FIG. 1A

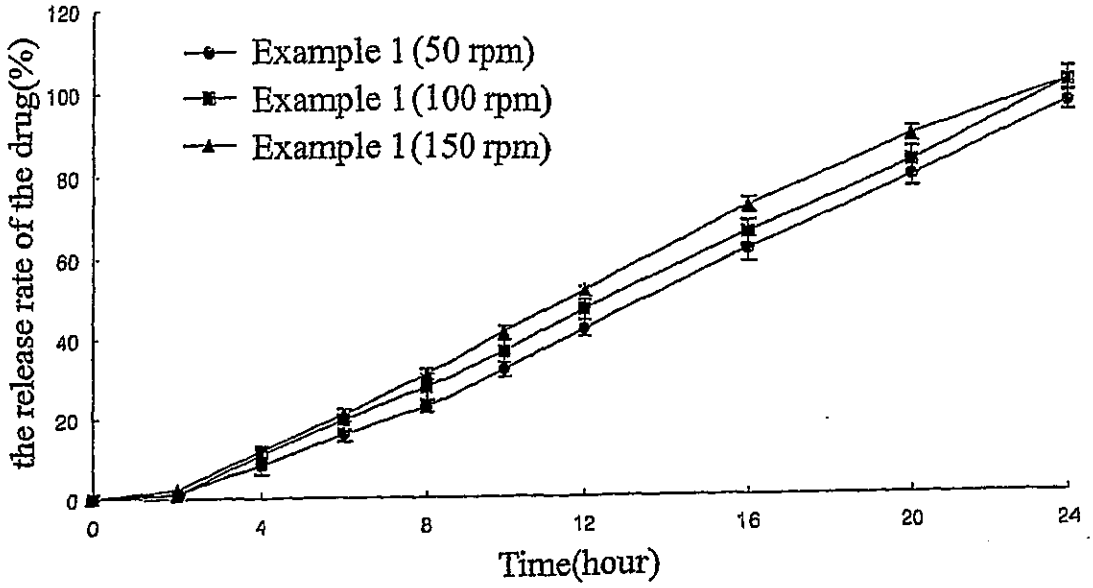

Example 1 (50 rpm)
Example 1 (100 rpm)
Example 1 (150 rpm)
the release rate of the drug(%)
Time(hour)
0
20
40
60
80
100
120
0
4
8
12
16
20
24

FIG. 1B

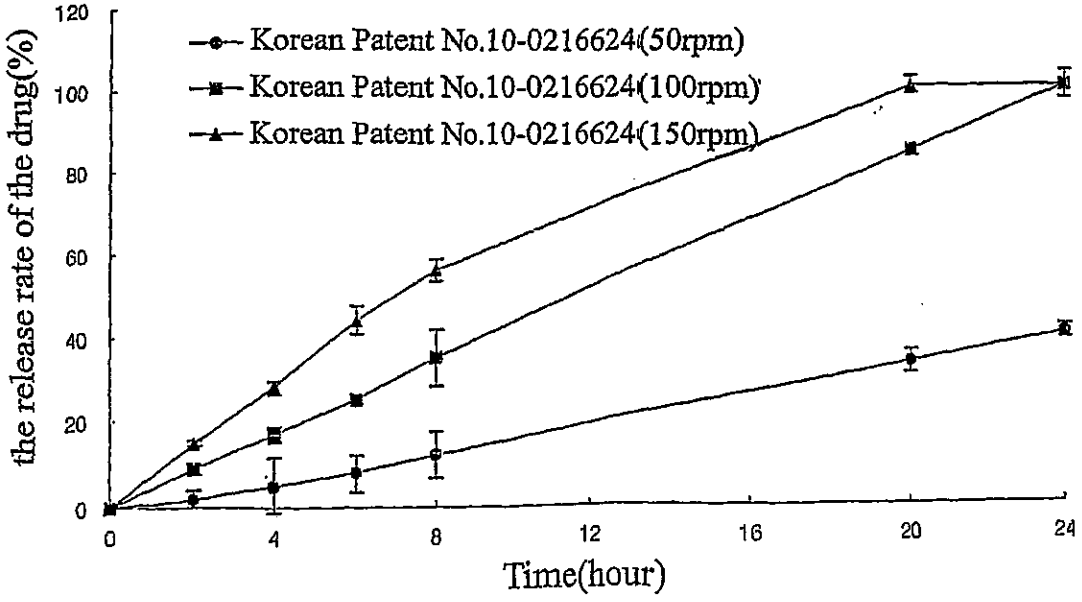

Korean Patent No.10-0216624(50rpm)
Korean Patent No.10-0216624(100rpm)
Korean Patent No.10-0216624(150rpm)
the release rate of the drug(%)
Time(hour)
0
20
40
60
80
100
120
0
4
8
12
16
20
24

FIG. 2

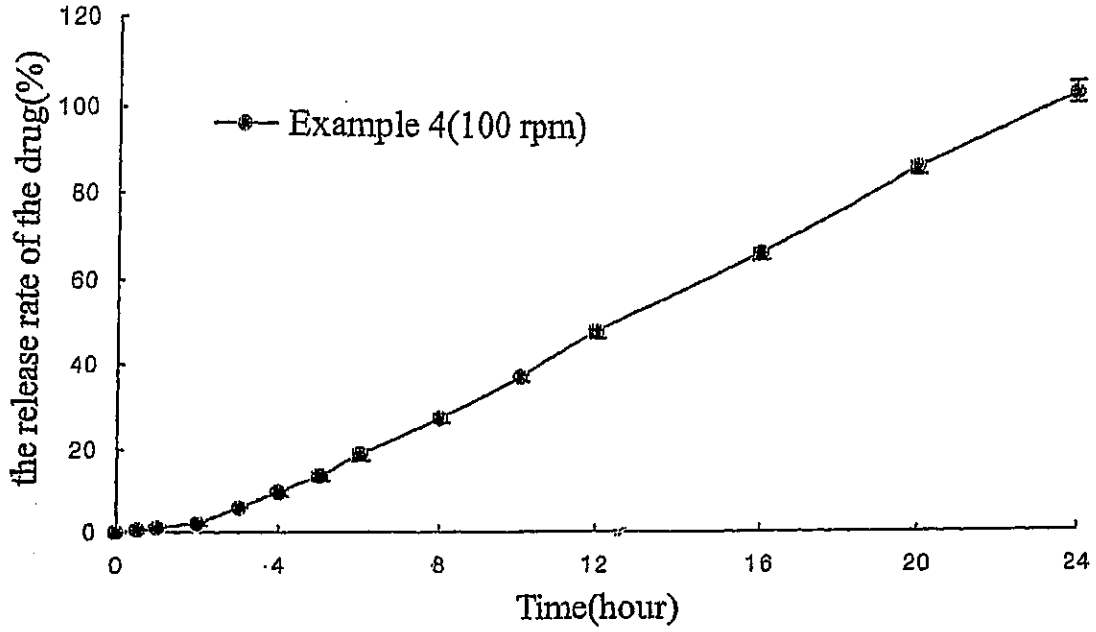

120
100
80
60
40
20
0
the release rate of the drug(%)
Example 4(100 rpm)
0
4
8
12
16
20
24
Time(hour)

FIG. 3A

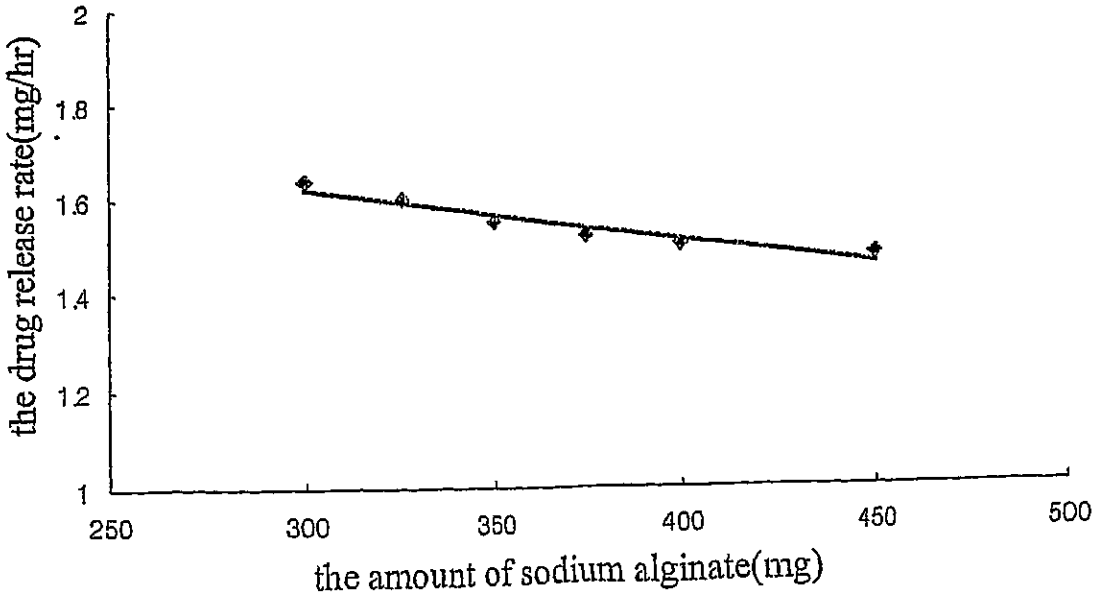

2
1.8
1.6
1.4
1.2
1
the drug release rate(mg/hr)
250
300
350
400
450
500
the amount of sodium alginate(mg)

FIG. 3B

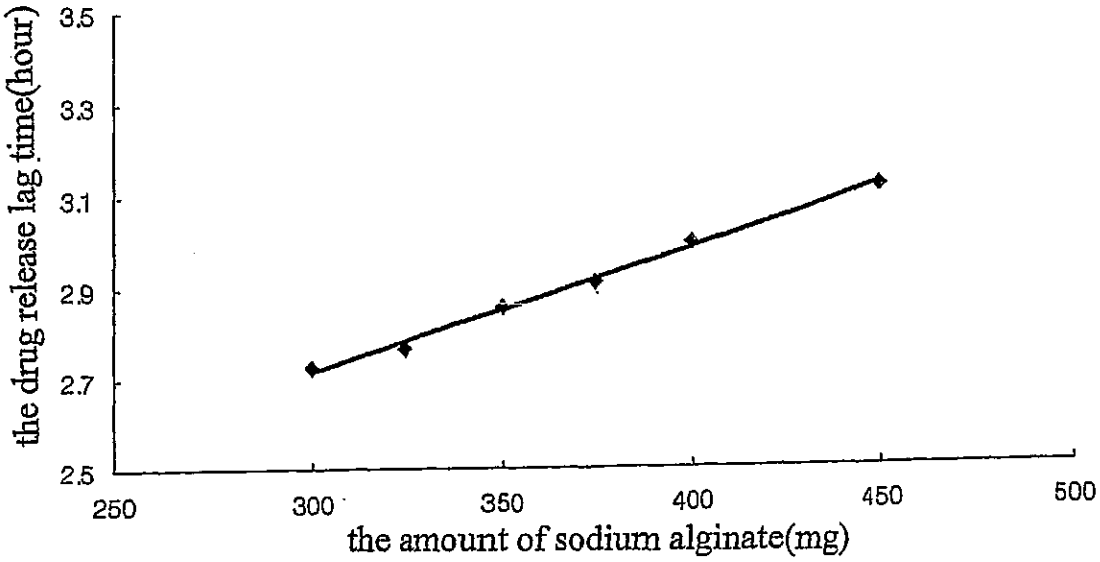

the drug release lag time(hour)
3.5
3.3
3.1
2.9
2.7
2.5
250
300
350
400
450
500
the amount of sodium alginate(mg)

FIG. 4A

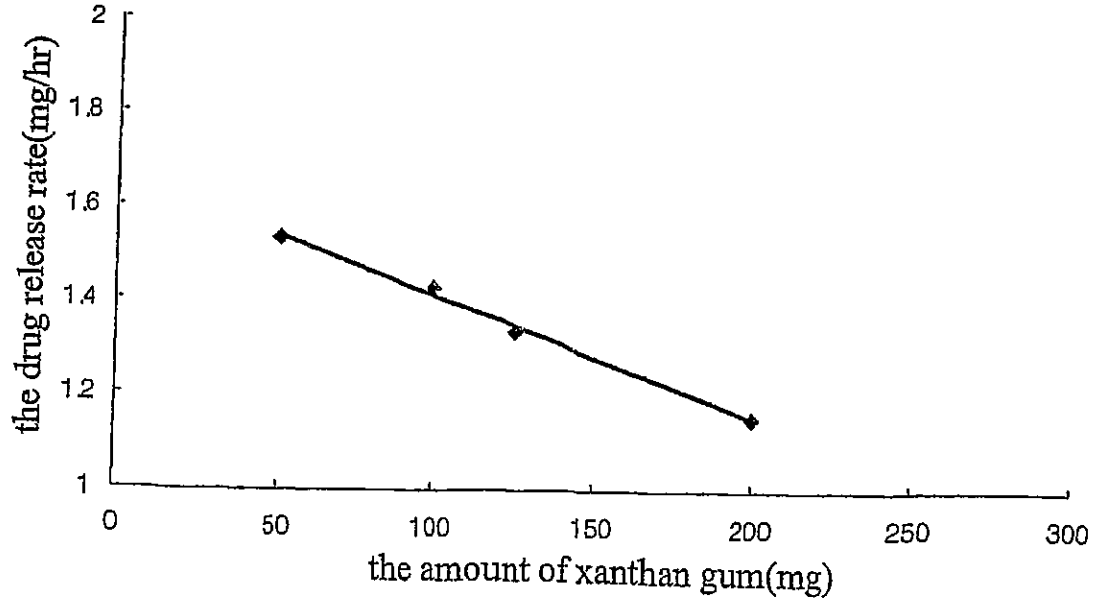

the drug release rate(mg/hr)
2
1.8
1.6
1.4
1.2
1
0
50
100
150
200
250
300
the amount of xanthan gum(mg)

FIG. 4B

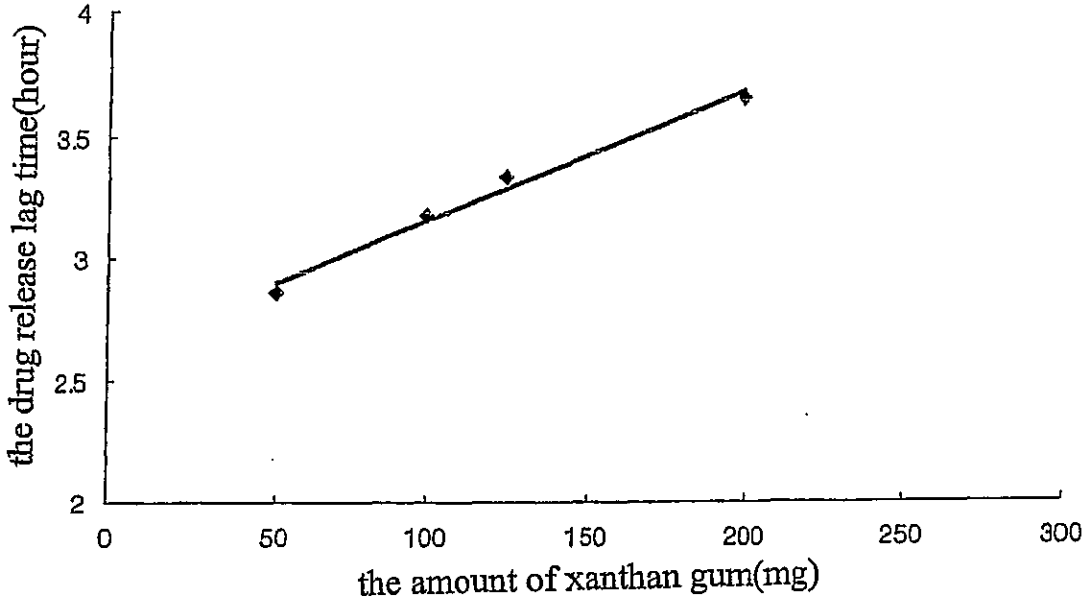

the drug release lag time(hour)
4
3.5
3
2.5
2
0
50
100
150
200
250
300
the amount of xanthan gum(mg)

FIG. 5A

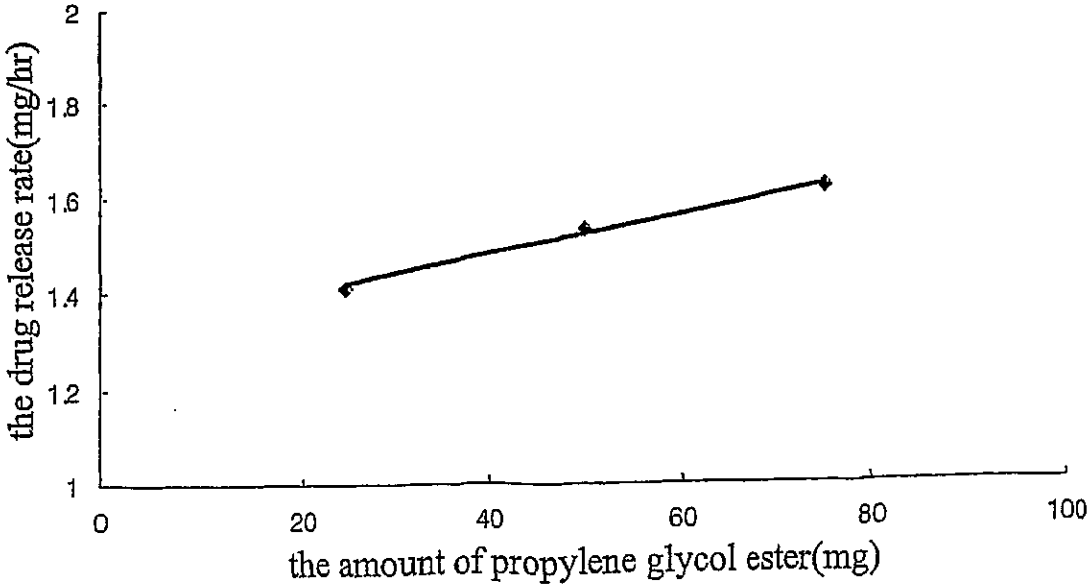

the drug release rate(mg/hr)
2
1.8
1.6
1.4
1.2
1
0
20
40
60
80
100
the amount of propylene glycol ester(mg)

FIG. 5B

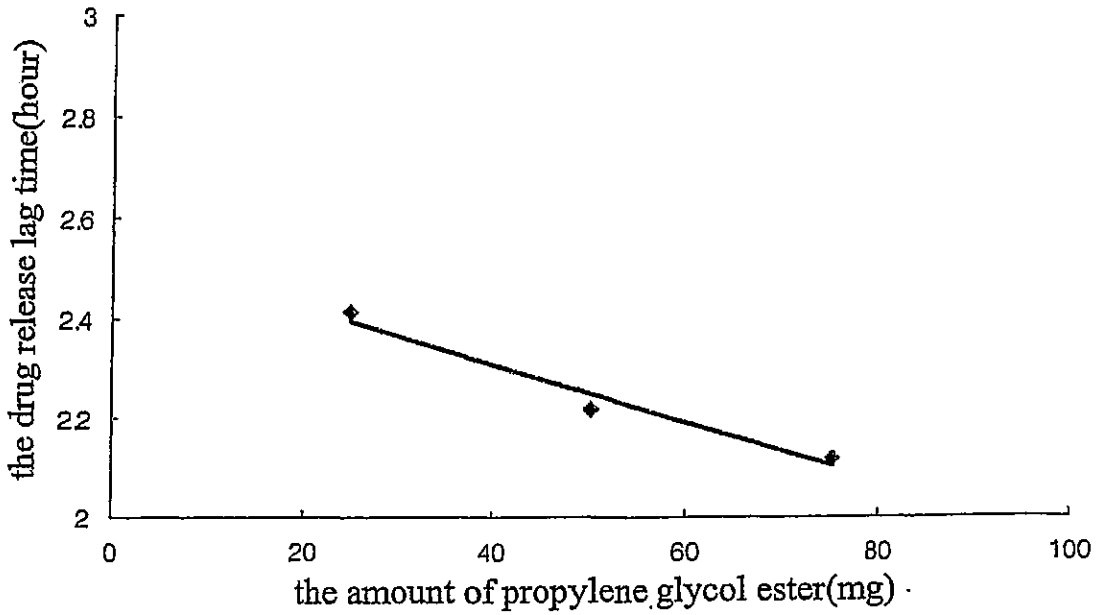

the drug release lag time(hour)
3
2.8
2.6
2.4
2.2
2
0
20
40
60
80
100
the amount of propylene glycol ester(mg)

FIG. 6A

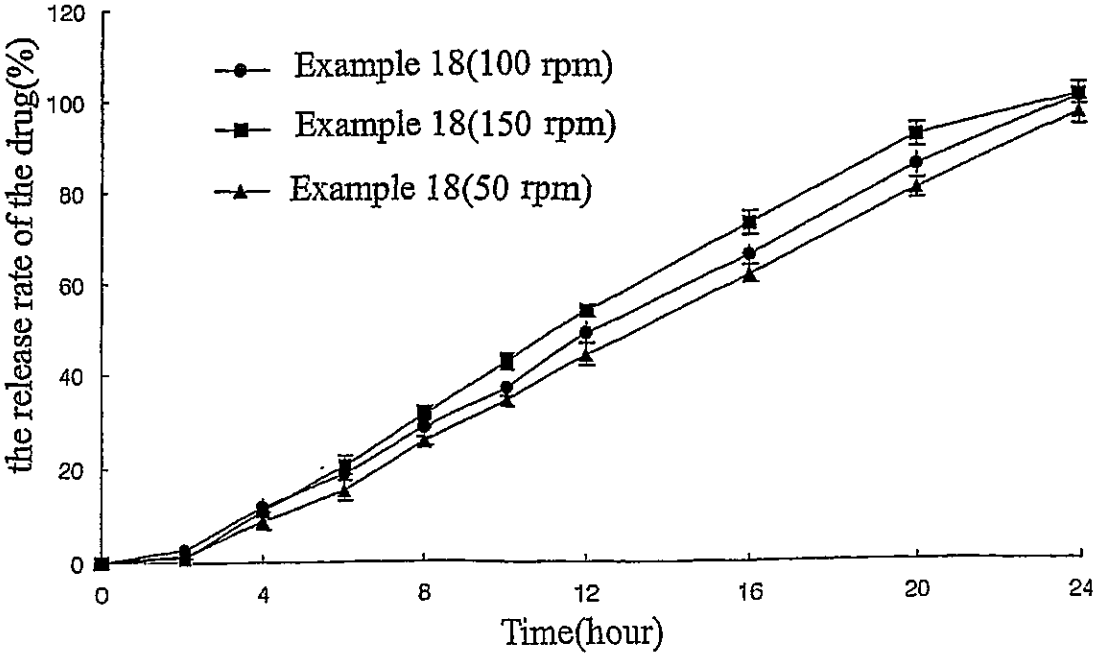

the release rate of the drug(%)
120
100
80
60
40
20
0
Example 18(100 rpm)
Example 18(150 rpm)
Example 18(50 rpm)
0
4
8
12
16
20
24
Time(hour)

FIG. 6B

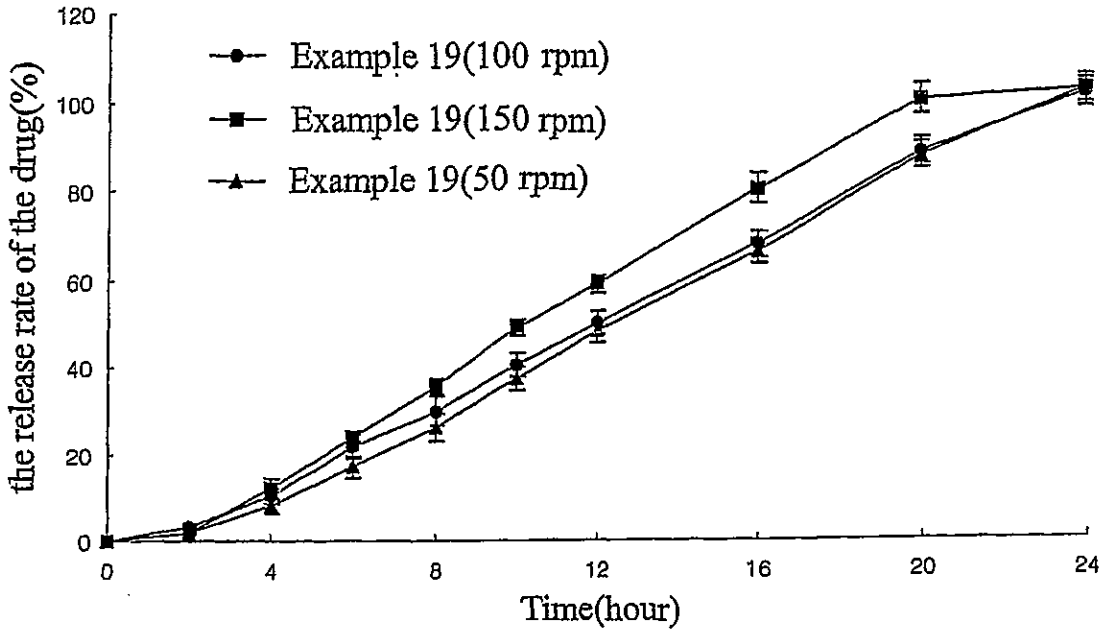

Example 19(100 rpm)
Example 19(150 rpm)
Example 19(50 rpm)
the release rate of the drug(%)
Time(hour)
0
20
40
60
80
100
120
0
4
8
12
16
20
24

FIG. 7A

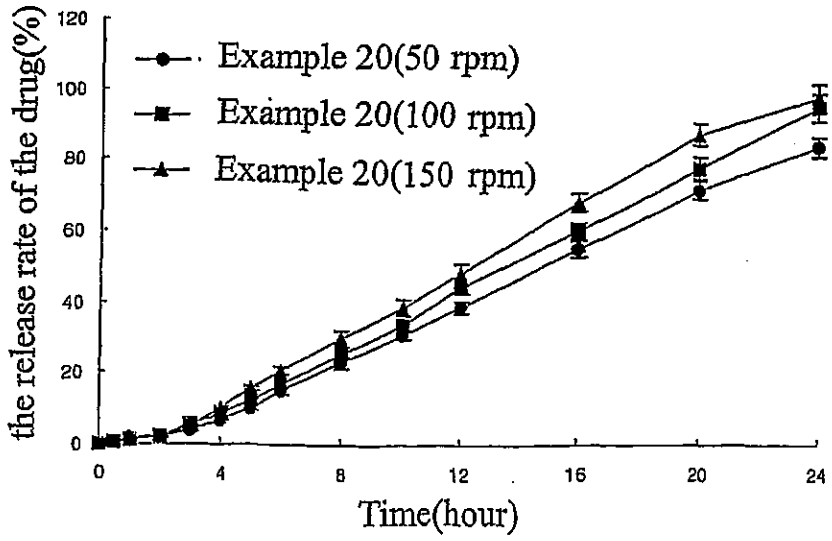

Example 20(50 rpm)
Example 20(100 rpm)
Example 20(150 rpm)
the release rate of the drug(%)
Time(hour)
0
20
40
60
80
100
120
0
4
8
12
16
20
24

FIG. 7B

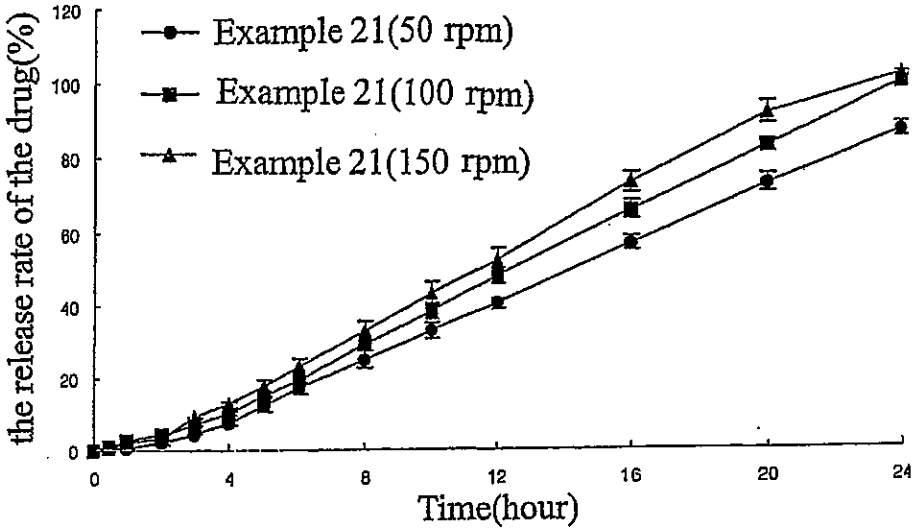

Example 21(50 rpm)
Example 21(100 rpm)
Example 21(150 rpm)
the release rate of the drug(%)
120
100
80
60
40
20
0
0
4
8
12
16
20
24
Time(hour)

FIG. 8A

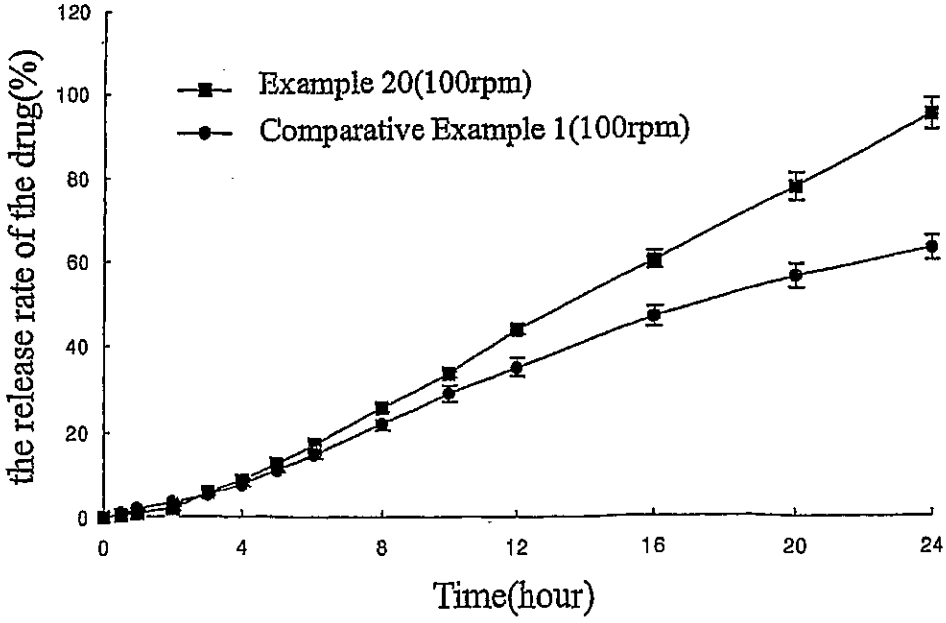

Example 20(100rpm)
Comparative Example 1(100rpm)
the release rate of the drug(%)
120
100
80
60
40
20
0
0
4
8
12
16
20
24
Time(hour)

FIG. 8B

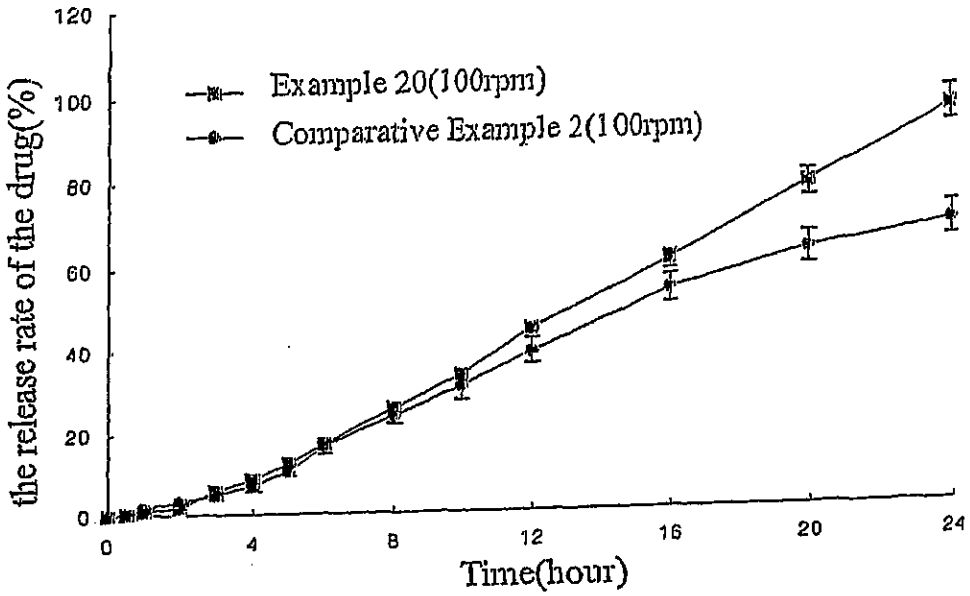

120
100
80
60
40
20
0
the release rate of the drug(%)
Example 20(100rpm)
Comparative Example 2(100rpm)
0
4
8
12
16
20
24
Time(hour)

FIG. 8C

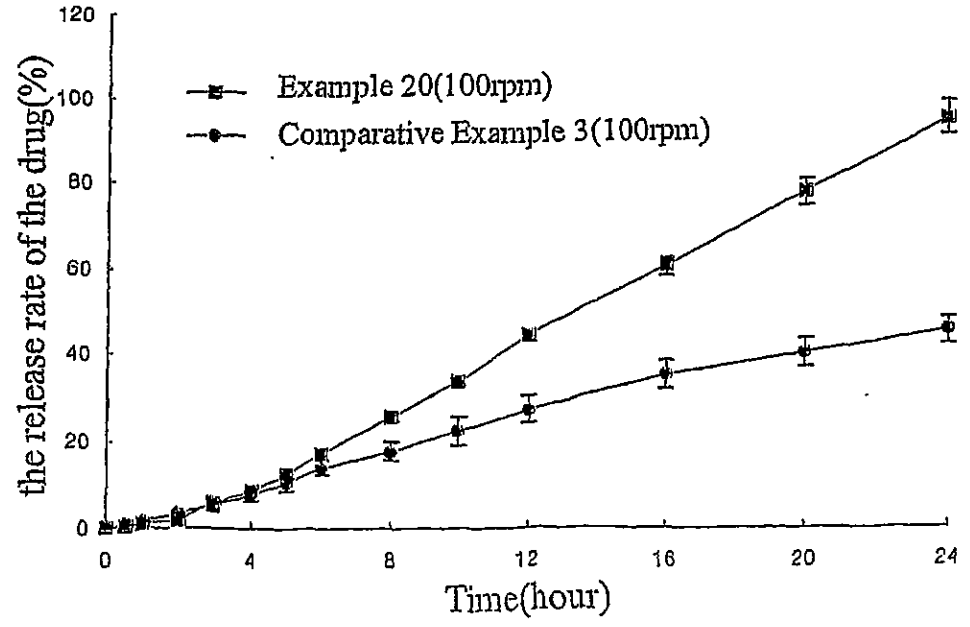
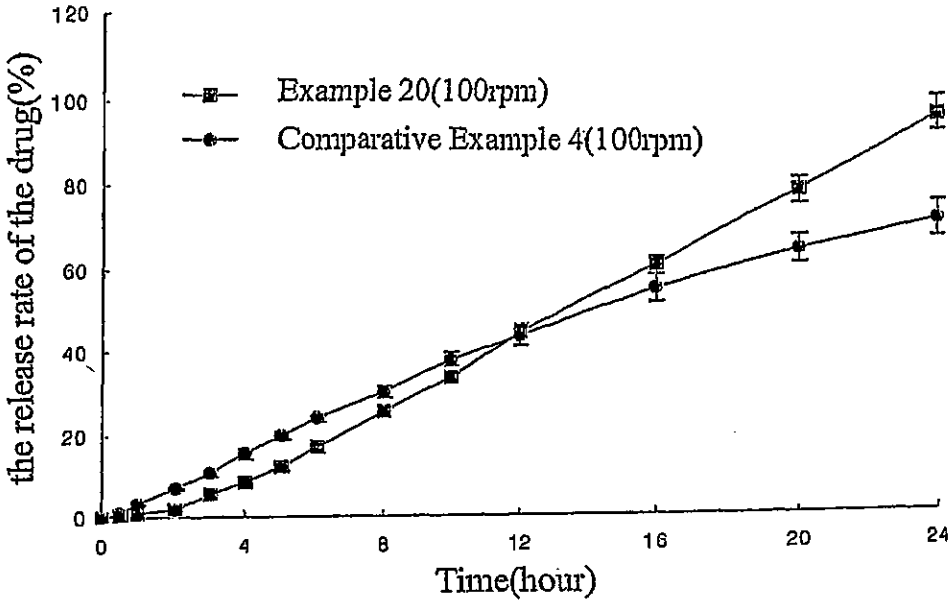

120
100
80
60
40
20
0
the release rate of the drug(%)
Example 20(100rpm)
Comparative Example 3(100rpm)
0
4
8
12
16
20
24
Time(hour)

FIG. 8D


120
100
80
60
40
20
0
the release rate of the drug(%)
Example 20(100rpm)
Comparative Example 4(100rpm)
0
4
8
12
16
20
24
Time(hour)