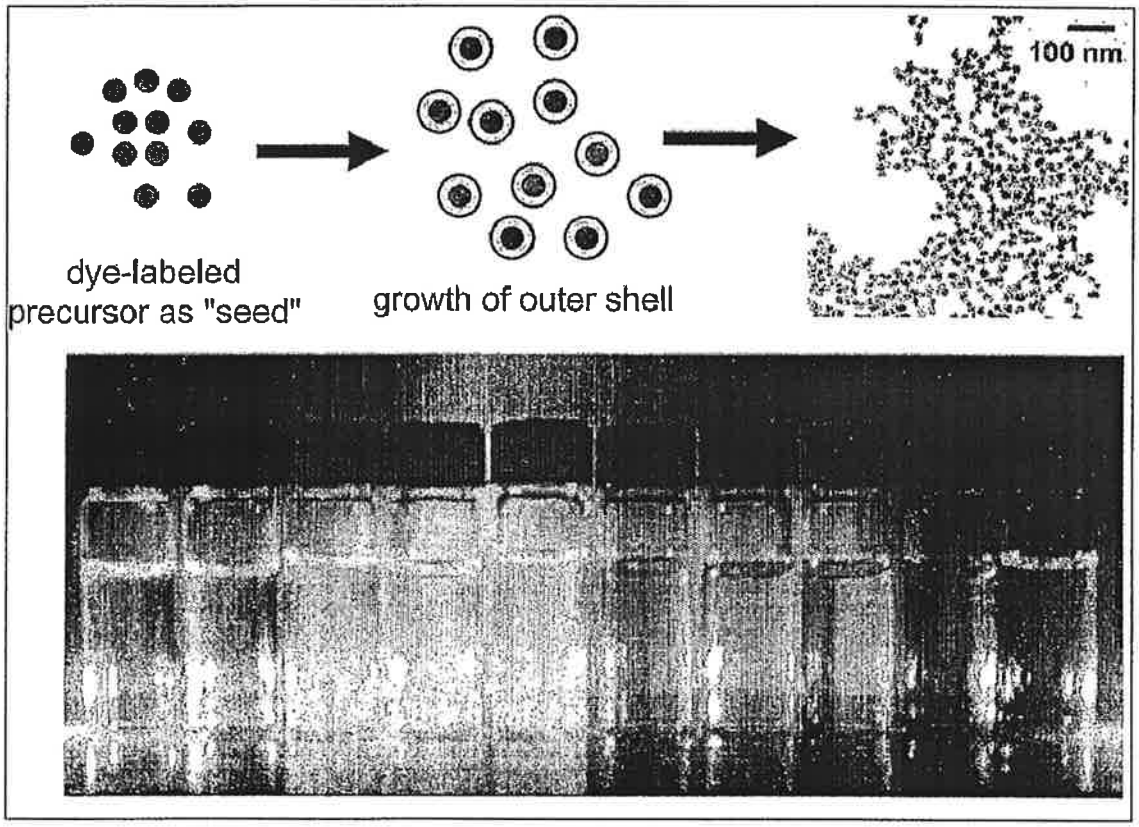


Fig. 1

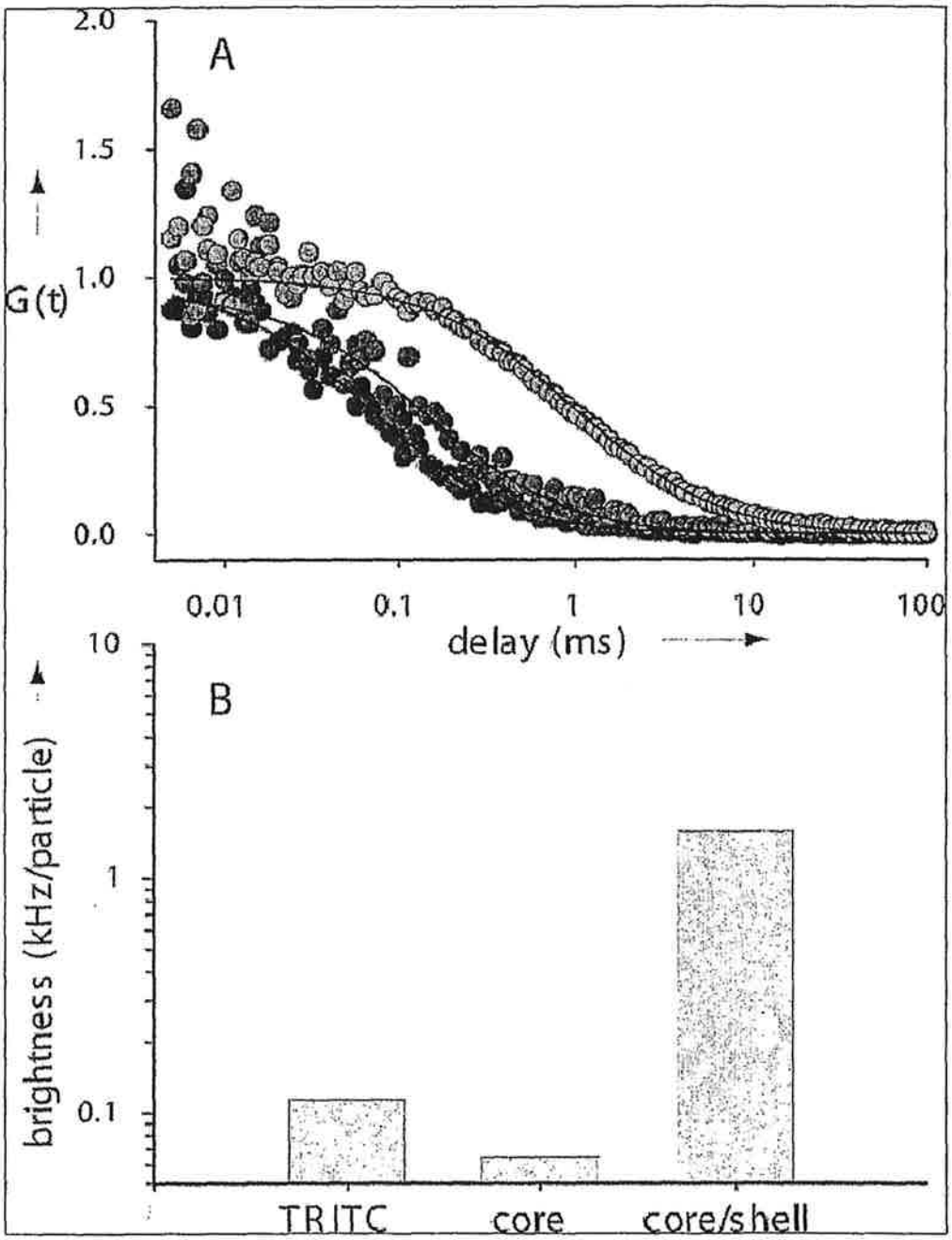

A
2.0
1.5
1.0
0.5
0.0
G(t)
0.01
0.1
1
10
100
delay (ms)
B
10
1
0.1
brightness (kHz/particle)
TRITC
core
core/shell

Fig.2

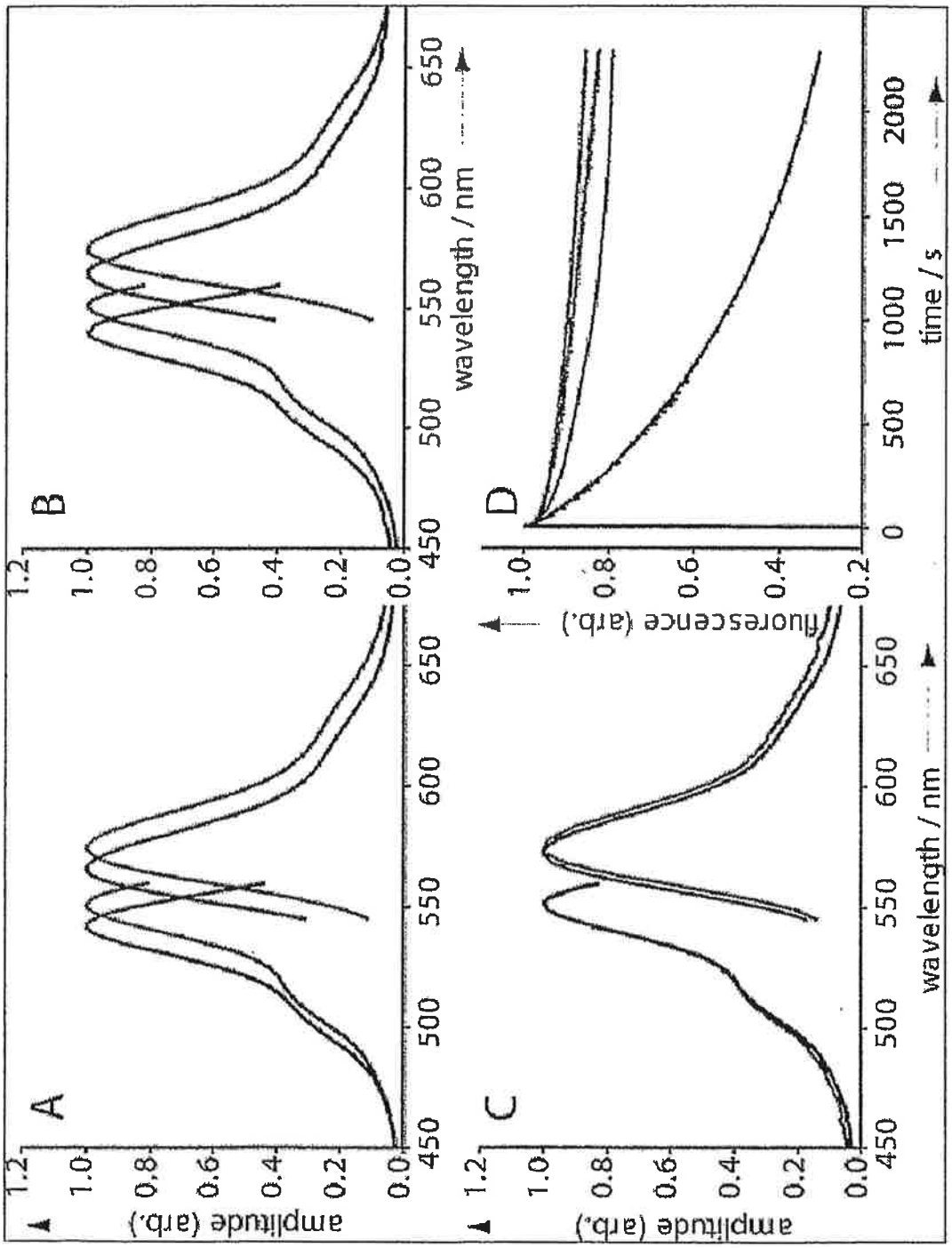

A
B
C
D
amplitude (arb.)
fluorescence (arb.)
wavelength / nm
time / s
1.2
1.0
0.8
0.6
0.4
0.2
0.0
450
500
550
600
650
0
500
1000
1500
2000

Fig. 3

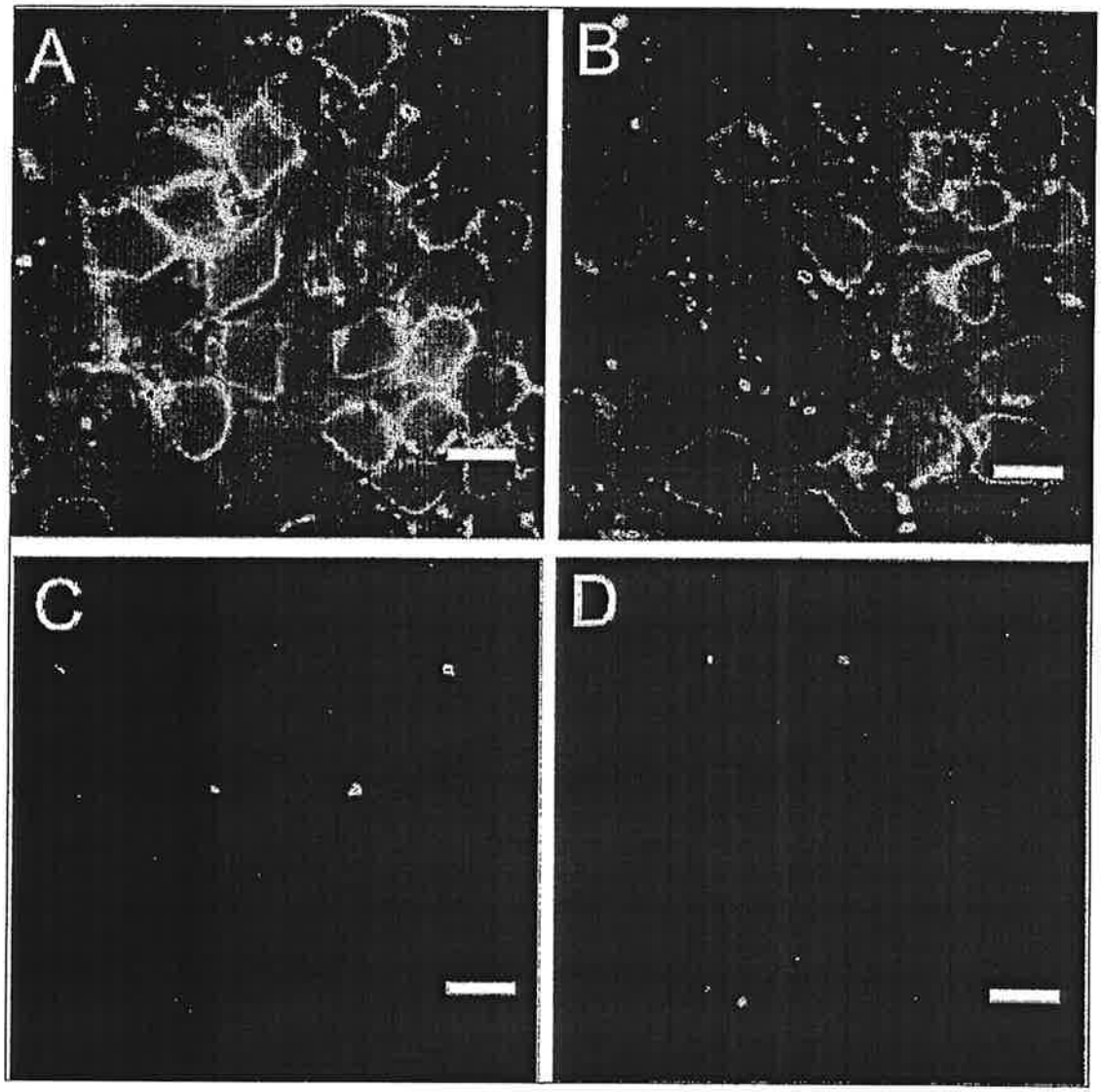


Fig. 4

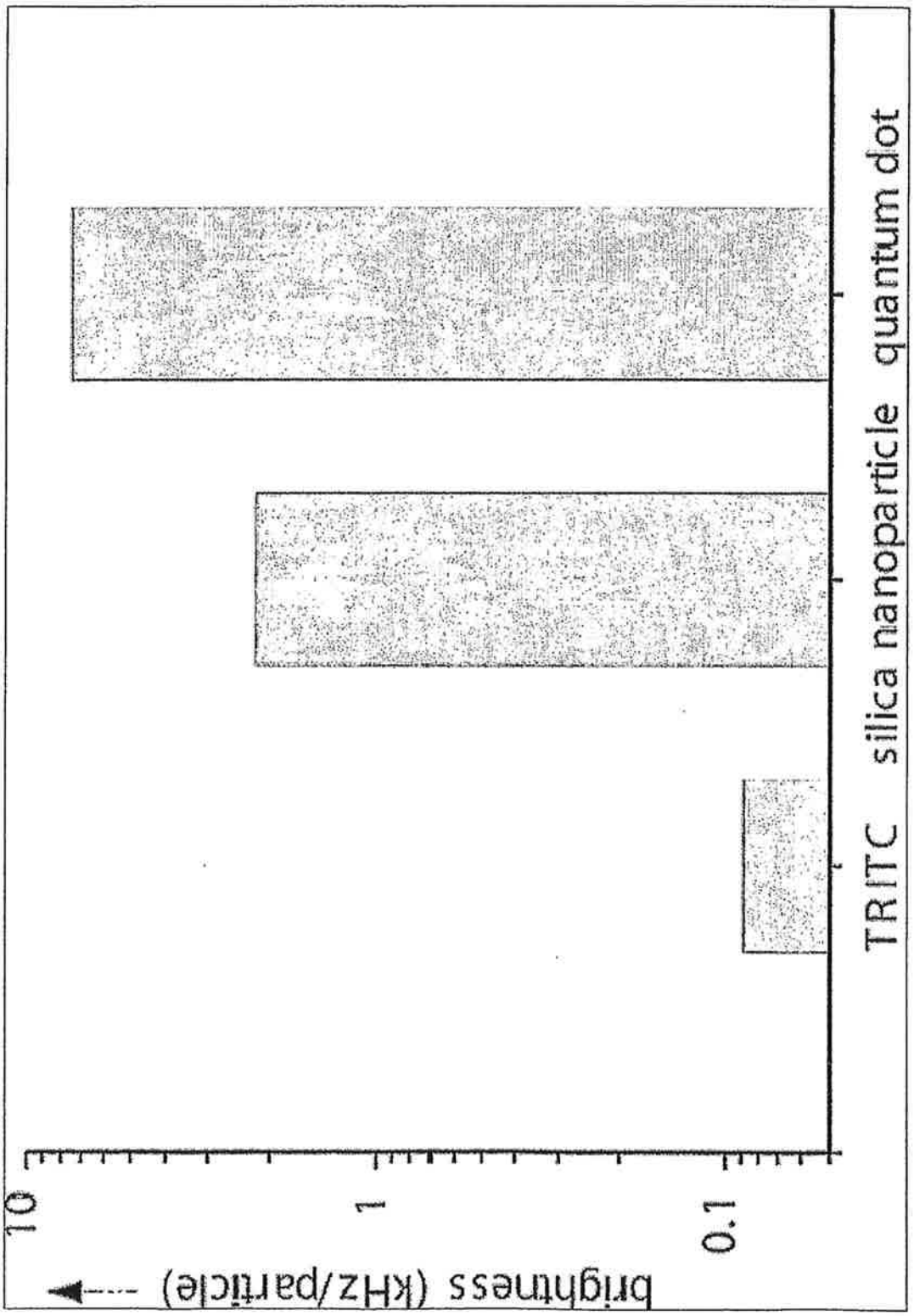

brightness (kHz/particle)
10
1
0.1
TRITC
silica nanoparticle
quantum dot

Fig. 5

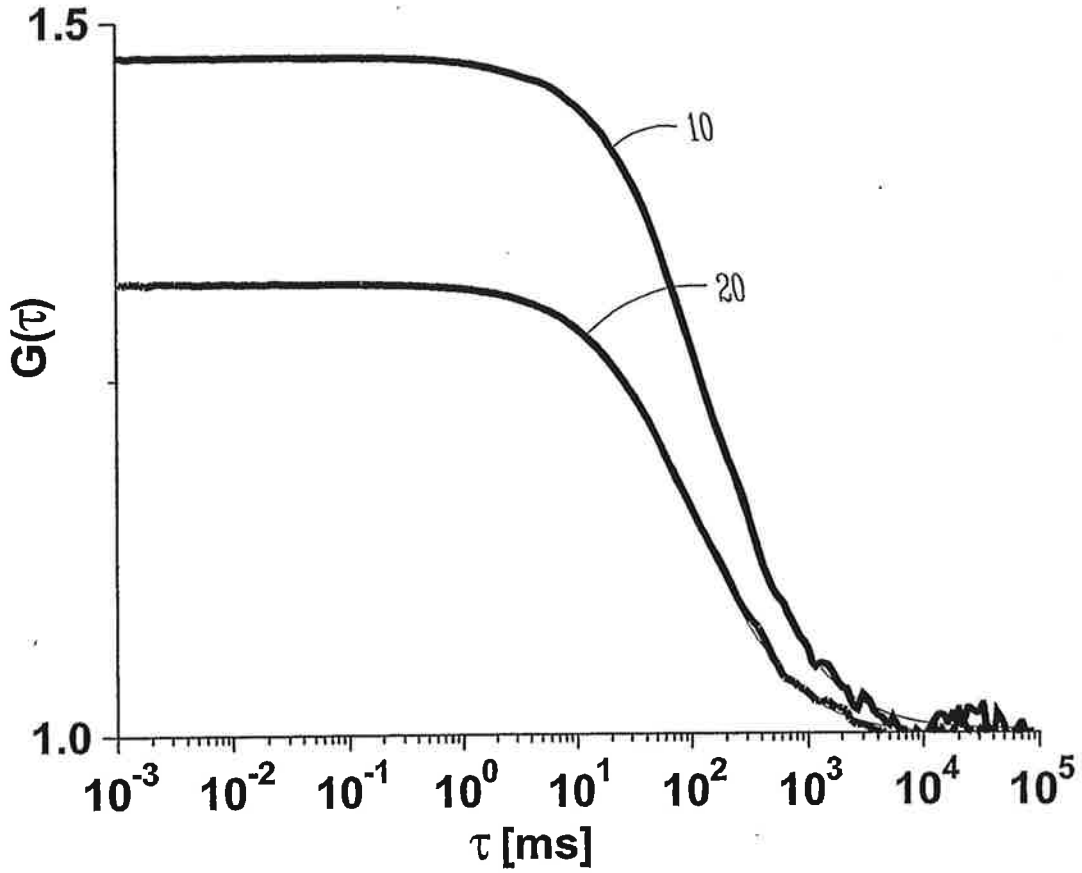


Fig. 6

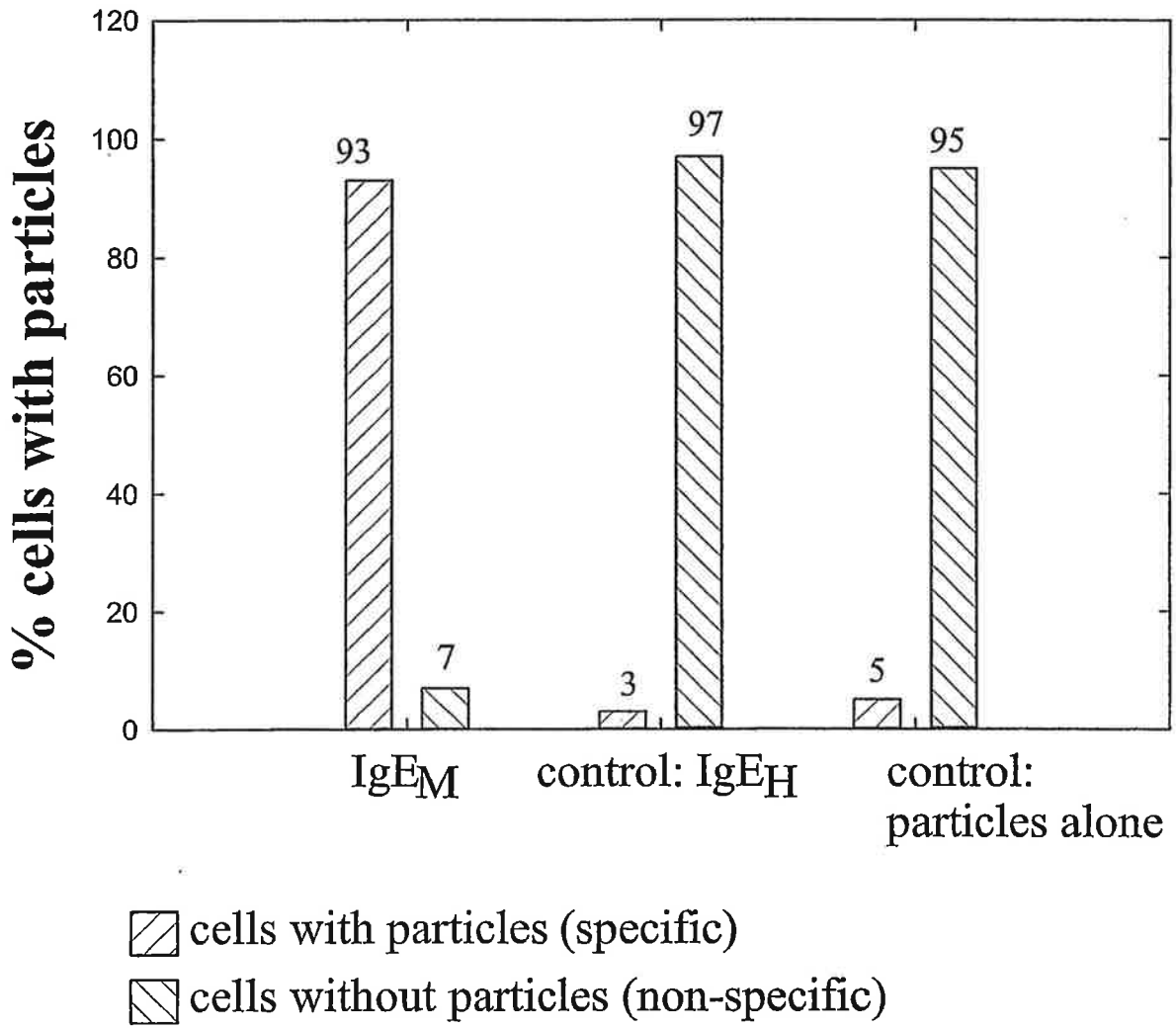

% cells with particles
120
100
80
60
40
20
0
93
7
3
97
5
95
IgE$_M$
control: IgE$_H$
control:
particles alone
cells with particles (specific)
cells without particles (non-specific)

Fig. 7A

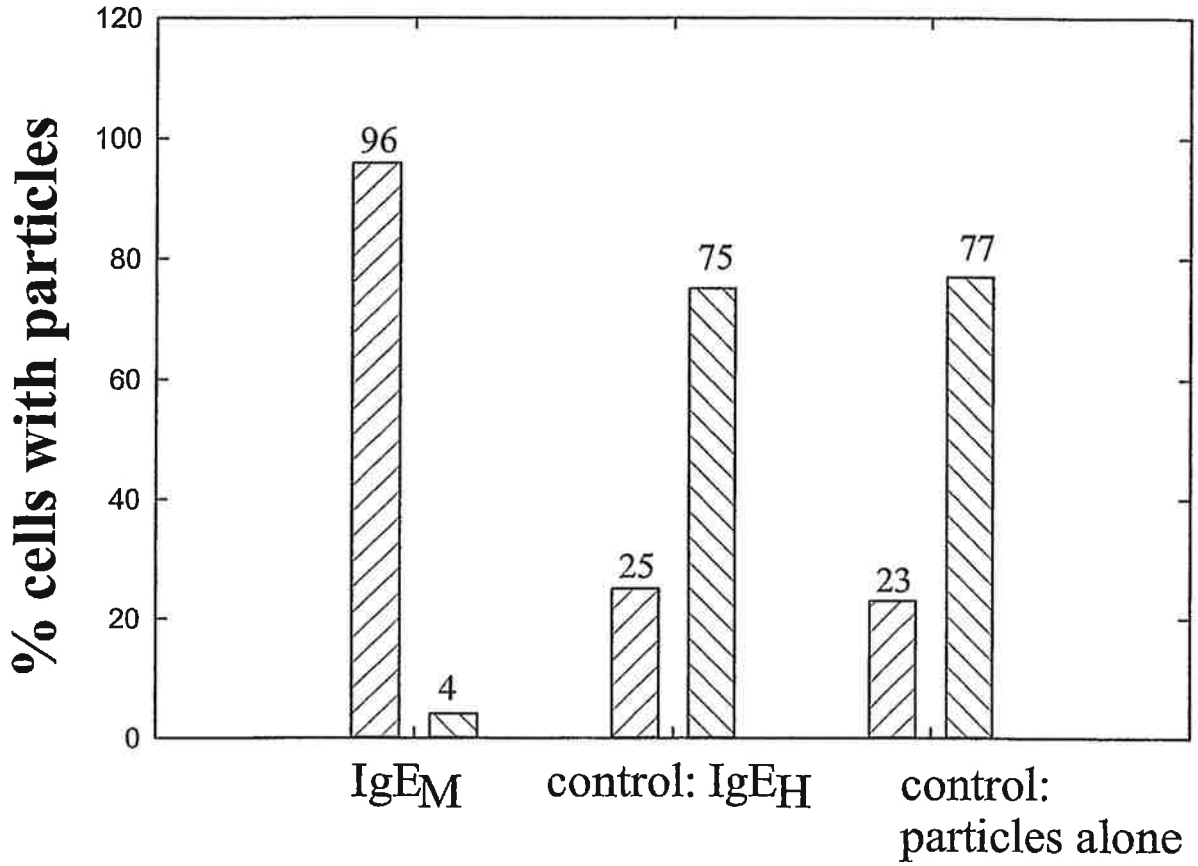

% cells with particles
120
100
80
60
40
20
0
96
4
25
75
23
77
IgE$_M$
control: IgE$_H$
control: particles alone
cells with particles (specific)
cells without particles (non-specific)

Fig. 7B

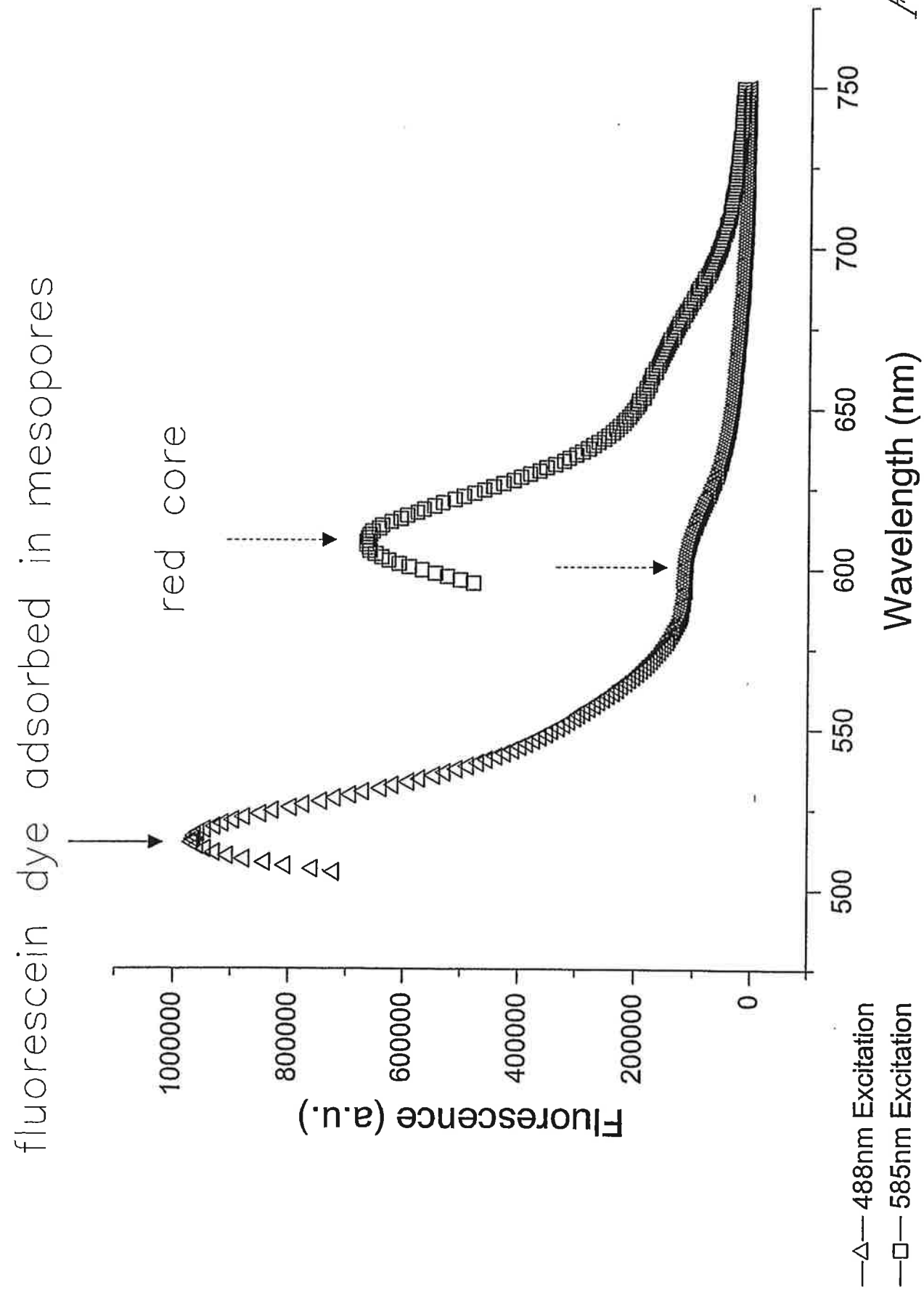

fluorescein dye adsorbed in mesopores
red core
Fluorescence (a.u.)
1000000
800000
600000
400000
200000
0
500
550
600
650
700
750
Wavelength (nm)
—△— 488nm Excitation
—□— 585nm Excitation

Fig. 8A

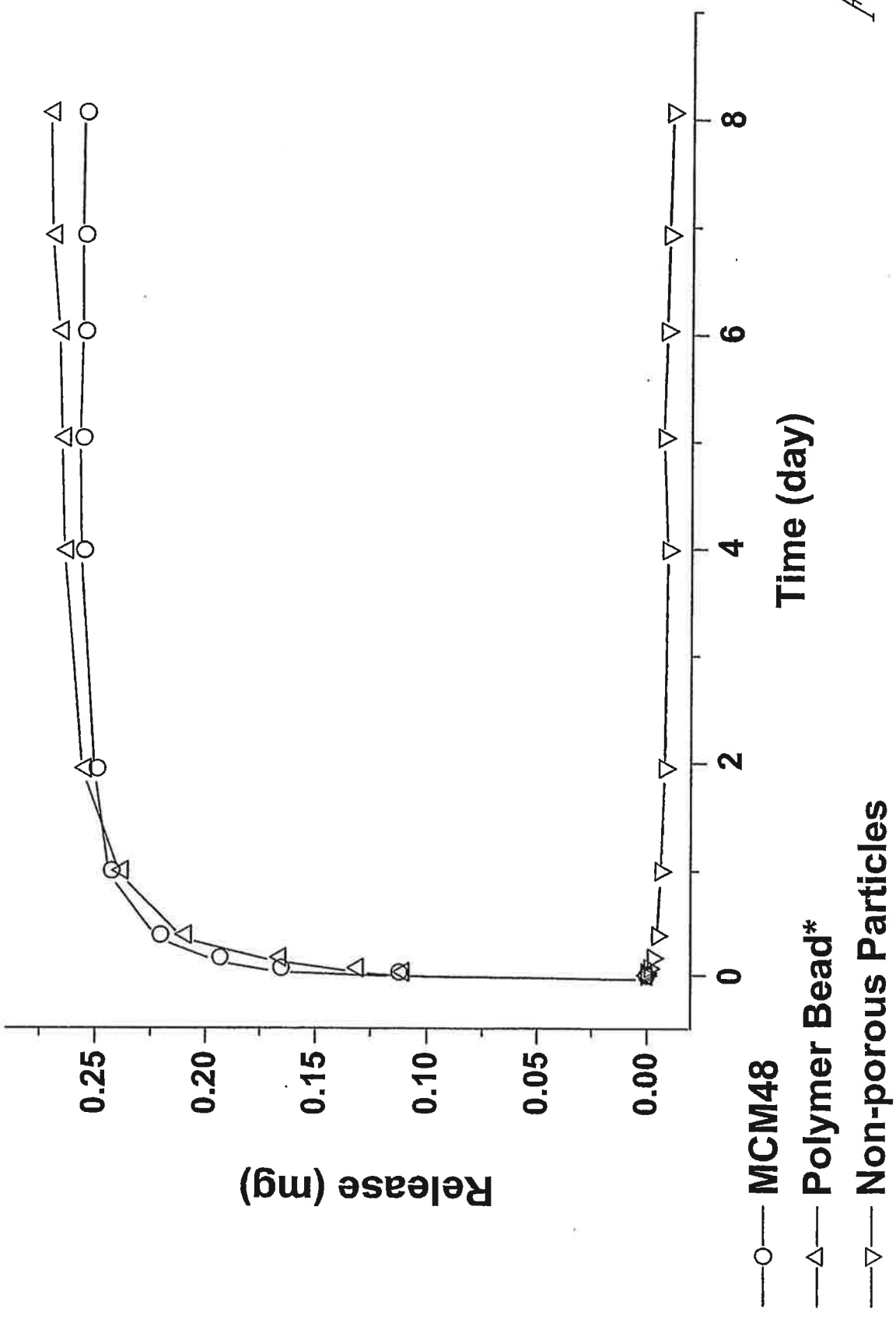

Release (mg)
0.25
0.20
0.15
0.10
0.05
0.00
0
2
4
6
8
Time (day)
MCM48
Polymer Bead*
Non-porous Particles

Fig. 8B

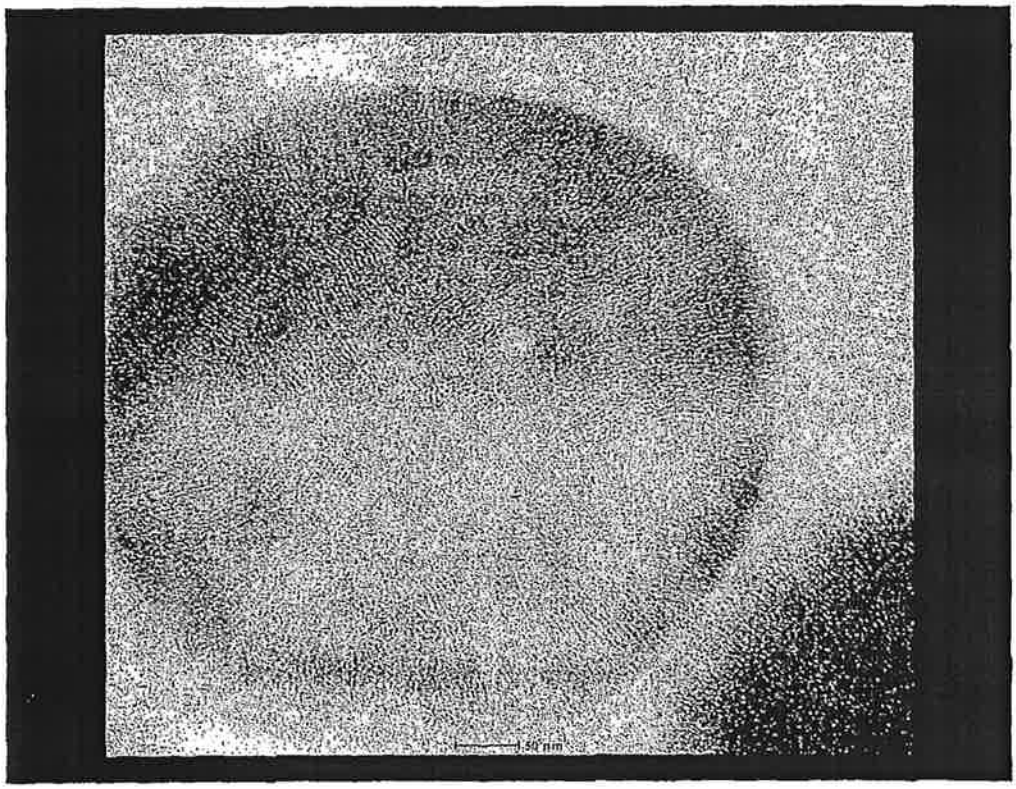


Fig. 8C