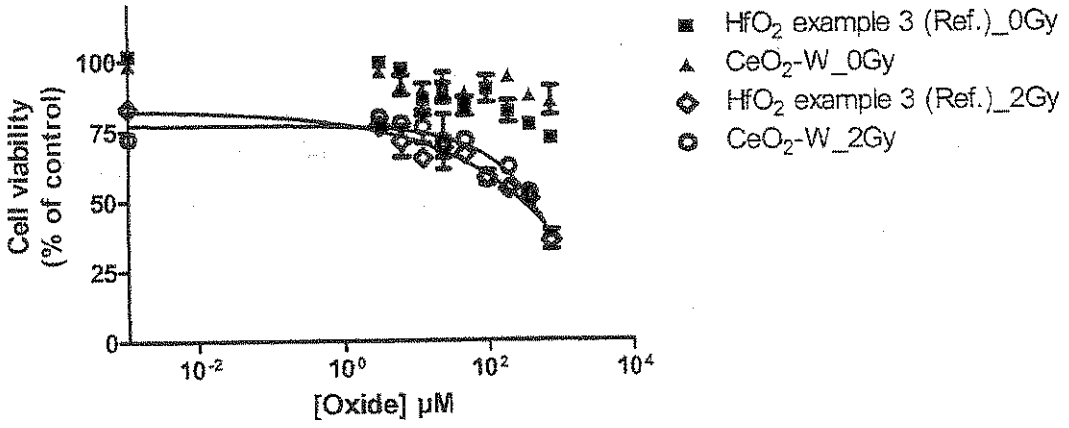


FIGURE 12D

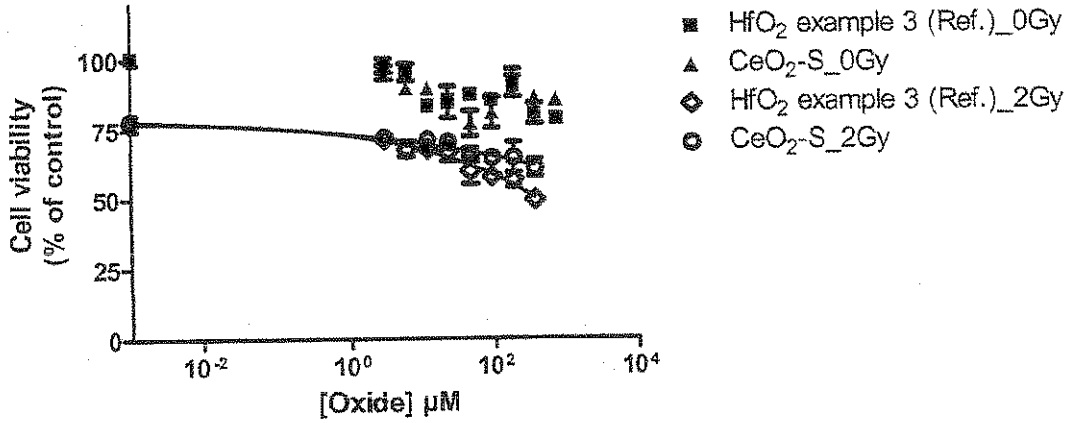


FIGURE 12E

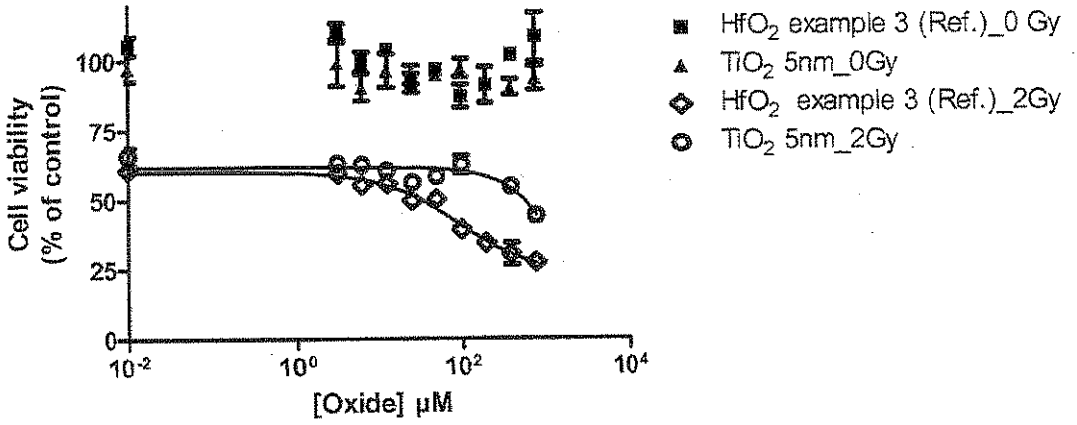


FIGURE 12F

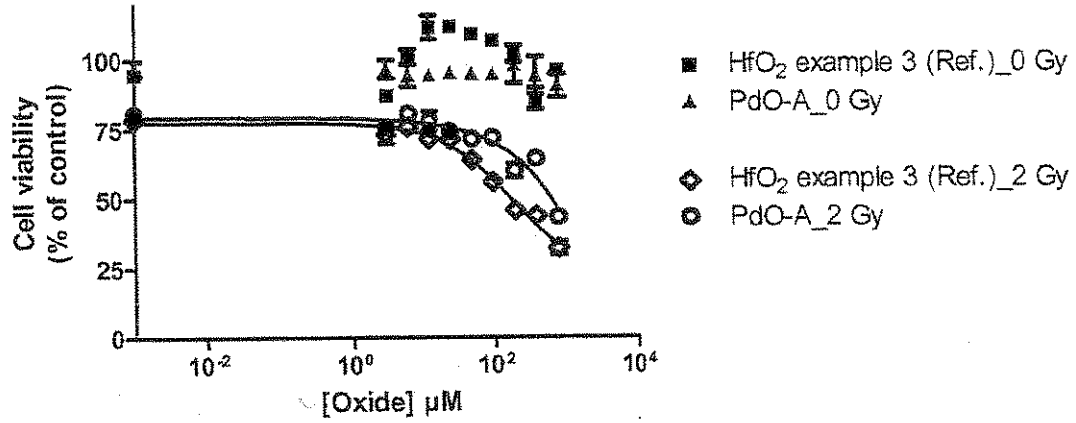


FIGURE 12G

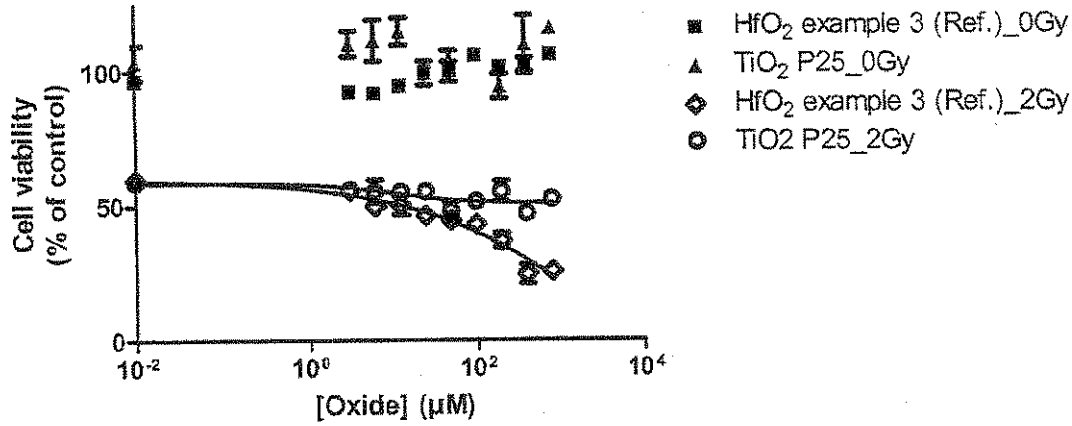


FIGURE 12H

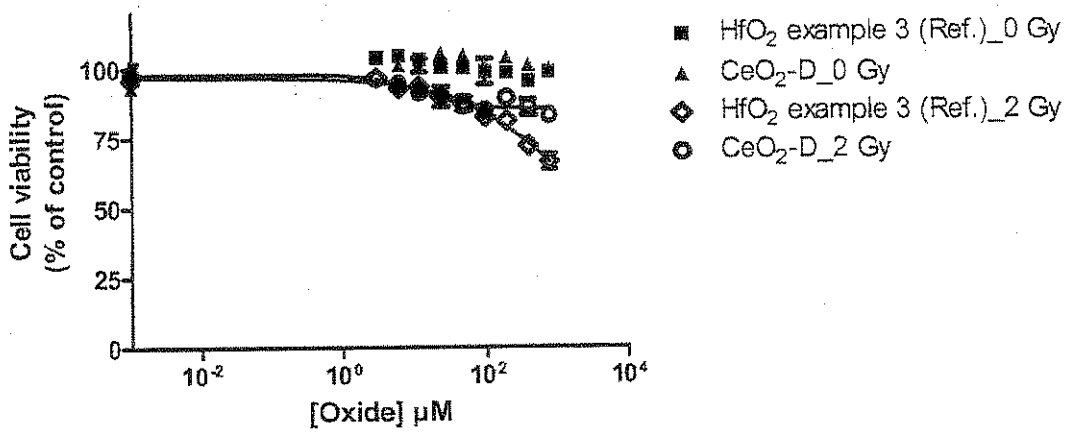


FIGURE 12I

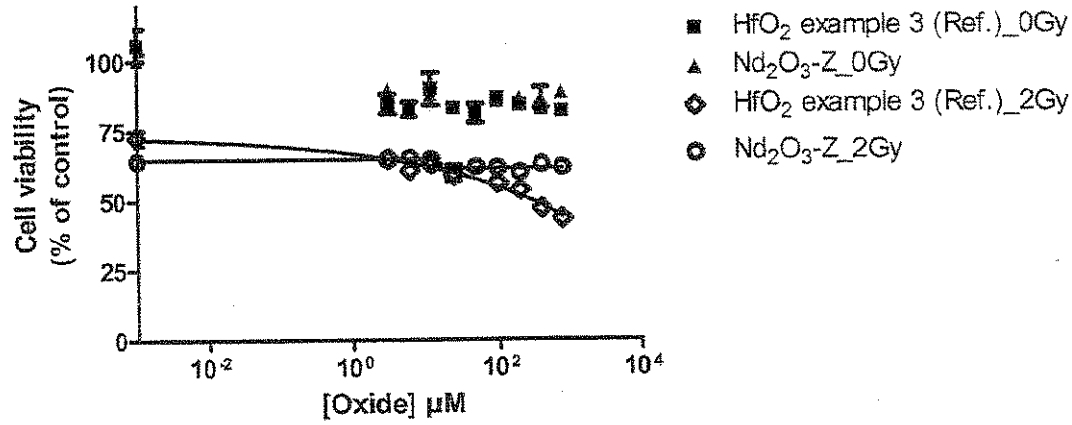


FIGURE 12J

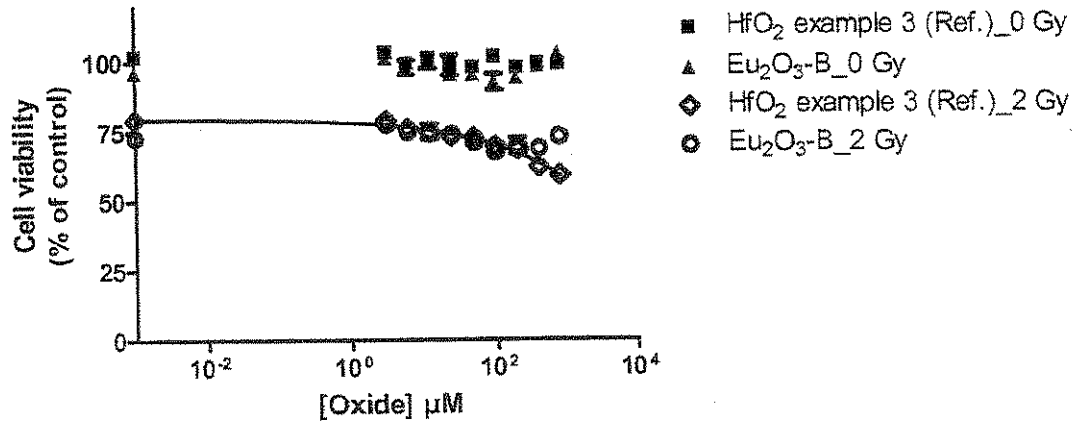


FIGURE 12K

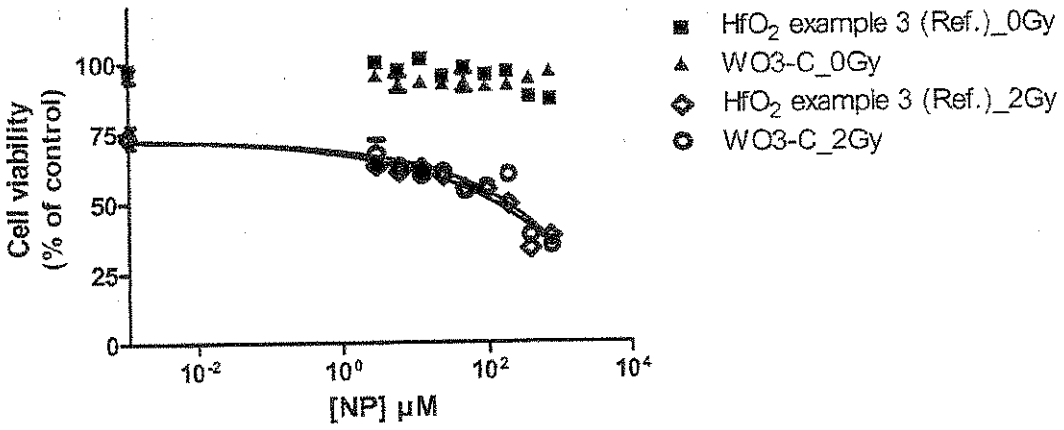


FIGURE 12L

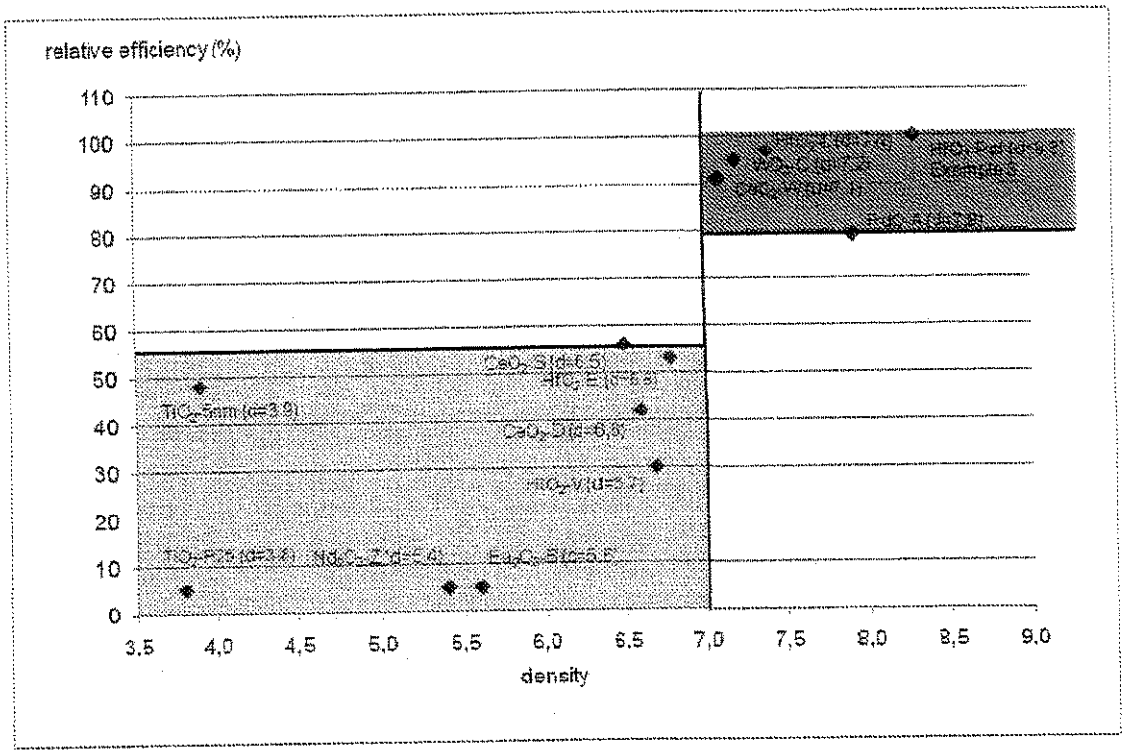


FIGURE 13

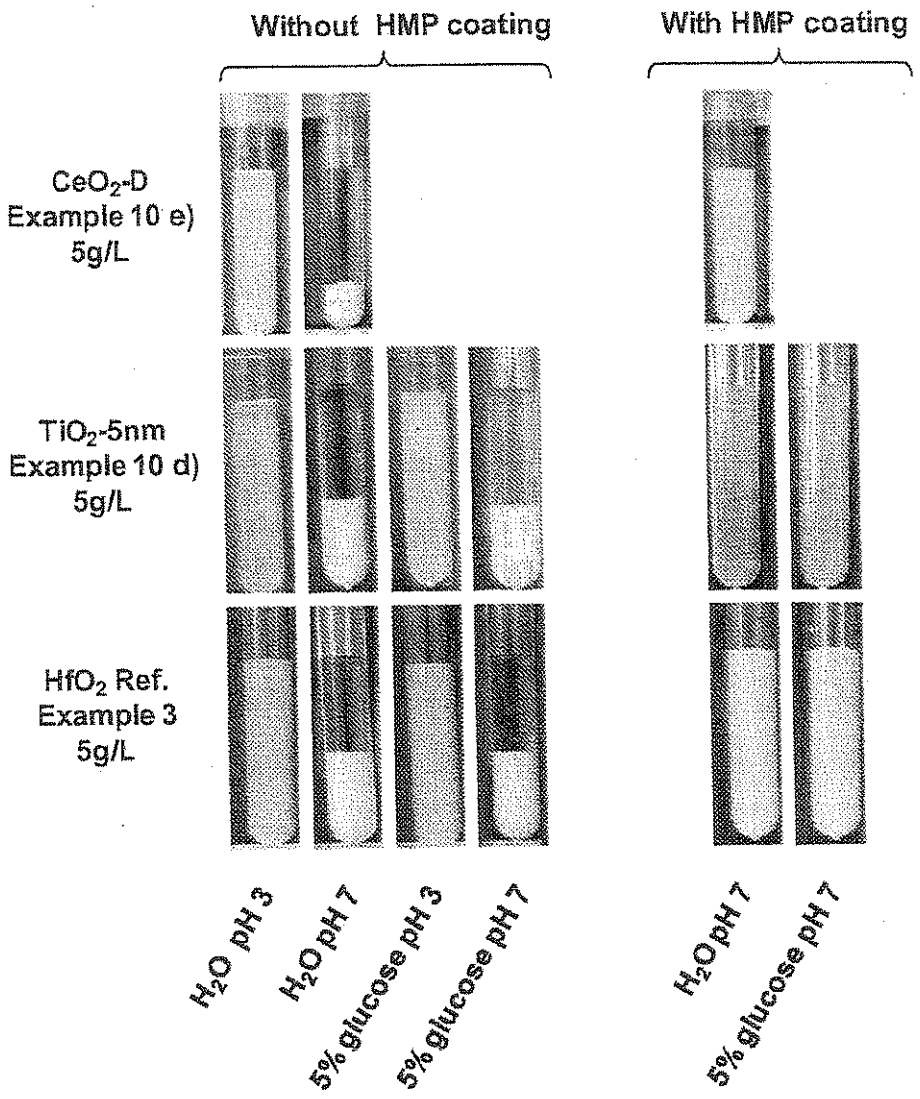

Without HMP coating
With HMP coating
CeO_2-D
Example 10 e)
5g/L
TiO_2-5nm
Example 10 d)
5g/L
HfO_2 Ref.
Example 3
5g/L
H_2O pH 3
H_2O pH 7
5% glucose pH 3
5% glucose pH 7
H_2O pH 7
5% glucose pH 7

FIGURE 14

sample	Without HMP coating			With HMP coating		
	Before filtration (concentration in g/L)	After filtration (concentration in g/L)	filtration yield (%)	Before filtration (concentration in g/L)	After filtration (concentration in g/L)	filtration yield (%)
CeO_2-D example 10 e) H_2O pH7	5.3	0	0	5.3	5.1	96
TiO_2-5nm example 10 d) H_2O pH7	6.7	0	0	6.7	6.7	100
TiO_2-5nm example 10 d) Glucose 5% pH7	4.5	0	0	4.5	4.4	98
HfO_2-Ref. example 3 H_2O pH7	5.7	0	0	5.7	5.7	100
HfO_2-Ref. example 3 Glucose 5% pH7	5.7	0	0	5.7	5.6	98

FIGURE 15