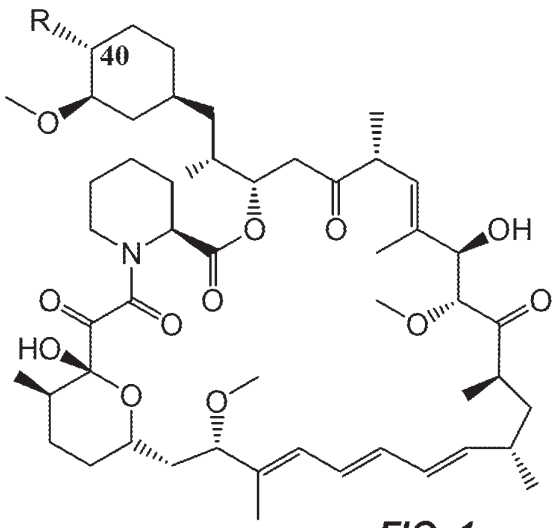

Sirolimus, R = OH
Everolimus, R = OCH_2CH_2OH
Biolimus A9, R = $OCH_2CH_2OCH_2CH_3$
Temsirolimus, R = $OCOCCH_3(CH_2OH)_2$
Zotarolimus, R = $NCHN_3$

FIG. 1

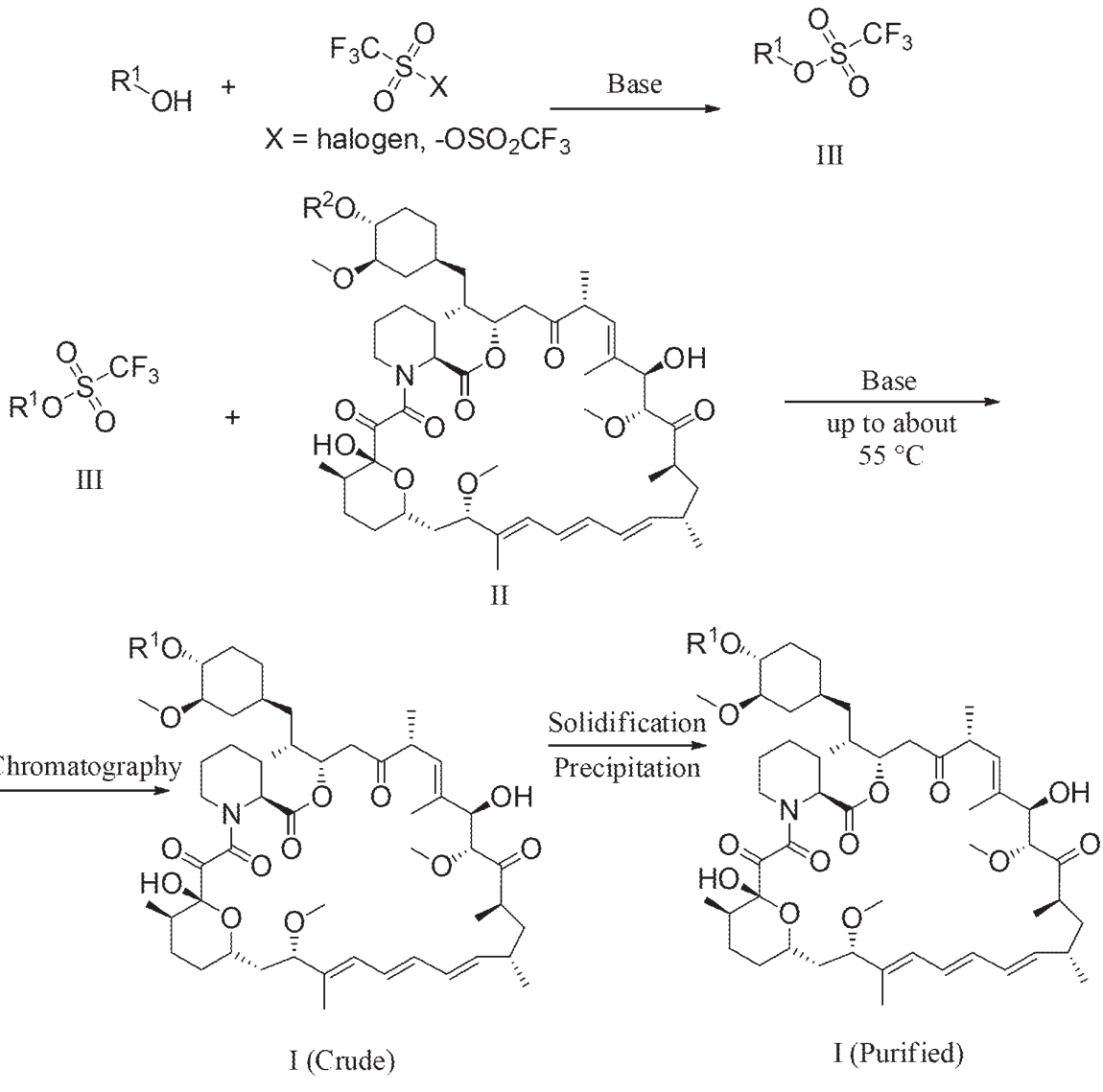

FIG. 2

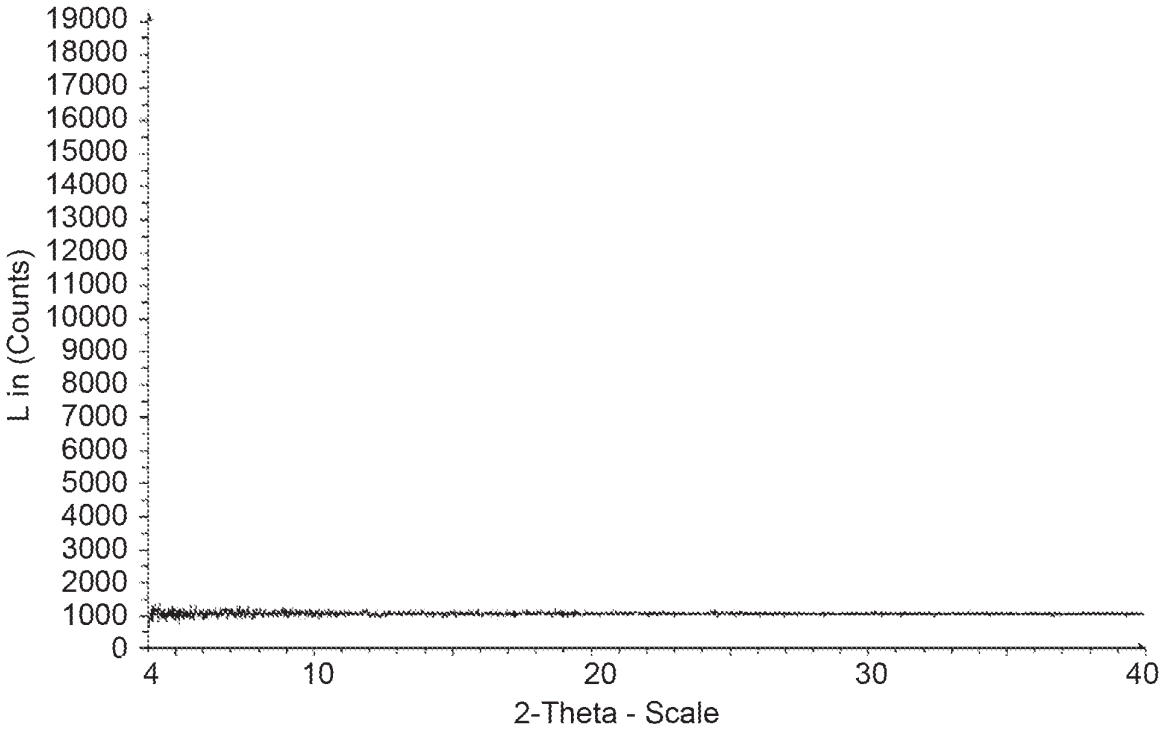
19000
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
L in (Counts)
4
10
20
30
40
2-Theta - Scale

FIG. 3

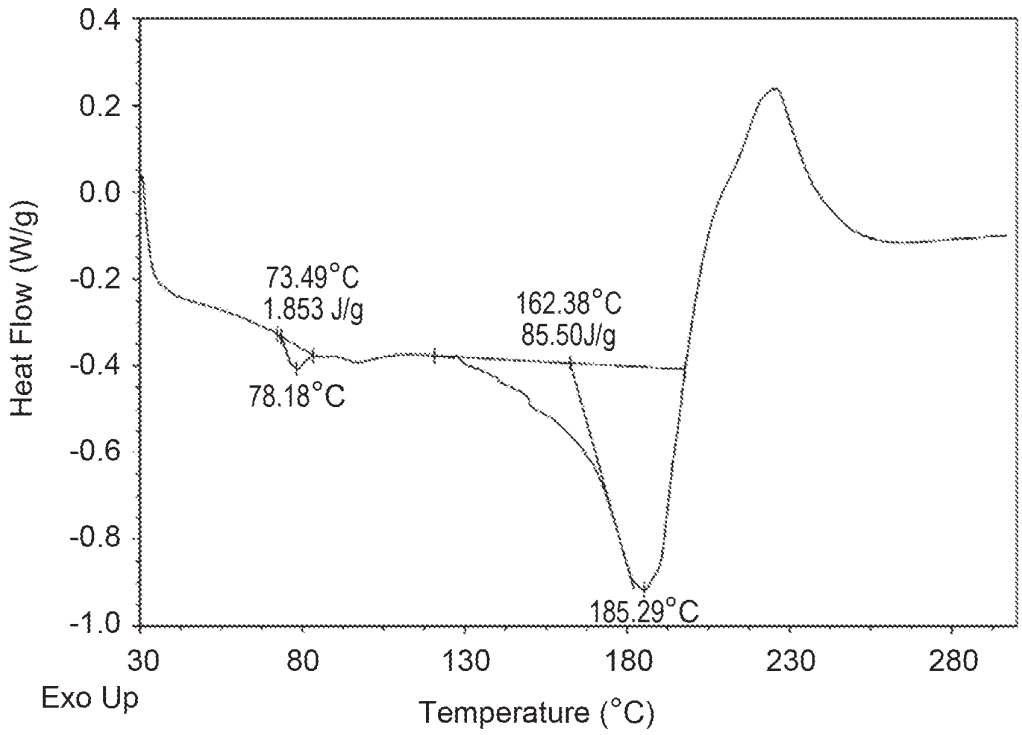
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
Heat Flow (W/g)
73.49°C
1.853 J/g
78.18°C
162.38°C
85.50J/g
185.29°C
30
80
130
180
230
280
Exo Up
Temperature (°C)

FIG. 4

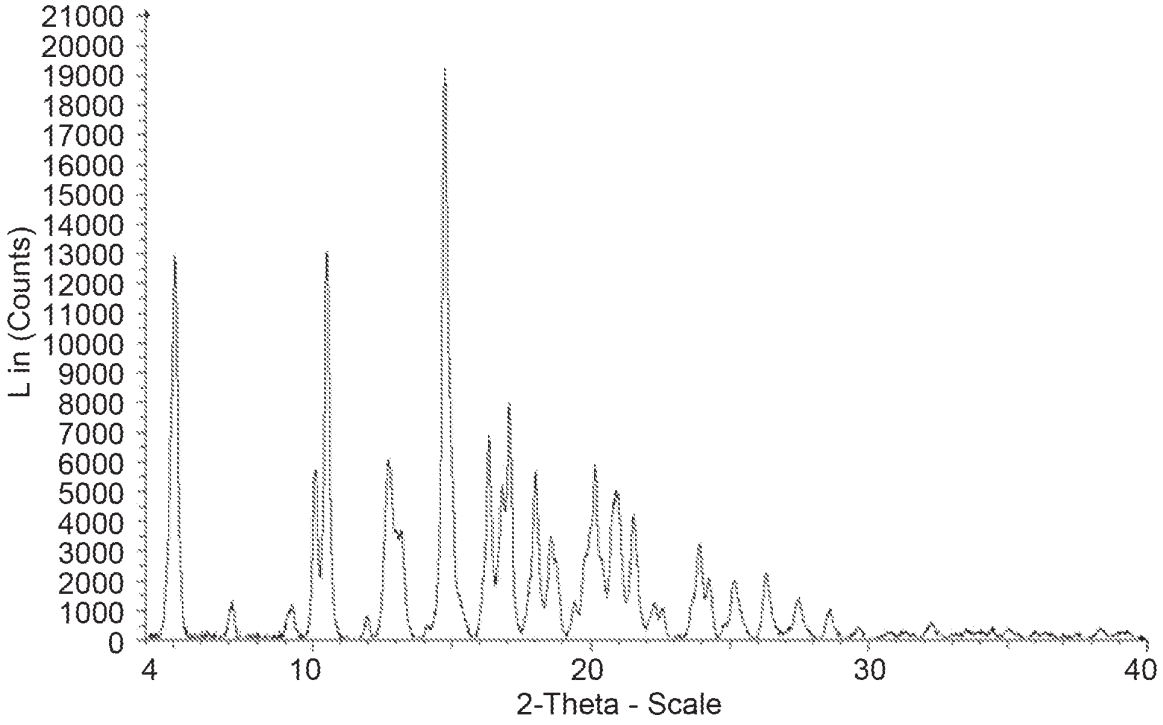
21000
20000
19000
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
L in (Counts)
4
10
20
30
40
2-Theta - Scale

FIG. 5

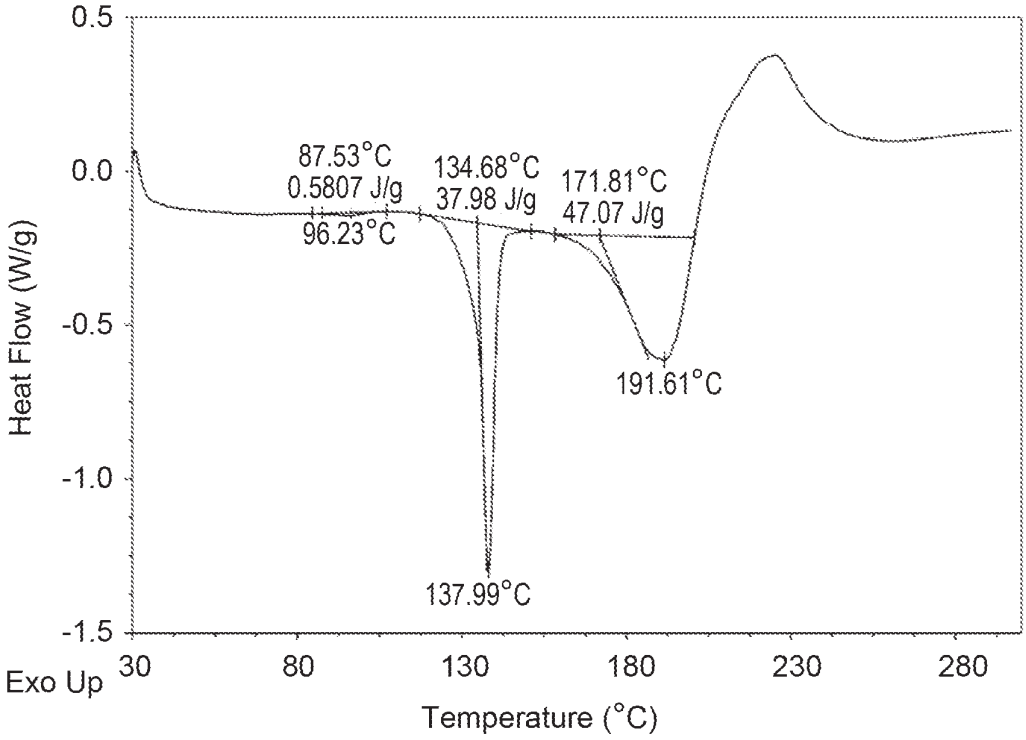
0.5
0.0
-0.5
-1.0
-1.5
Heat Flow (W/g)
Exo Up
87.53°C
0.5807 J/g
96.23°C
134.68°C
37.98 J/g
171.81°C
47.07 J/g
137.99°C
191.61°C
30
80
130
180
230
280
Temperature (°C)

FIG. 6

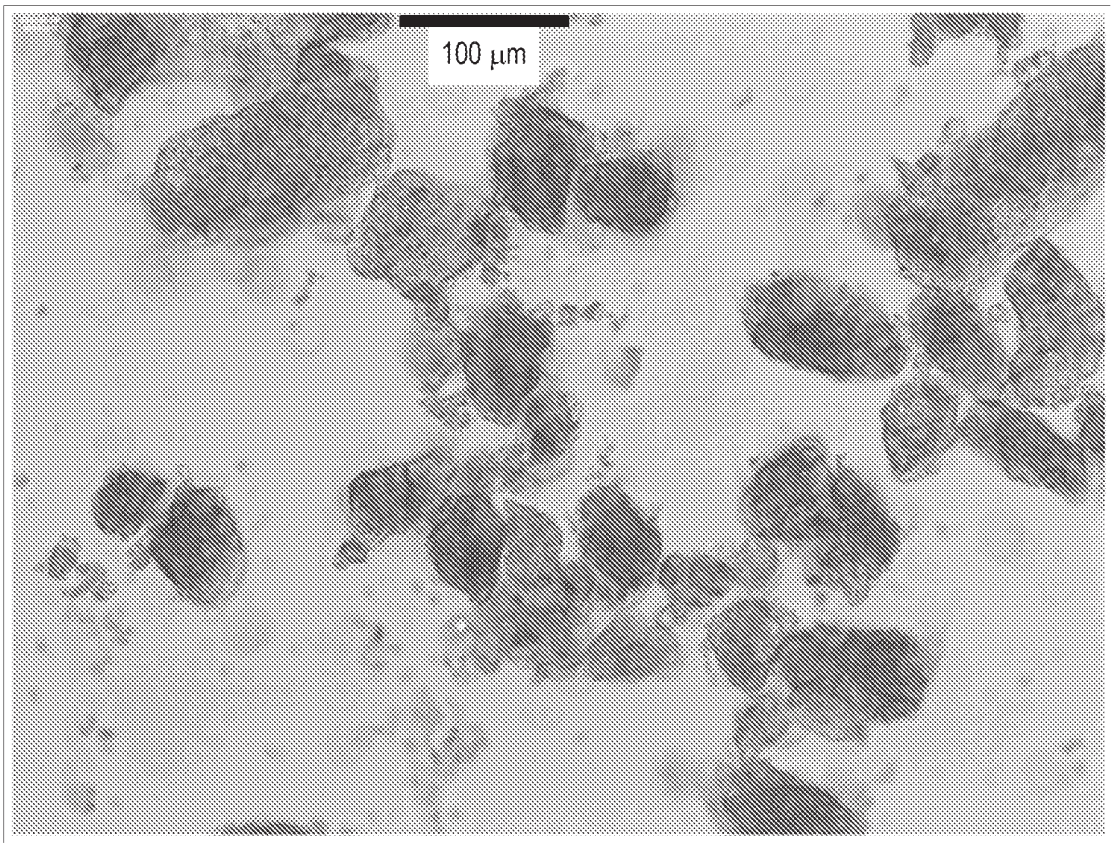

FIG. 7

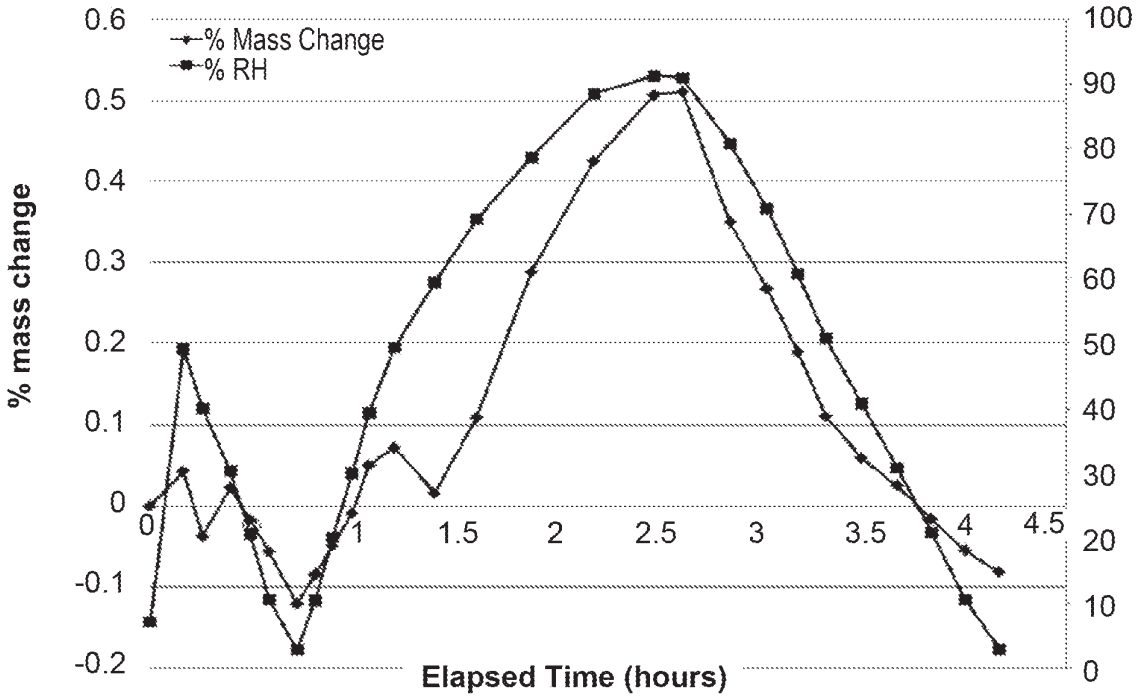
% Mass Change
% RH
% mass change
Elapsed Time (hours)
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
100
90
80
70
60
50
40
30
20
10
0
0
1
1.5
2
2.5
3
3.5
4
4.5

FIG. 8

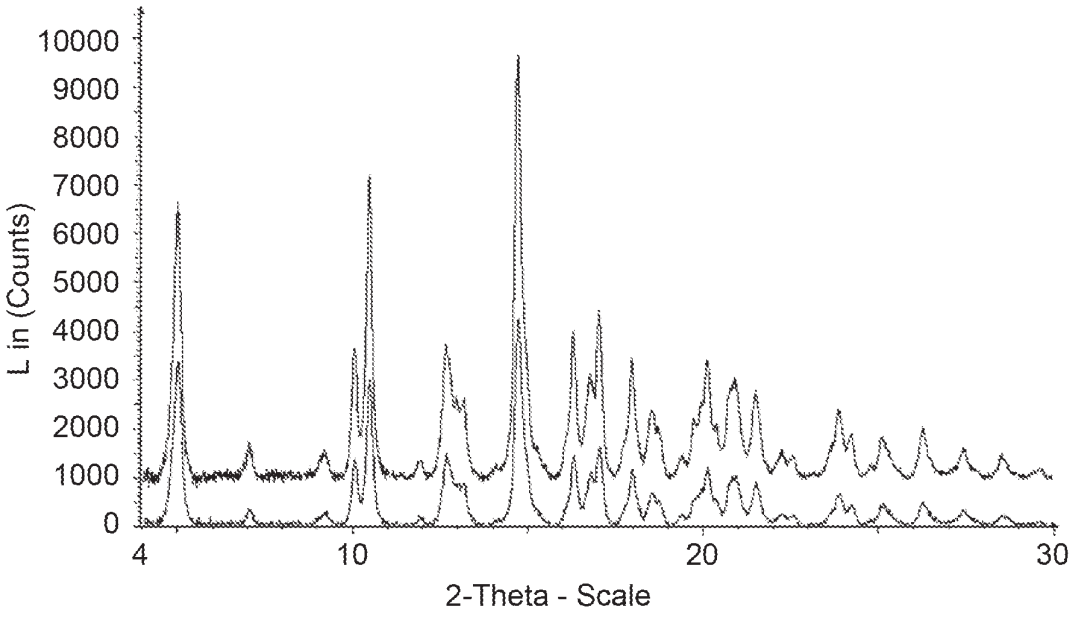
L in (Counts)
2-Theta - Scale
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
4
10
20
30

FIG. 9

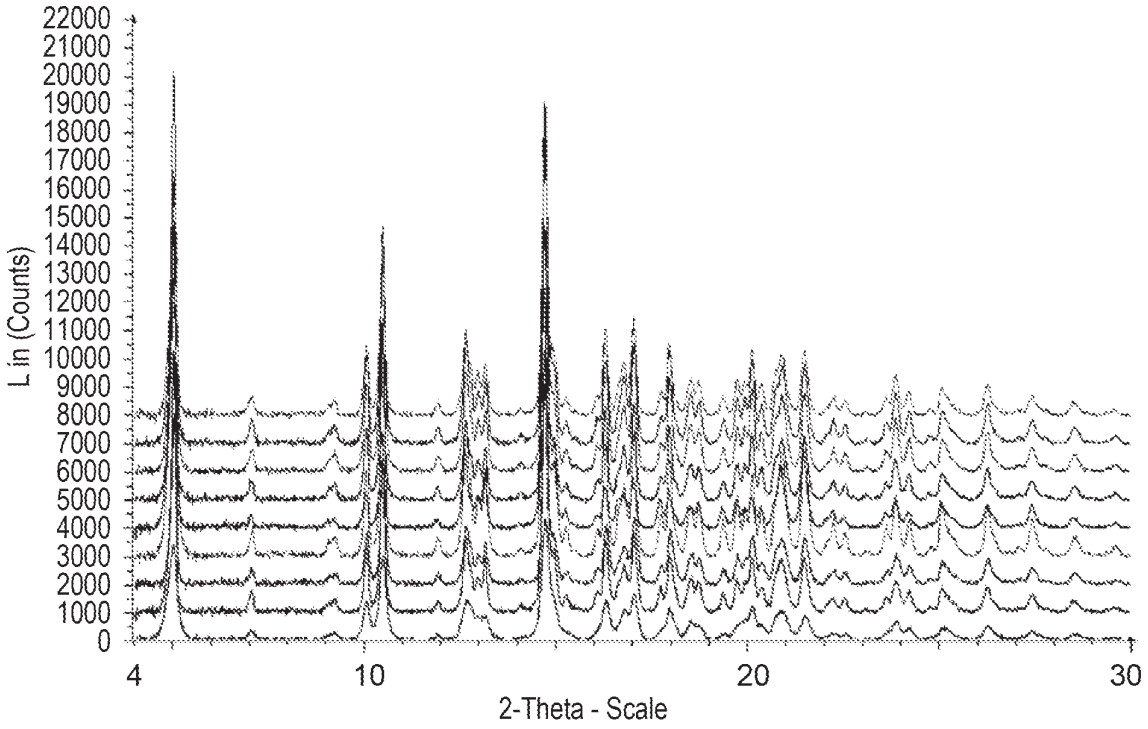
22000
21000
20000
19000
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
L in (Counts)
4
10
20
30
2-Theta - Scale

FIG. 10

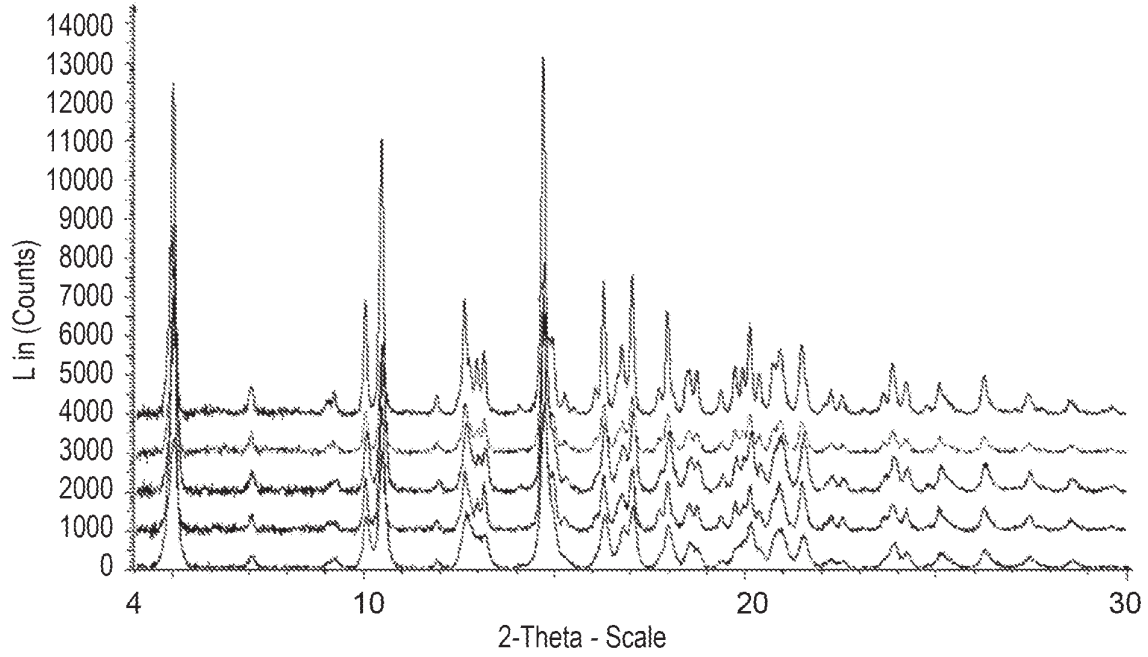
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
L in (Counts)
4
10
20
30
2-Theta - Scale

FIG. 11

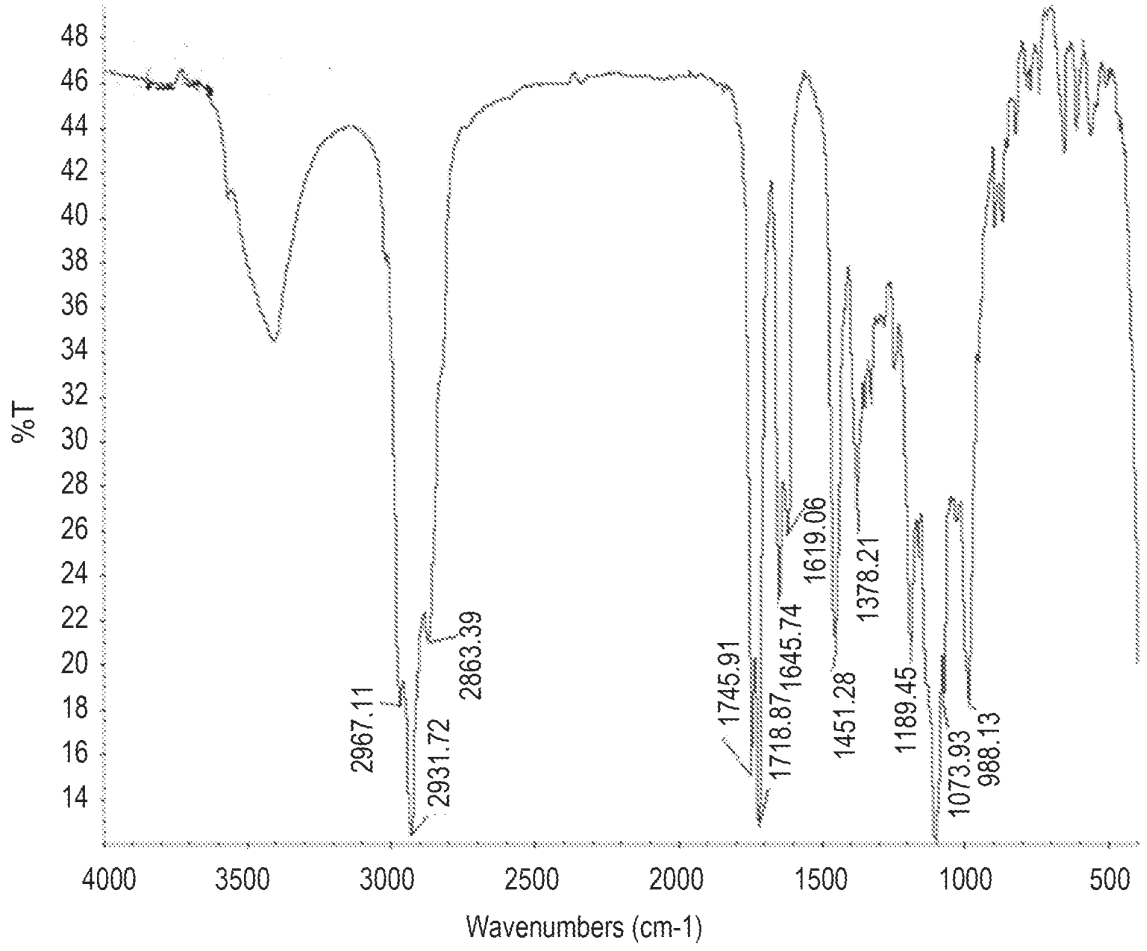
%T
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
2967.11
2931.72
2863.39
1745.91
1718.87
1645.74
1619.06
1451.28
1378.21
1189.45
1073.93
988.13
4000
3500
3000
2500
2000
1500
1000
500
Wavenumbers (cm-1)

FIG. 12