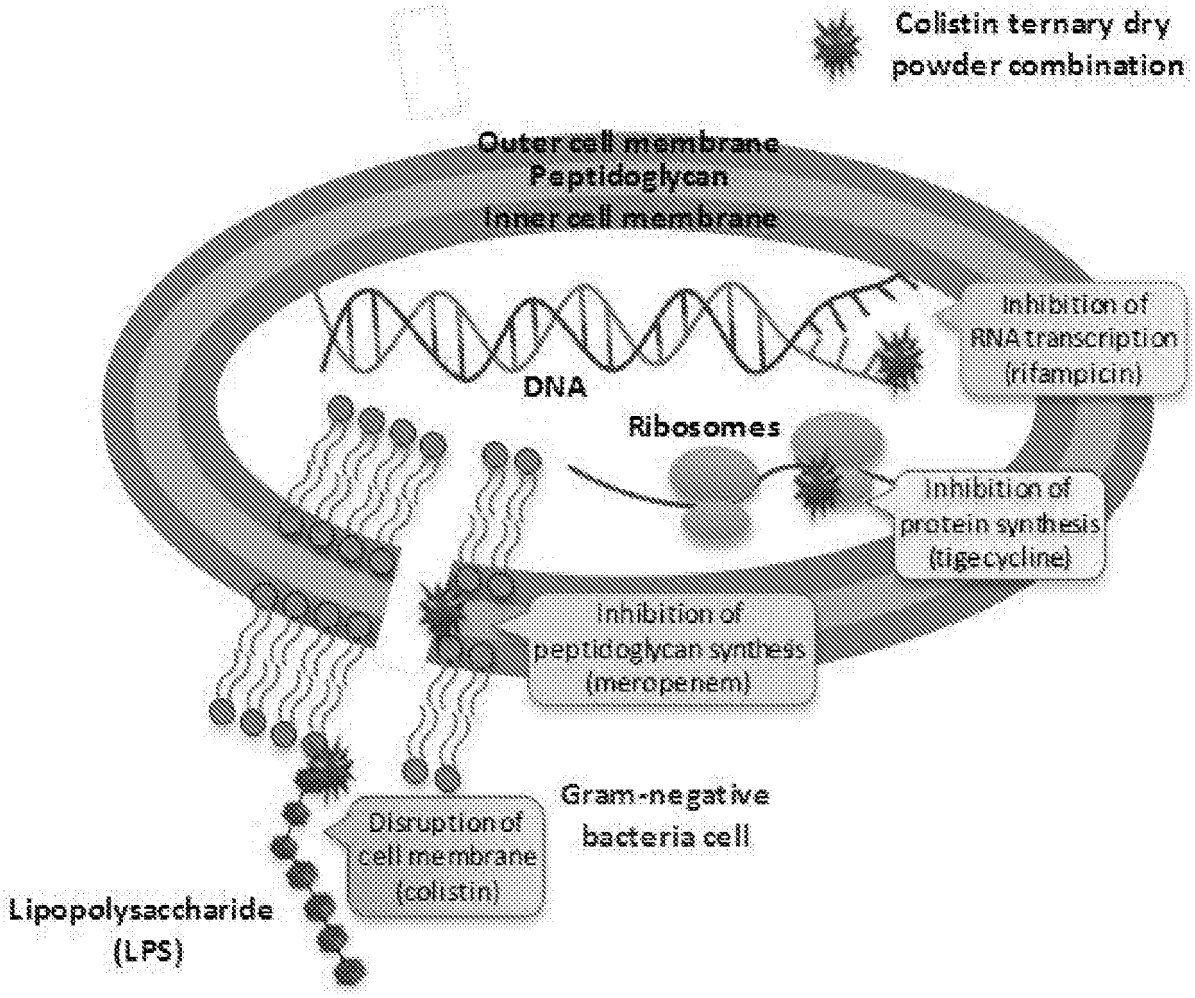
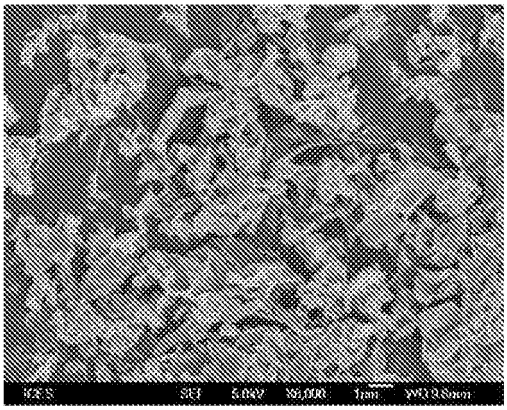
[Fig.1]

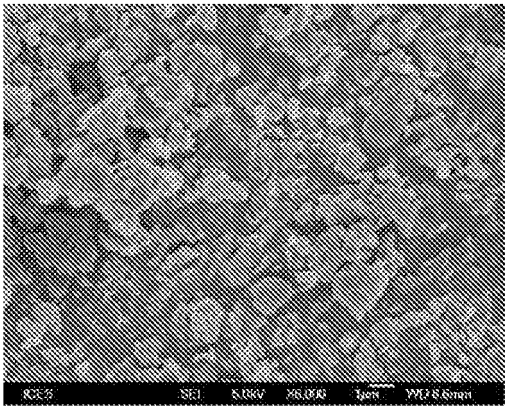

Colistin ternary dry powder combination
Outer cell membrane
Peptidoglycan
Inner cell membrane
DNA
Ribosomes
Inhibition of RNA transcription (rifampicin)
Inhibition of protein synthesis (tigecycline)
Inhibition of peptidoglycan synthesis (meropenem)
Disruption of cell membrane (colistin)
Gram-negative bacteria cell
Lipopolysaccharide (LPS)

[Fig. 2]

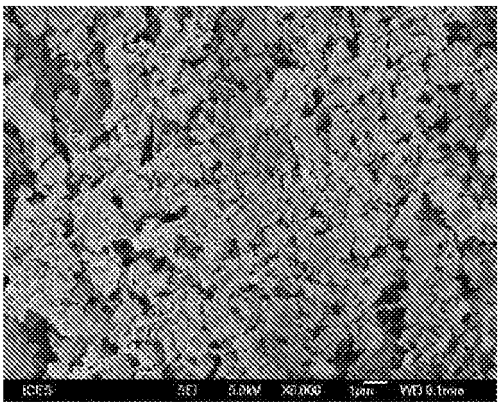
a)



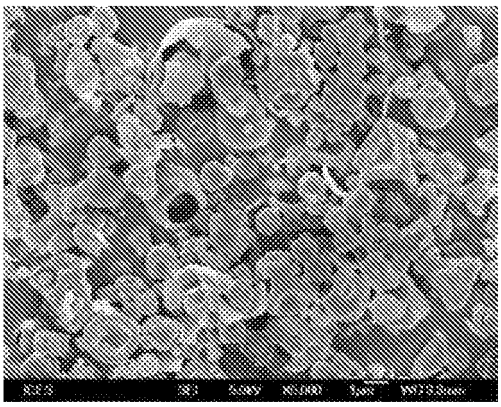
b)



c)

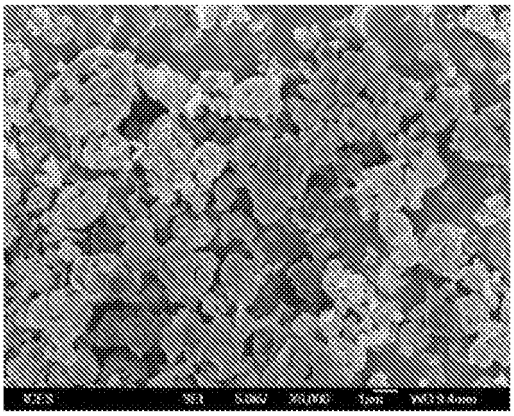


d)

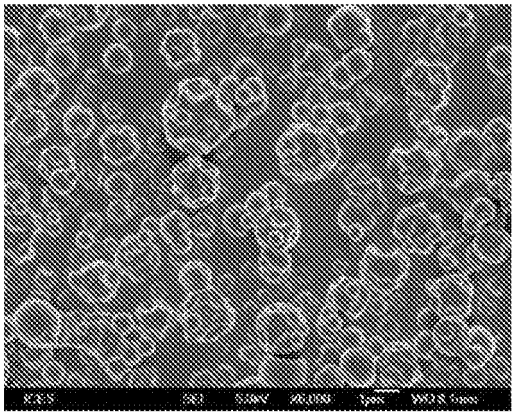


[Fig. 2]

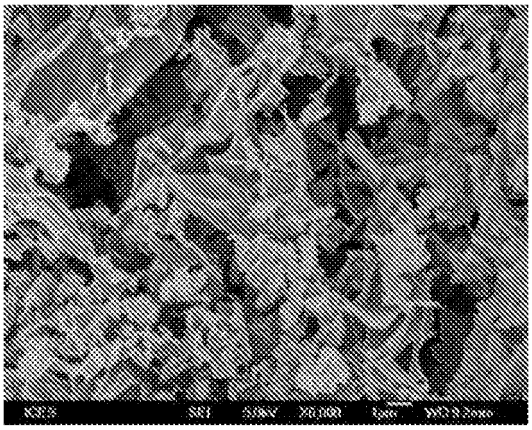
e)



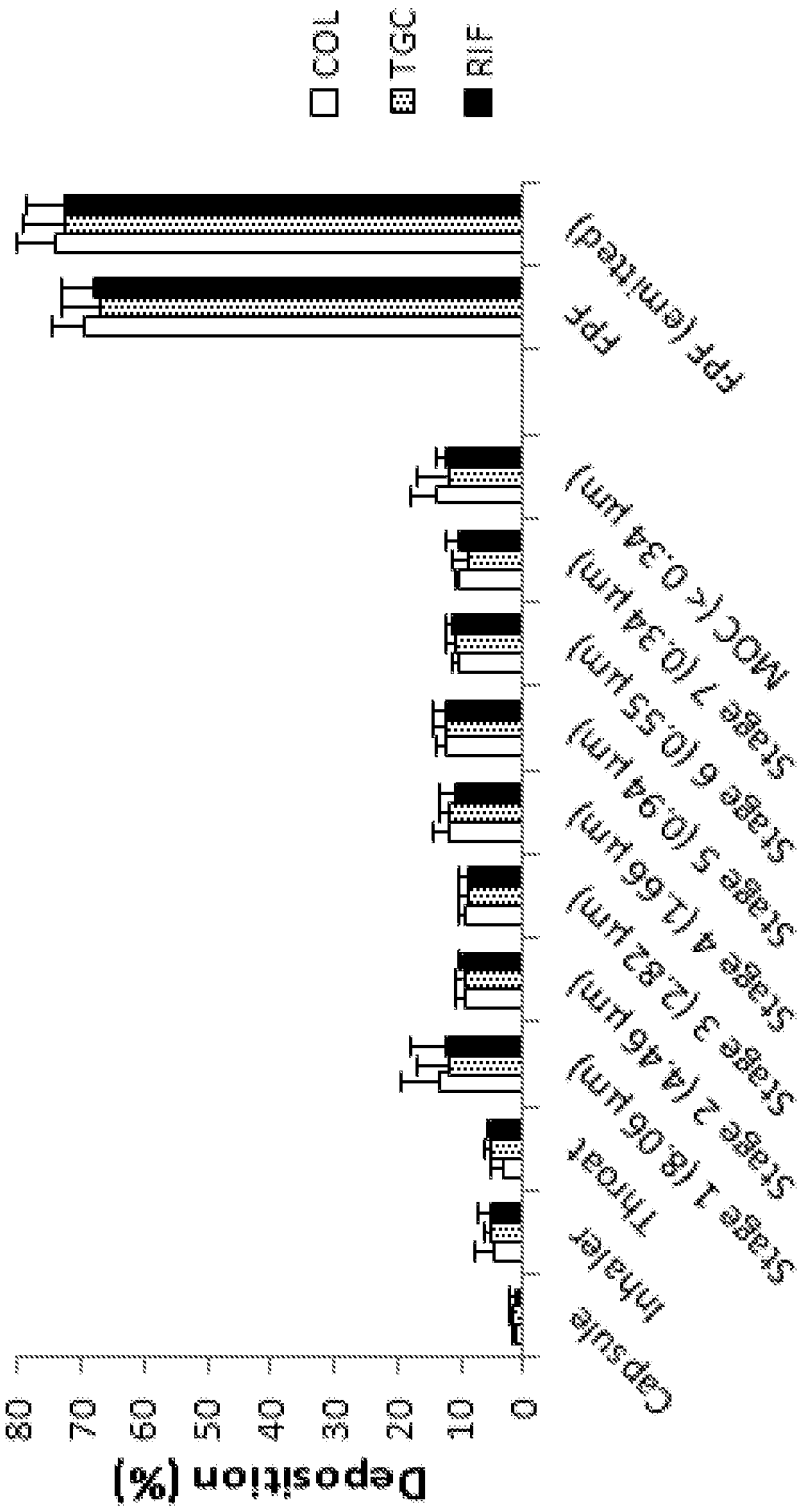
f)



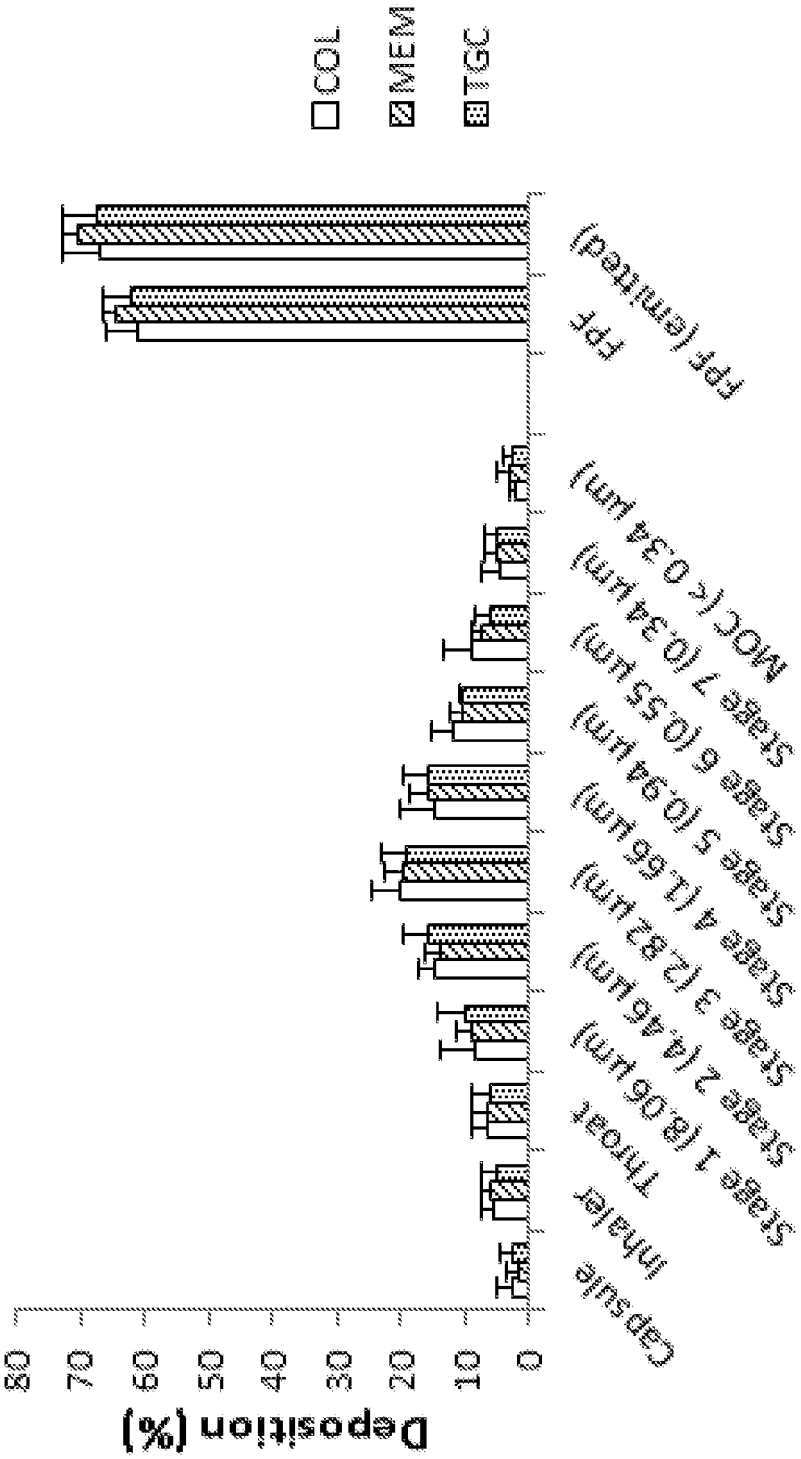
g)



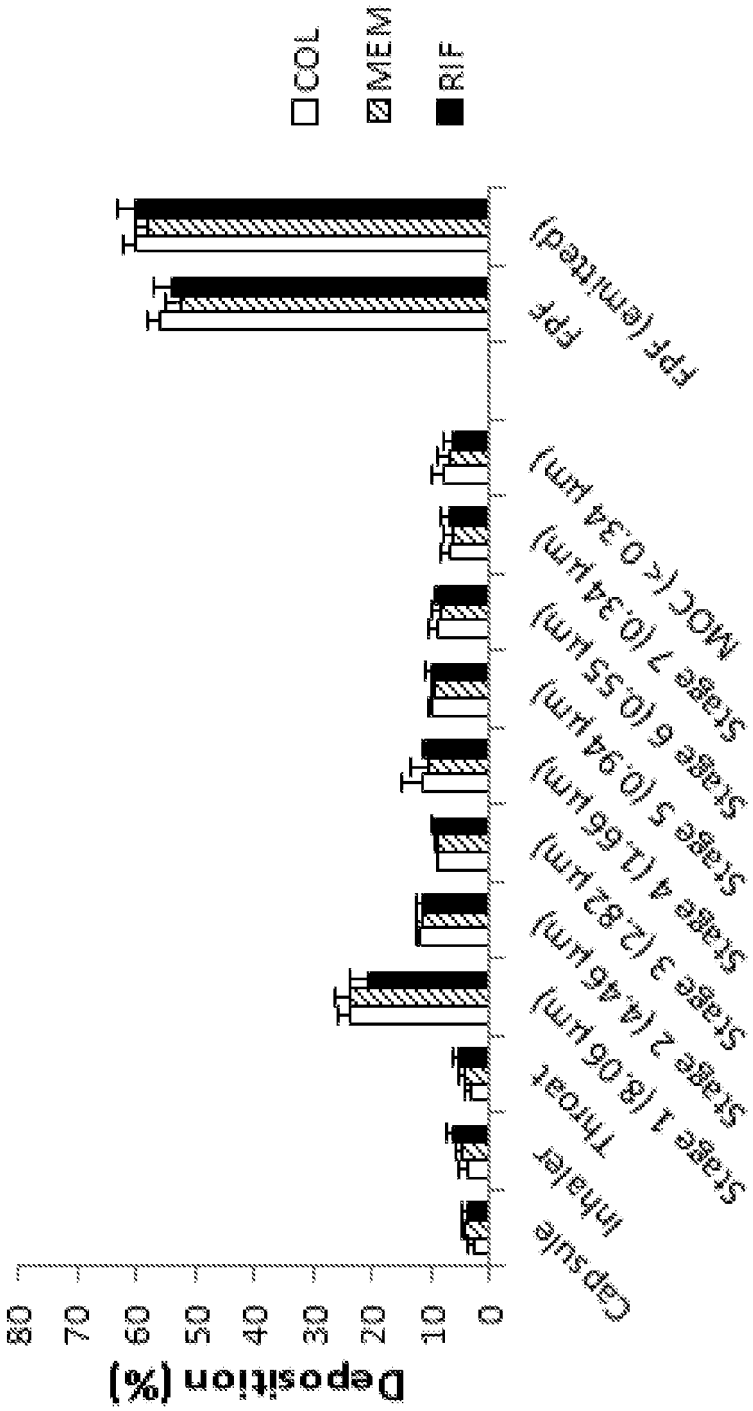
[Fig. 3]


COL
TGC
RIF
Deposition (%)
0
10
20
30
40
50
60
70
80
Capsule
Inhaler
Throat
Stage 1 (8.06 um)
Stage 2 (4.46 um)
Stage 3 (2.82 um)
Stage 4 (1.66 um)
Stage 5 (0.94 um)
Stage 6 (0.55 um)
Stage 7 (0.34 um)
MOC (< 0.34 um)
FPF (emitted)
FPF

[Fig. 4]

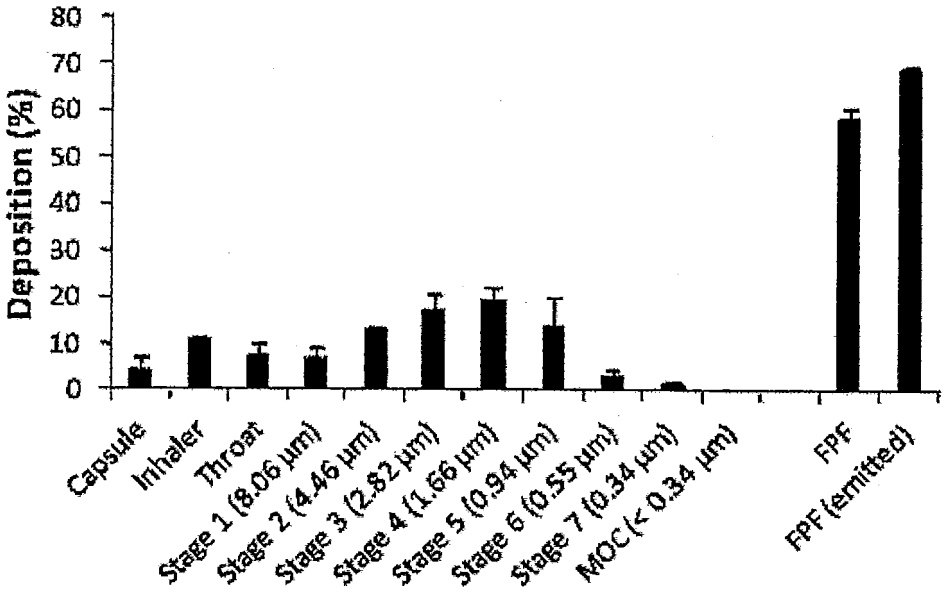

COL
MEM
TGC
Deposition (%)
0
10
20
30
40
50
60
70
80
Capsule
Inhaler
Throat
Stage 1 (8.06 um)
Stage 2 (4.46 um)
Stage 3 (2.82 um)
Stage 4 (1.66 um)
Stage 5 (0.94 um)
Stage 6 (0.55 um)
Stage 7 (0.34 um)
MOC (< 0.34 um)
FPF
FPF (emitted)

[Fig. 5]

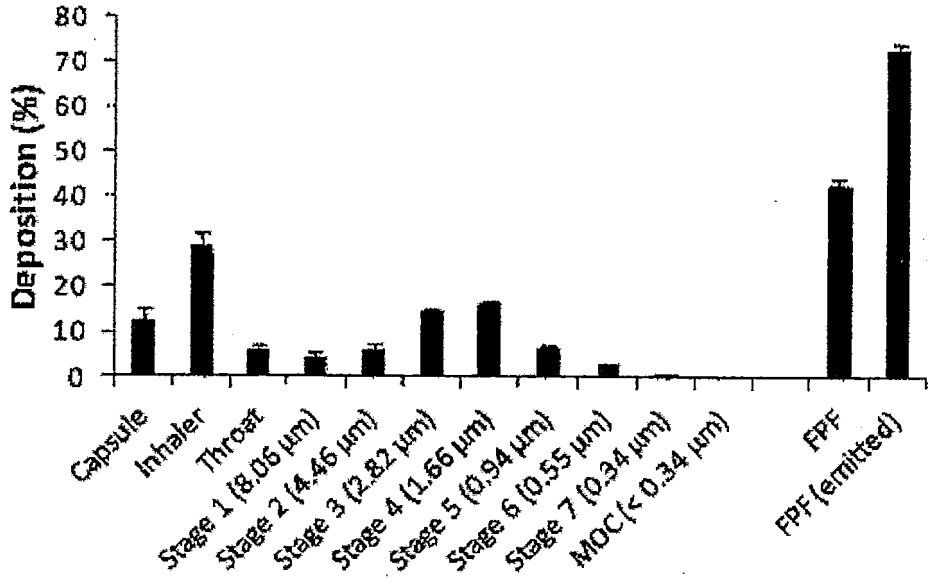

COL
MEM
RIF
Deposition (%)
0
10
20
30
40
50
60
70
80
Capsule
Inhaler
Thrust
Stage 1 (8.06 um)
Stage 2 (4.46 um)
Stage 3 (2.82 um)
Stage 4 (1.66 um)
Stage 5 (0.94 um)
Stage 6 (0.55 um)
Stage 7 (0.34 um)
MOC (< 0.34 um)
FPF
FPF (emitted)

[Fig. 6]

a)

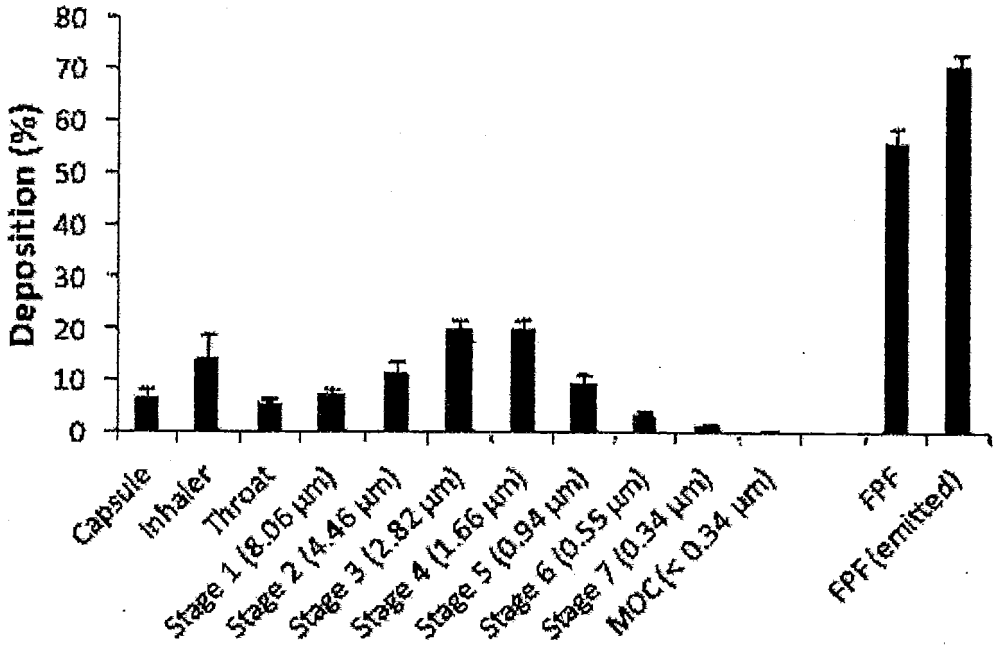

Deposition (%)
80
70
60
50
40
30
20
10
0
Capsule
Inhaler
Throat
Stage 1 (8.06 µm)
Stage 2 (4.46 µm)
Stage 3 (2.82 µm)
Stage 4 (1.66 µm)
Stage 5 (0.94 µm)
Stage 6 (0.55 µm)
Stage 7 (0.34 µm)
MOC (< 0.34 µm)
FPF
FPF (emitted)

b)

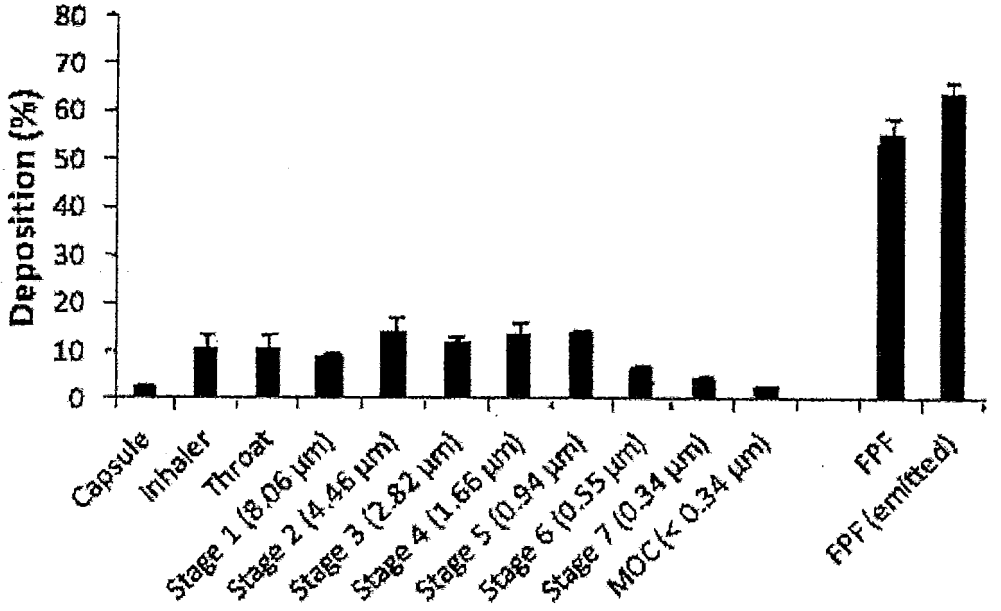

Deposition (%)
80
70
60
50
40
30
20
10
0
Capsule
Inhaler
Throat
Stage 1 (8.06 µm)
Stage 2 (4.46 µm)
Stage 3 (2.82 µm)
Stage 4 (1.66 µm)
Stage 5 (0.94 µm)
Stage 6 (0.55 µm)
Stage 7 (0.34 µm)
MOC (< 0.34 µm)
FPF
FPF (emitted)

[Fig. 6]

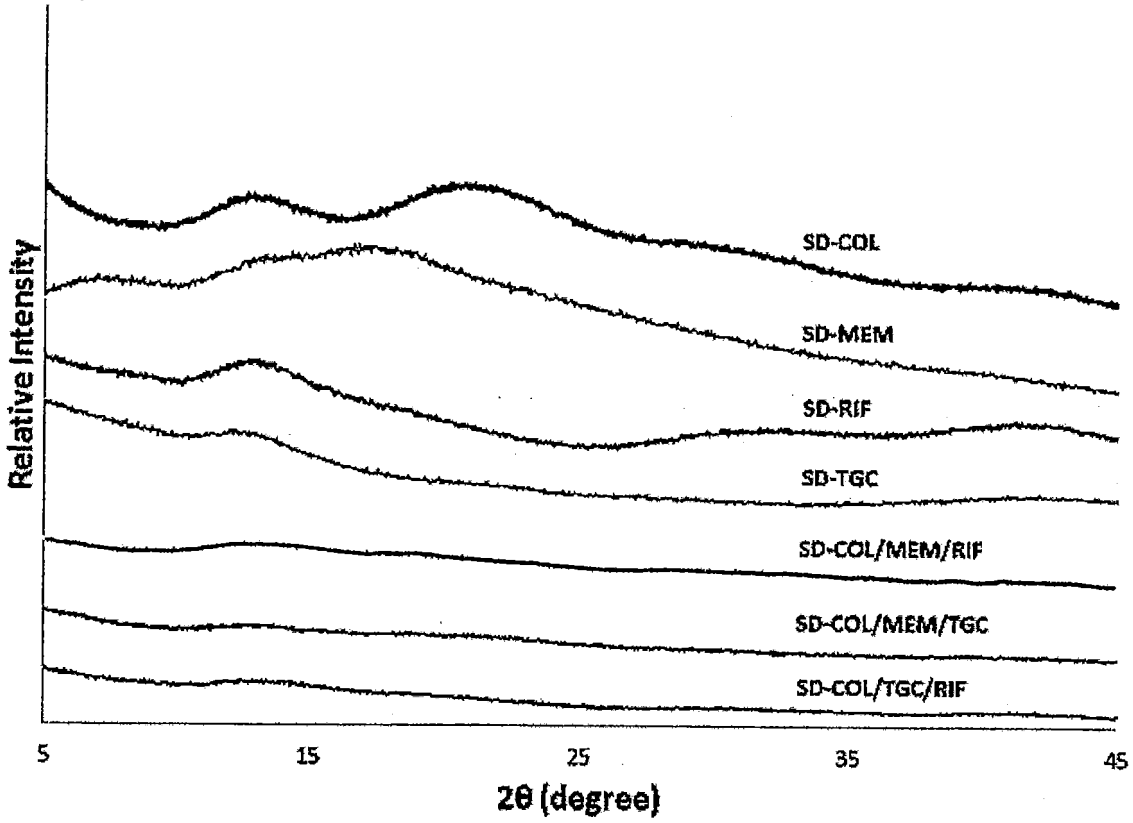
c)


Deposition (%)
80
70
60
50
40
30
20
10
0
Capsule
Inhaler
Throat
Stage 1 (8.06 µm)
Stage 2 (4.46 µm)
Stage 3 (2.82 µm)
Stage 4 (1.66 µm)
Stage 5 (0.94 µm)
Stage 6 (0.55 µm)
Stage 7 (0.34 µm)
MOC (< 0.34 µm)
FPF
FPF (emitted)

d)


Deposition (%)
80
70
60
50
40
30
20
10
0
Capsule
Inhaler
Throat
Stage 1 (8.06 µm)
Stage 2 (4.46 µm)
Stage 3 (2.82 µm)
Stage 4 (1.66 µm)
Stage 5 (0.94 µm)
Stage 6 (0.55 µm)
Stage 7 (0.34 µm)
MOC (< 0.34 µm)
FPF
FPF (emitted)

[Fig. 7]


Relative Intensity
SD-COL
SD-MEM
SD-RIF
SD-TGC
SD-COL/MEM/RIF
SD-COL/MEM/TGC
SD-COL/TGC/RIF
5
15
25
35
45
2θ (degree)