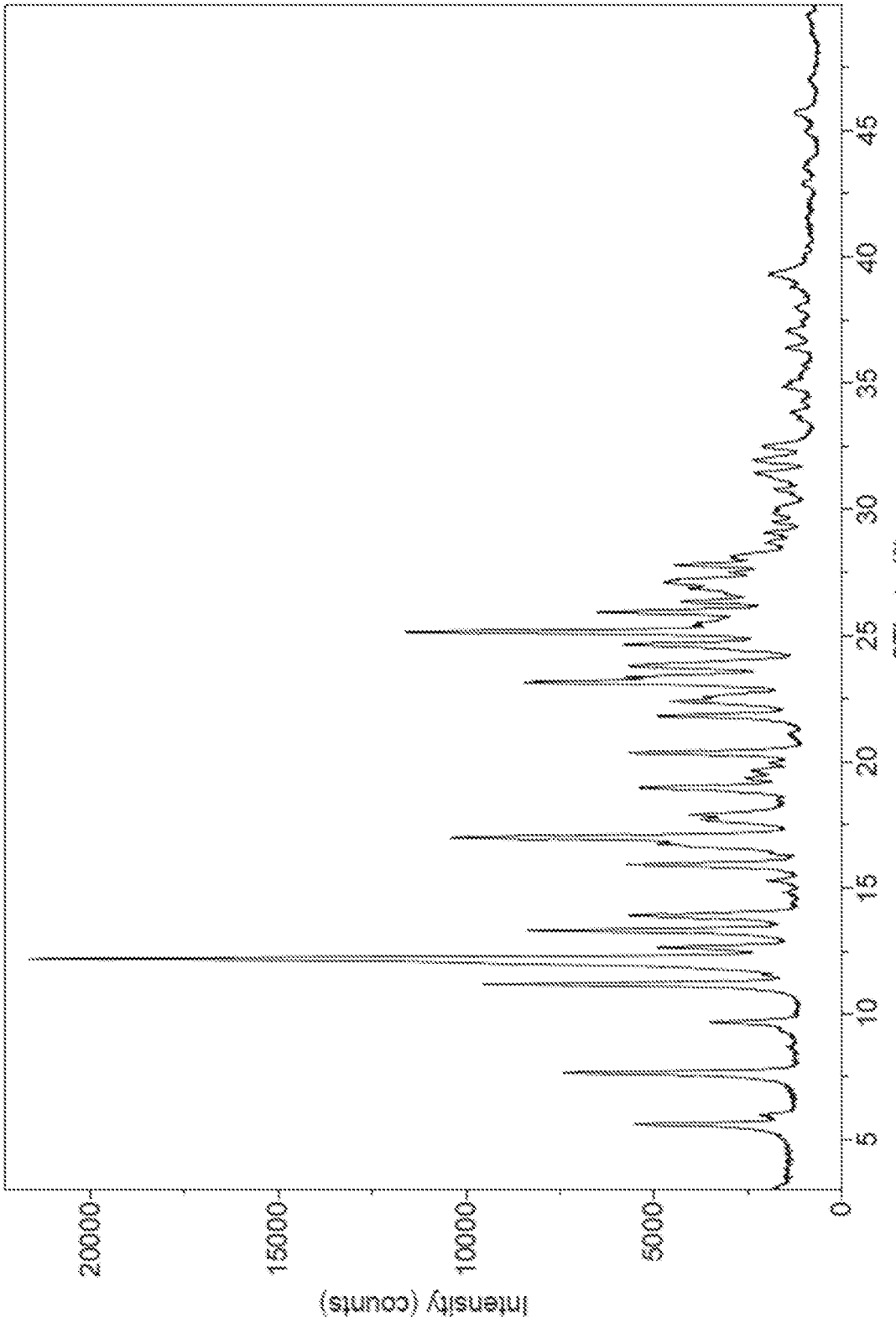
Intensity (counts)
20000
15000
10000
5000
0
5
10
15
20
25
30
35
40
45
2Theta (°)

FIG. 1

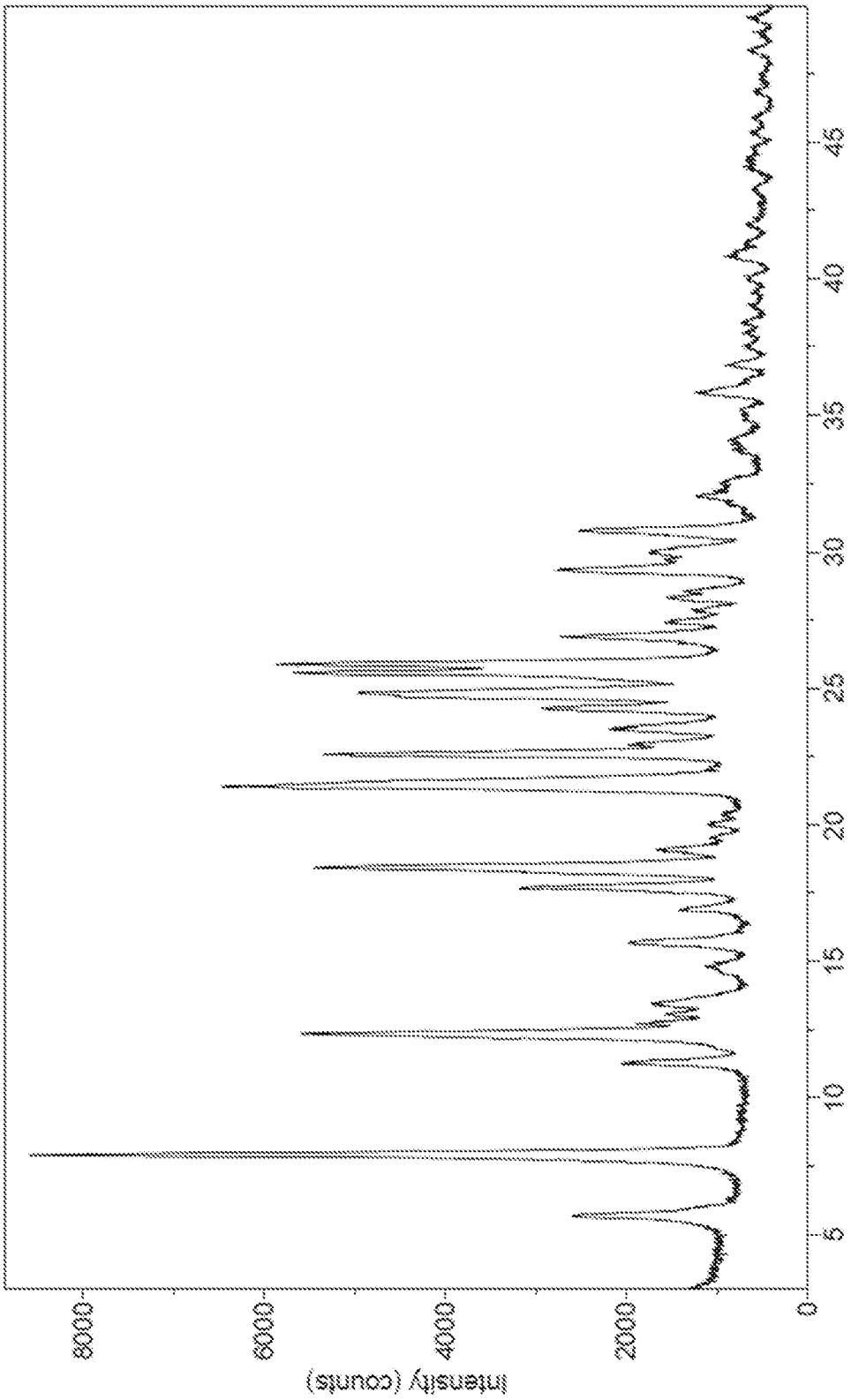
Intensity (counts)
8000
6000
4000
2000
0
5
10
15
20
25
30
35
40
45
2Theta (°)

FIG. 2

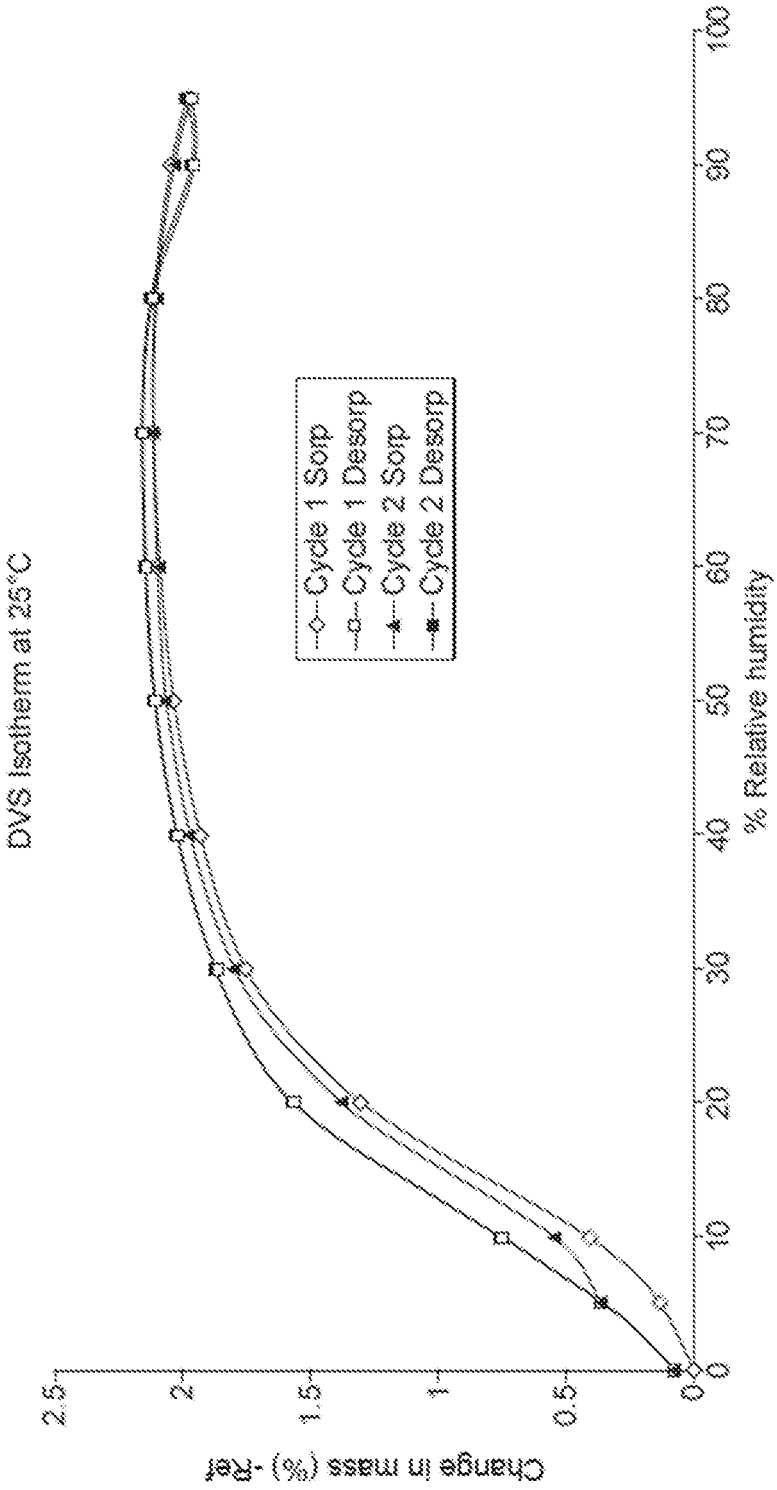
DVS Isotherm at 25°C
Cycle 1 Sorp
Cycle 1 Desorp
Cycle 2 Sorp
Cycle 2 Desorp
% Relative humidity
Change in mass (%) -Ref
0
10
20
30
40
50
60
70
80
90
100
0
0.5
1
1.5
2
2.5

FIG. 3

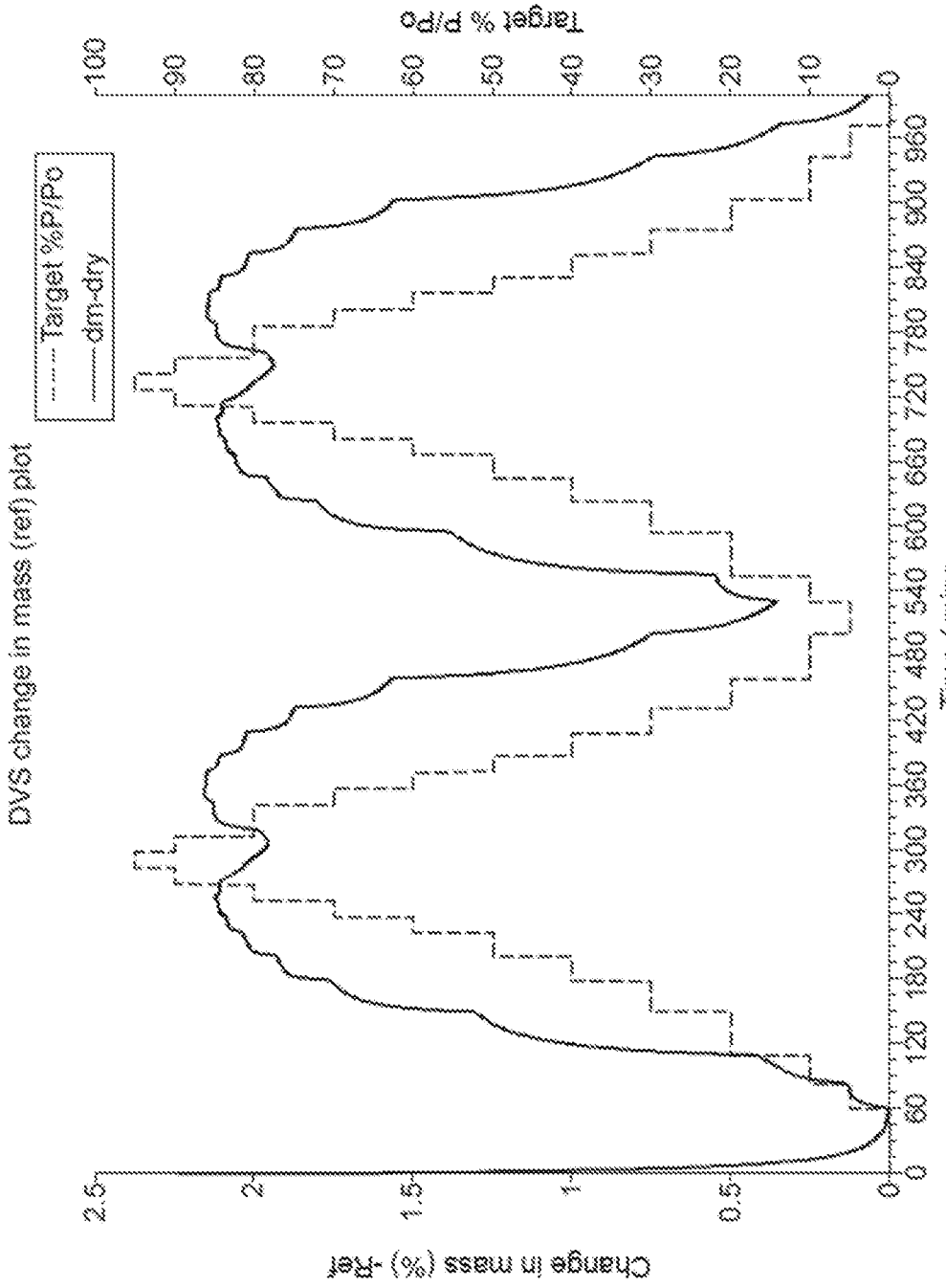
DVS change in mass (ref) plot
Target %P/Po
dm-dry
Target % P/Po
Change in mass (%) -Ref
Time / mins

FIG. 4

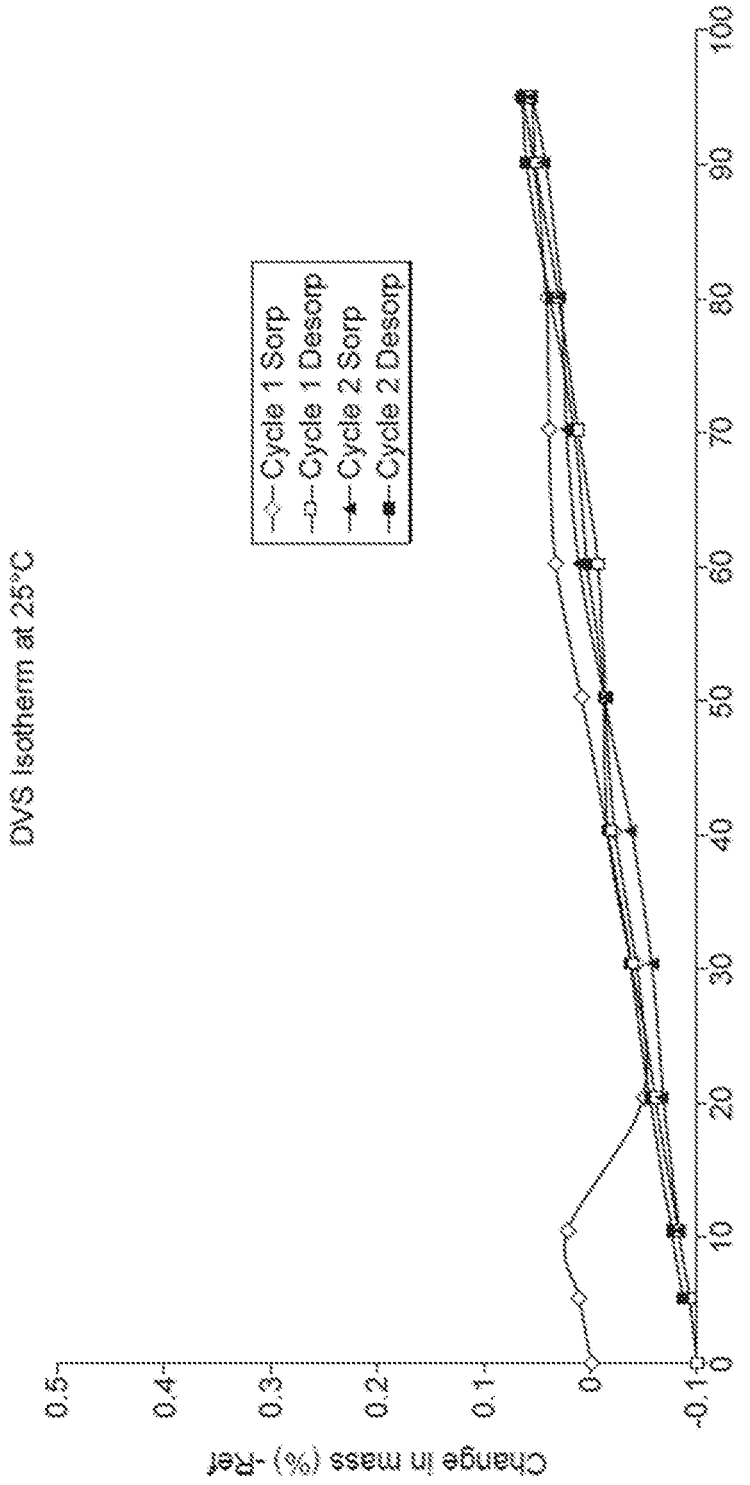
DVS Isotherm at 25°C
Cycle 1 Sorp
Cycle 1 Desorp
Cycle 2 Sorp
Cycle 2 Desorp
Change in mass (%) -Ref
% Relative humidity
0.5
0.4
0.3
0.2
0.1
0
-0.1
0
10
20
30
40
50
60
70
80
90
100

FIG. 5

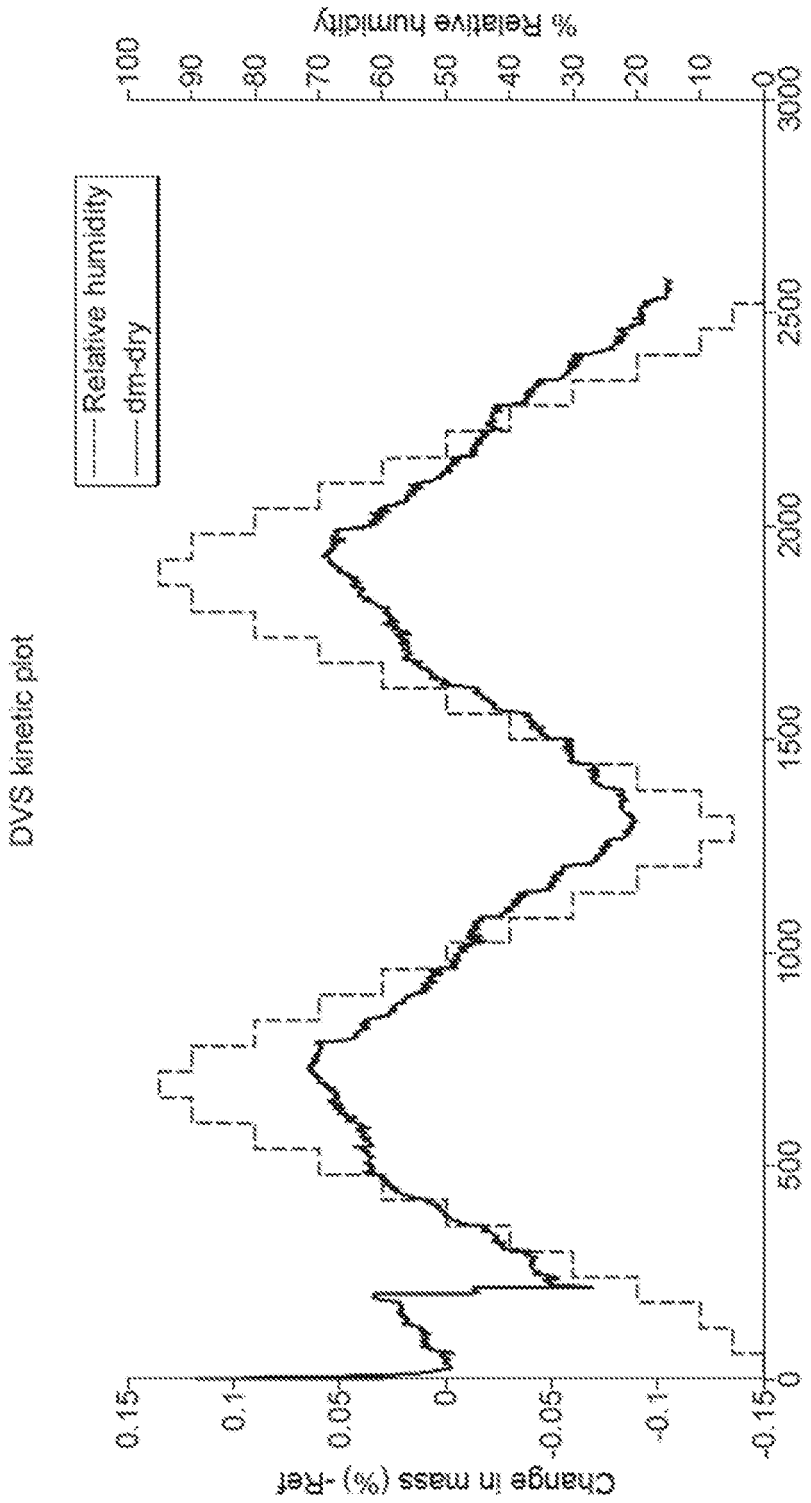
DVS kinetic plot
Relative humidity
dm-dry
% Relative humidity
100
90
80
70
60
50
40
30
20
10
0
Change in mass (%) -Ref
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
0
500
1000
1500
2000
2500
3000
Time / mins

FIG. 6

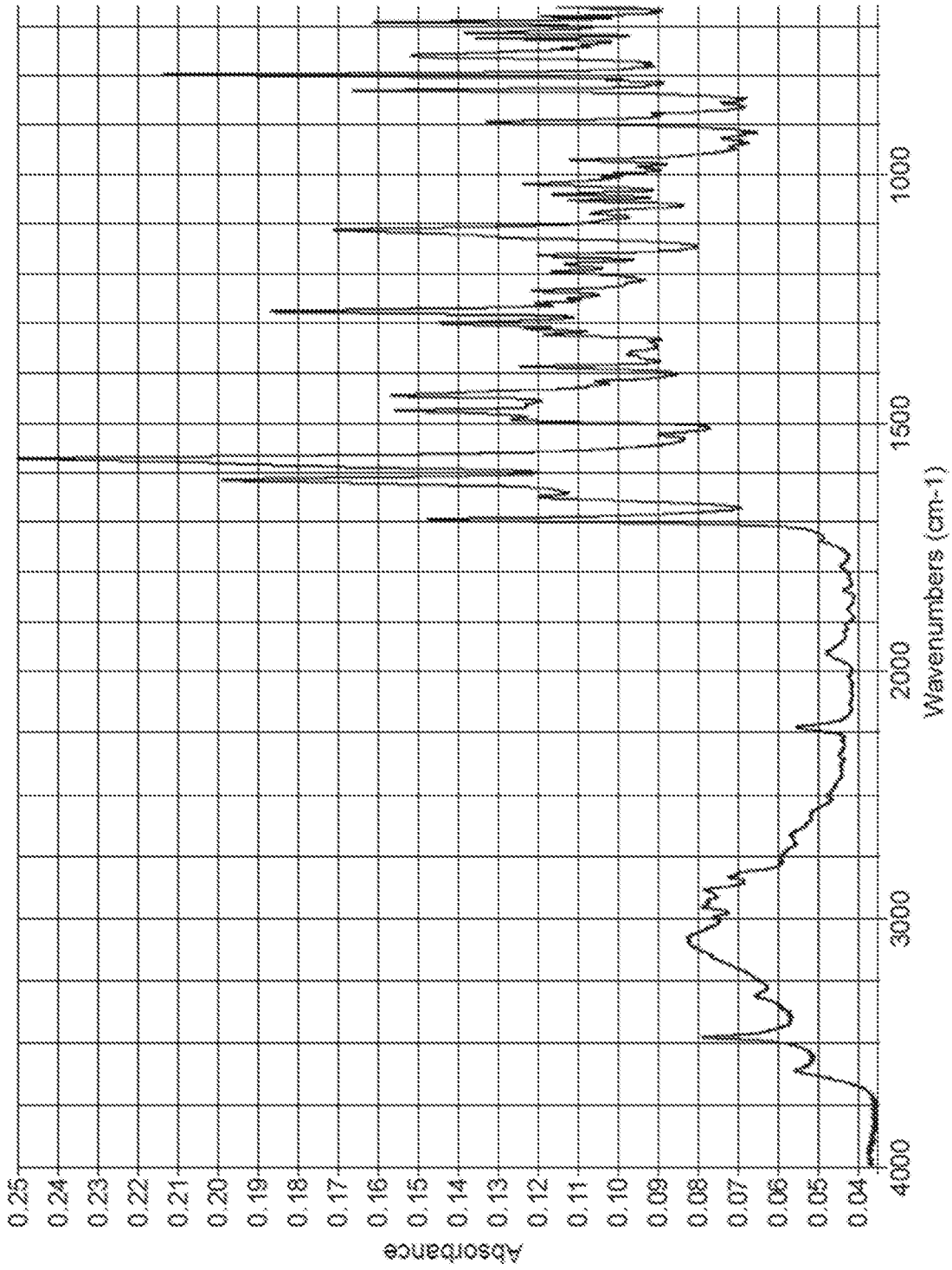
Absorbance
0,25
0,24
0,23
0,22
0,21
0,20
0,19
0,18
0,17
0,16
0,15
0,14
0,13
0,12
0,11
0,10
0,09
0,08
0,07
0,06
0,05
0,04
4000
3000
2000
1500
1000
Wavenumbers (cm-1)

FIG. 7

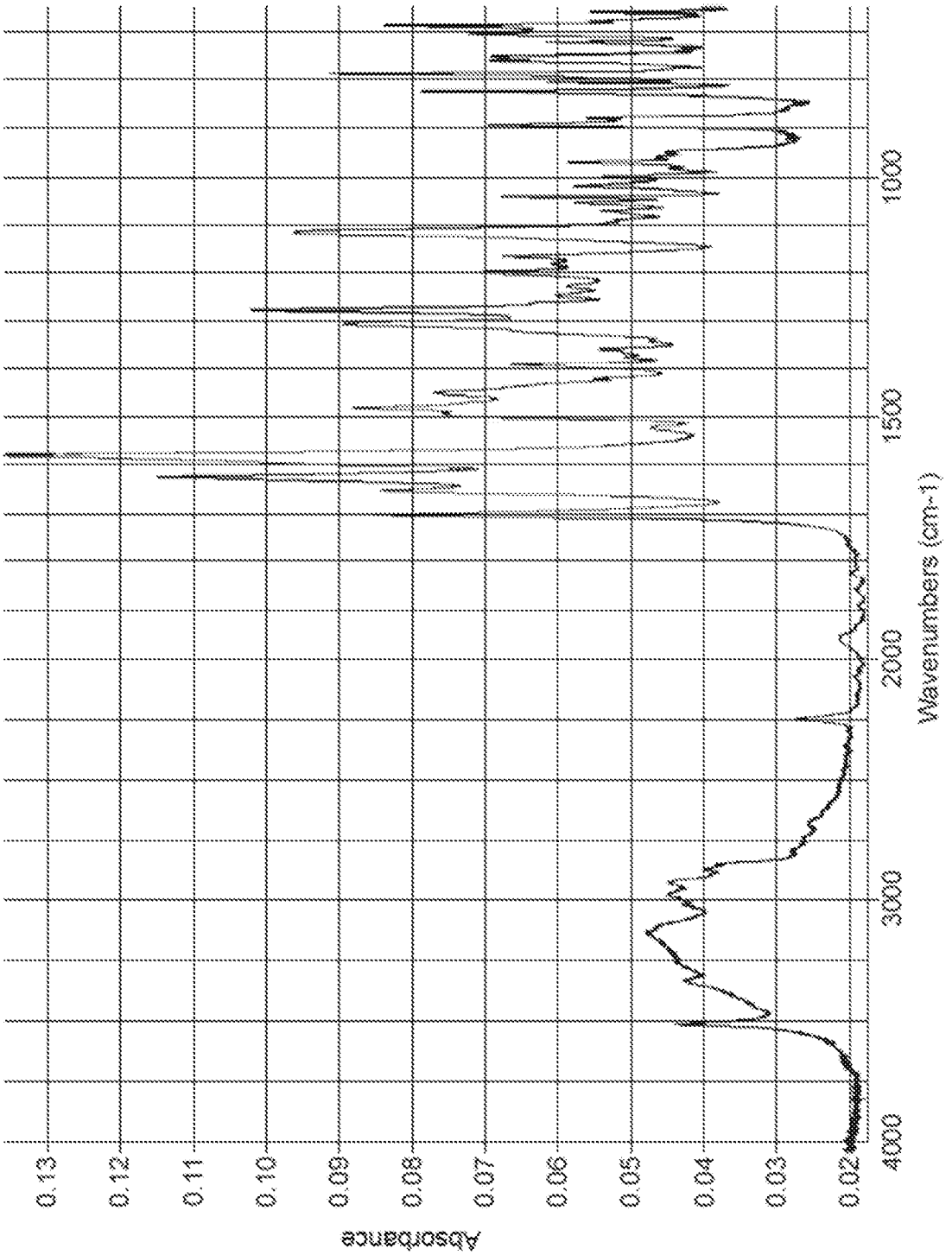
Absorbance
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
4000
3000
2000
1500
1000
Wavenumbers (cm-1)

FIG. 8

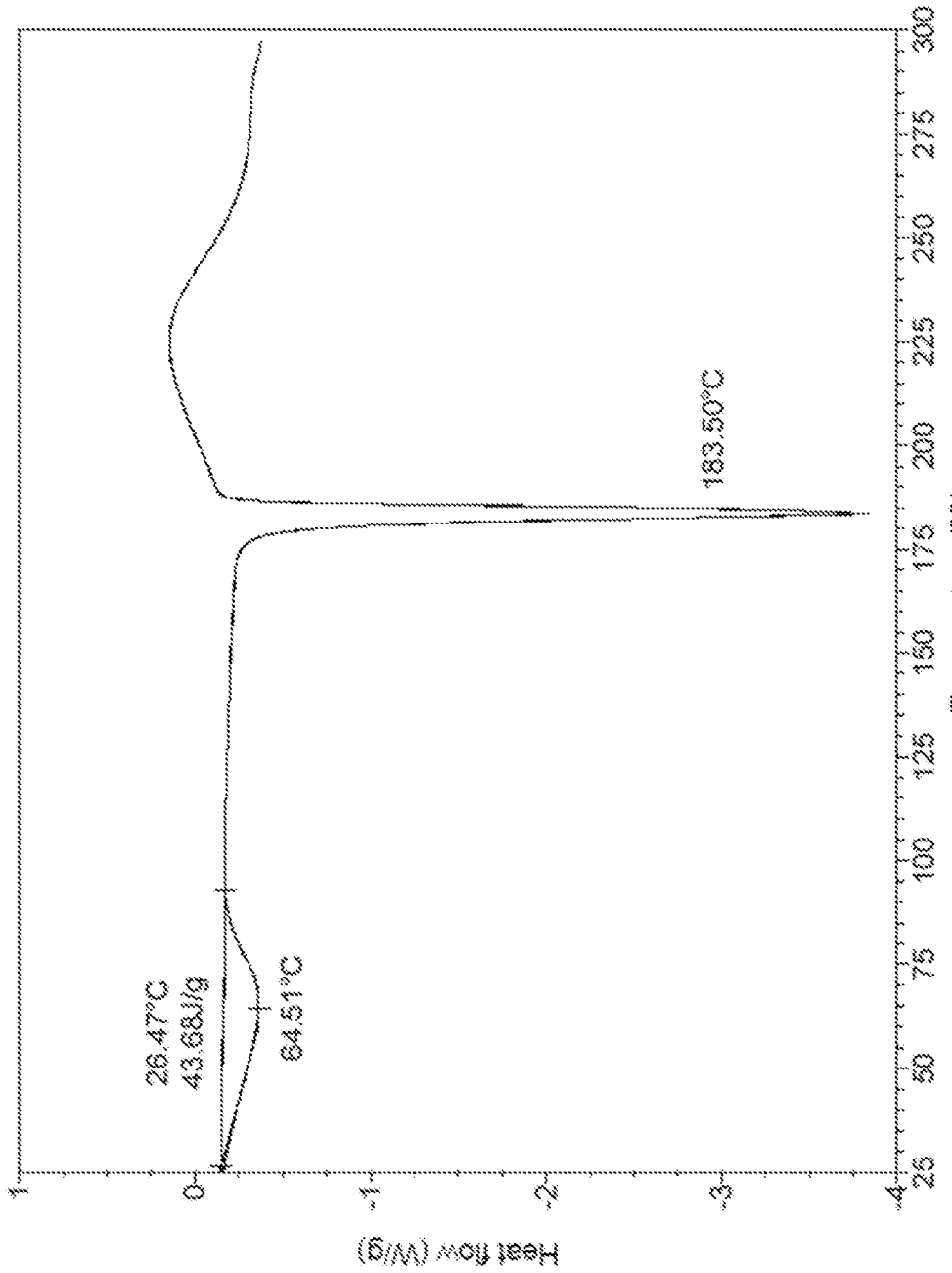
26.47°C
43.68J/g
64.51°C
183.50°C
Heat flow (W/g)
Temperature (°C)
1
0
-1
-2
-3
-4
25
50
75
100
125
150
175
200
225
250
275
300

FIG. 9

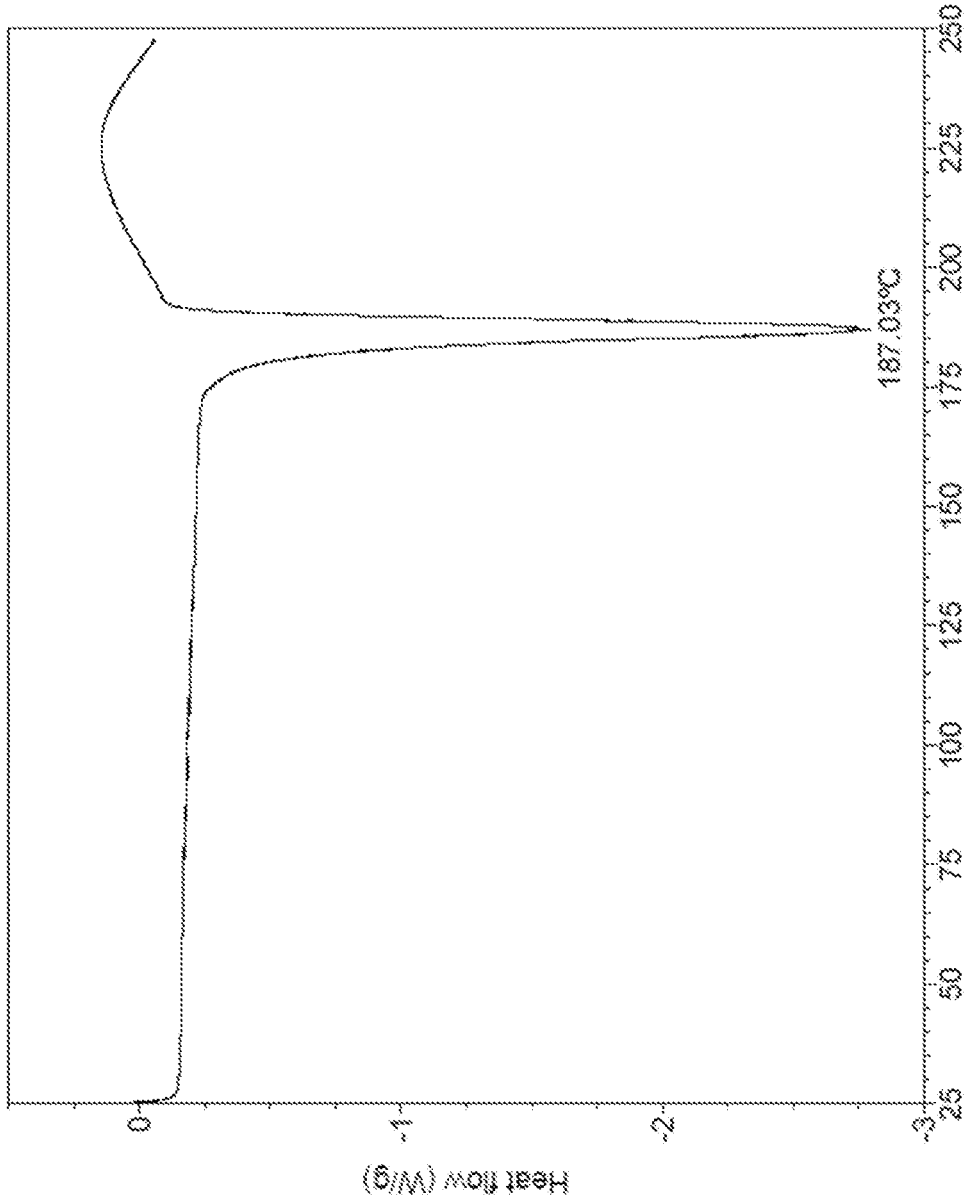
187.03°C
Heat flow (W/g)
Temperature (°C)
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
250
225
200
175
150
125
100
75
50
25

FIG. 10

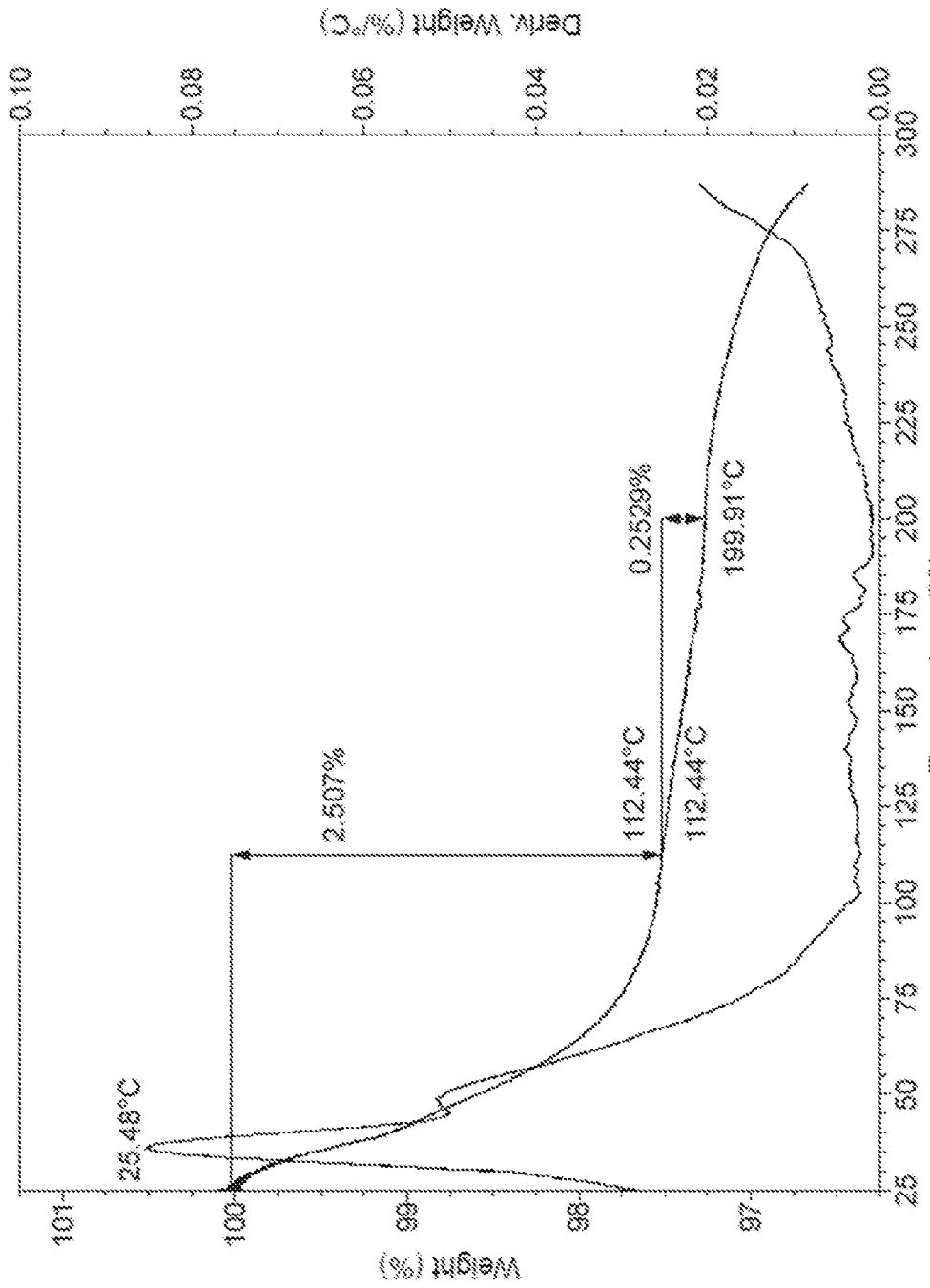
Deriv. Weight (%/°C)
0.10
0.08
0.06
0.04
0.02
0.00
Weight (%)
101
100
99
98
97
Temperature (°C)
25
50
75
100
125
150
175
200
225
250
275
300
25.48°C
2.507%
112.44°C
112.44°C
0.2529%
199.91°C

FIG. 11

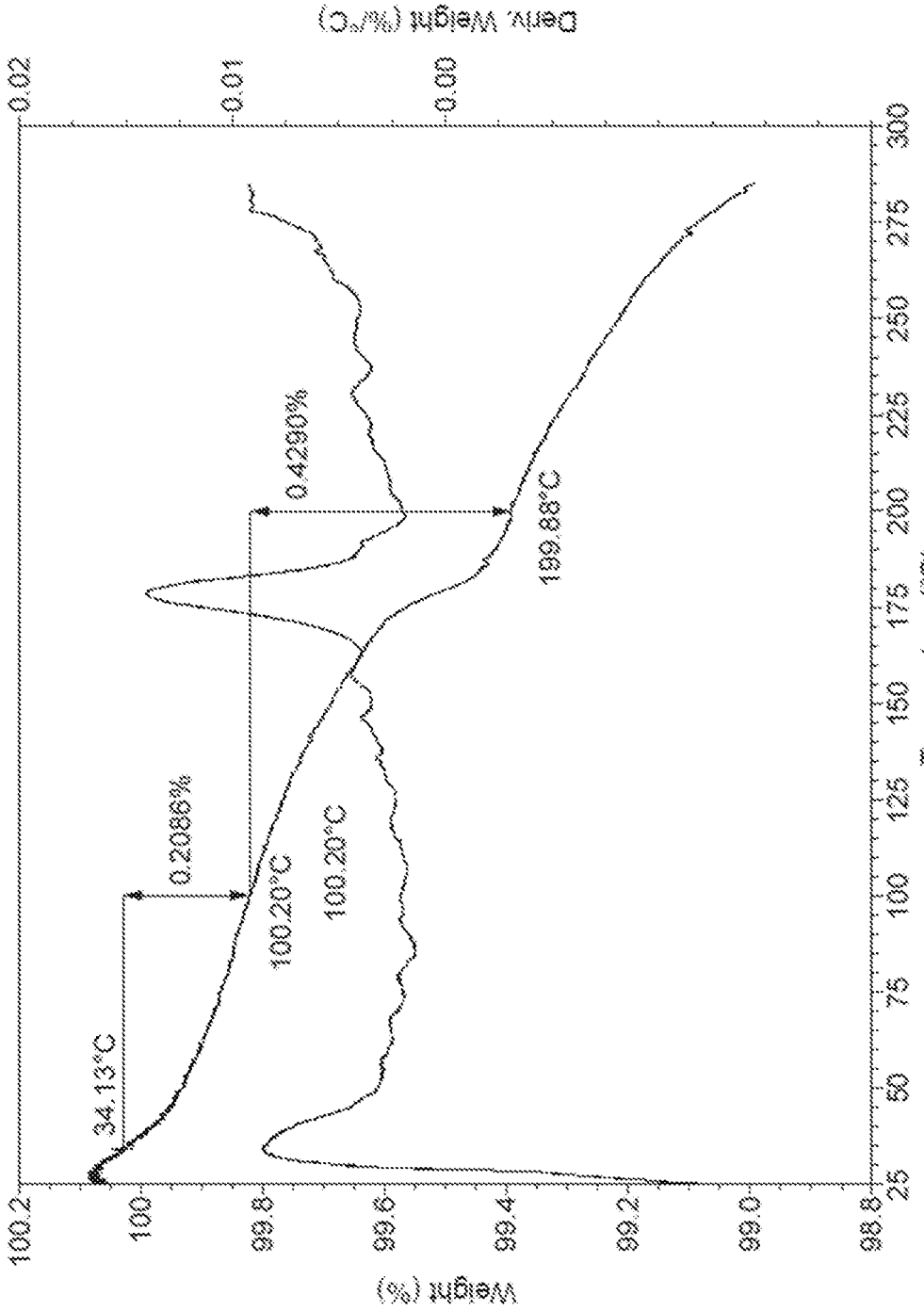
Deriv. Weight (%/°C)
0.02
0.01
0.00
Weight (%)
100.2
100
99.8
99.6
99.4
99.2
99.0
98.8
25
50
75
100
125
150
175
200
225
250
275
300
Temperature (°C)
34.13°C
0.2086%
100.20°C
100.20°C
0.4290%
199.88°C

FIG. 12

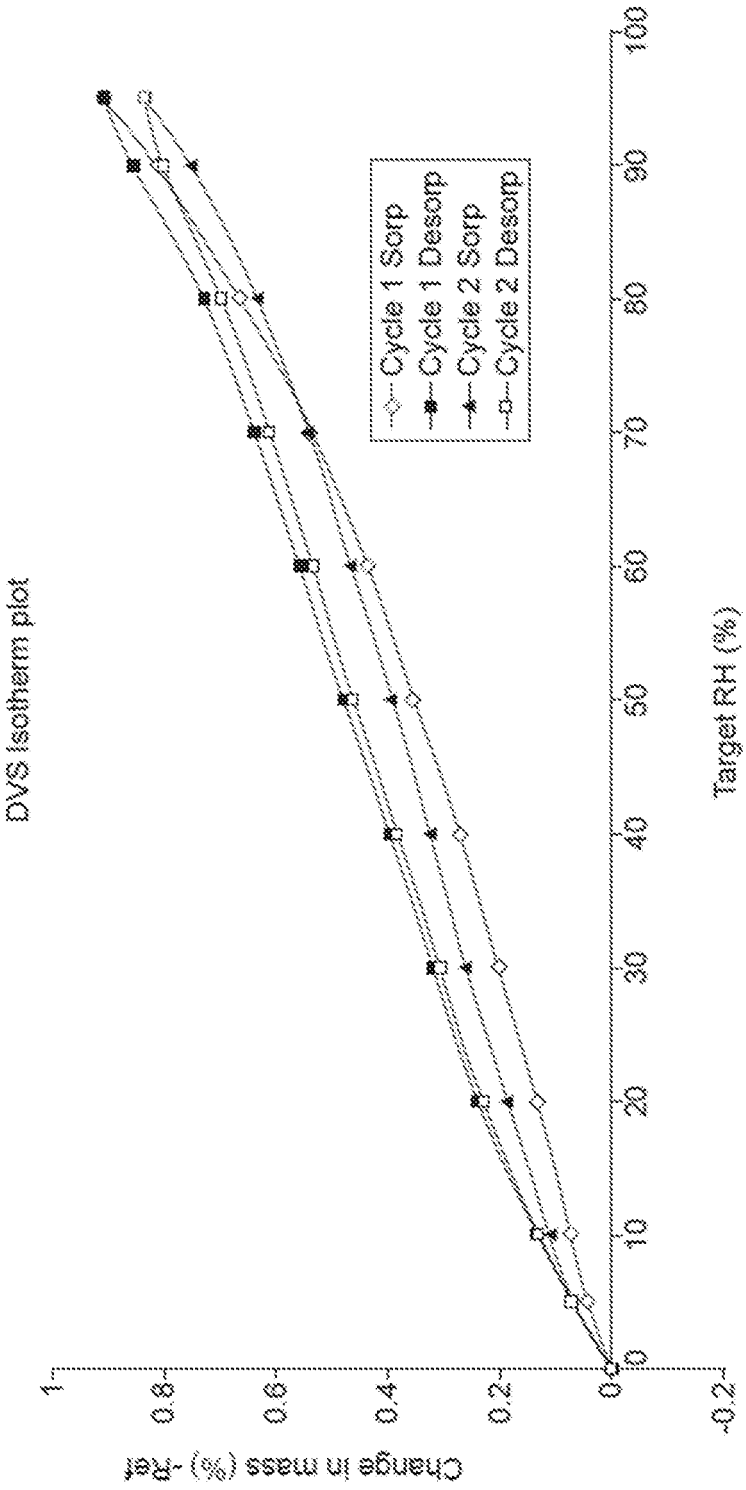
DVS Isotherm plot
Change in mass (%) -Ref
Target RH (%)
Cycle 1 Sorp
Cycle 1 Desorp
Cycle 2 Sorp
Cycle 2 Desorp
1
0,8
0,6
0,4
0,2
0
-0,2
0
10
20
30
40
50
60
70
80
90
100

FIG. 13

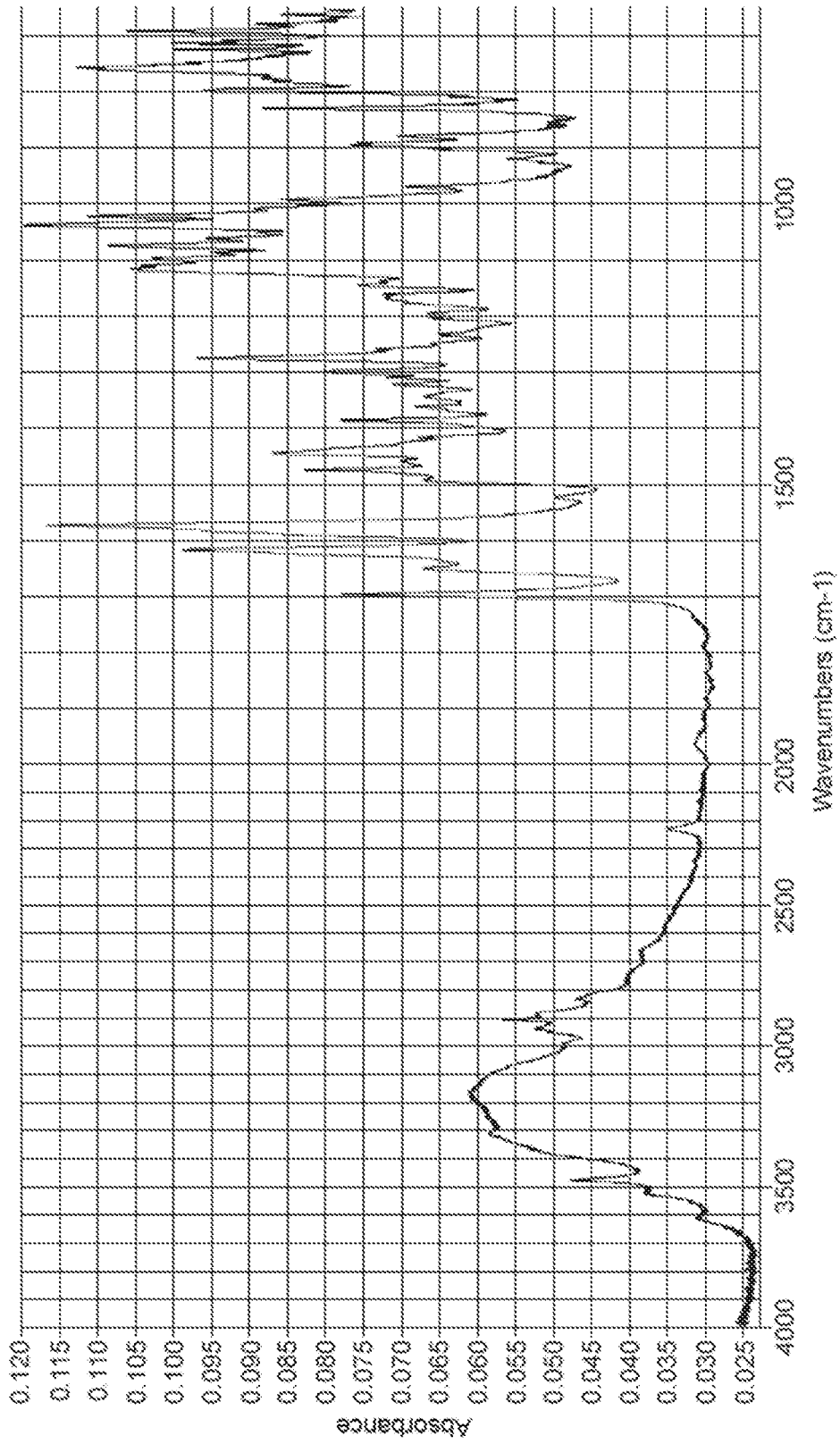
Absorbance
0.120
0.115
0.110
0.105
0.100
0.095
0.090
0.085
0.080
0.075
0.070
0.065
0.060
0.055
0.050
0.045
0.040
0.035
0.030
0.025
4000
3500
3000
2500
2000
1500
1000
Wavenumbers (cm-1)

FIG. 14

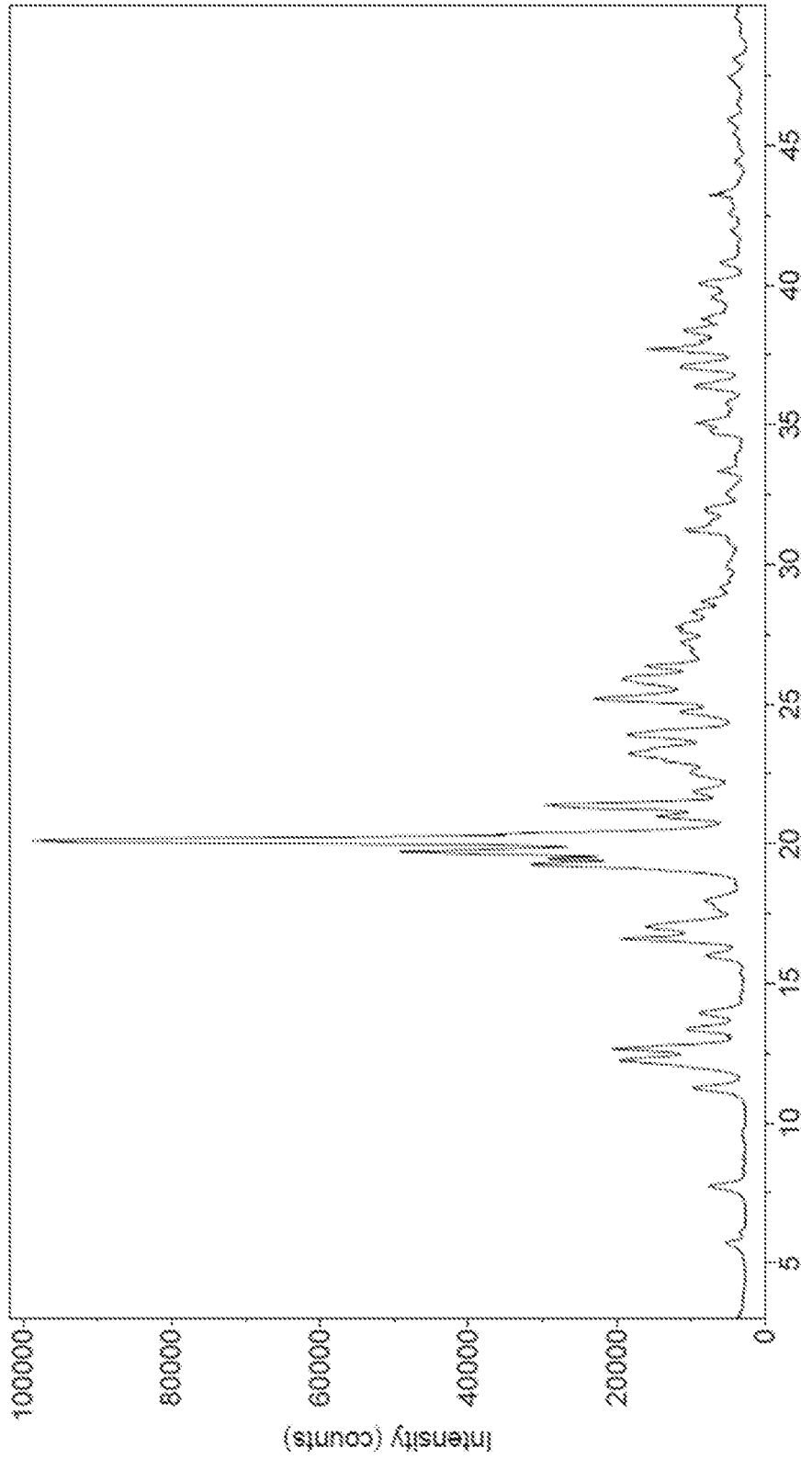
Intensity (counts)
100000
80000
60000
40000
20000
0
5
10
15
20
25
30
35
40
45
2Theta (°)

FIG. 15

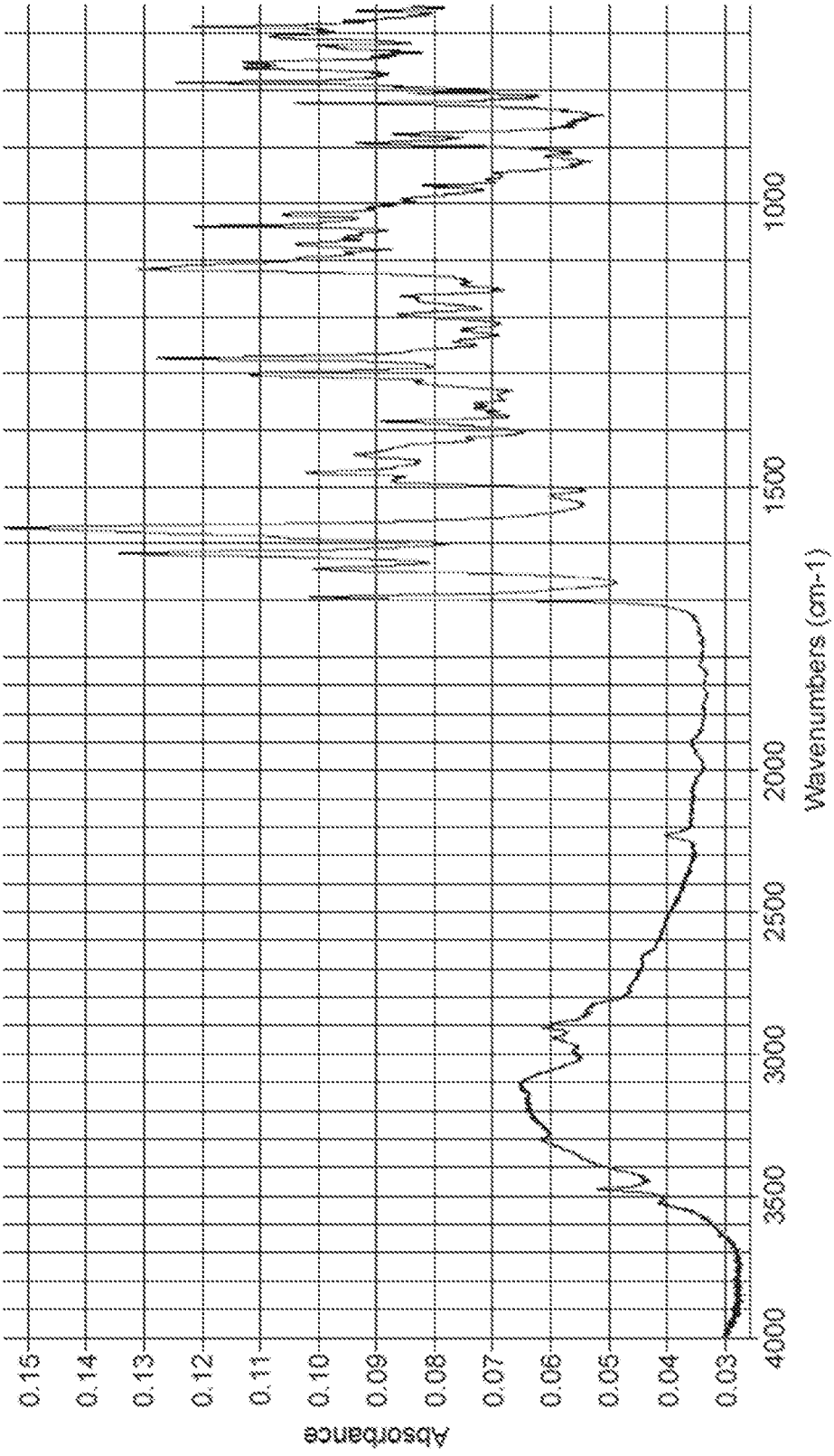
Absorbance
0.15
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
4000
3500
3000
2500
2000
1500
1000
Wavenumbers (cm-1)

FIG. 16

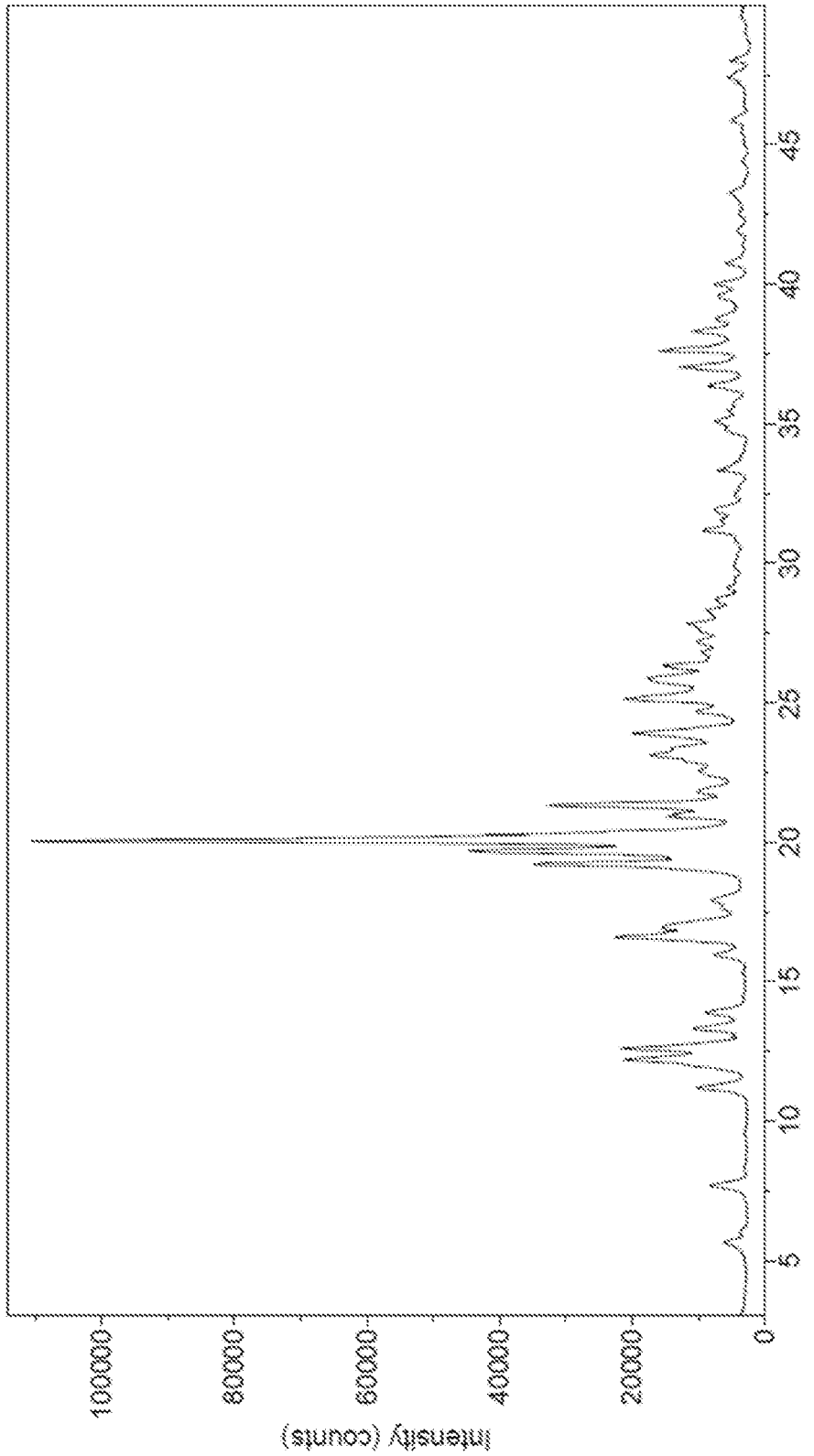
Intensity (counts)
100000
80000
60000
40000
20000
0
5
10
15
20
25
30
35
40
45
2Theta (°)

FIG. 17

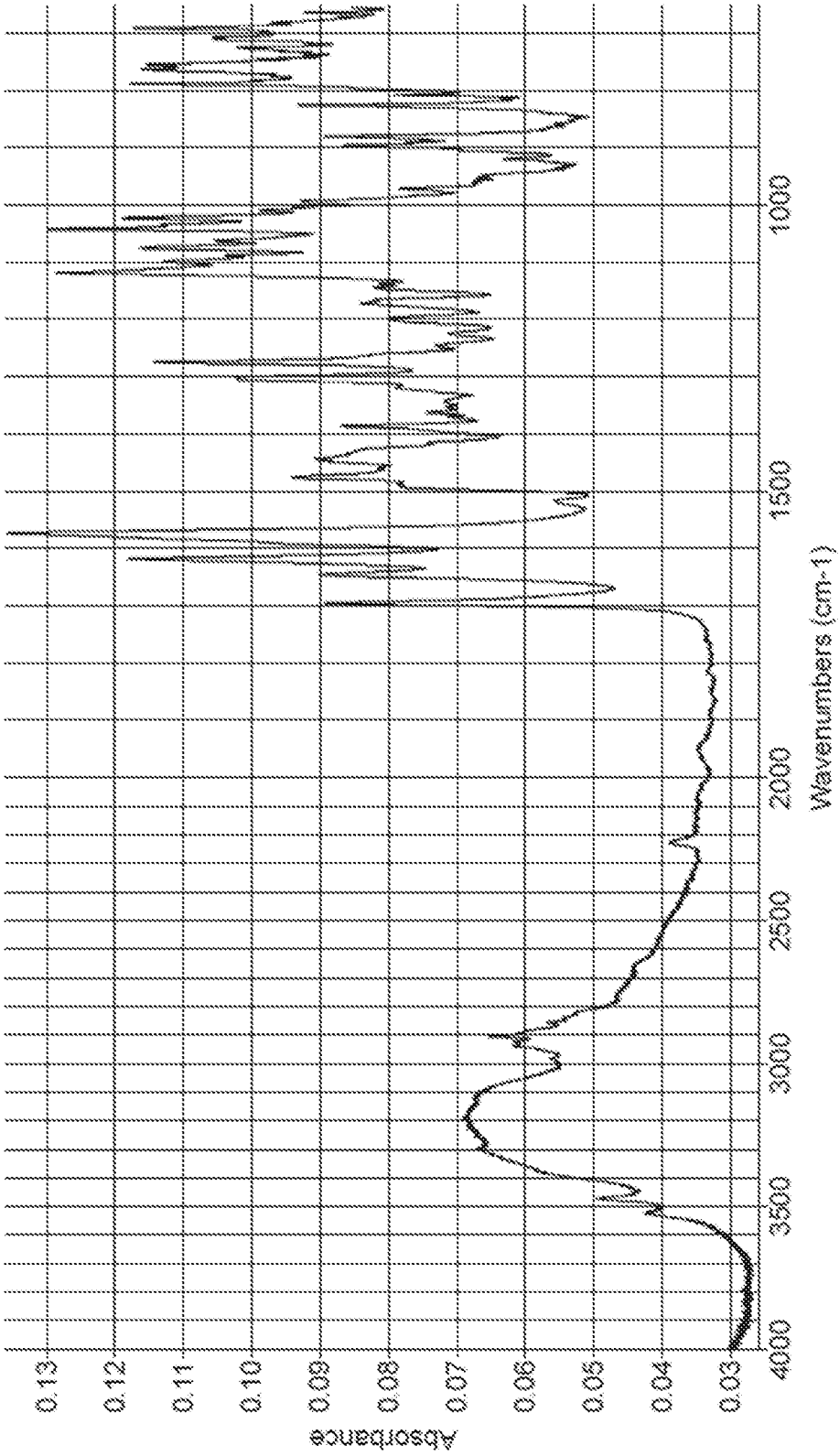
Absorbance
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
Wavenumbers (cm-1)
4000
3500
3000
2500
2000
1500
1000

FIG. 18

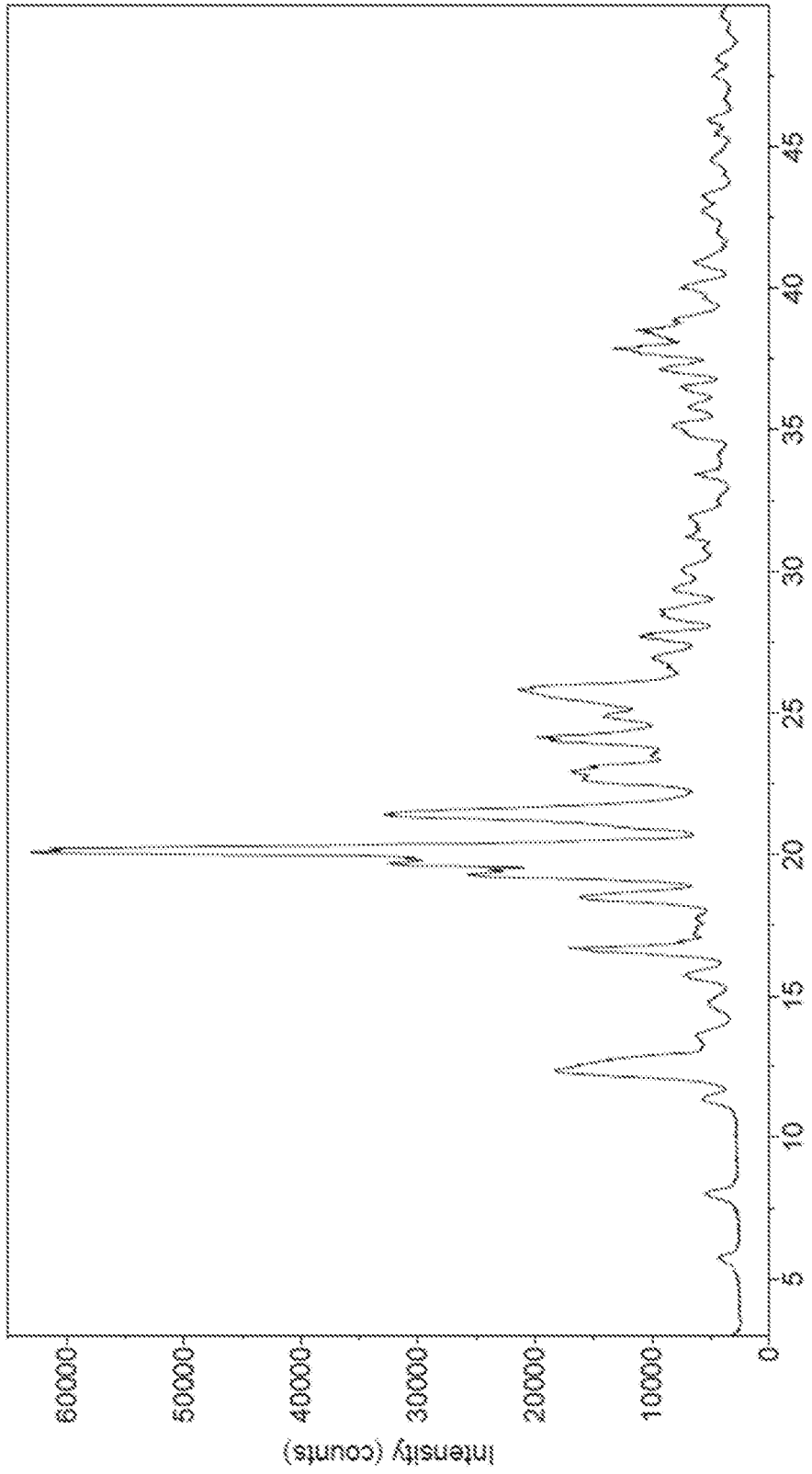
Intensity (counts)
60000
50000
40000
30000
20000
10000
0
5
10
15
20
25
30
35
40
45
2Theta (°)

FIG. 19