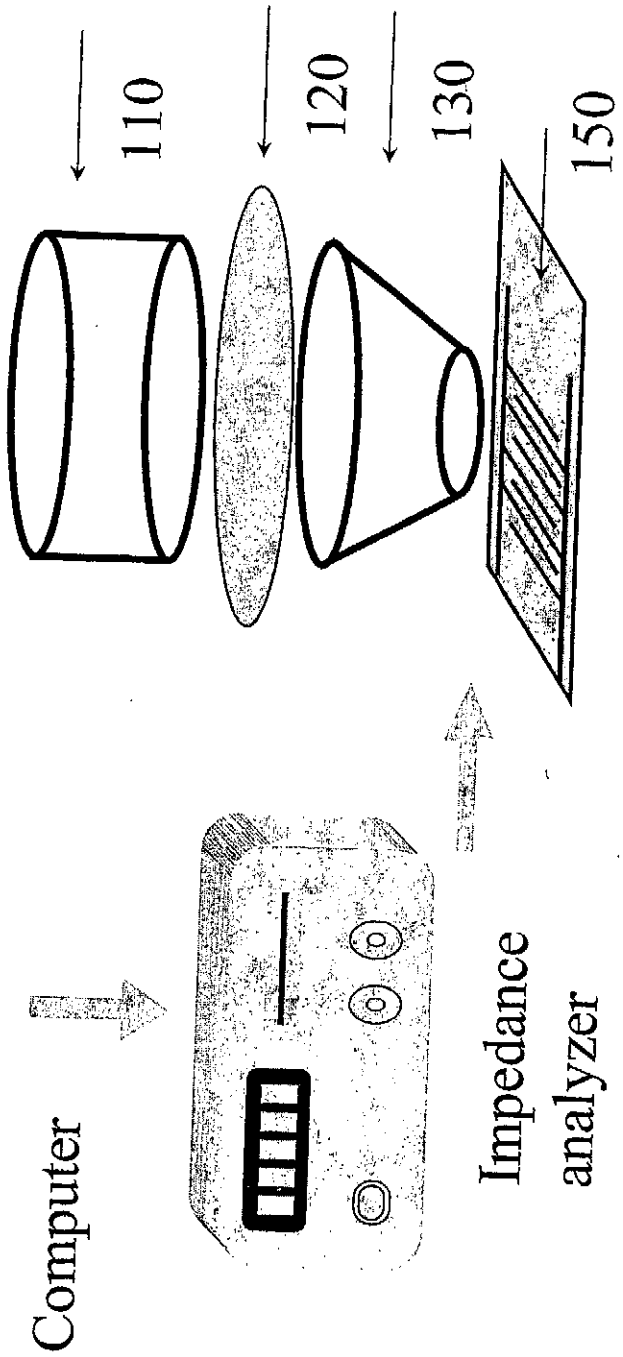


Figure 1

SUBSTITUTE SHEET (RULE 26)

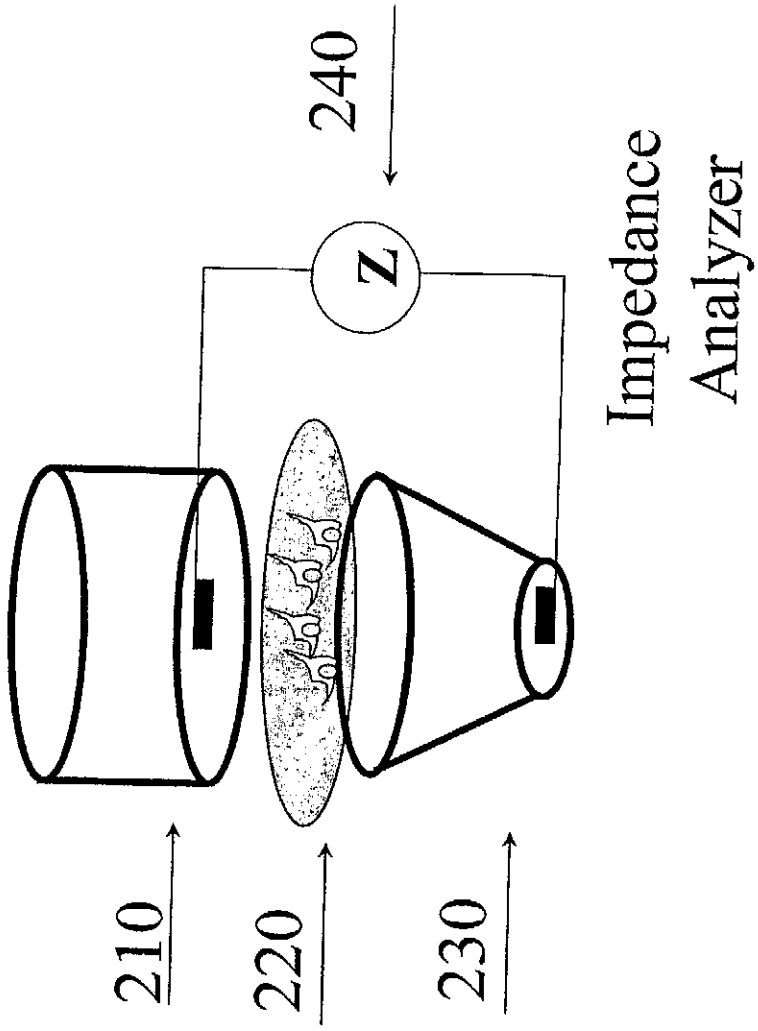


Figure 2

SUBSTITUTE SHEET (RULE 26)

Figure 3A (1)

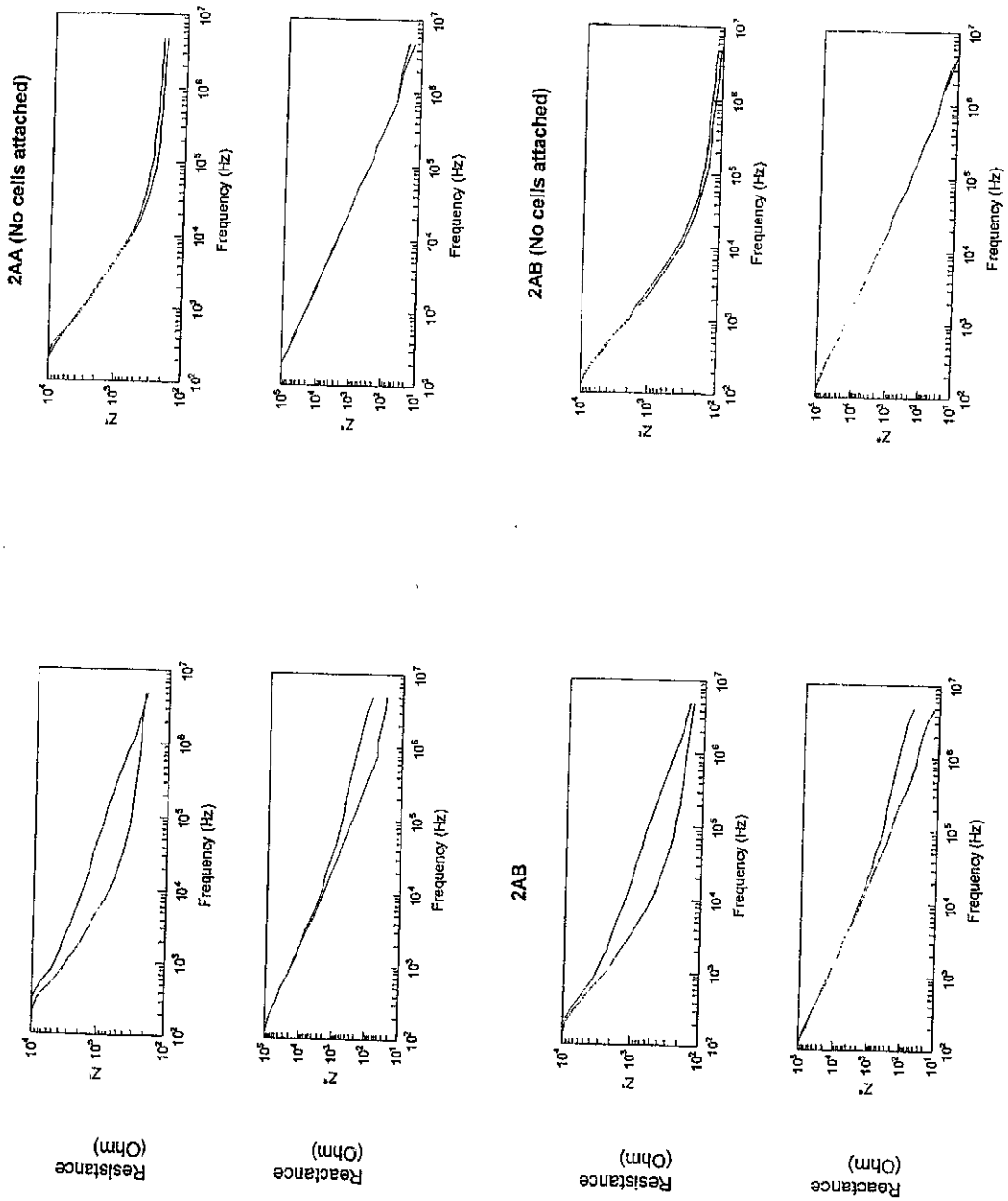

2AA
2AA (No cells attached)
2AB
2AB (No cells attached)
Resistance (Ohm)
Reactance (Ohm)
Frequency (Hz)
|Z|

Figure 3A (2)

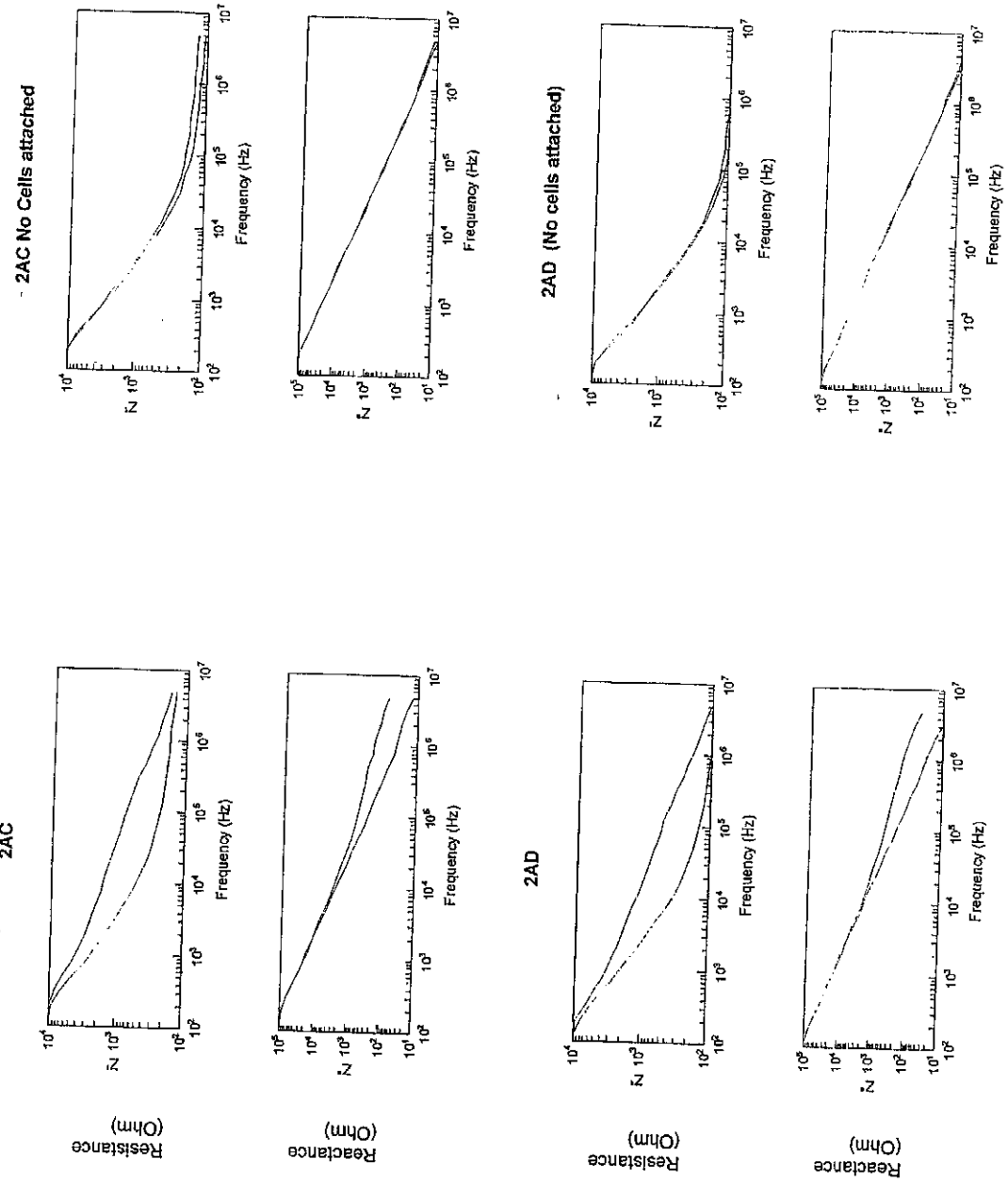

2AC
2AC No Cells attached
2AD
2AD (No cells attached)
Resistance (Ohm)
Reactance (Ohm)
Frequency (Hz)
Z'
Z''

Figure 3A (3)

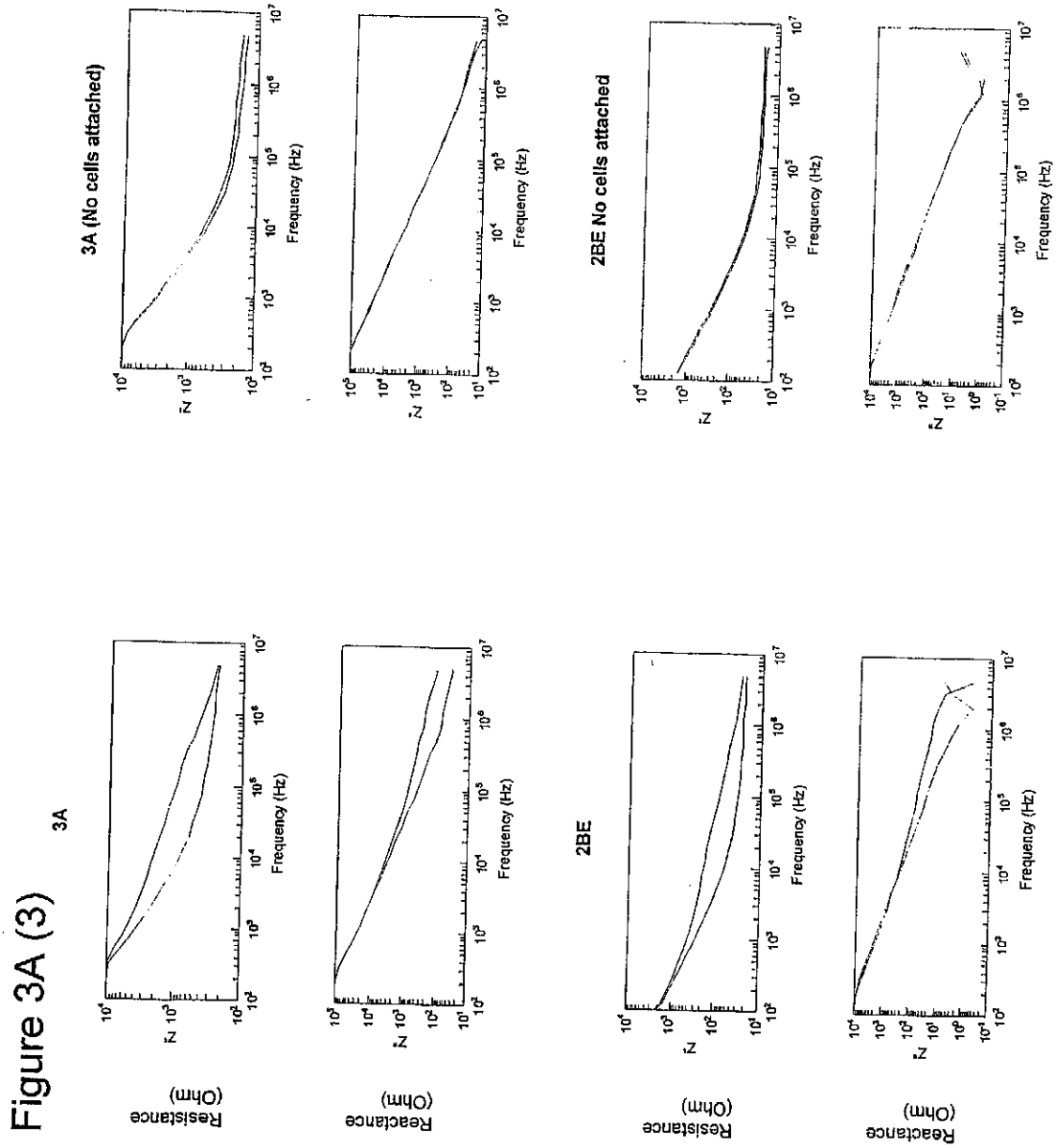

3A
3A (No cells attached)
2BE
2BE No cells attached
Resistance (Ohm)
Reactance (Ohm)
Frequency (Hz)
Z'
Z''

Figure 3A (4)

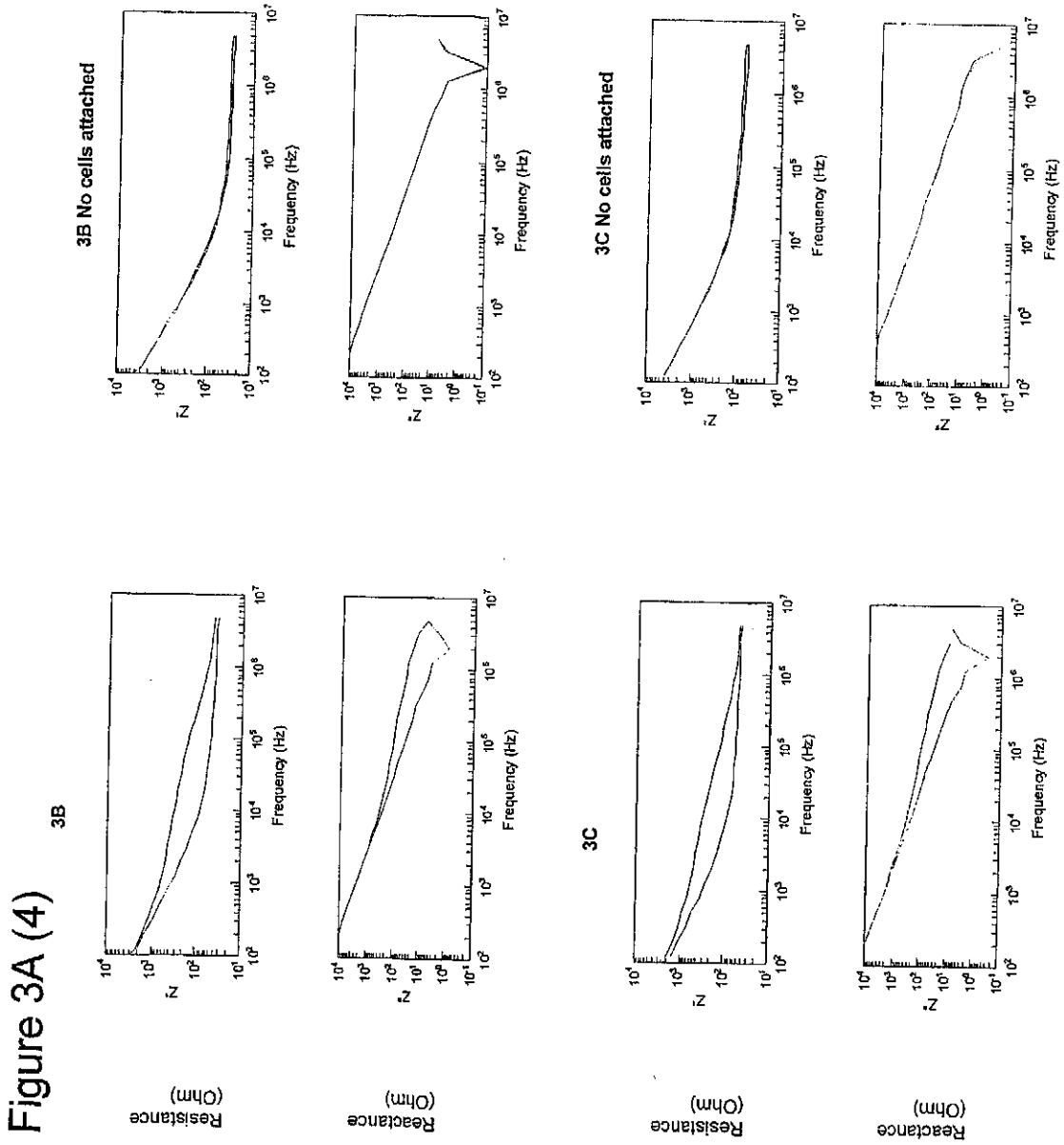

3B
3B No cells attached
3C
3C No cells attached
Resistance (Ohm)
Reactance (Ohm)
Frequency (Hz)
Z'
Z"

Figure 3B

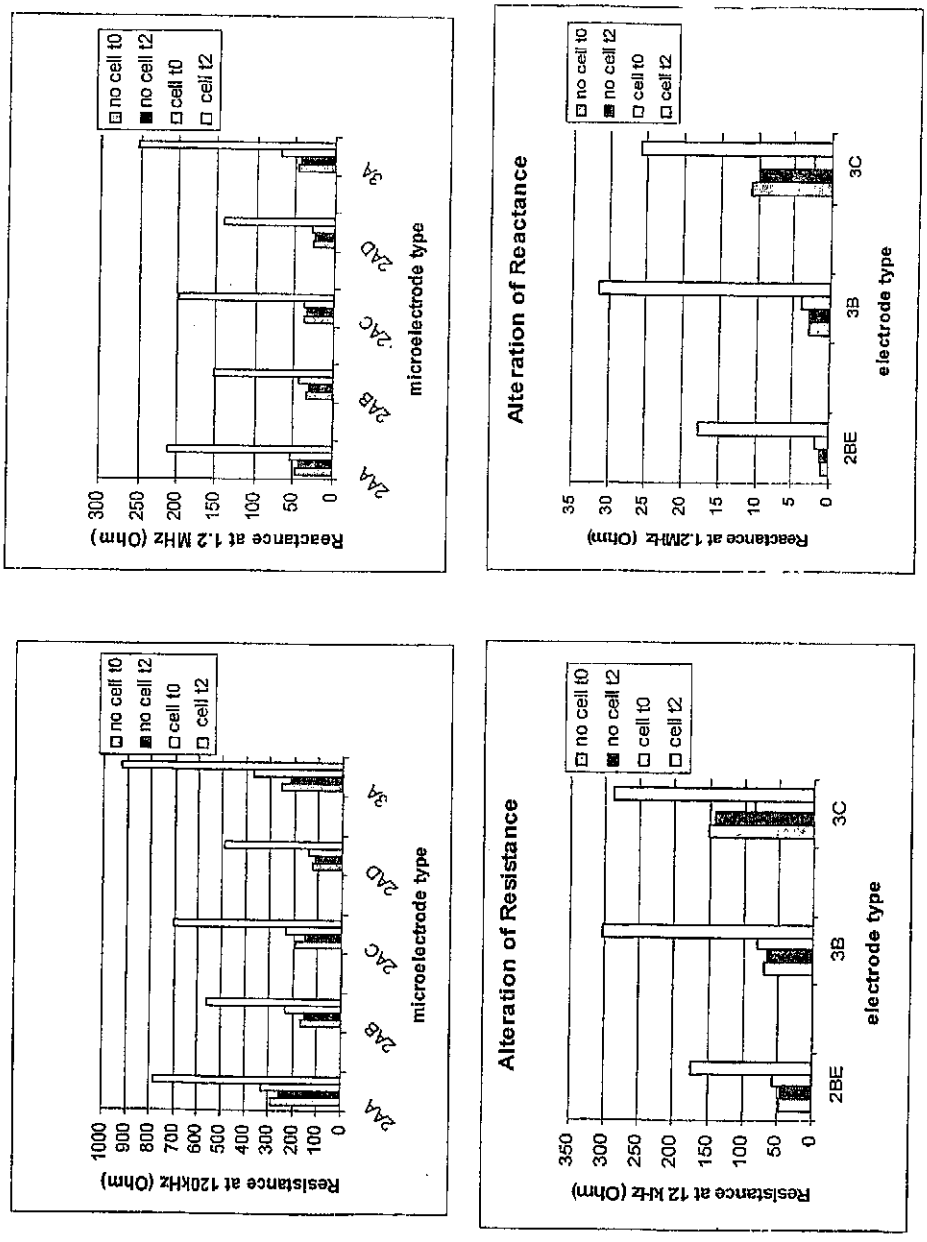

Reactance at 1.2 MHz (Ohm)
300
250
200
150
100
50
0
no cell t0
no cell t2
cell t0
cell t2
2AA
2AB
2AC
2AD
3A
microelectrode type
Alteration of Reactance
Reactance at 1.2MHz (Ohm)
35
30
25
20
15
10
5
0
2BE
3B
3C
electrode type
Resistance at 120kHz (Ohm)
1000
900
800
700
600
500
400
300
200
100
0
Alteration of Resistance
Resistance at 12 kHz (Ohm)
350
300
250
200
150
100
50
0

Figure 4

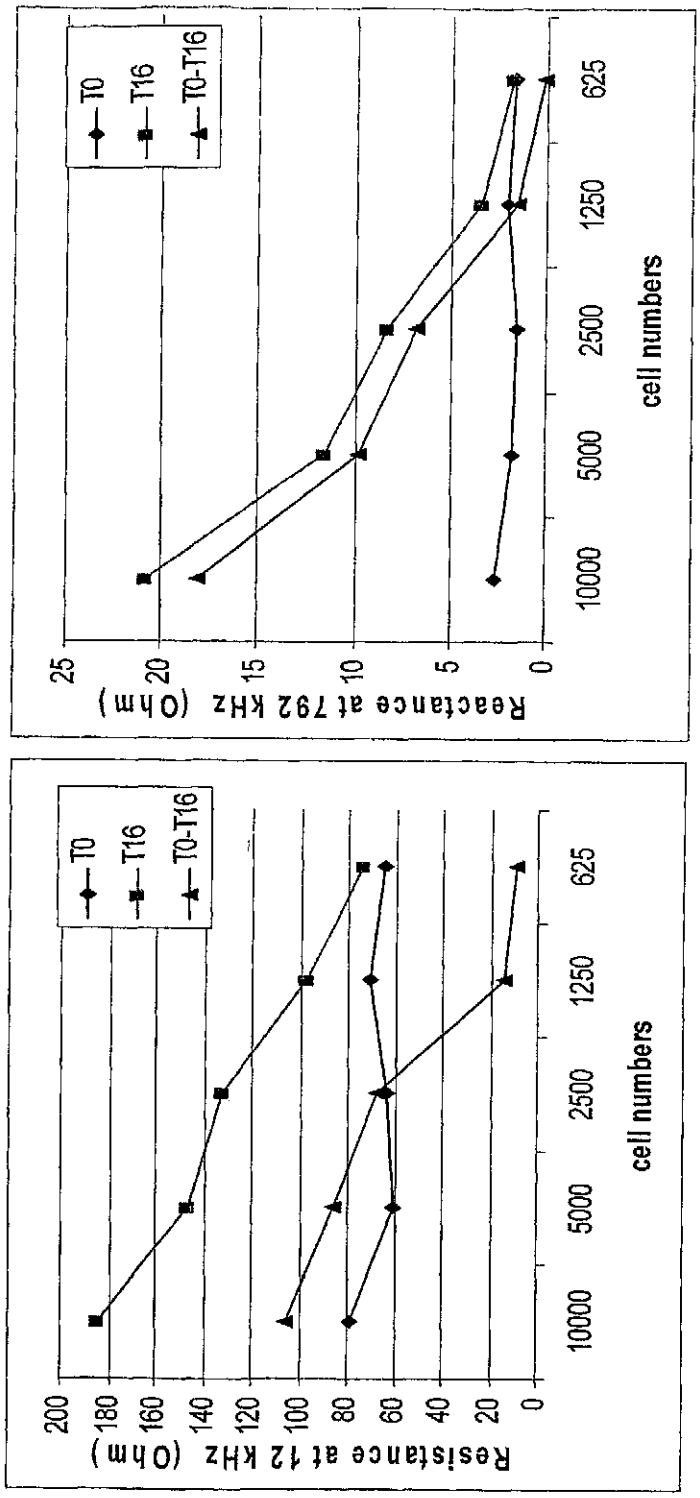
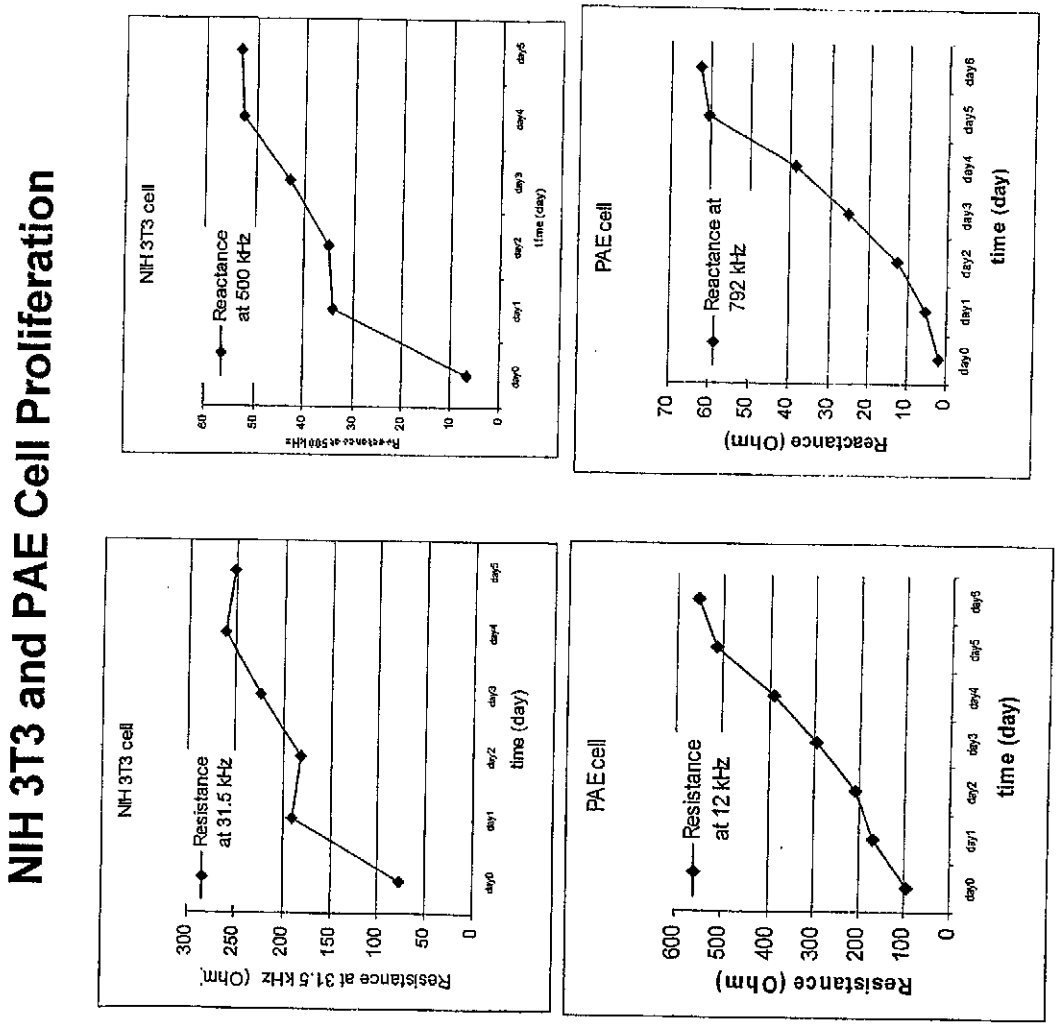

Reactance at 792 kHz (Ohm)
25
20
15
10
5
0
10000
5000
2500
1250
625
cell numbers
T0
T16
T0-T16
Resistance at 12 kHz (Ohm)
200
180
160
140
120
100
80
60
40
20
0
10000
5000
2500
1250
625
cell numbers
T0
T16
T0-T16

Figure 5


NIH 3T3 and PAE Cell Proliferation
NIH 3T3 cell
Resistance at 31.5 kHz
Resistance at 31.5 kHz (Ohm)
time (day)
PAE cell
Resistance at 12 kHz
Resistance (Ohm)
time (day)
NIH 3T3 cell
Reactance at 500 kHz
time (day)
PAE cell
Reactance at 792 kHz
Reactance (Ohm)
time (day)

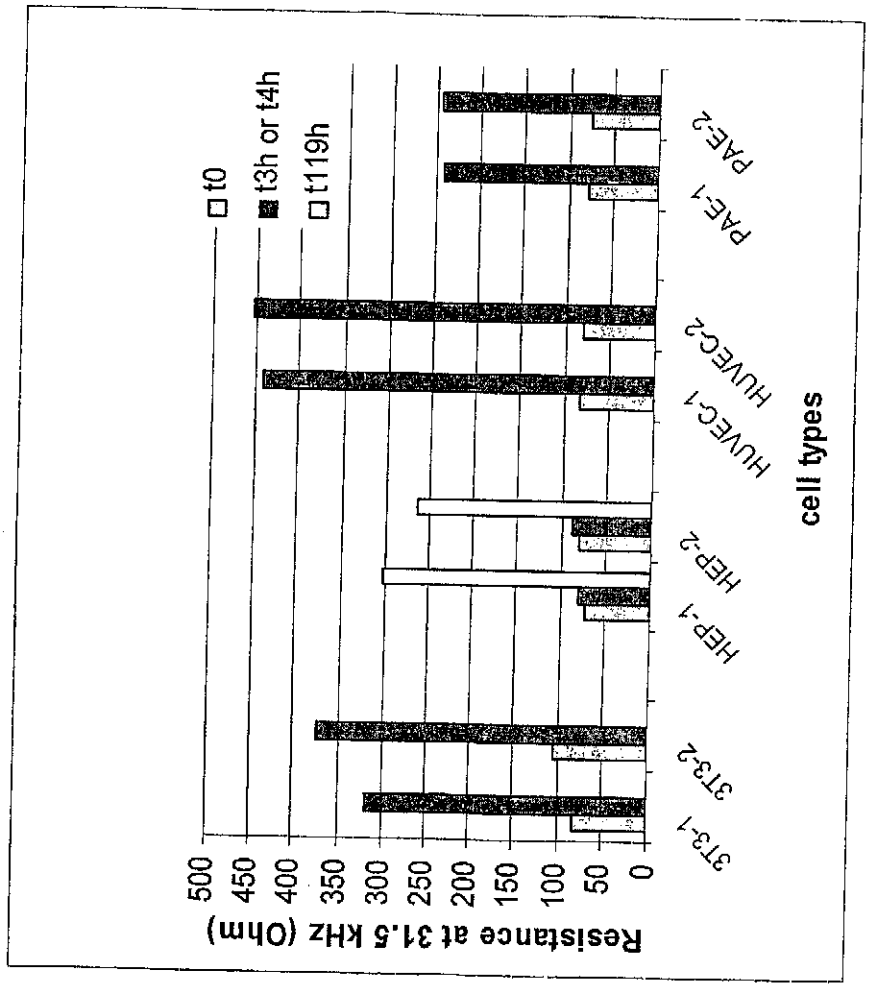

Resistance at 31.5 kHz (Ohm)
500
450
400
350
300
250
200
150
100
50
0
t0
t3h or t4h
t119h
3T3-1
3T3-2
HEP-1
HEP-2
HUVEC-1
HUVEC-2
PAE-1
PAE-2
cell types

Figure 6

Figure 7

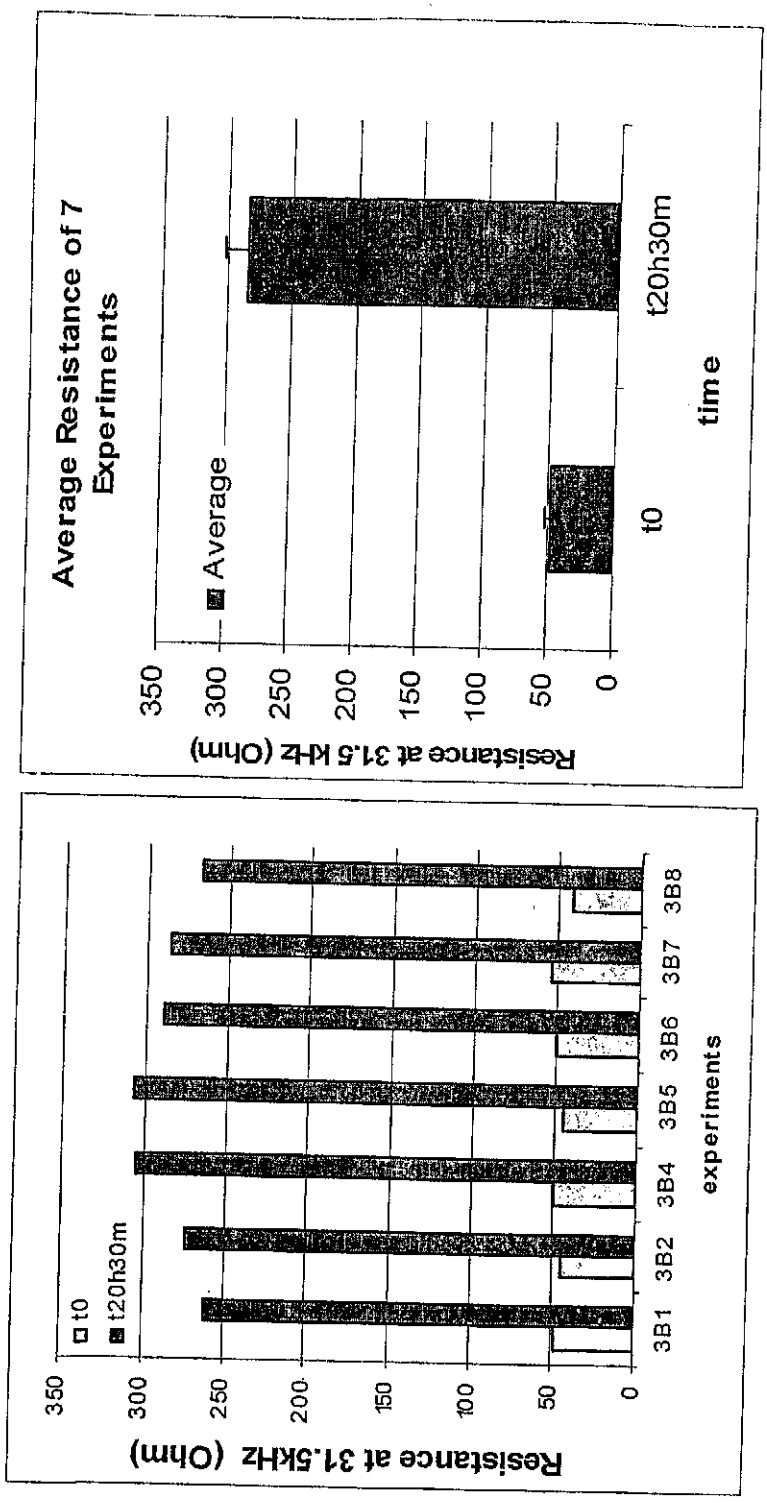
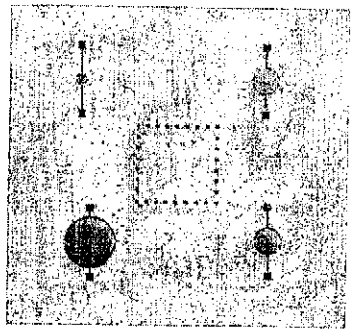

Average Resistance of 7 Experiments
Average
Resistance at 31.5 kHz (Ohm)
350
300
250
200
150
100
50
0
t0
t20h30m
time
Resistance at 31.5kHz (Ohm)
t0
t20h30m
3B1
3B2
3B4
3B5
3B6
3B7
3B8
experiments

Figure 8.



SUBSTITUTE SHEET (RULE 26)

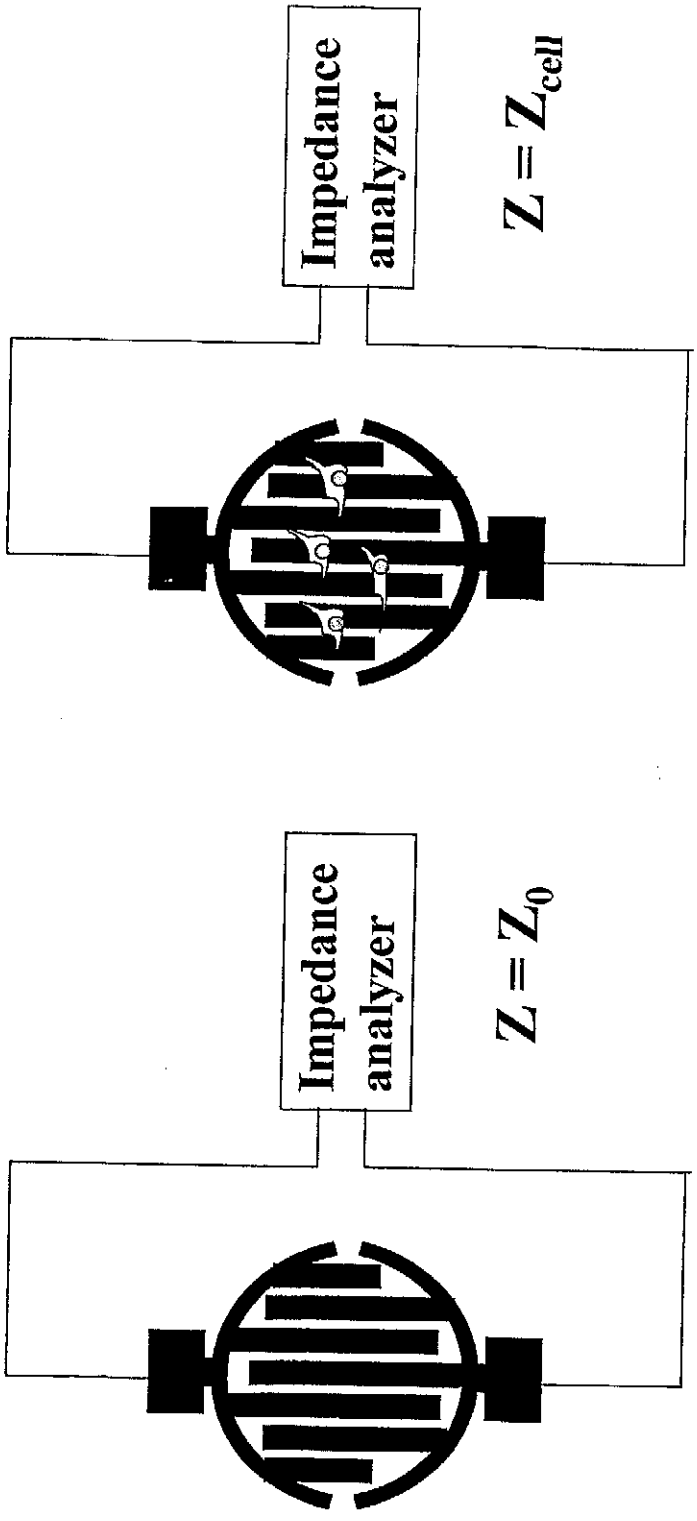


Figure 9

SUBSTITUTE SHEET (RULE 26)

Figure 10.

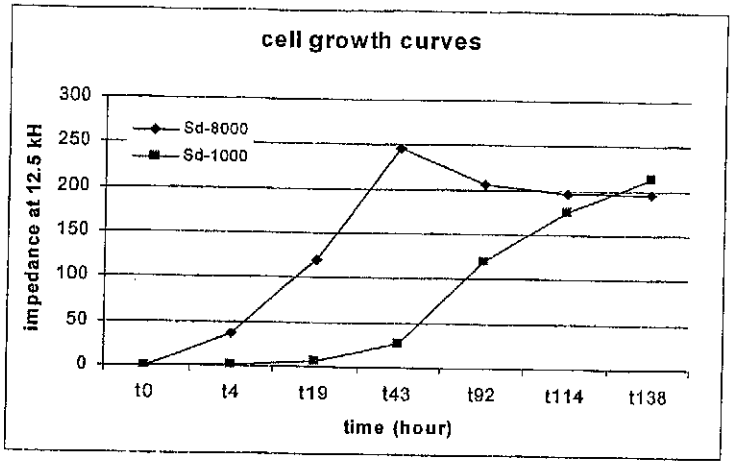


Figure 11.

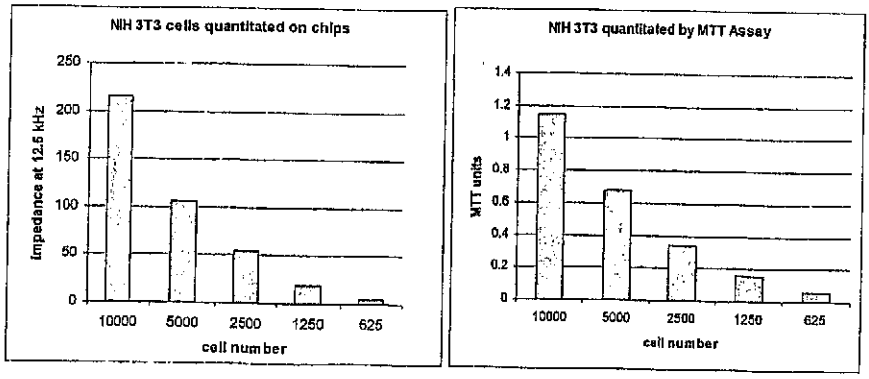


Figure 12.

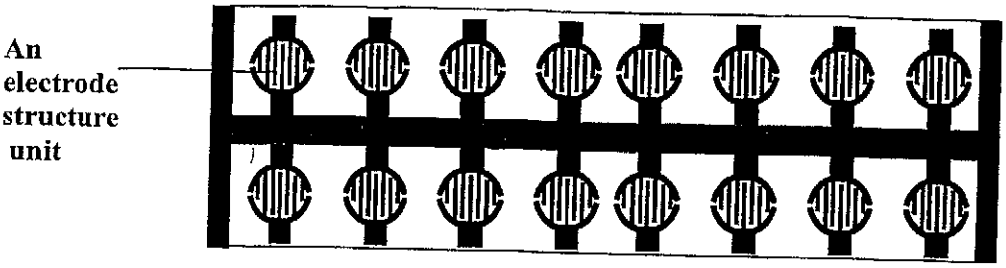


Figure 13.

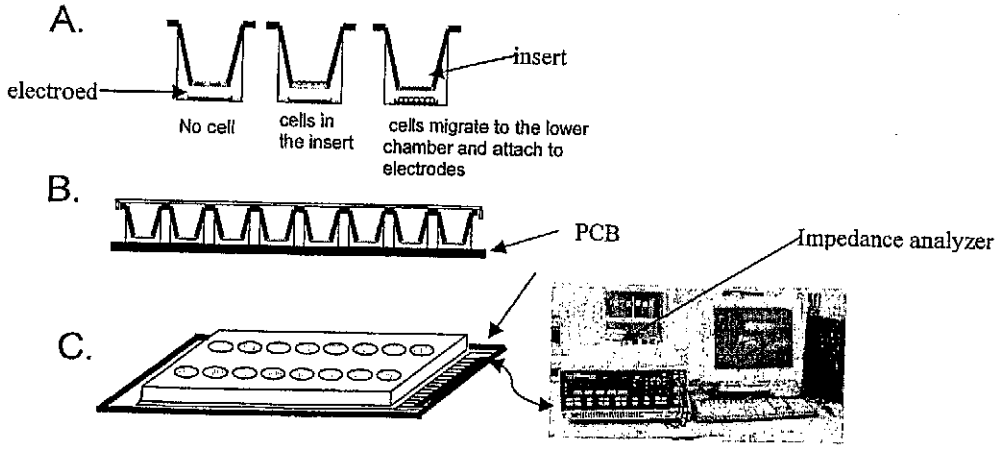
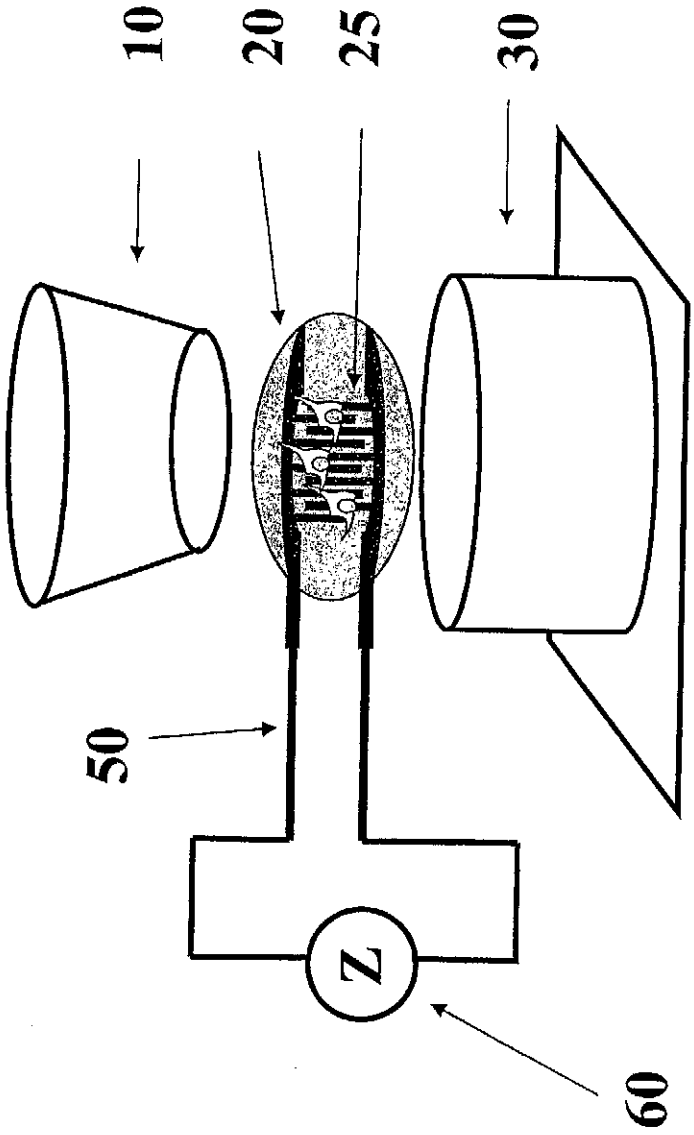


Figure 14



SUBSTITUTE SHEET (RULE 26)

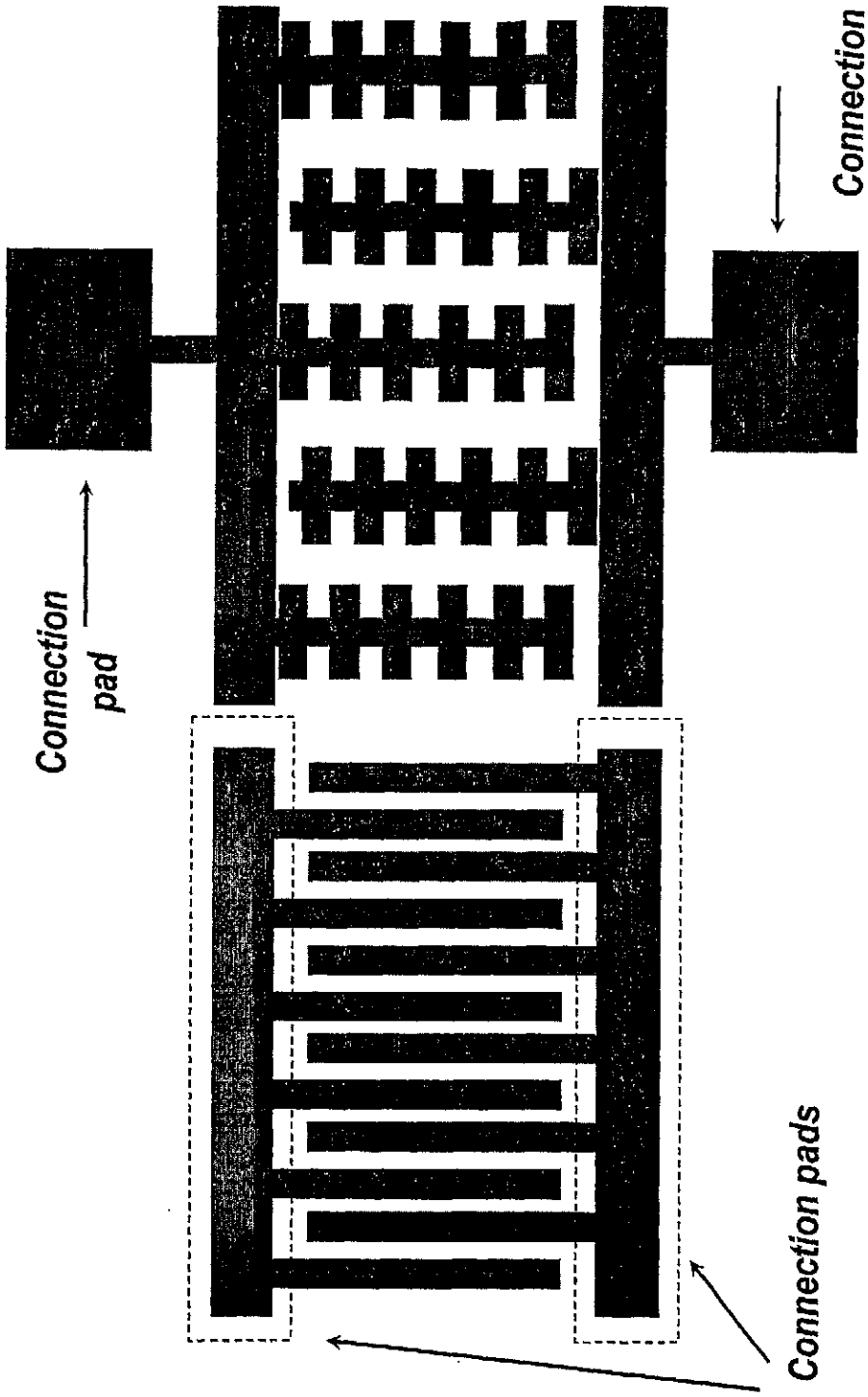


Figure 15 (B)

Figure 15 (A)

SUBSTITUTE SHEET (RULE 26)

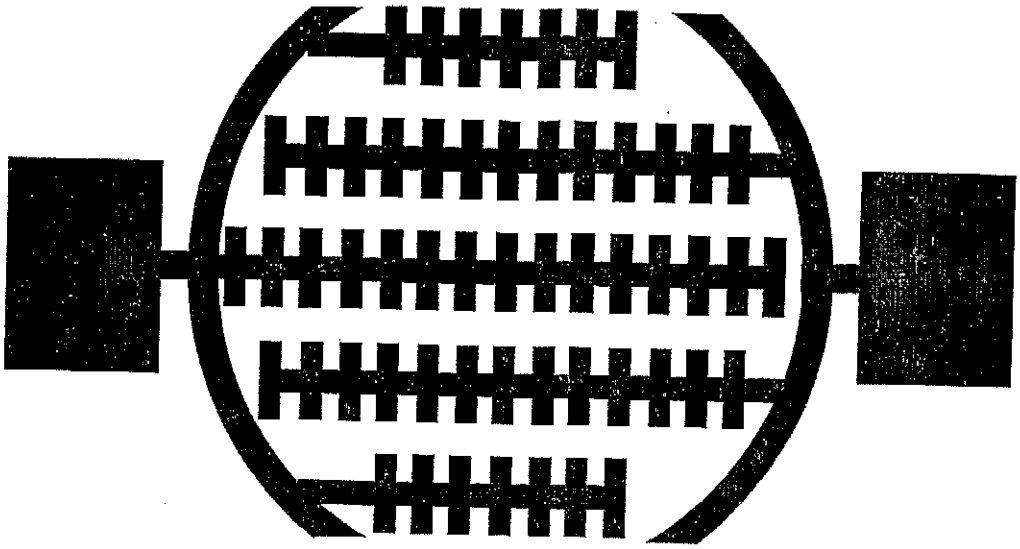


Figure 15(D)

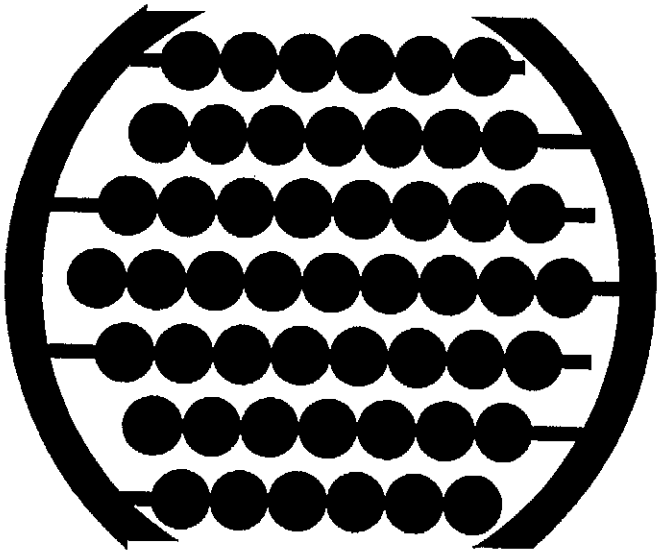


Figure 15(C)

SUBSTITUTE SHEET (RULE 26)

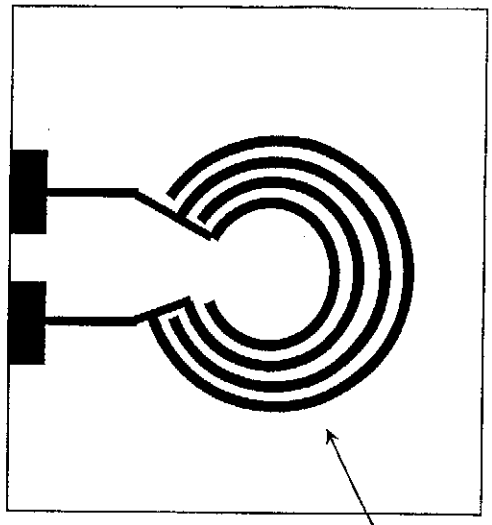


Figure 15(F)

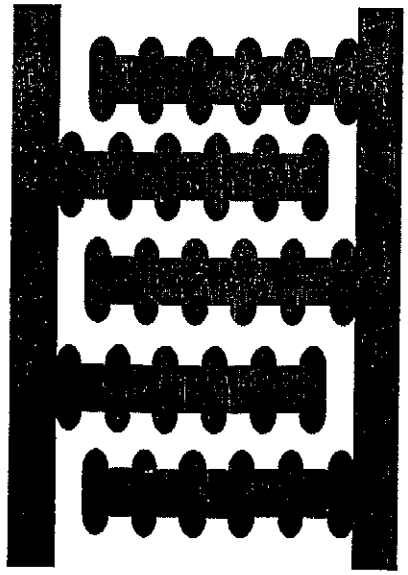
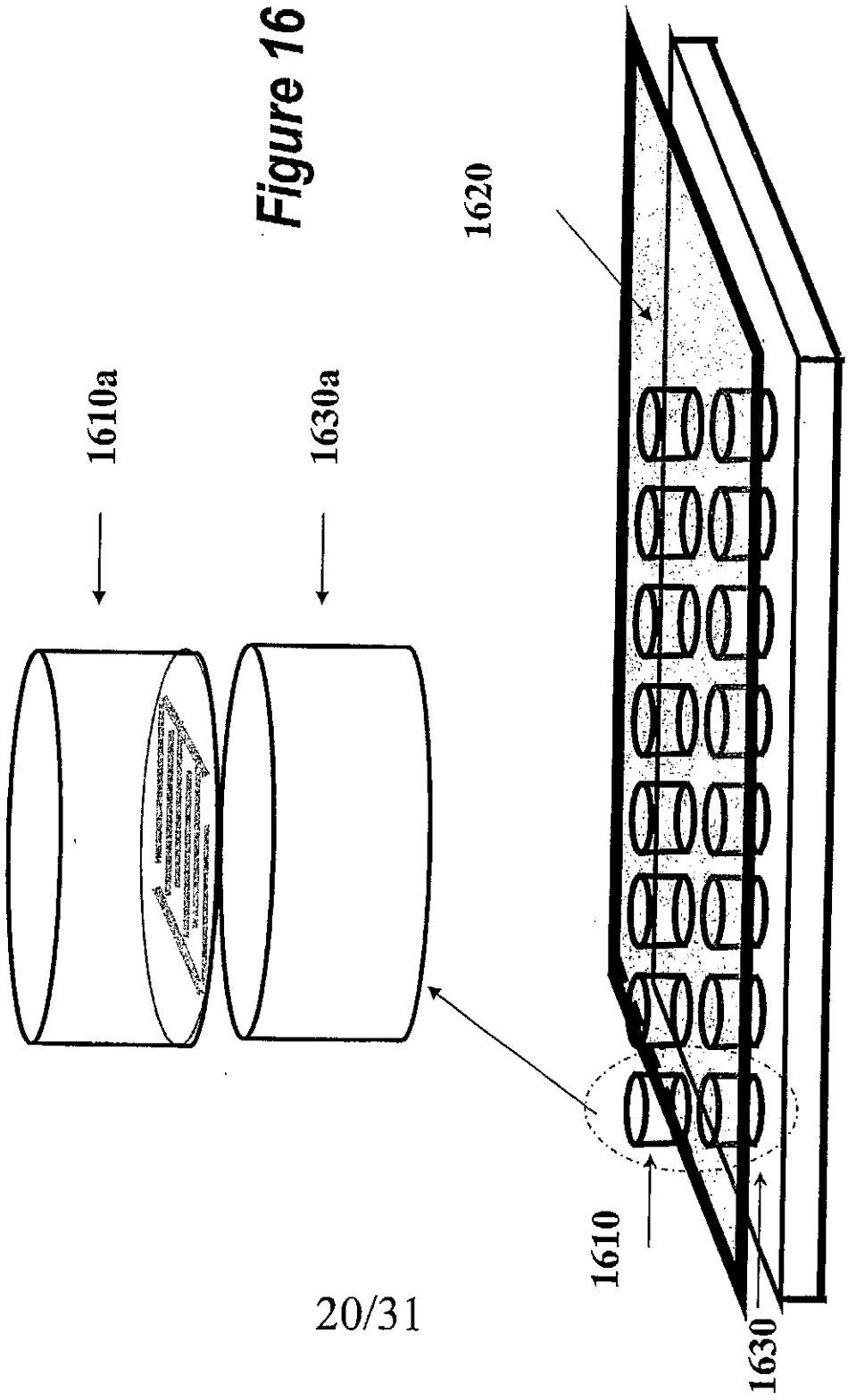


Figure 15(E)

Figure 16



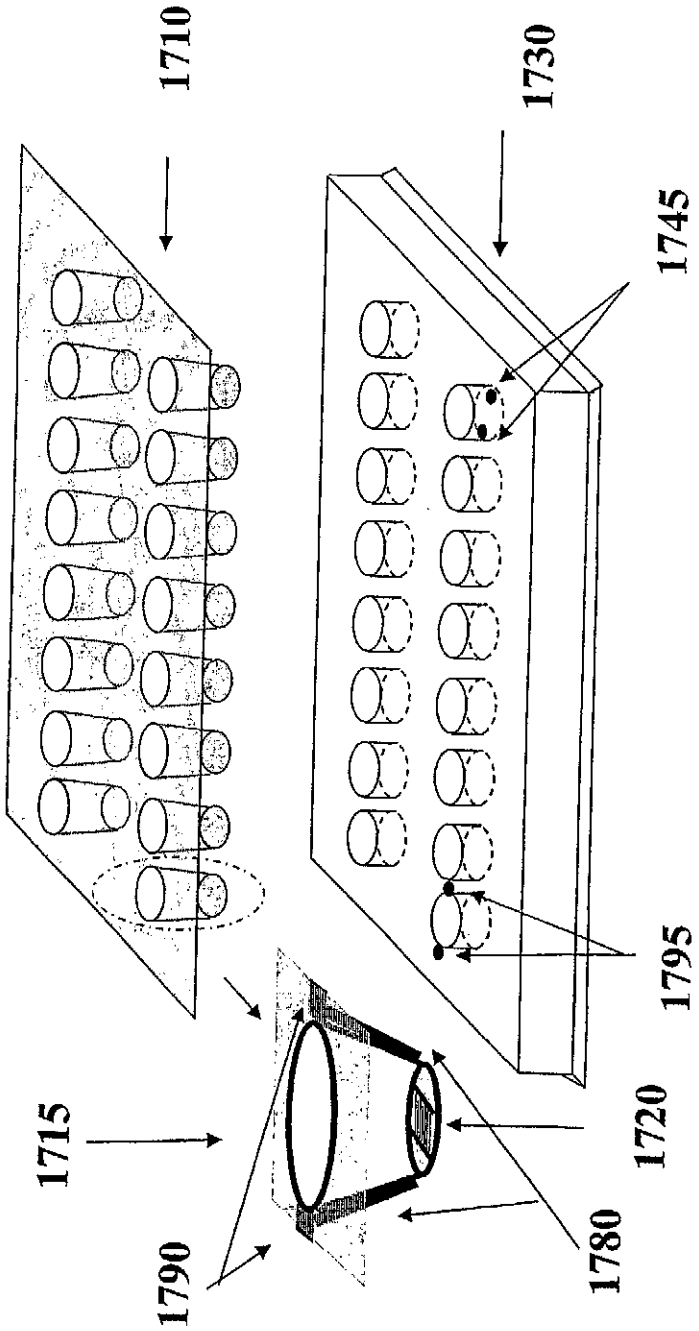


Figure 17

SUBSTITUTE SHEET (RULE 26)

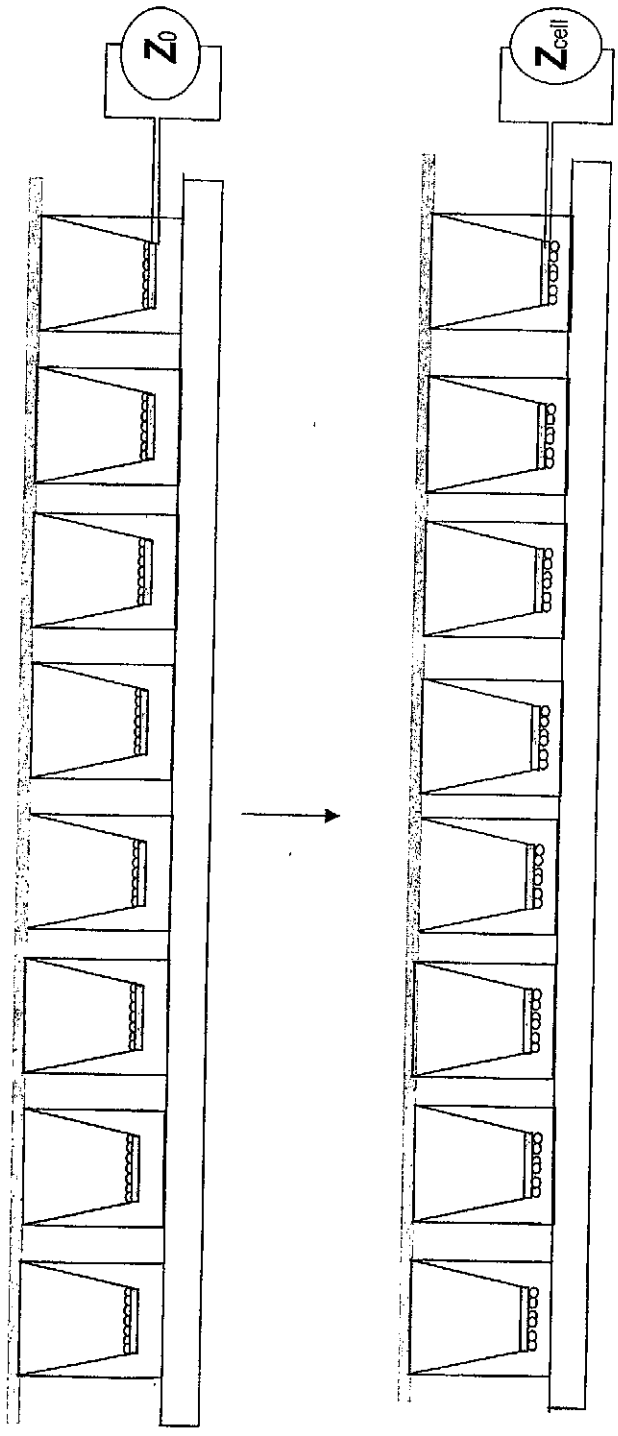


Figure 18

SUBSTITUTE SHEET (RULE 26)

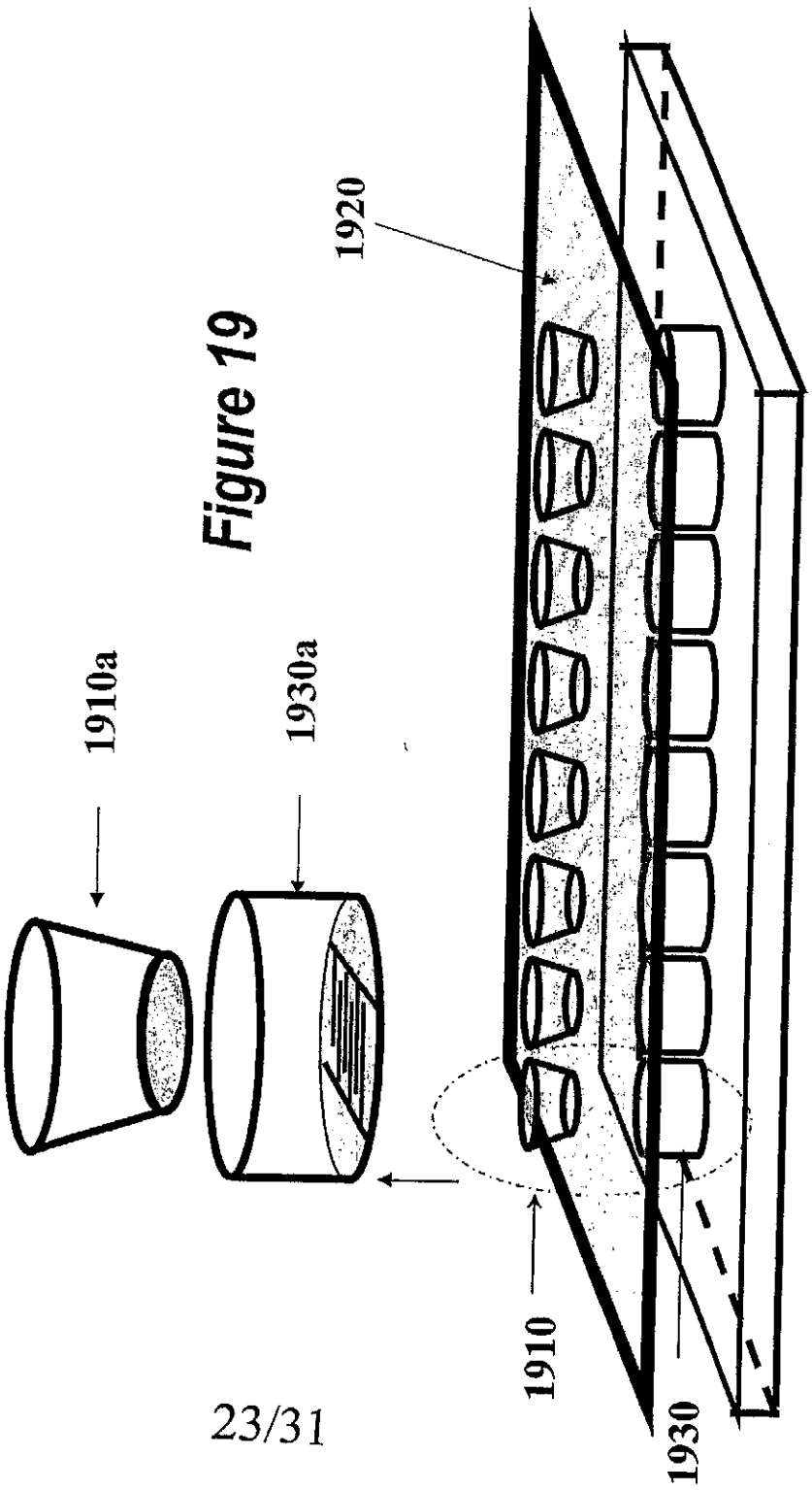


Figure 19

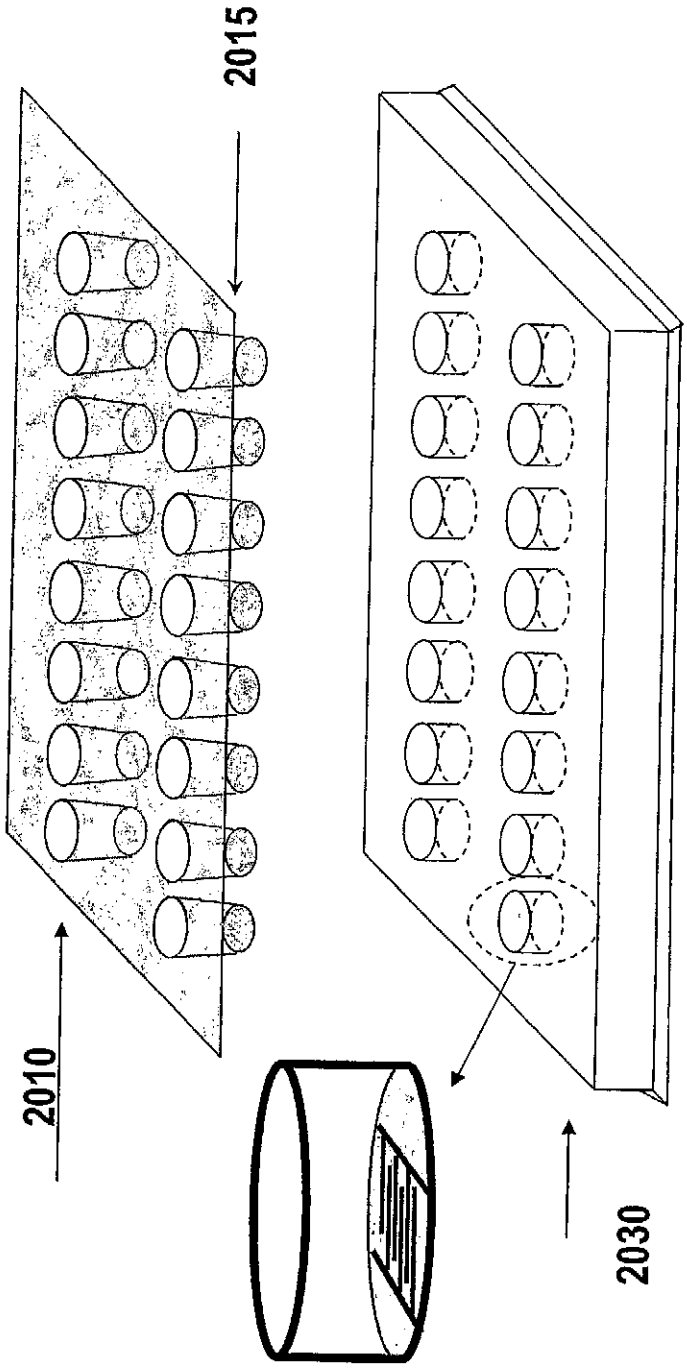


Figure 20

SUBSTITUTE SHEET (RULE 26)

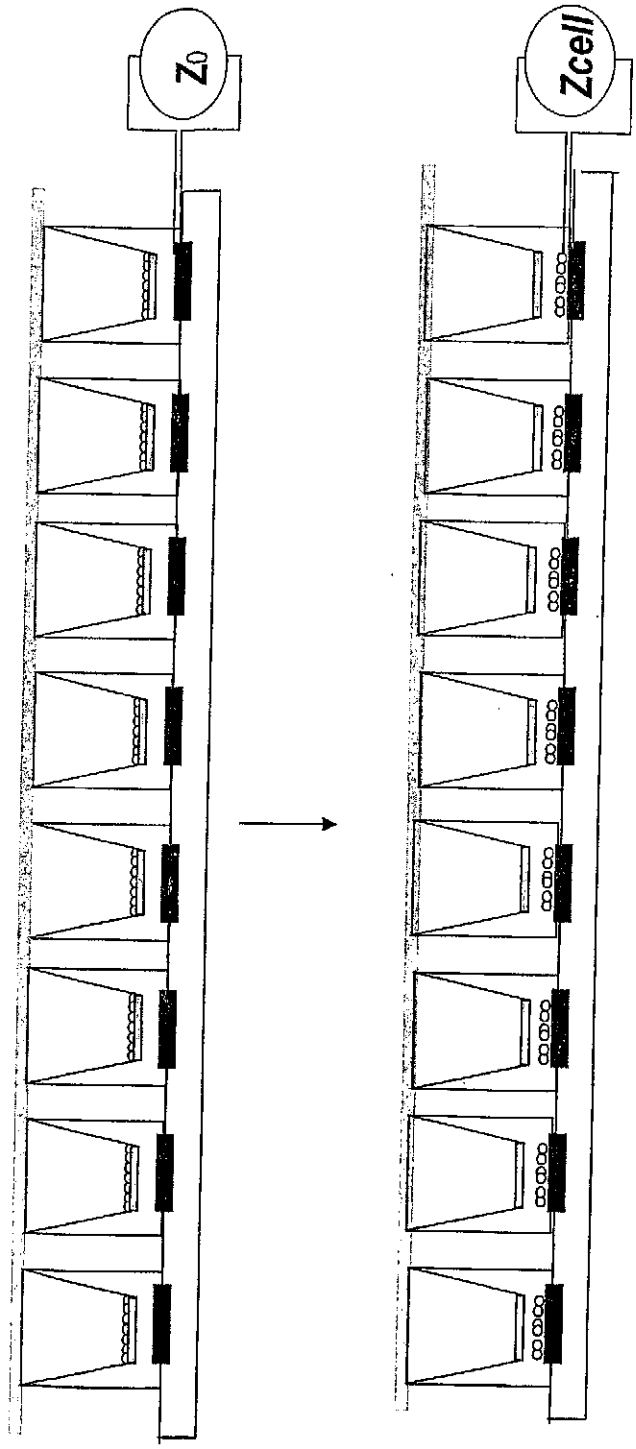


Figure 21

SUBSTITUTE SHEET (RULE 26)

Figure 22.

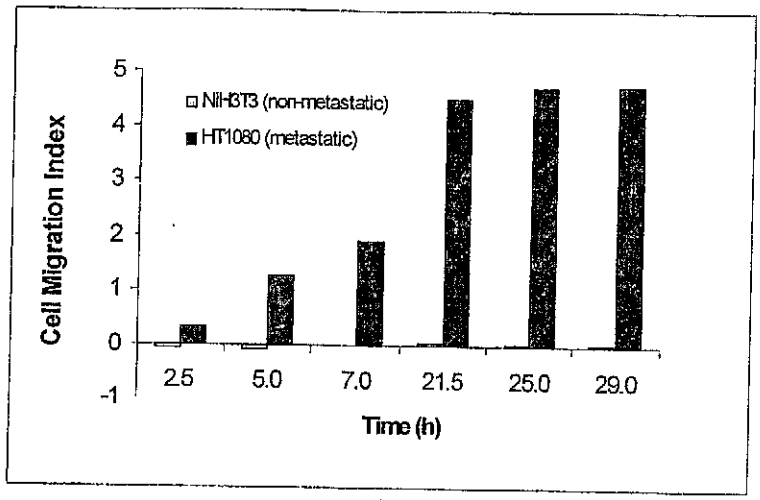
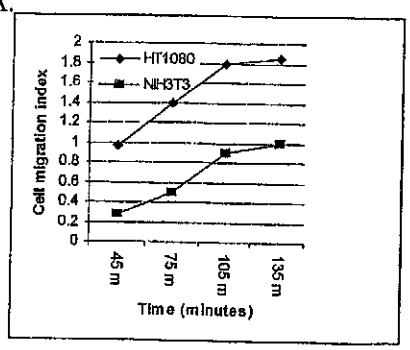


Figure 23.

A.



B.

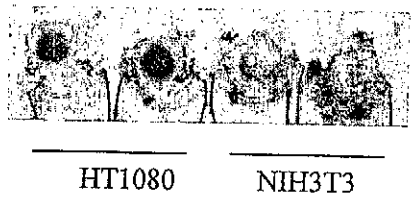
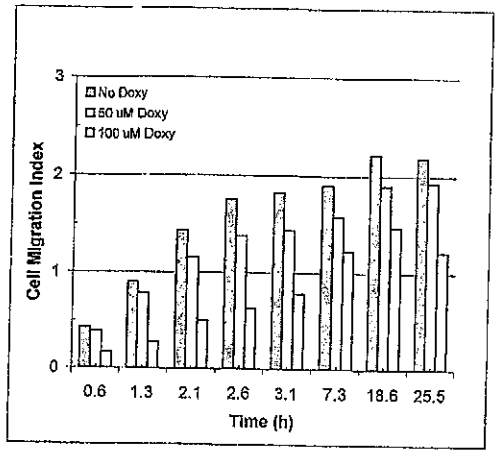


Figure 24.

A.


No Doxy
50 uM Doxy
100 uM Doxy
Cell Migration Index
0
1
2
3
0.6
1.3
2.1
2.6
3.1
7.3
18.6
25.5
Time (h)

B.

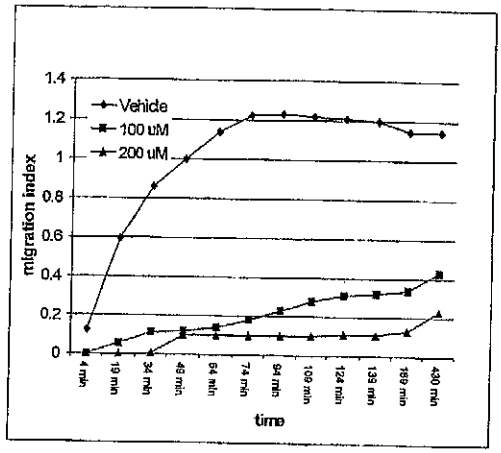

Vehicle
100 uM
200 uM
migration index
0
0.2
0.4
0.6
0.8
1
1.2
1.4
4 min
19 min
34 min
49 min
64 min
74 min
94 min
109 min
124 min
139 min
169 min
430 min
time

Figure 25(A).

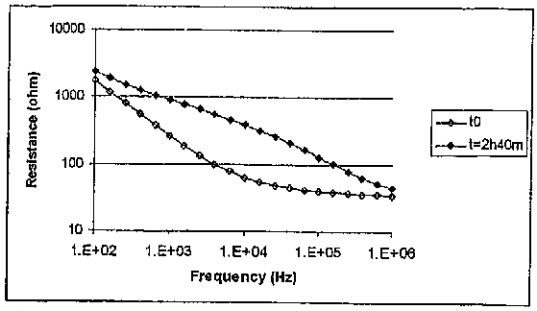


Figure 25(B)

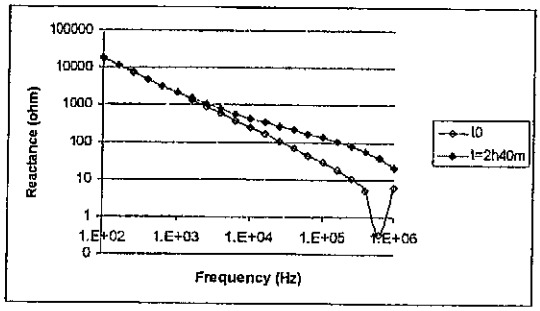


Figure 25(C)

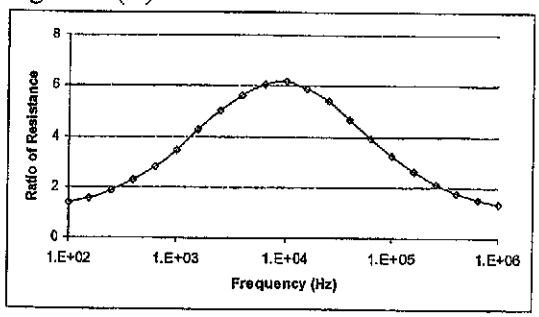


Figure 25(D)

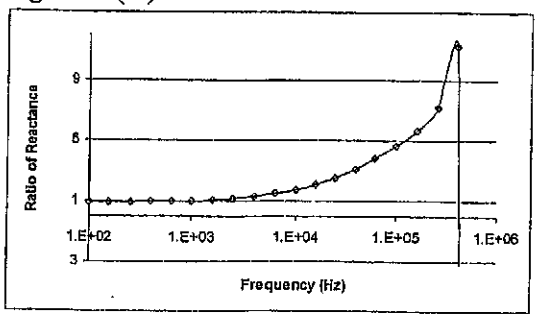


Figure 26(A)

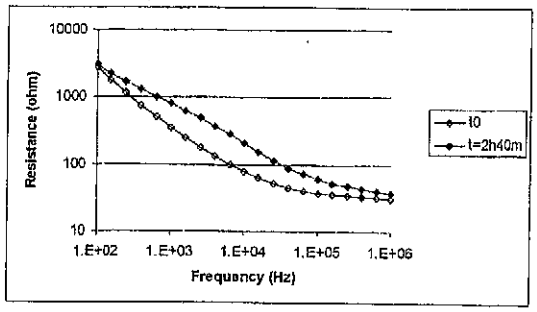


Figure 26(B)

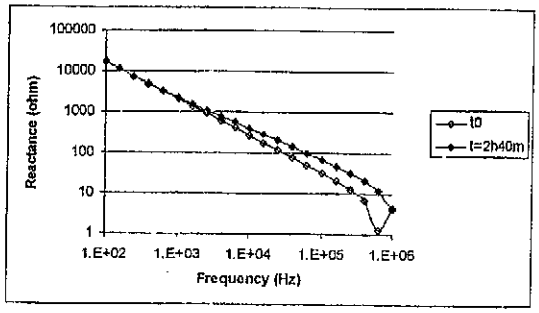


Figure 26(C)

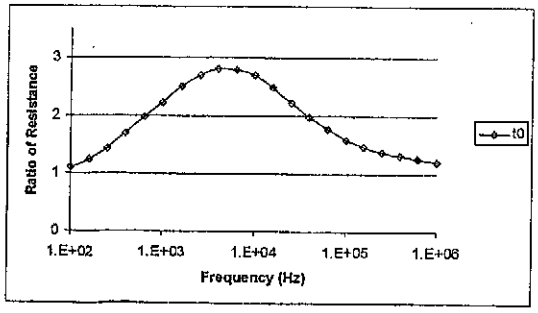


Figure 26(D)

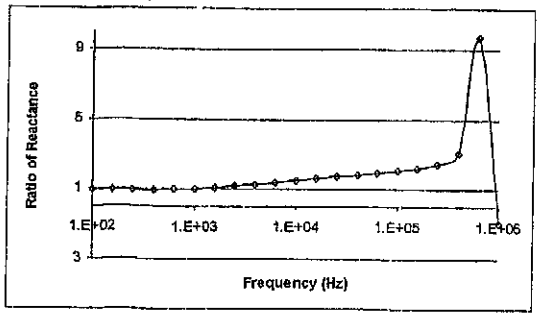


Figure 27(A)

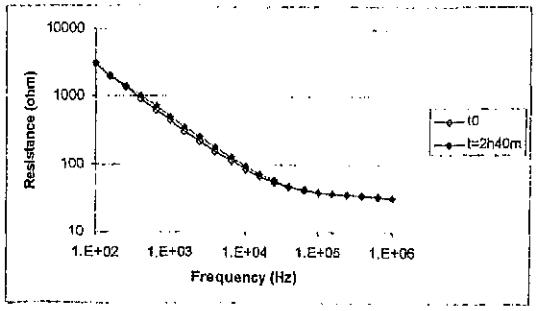


Figure 27(B)

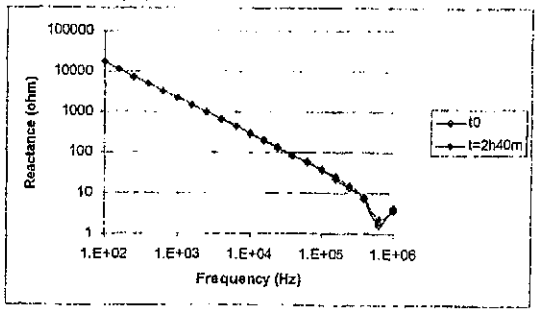


Figure 27(C)

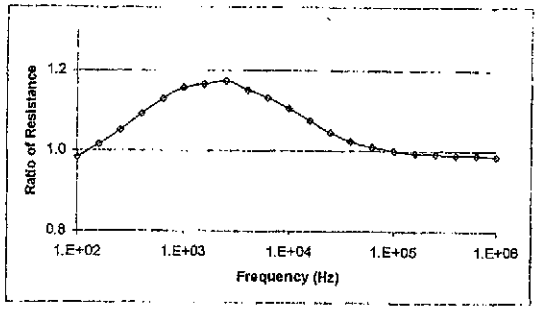


Figure 27(D)

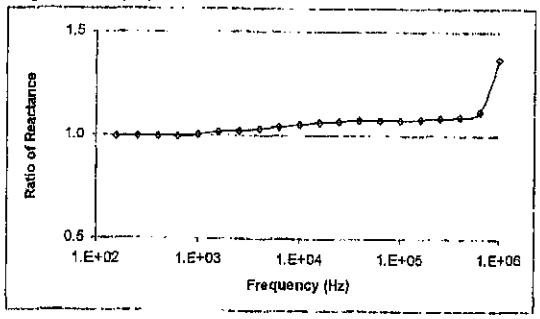


Figure 28(A)

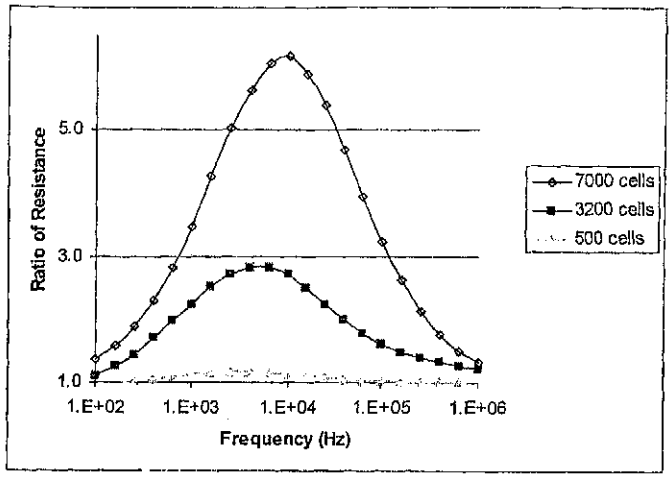


Figure 28(B)

