Fig. 1

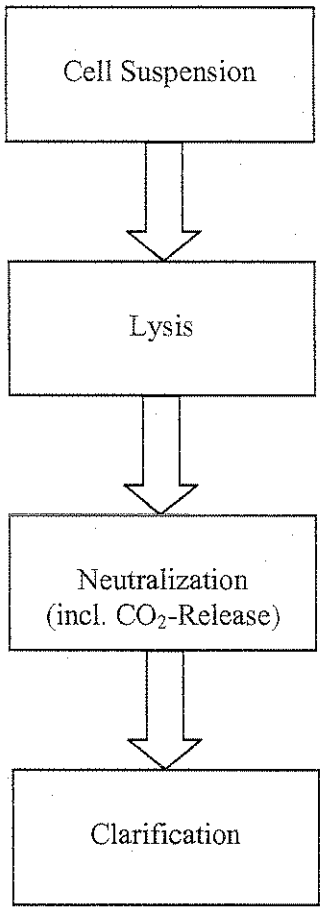

Cell Suspension
Lysis
Neutralization
(incl. CO_2-Release)
Clarification

Fig. 2

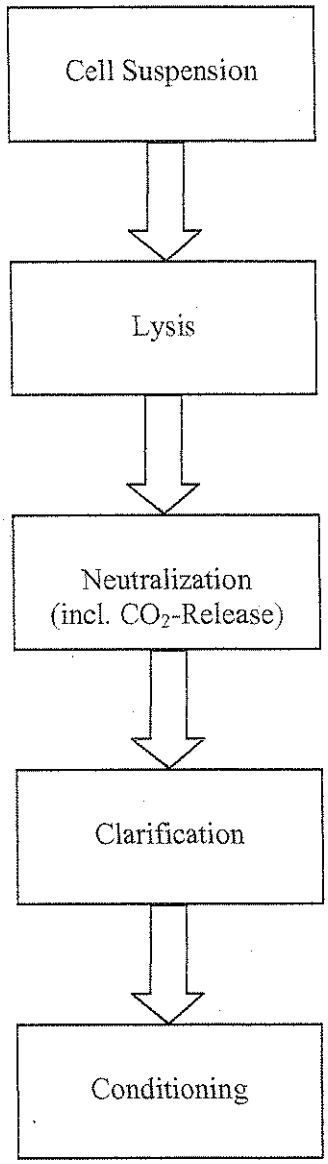

Cell Suspension
Lysis
Neutralization
(incl. CO_2-Release)
Clarification
Conditioning

Fig. 3

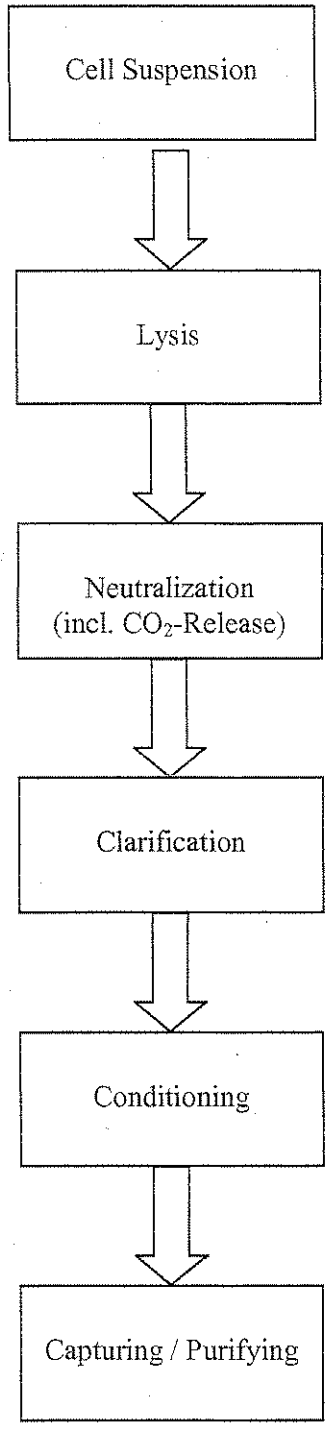

Cell Suspension
Lysis
Neutralization
(incl. CO_2-Release)
Clarification
Conditioning
Capturing / Purifying

Fig. 4

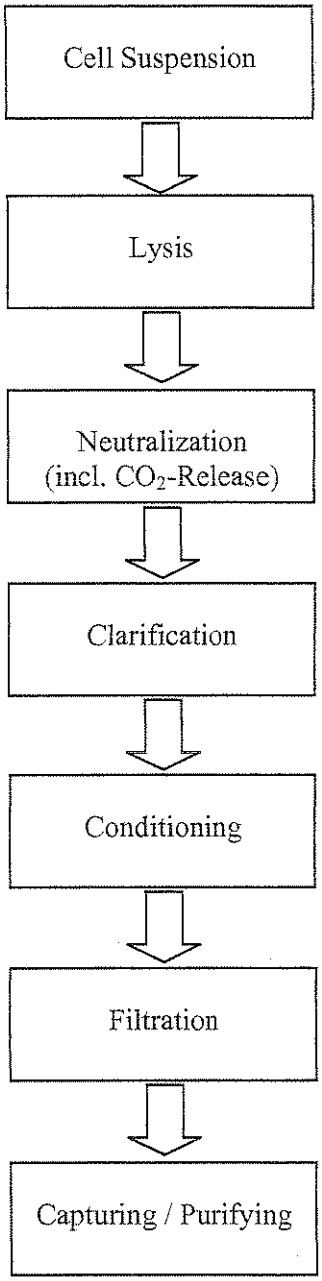

Cell Suspension
Lysis
Neutralization
(incl. CO_2-Release)
Clarification
Conditioning
Filtration
Capturing / Purifying

Fig. 5

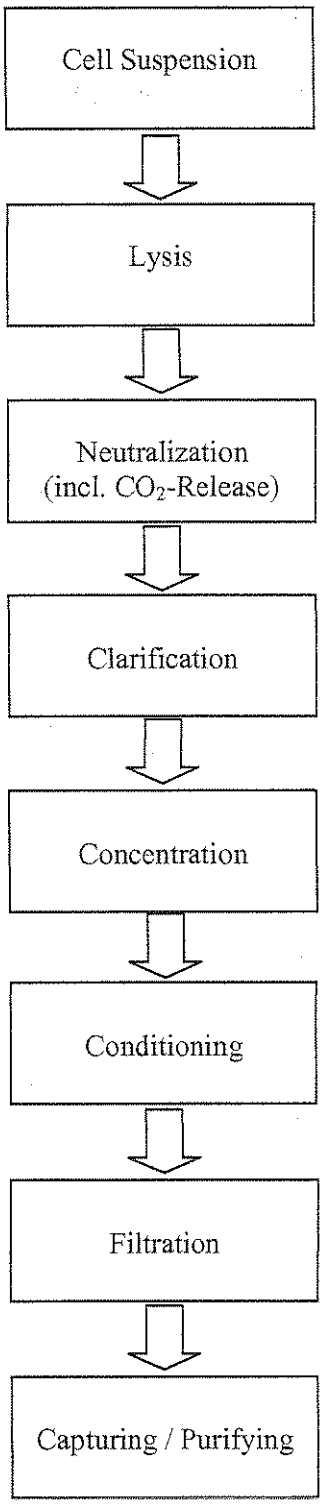

Cell Suspension
Lysis
Neutralization
(incl. CO_2-Release)
Clarification
Concentration
Conditioning
Filtration
Capturing / Purifying

Fig. 6

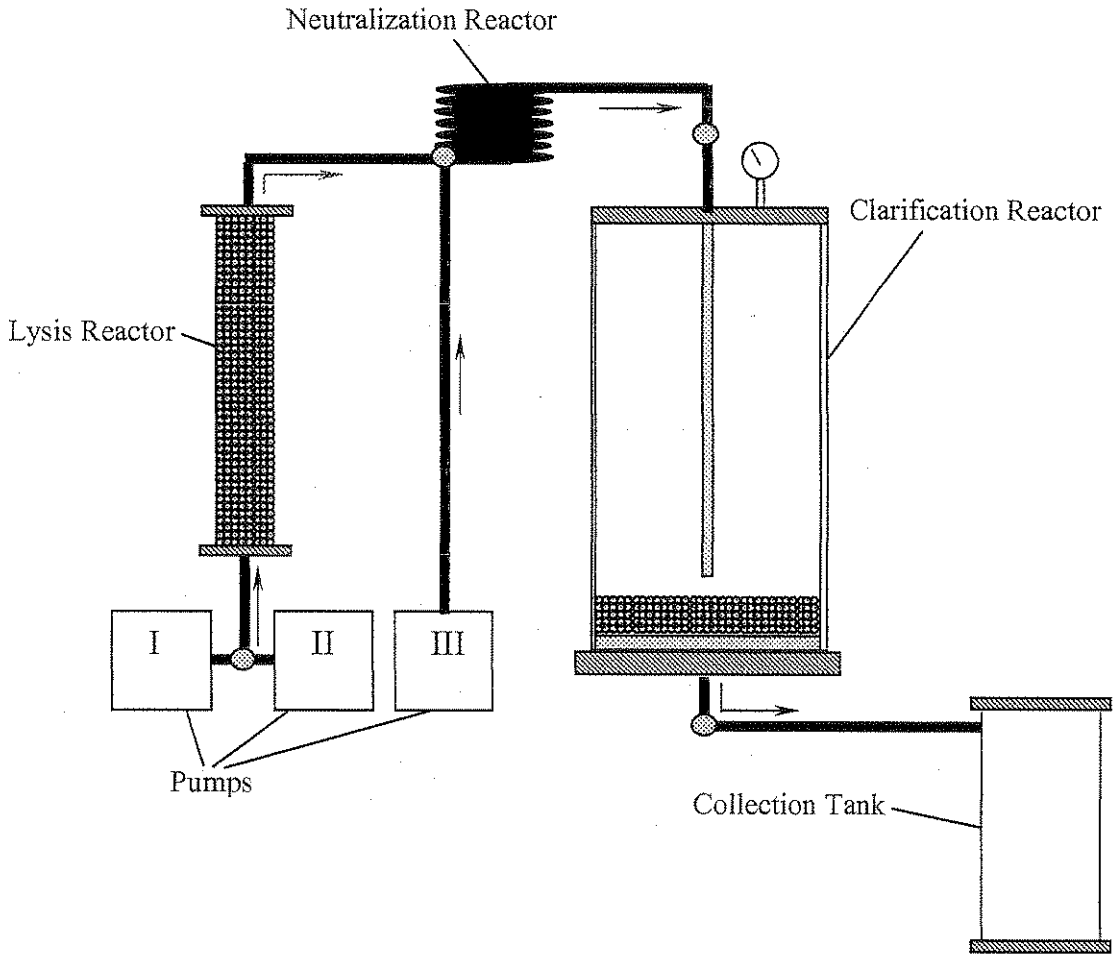
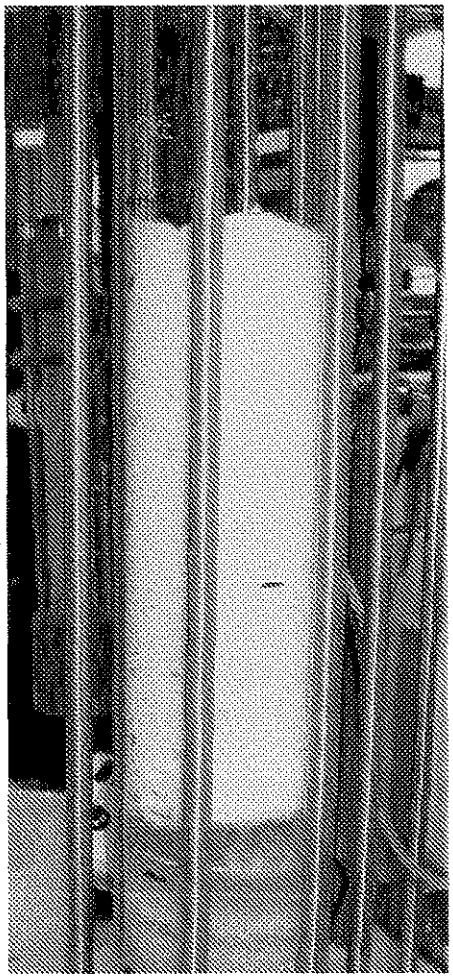
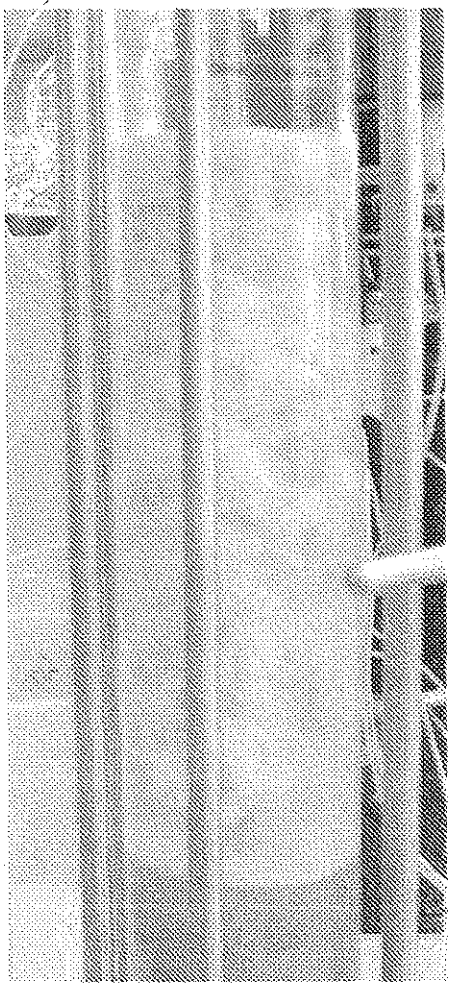

Neutralization Reactor
Clarification Reactor
Lysis Reactor
I
II
III
Pumps
Collection Tank

Fig. 7

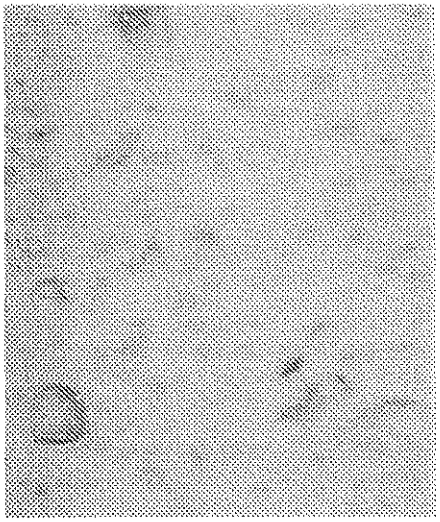
a1)



b1)



a2)



b2)

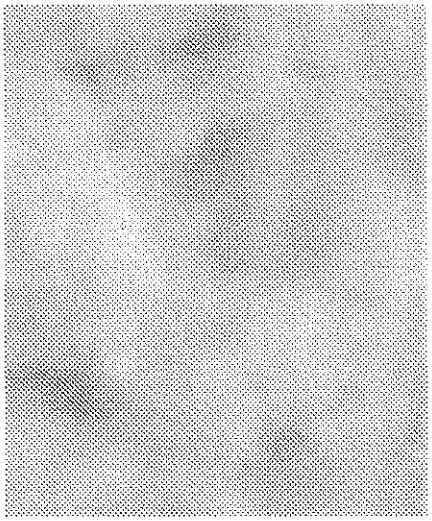


Fig. 8

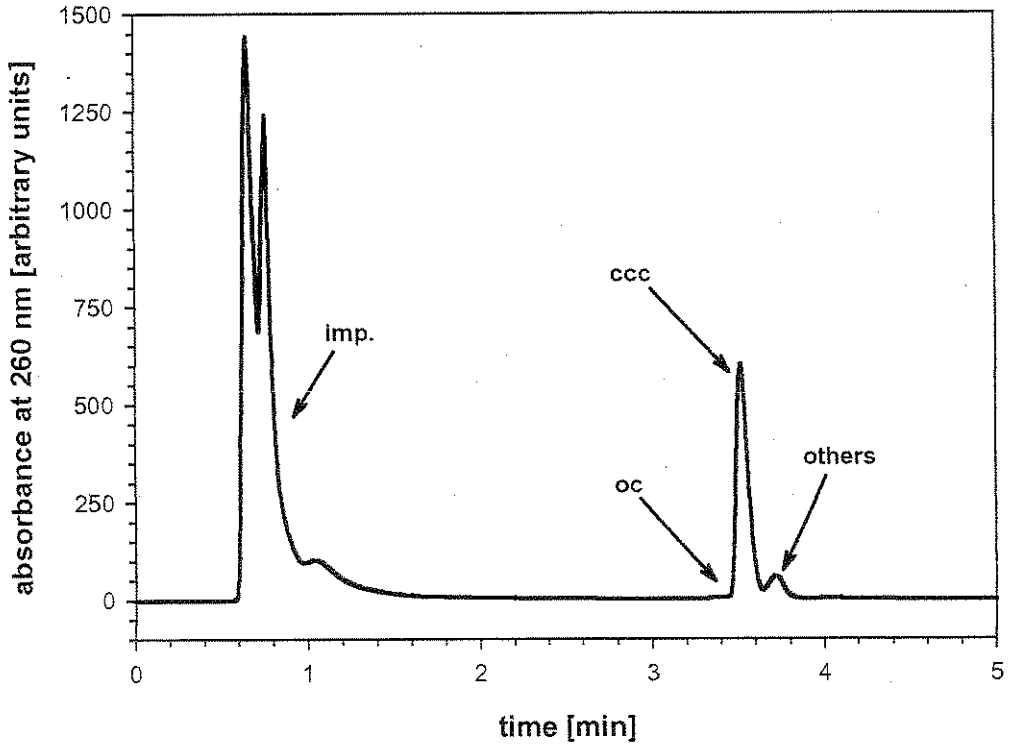

absorbance at 260 nm [arbitrary units]
1500
1250
1000
750
500
250
0
0
1
2
3
4
5
time [min]
imp.
ccc
oc
others

Fig. 9

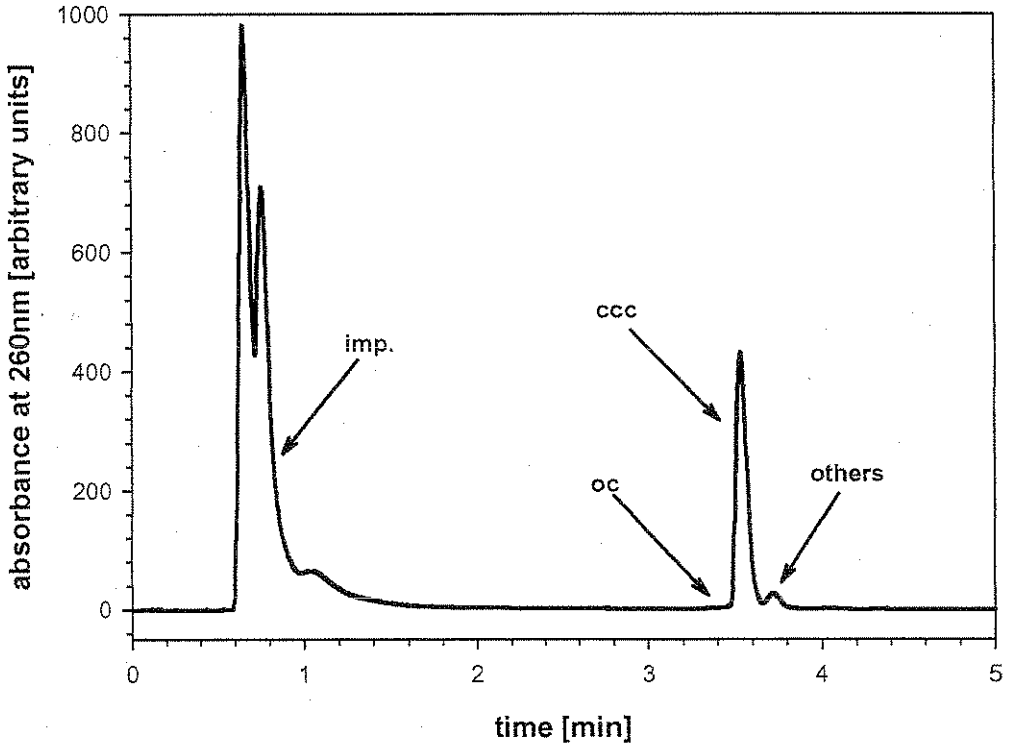

absorbance at 260nm [arbitrary units]
1000
800
600
400
200
0
imp.
ccc
oc
others
0
1
2
3
4
5
time [min]

Fig. 10

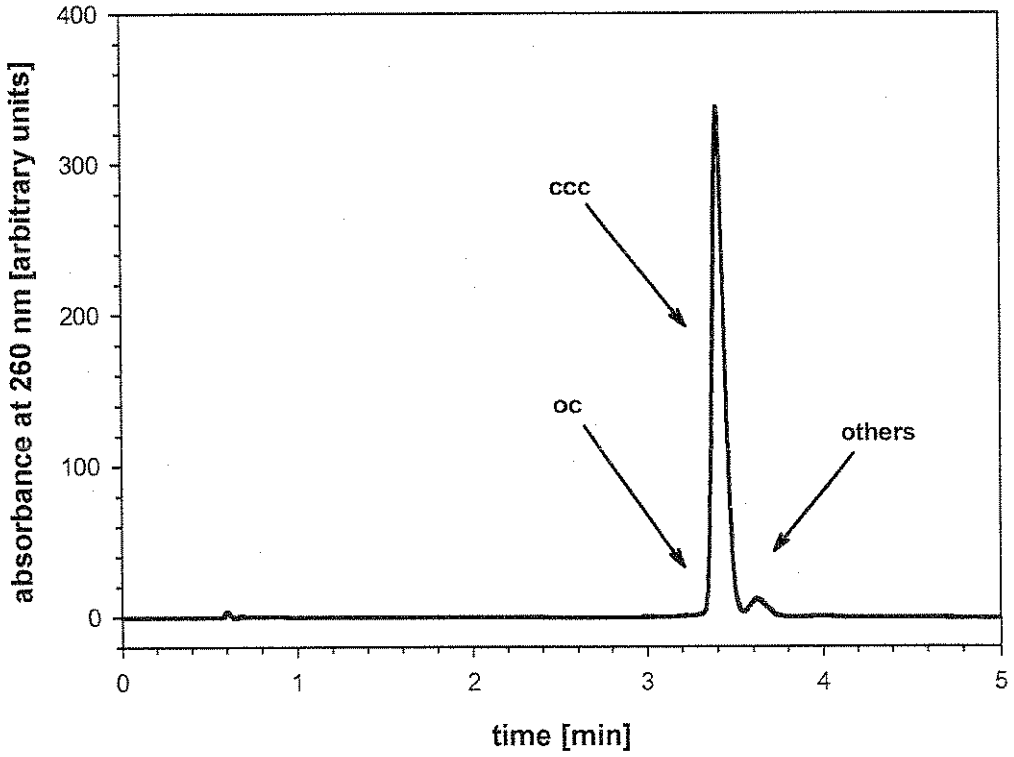

absorbance at 260 nm [arbitrary units]
400
300
200
100
0
ccc
oc
others
0
1
2
3
4
5
time [min]

Fig. 11

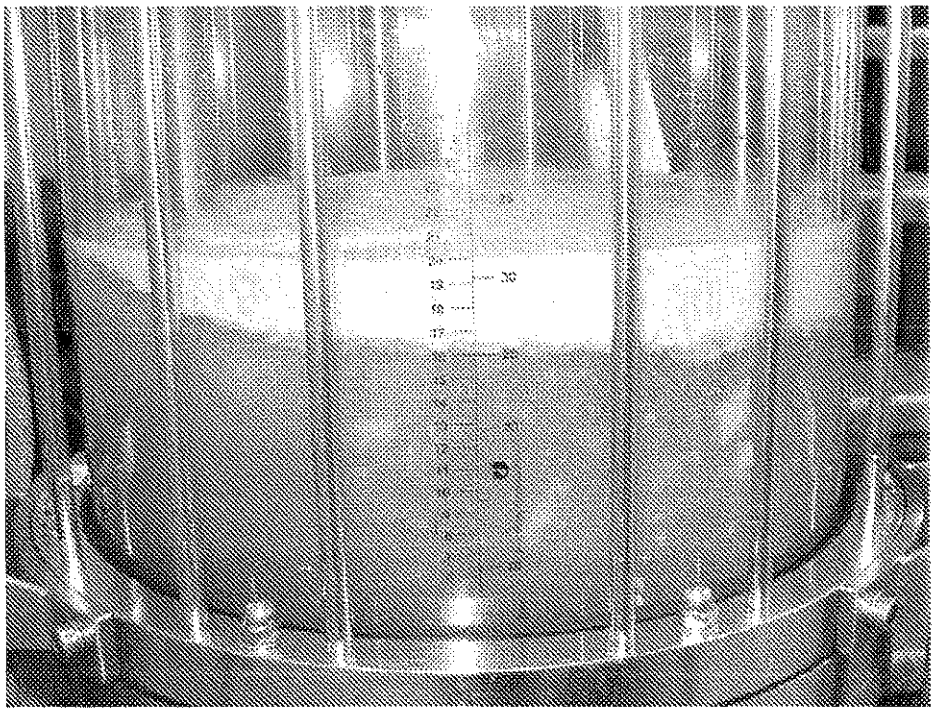


Fig. 12

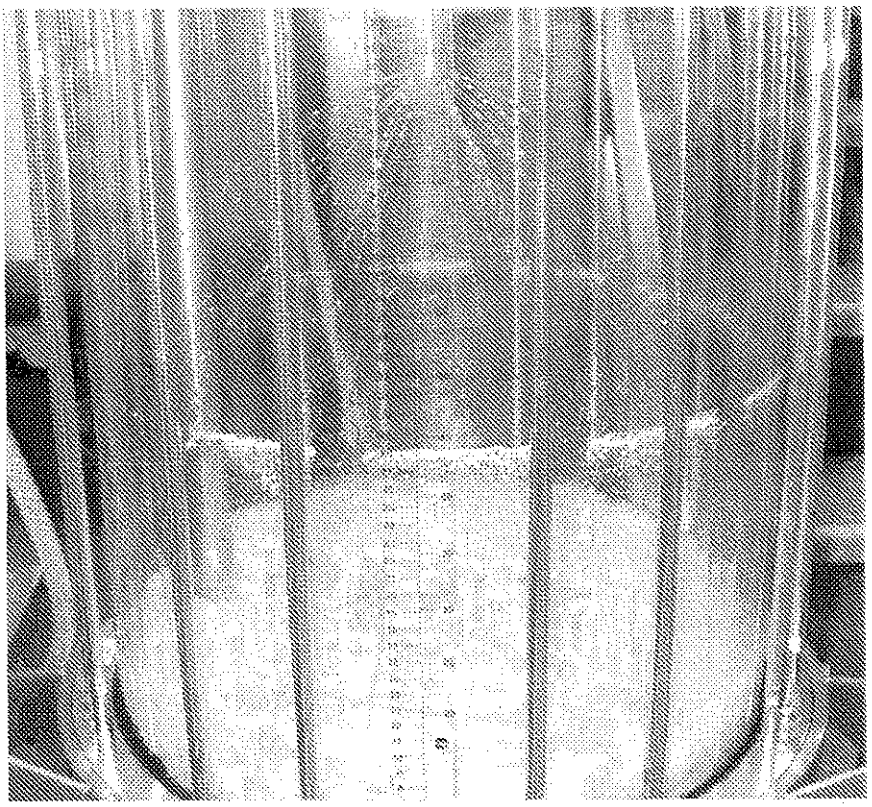


Fig. 13

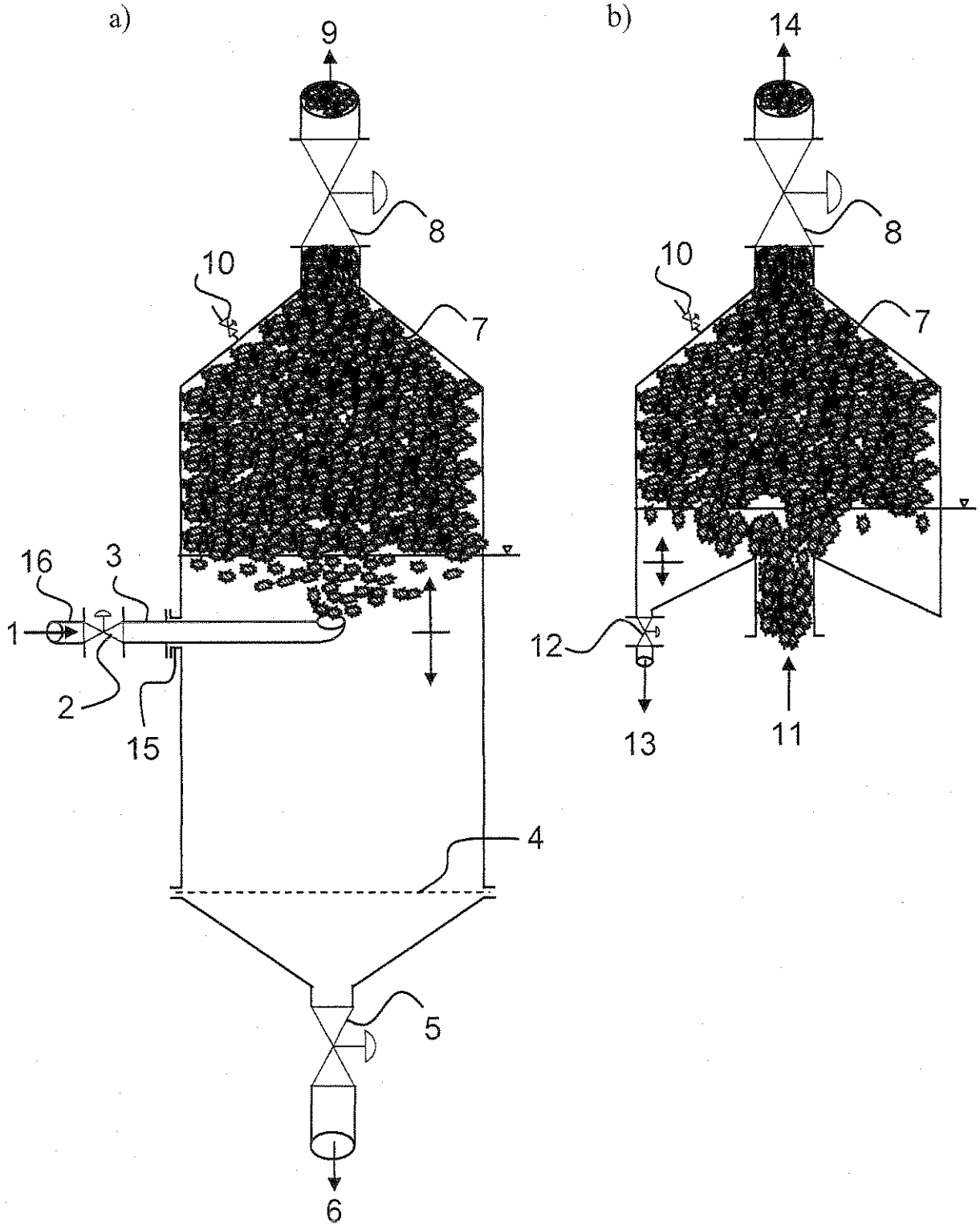


Fig. 14

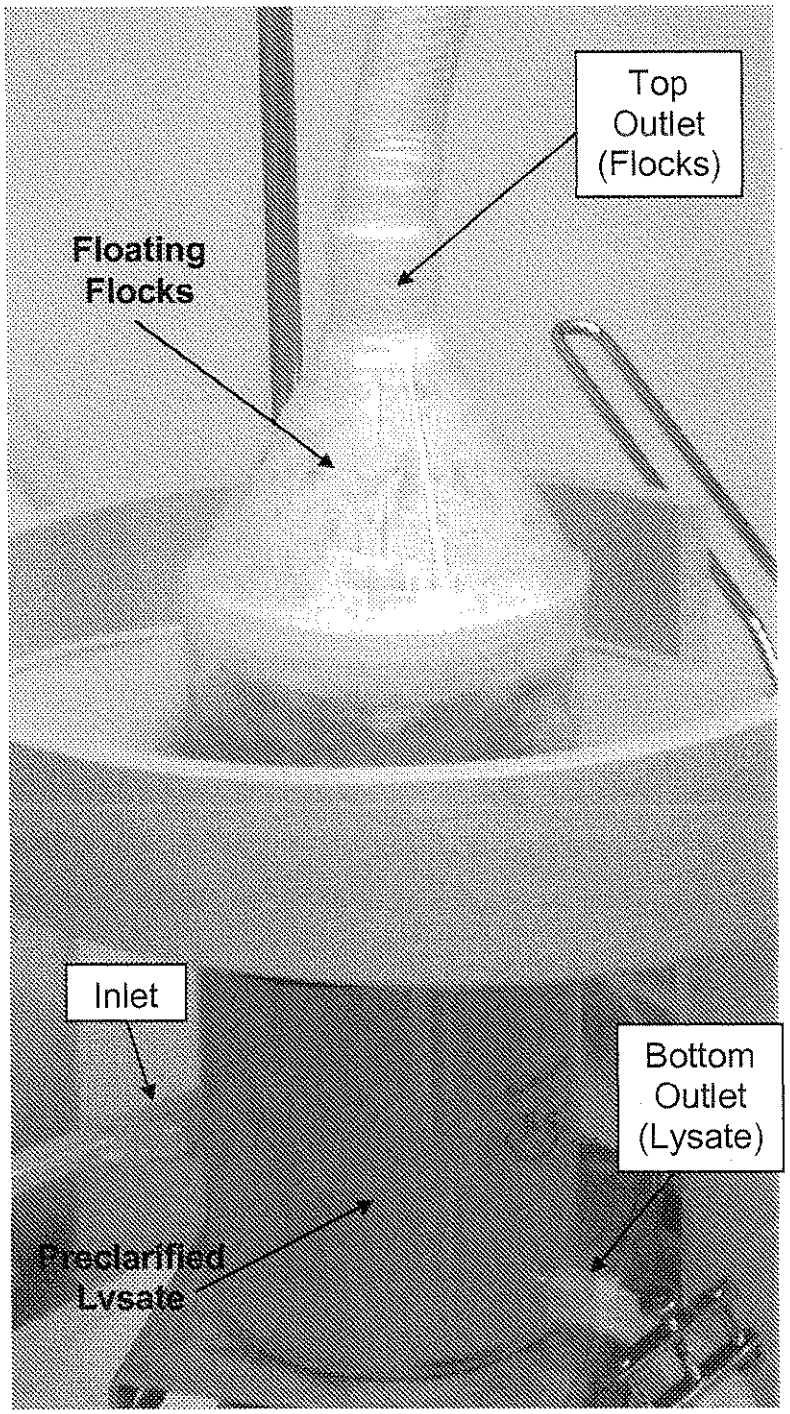

Top
Outlet
(Flocks)
Floating
Flocks
Inlet
Bottom
Outlet
(Lysate)
Preclarified
Lysate

Fig. 15

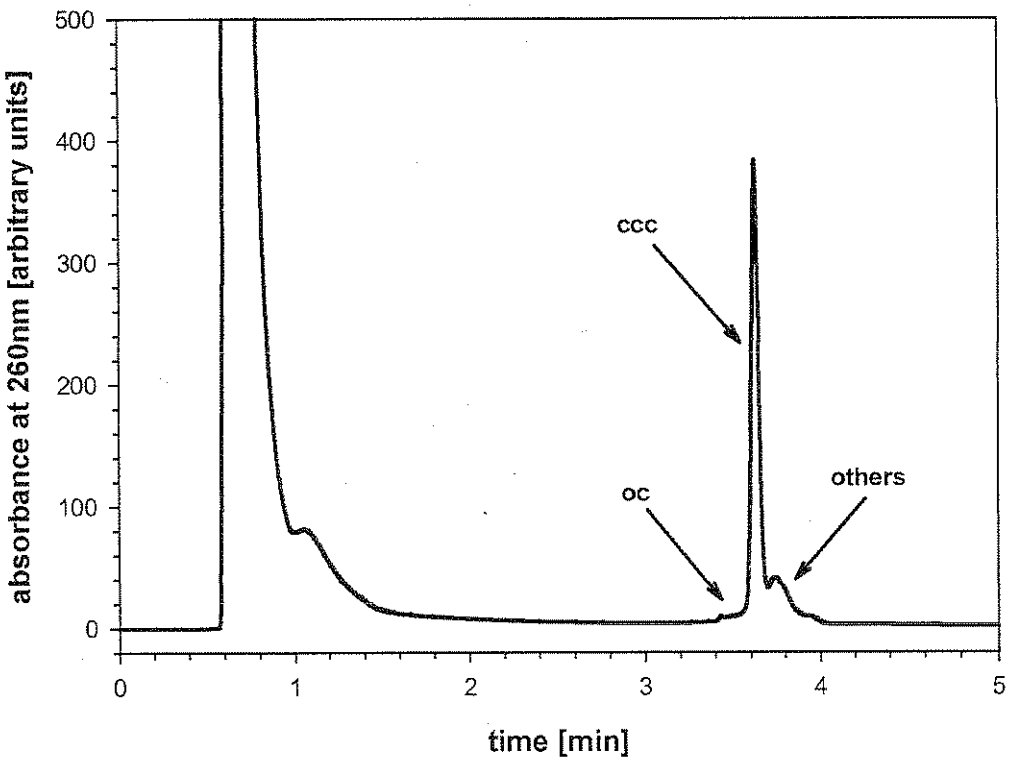

absorbance at 260nm [arbitrary units]
500
400
300
200
100
0
0
1
2
3
4
5
time [min]
ccc
oc
others

Fig. 16

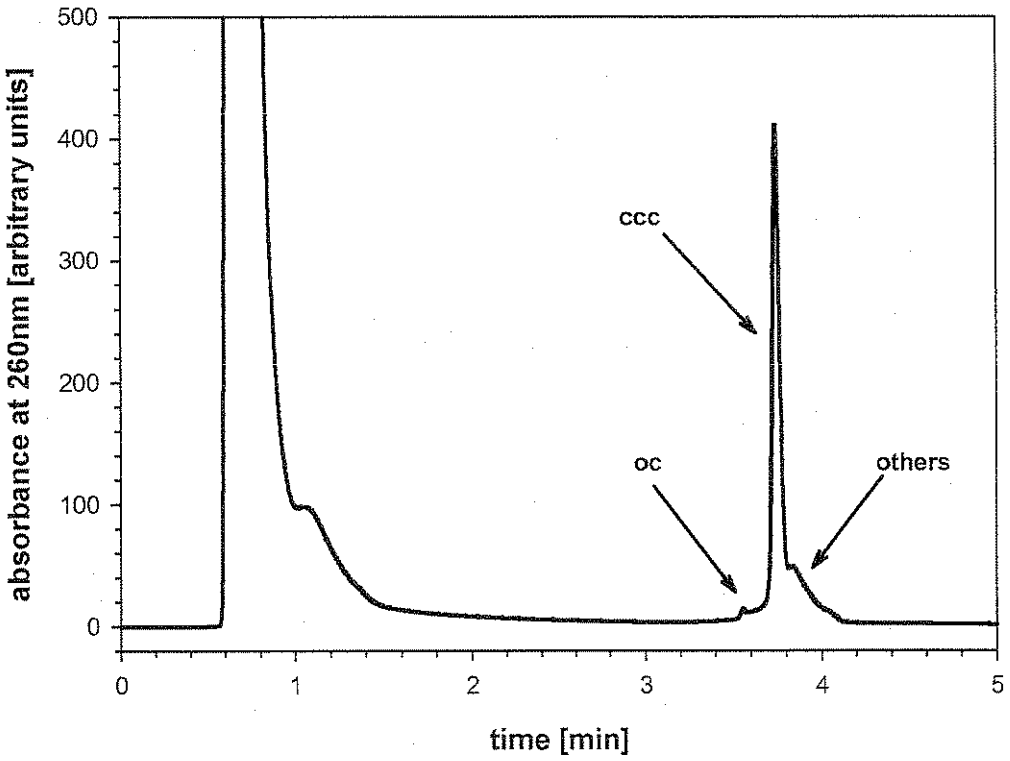

absorbance at 260nm [arbitrary units]
500
400
300
200
100
0
0
1
2
3
4
5
time [min]
ccc
oc
others

Fig. 17

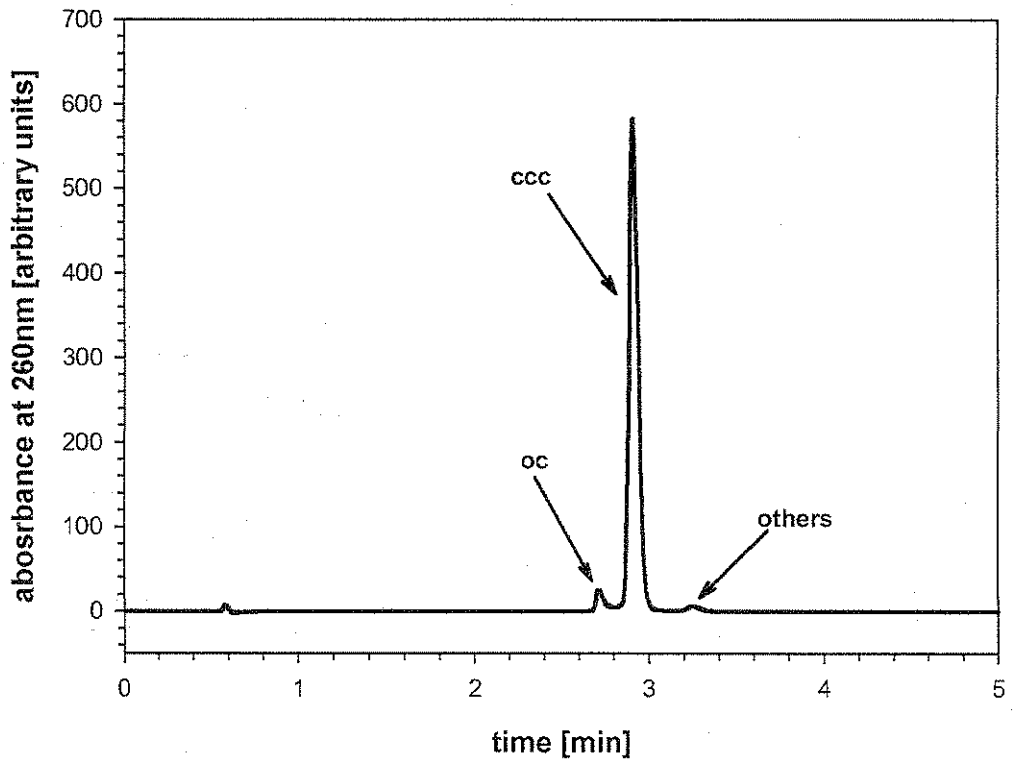
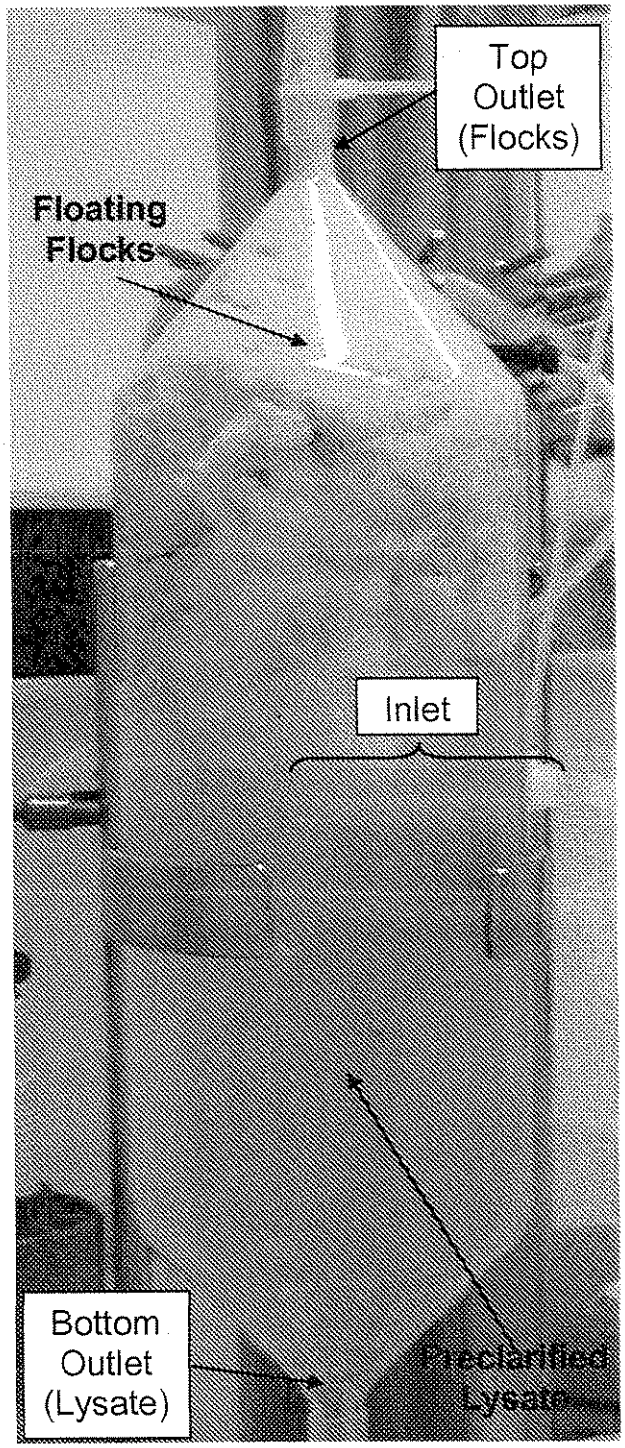

700
600
500
400
300
200
100
0
abosrbance at 260nm [arbitrary units]
ccc
oc
others
0
1
2
3
4
5
time [min]

Fig. 18


Top
Outlet
(Flocks)
Floating
Flocks
Inlet
Bottom
Outlet
(Lysate)
Preclarified
Lysate