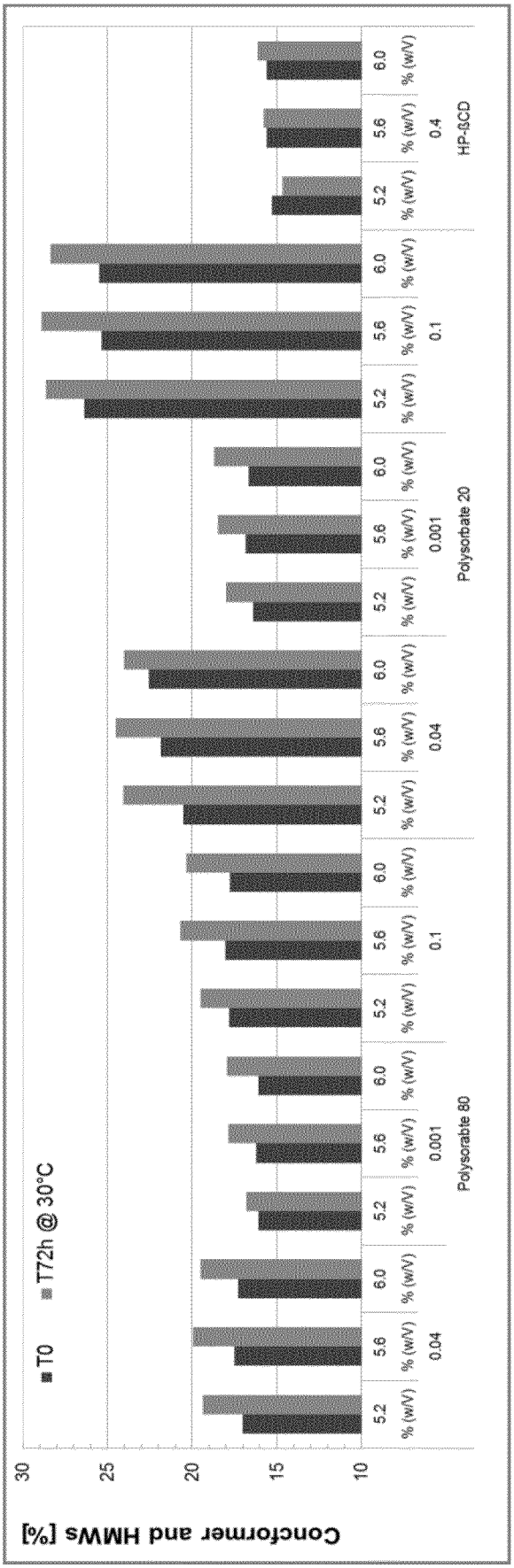
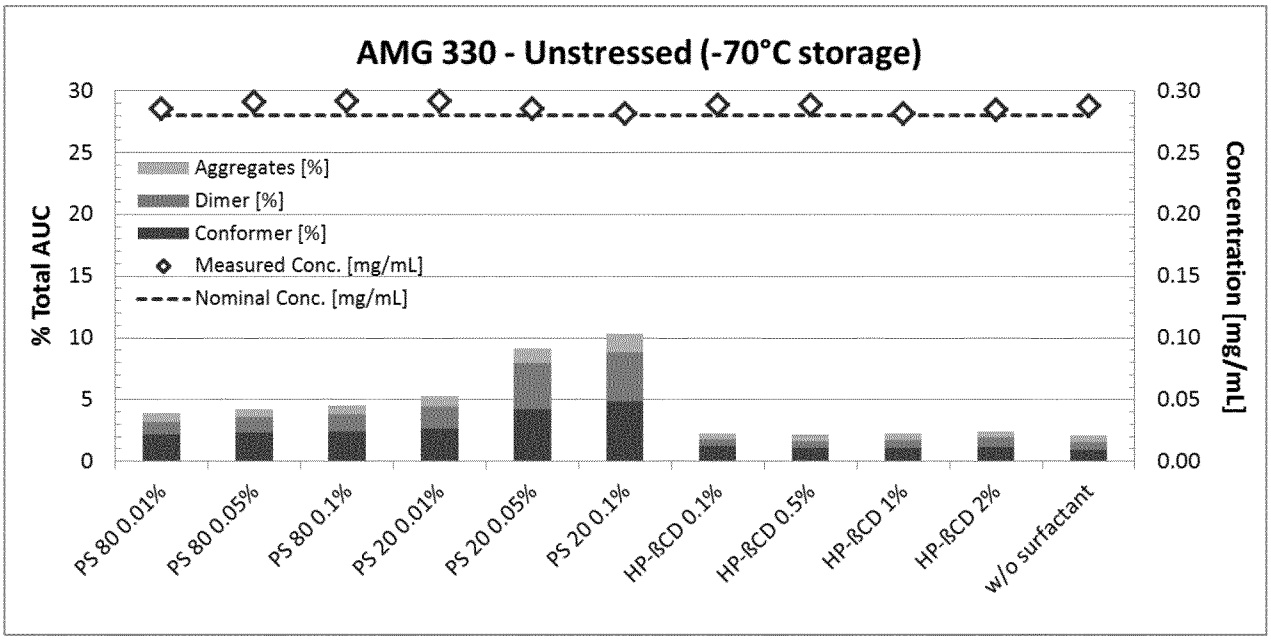

Conformer and HMWs [%]
30
25
20
15
10
T0
T72h @ 30°C
5.2 % (w/V)
5.6 % (w/V)
6.0 % (w/V)
0.04
Polyscrabte 80
0.001
0.1
0.04
Polysorbate 20
0.001
0.1
0.4
HP-BCD

Figure 1

Figure 2

A


AMG 330 - Unstressed (-70°C storage)
% Total AUC
Concentration [mg/mL]
Aggregates [%]
Dimer [%]
Conformer [%]
Measured Conc. [mg/mL]
Nominal Conc. [mg/mL]
PS 80 0.01%
PS 80 0.05%
PS 80 0.1%
PS 20 0.01%
PS 20 0.05%
PS 20 0.1%
HP-ßCD 0.1%
HP-ßCD 0.5%
HP-ßCD 1%
HP-ßCD 2%
w/o surfactant

B

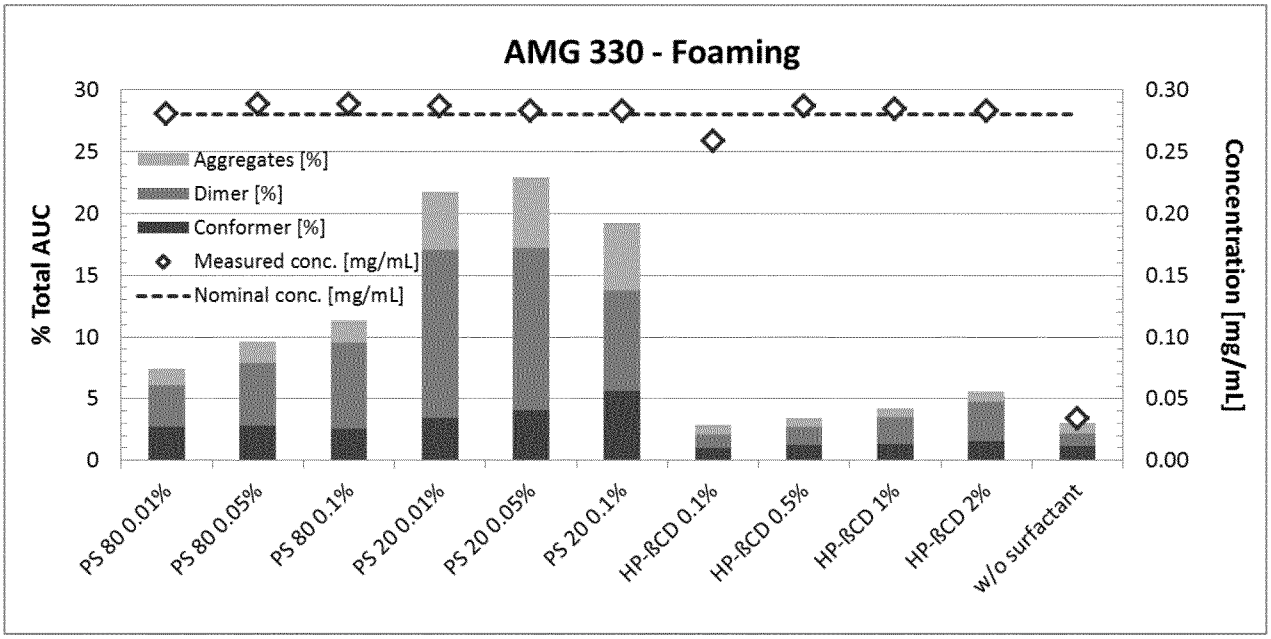

AMG 330 - Foaming
% Total AUC
Concentration [mg/mL]
Aggregates [%]
Dimer [%]
Conformer [%]
Measured conc. [mg/mL]
Nominal conc. [mg/mL]
PS 80 0.01%
PS 80 0.05%
PS 80 0.1%
PS 20 0.01%
PS 20 0.05%
PS 20 0.1%
HP-ßCD 0.1%
HP-ßCD 0.5%
HP-ßCD 1%
HP-ßCD 2%
w/o surfactant

Figure 2 (continued)

C

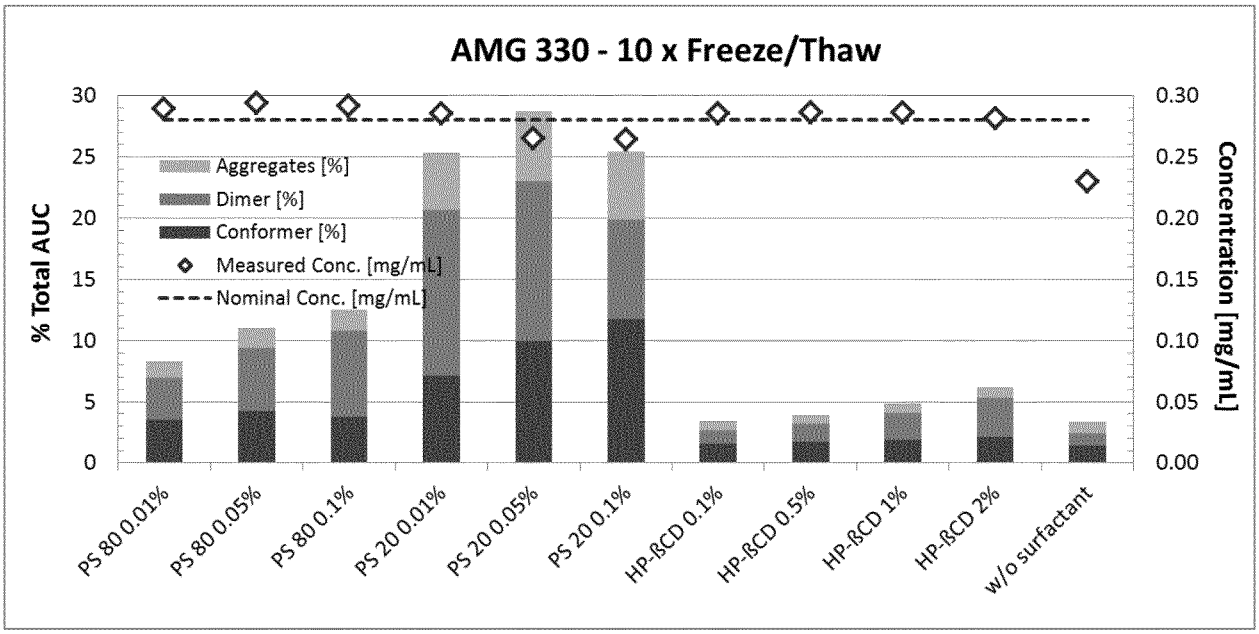


Figure 3

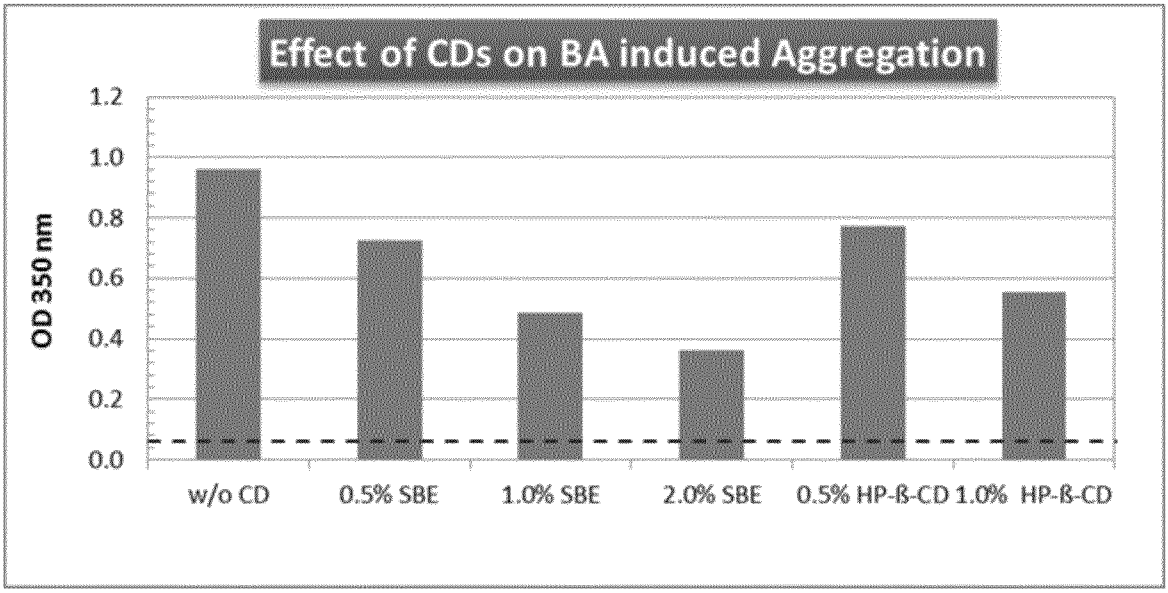


Figure 4B

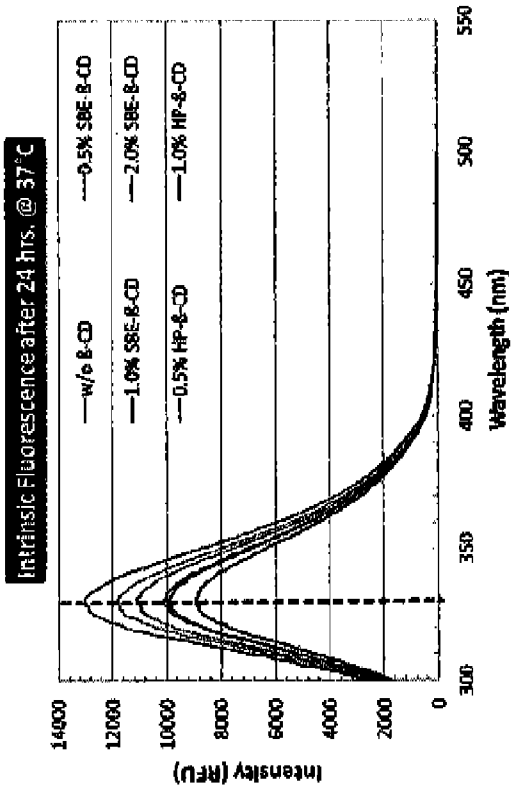


Figure 4A

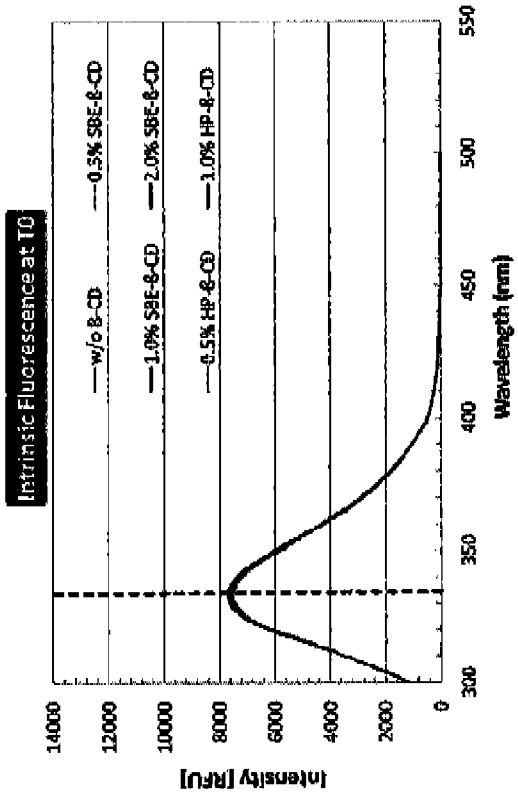
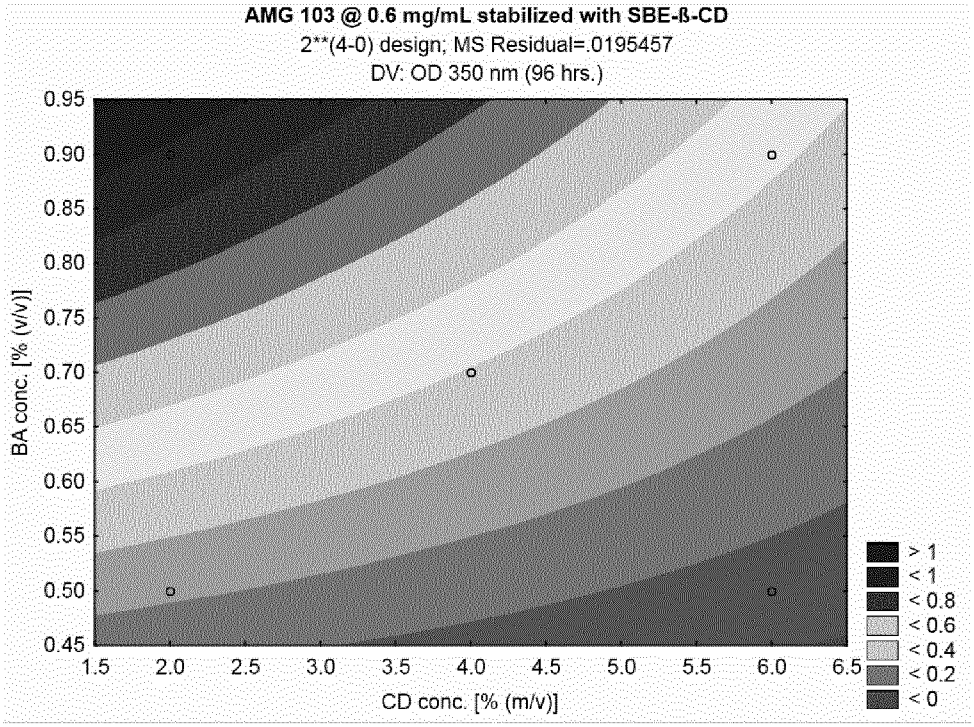


Figure 5

A


AMG 103 @ 0.6 mg/mL stabilized with SBE-ß-CD
2**(4-0) design; MS Residual=.0195457
DV: OD 350 nm (96 hrs.)
BA conc. [% (v/v)]
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5
CD conc. [% (m/v)]
> 1
< 1
< 0.8
< 0.6
< 0.4
< 0.2
< 0

B

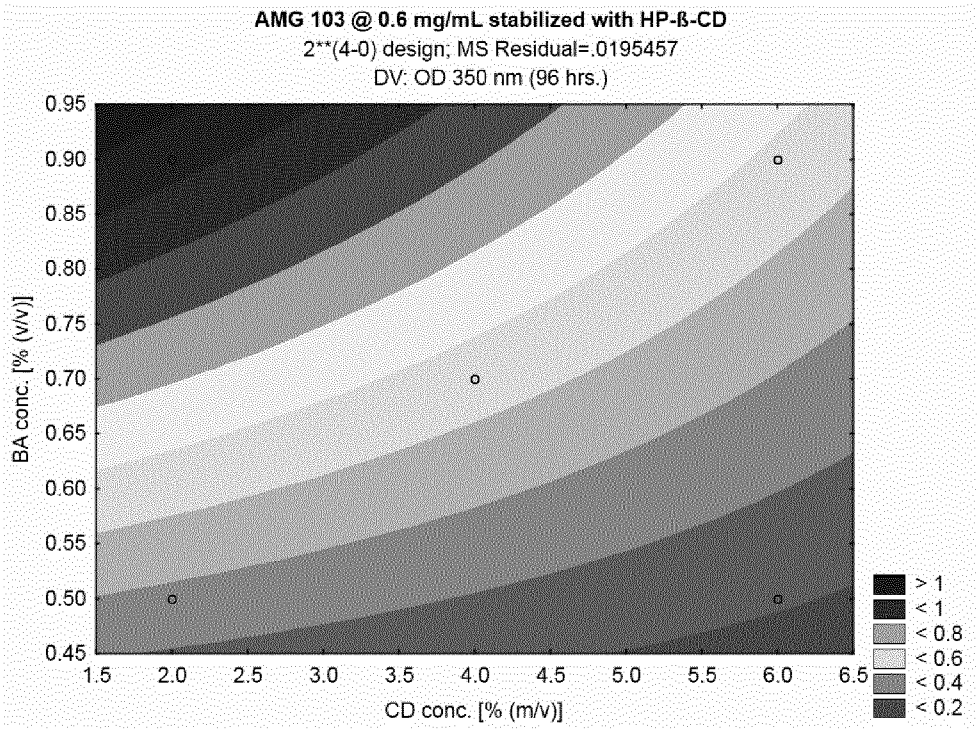

AMG 103 @ 0.6 mg/mL stabilized with HP-ß-CD
2**(4-0) design; MS Residual=.0195457
DV: OD 350 nm (96 hrs.)
BA conc. [% (v/v)]
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5
CD conc. [% (m/v)]
> 1
< 1
< 0.8
< 0.6
< 0.4
< 0.2

Figure 6

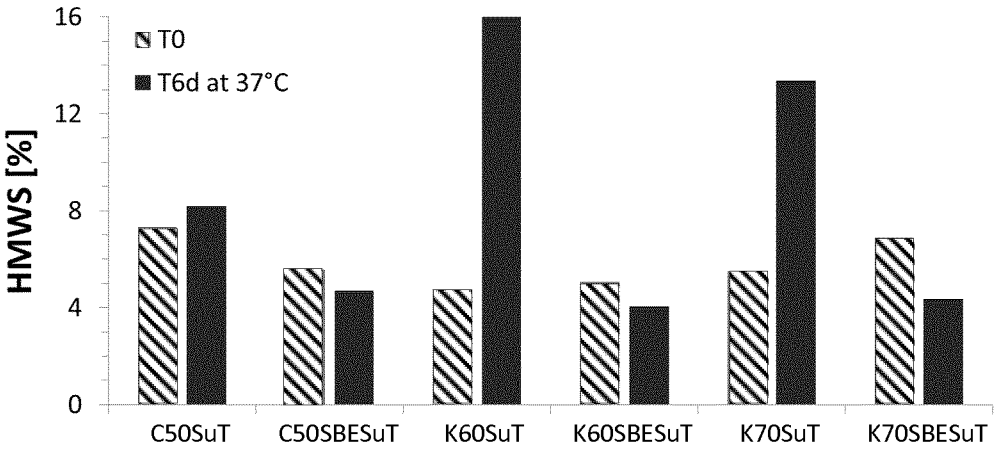
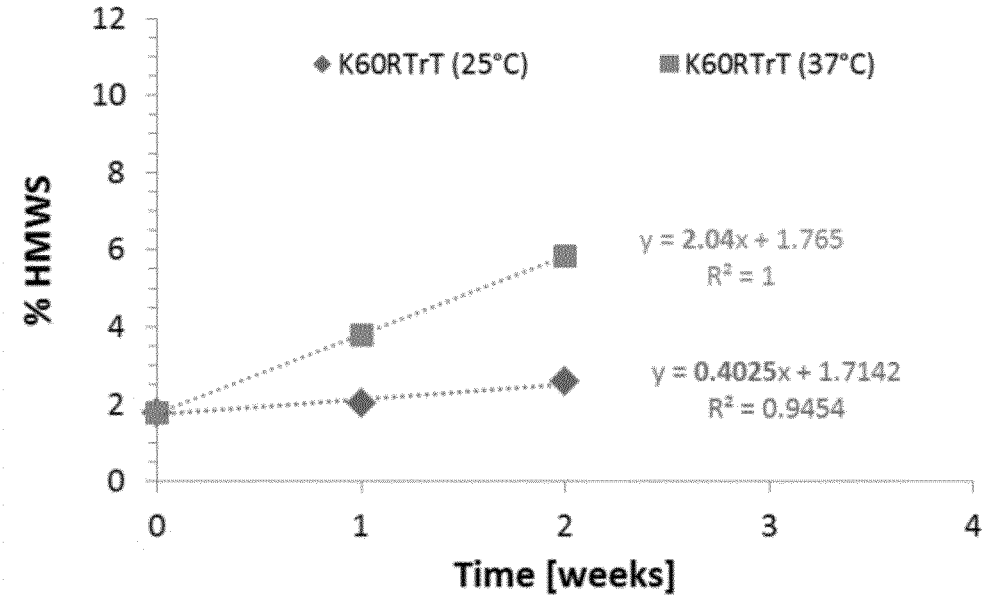

16
12
8
4
0
HMWS [%]
T0
T6d at 37°C
C50SuT
C50SBESuT
K60SuT
K60SBESuT
K70SuT
K70SBESuT

Figure 7

A


12
10
8
6
4
2
0
% HMWS
K60RTrT (25°C)
K60RTrT (37°C)
y = 2.04x + 1.765
R² = 1
y = 0.4025x + 1.7142
R² = 0.9454
0
1
2
3
4
Time [weeks]

B

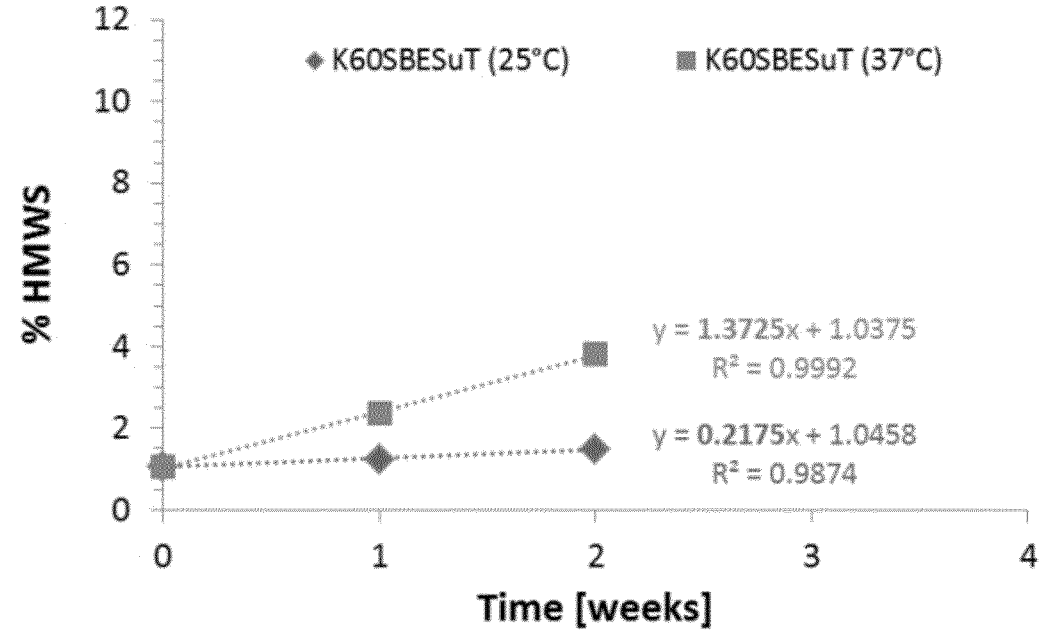

12
10
8
6
4
2
0
% HMWS
K60SBESuT (25°C)
K60SBESuT (37°C)
y = 1.3725x + 1.0375
R² = 0.9992
y = 0.2175x + 1.0458
R² = 0.9874
0
1
2
3
4
Time [weeks]

Figure 7 (continued)

C

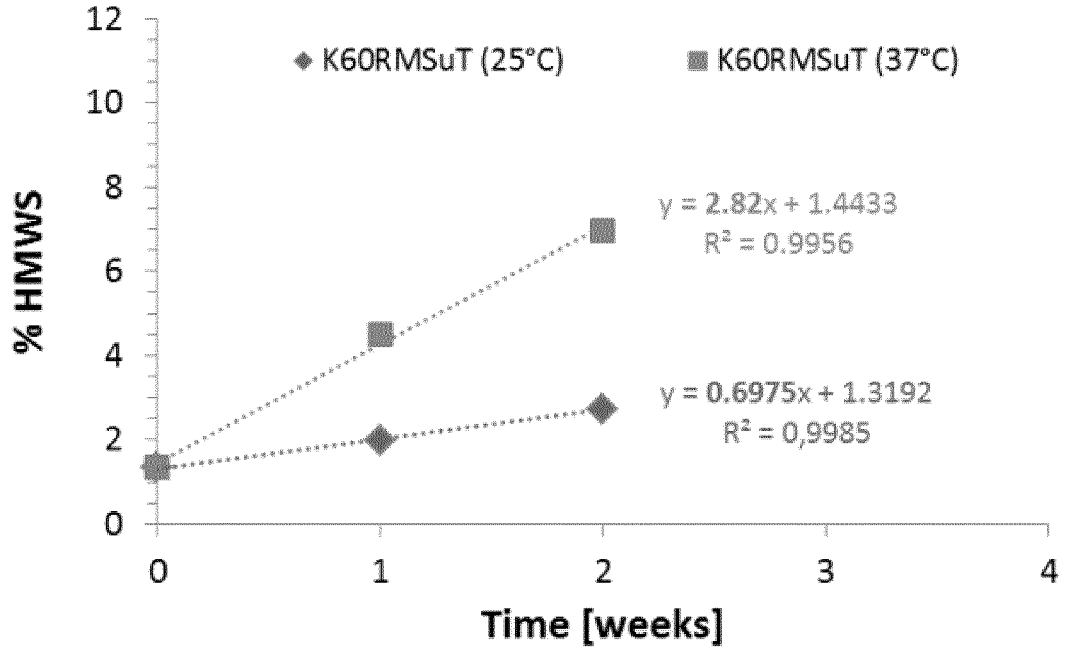


Figure 8

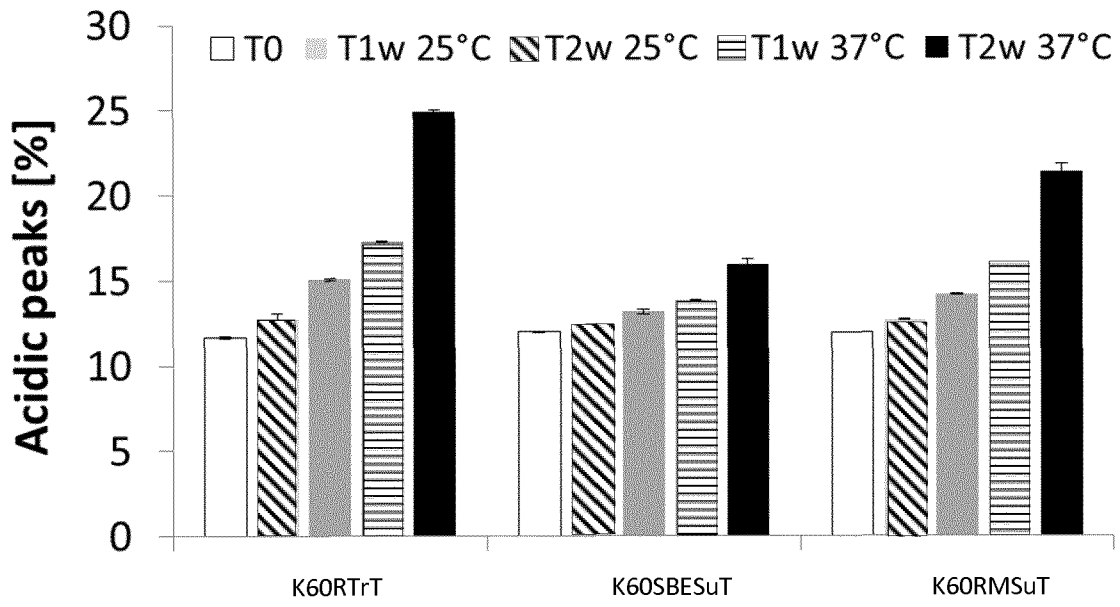

30
25
20
15
10
5
0
Acidic peaks [%]
T0
T1w 25°C
T2w 25°C
T1w 37°C
T2w 37°C
K60RTrT
K60SBESuT
K60RMSuT

Figure 9

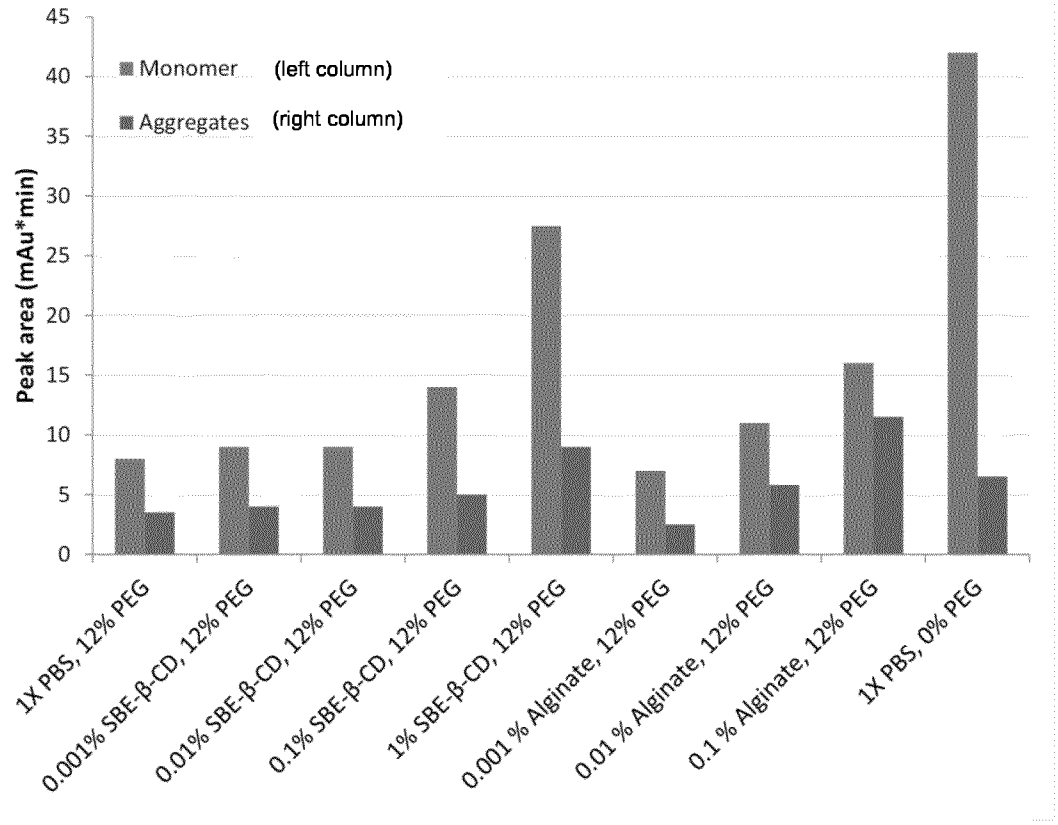


Figure 10

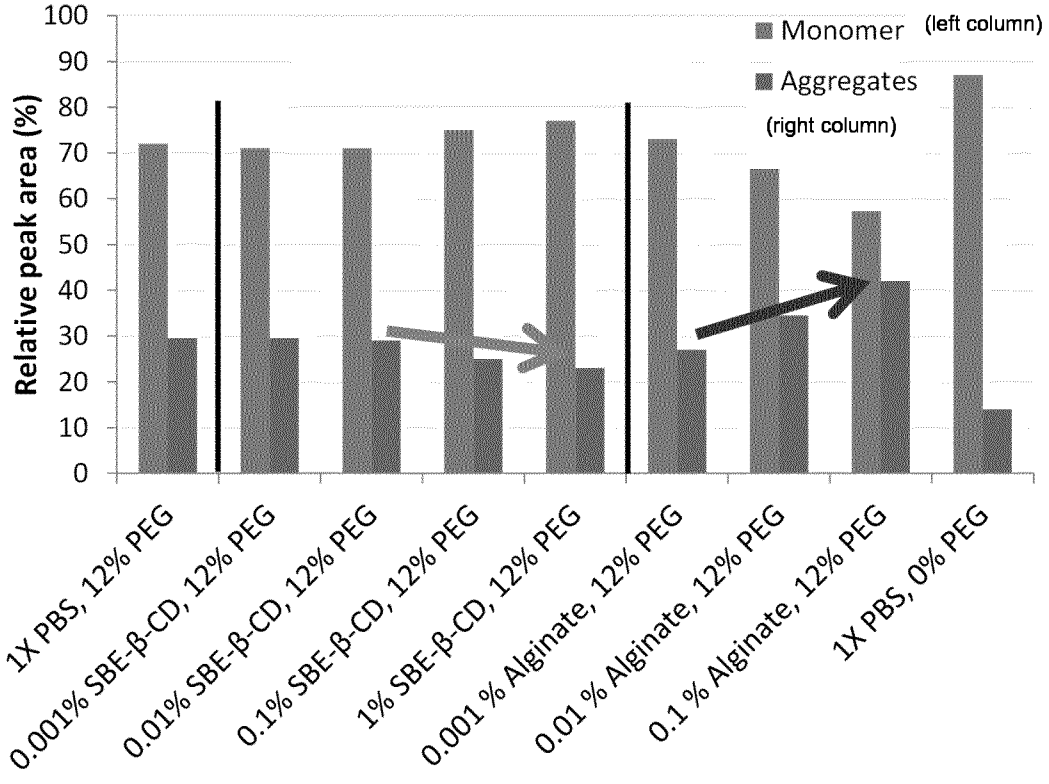


Figure 11

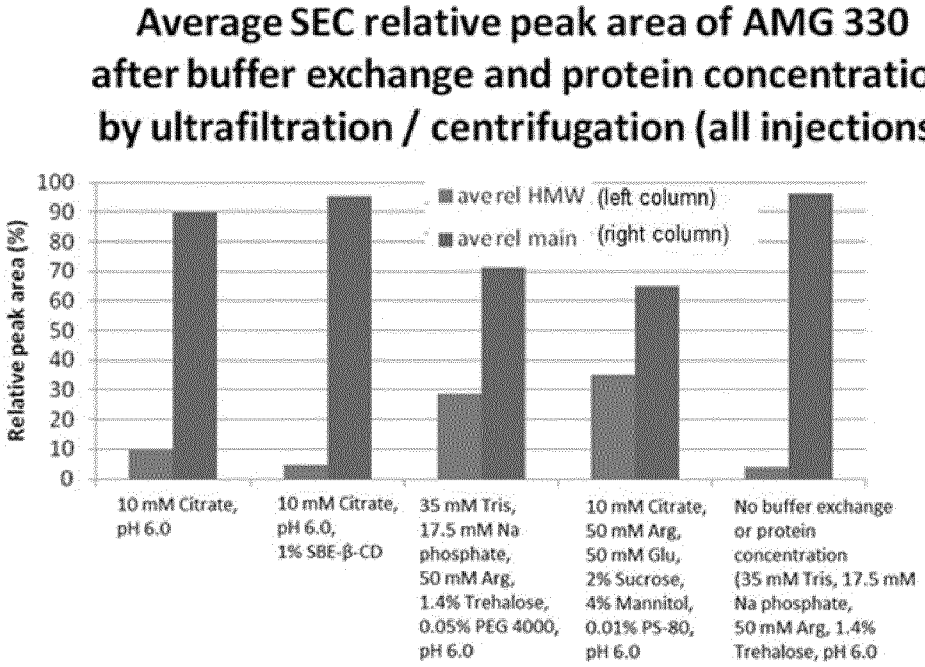
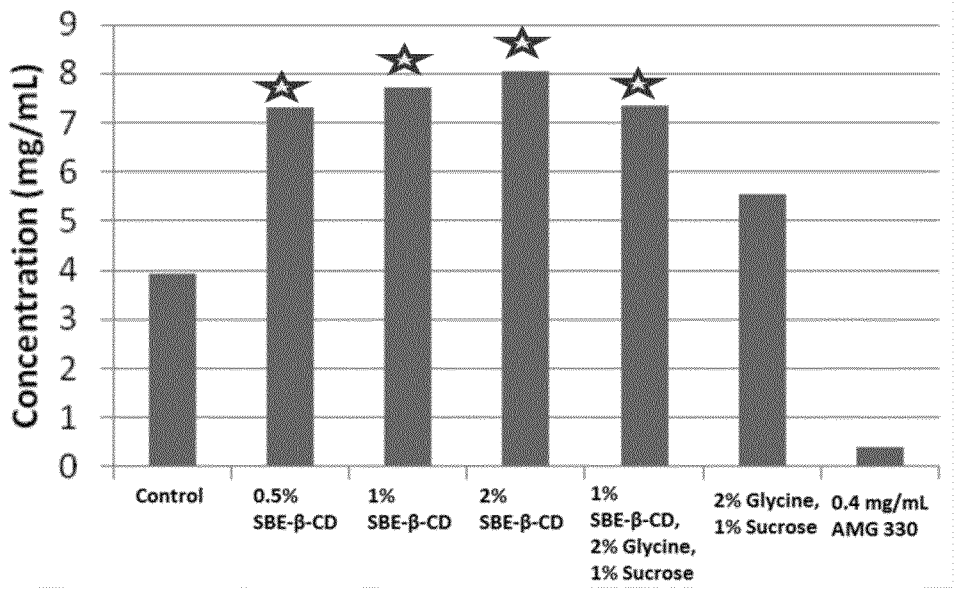
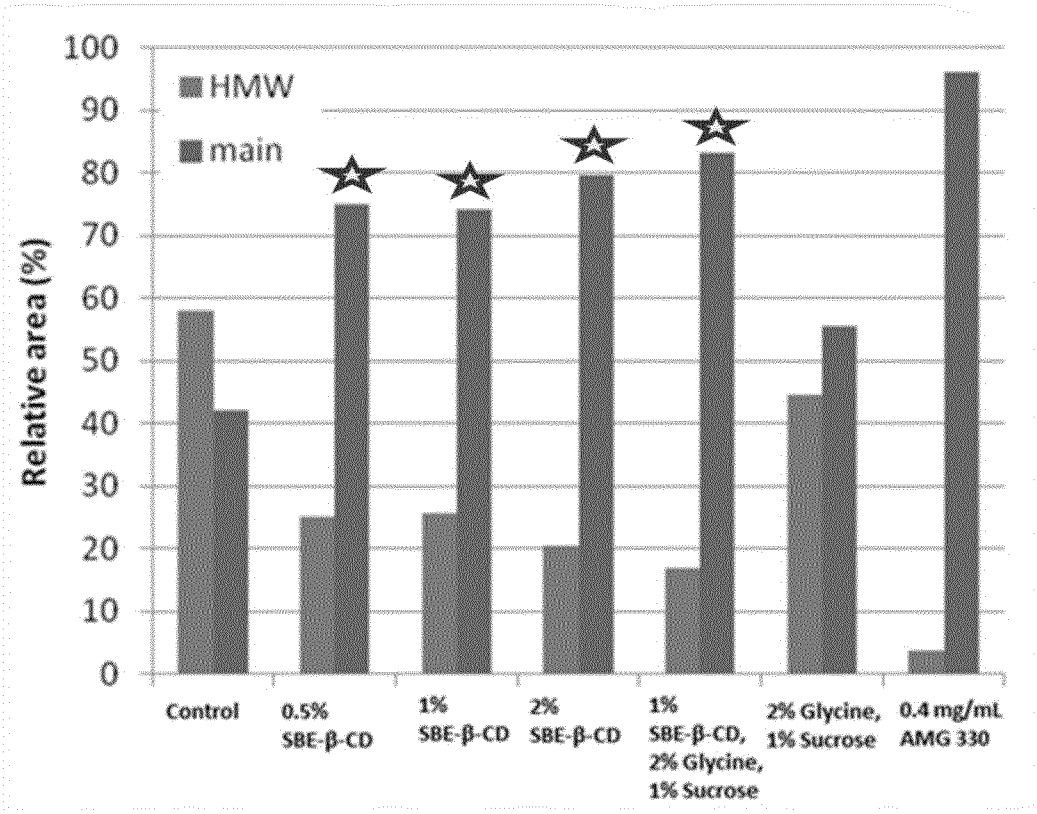

Average SEC relative peak area of AMG 330 after buffer exchange and protein concentration by ultrafiltration / centrifugation (all injections)
Relative peak area (%)
100
90
80
70
60
50
40
30
20
10
0
ave rel HMW (left column)
ave rel main (right column)
10 mM Citrate, pH 6.0
10 mM Citrate, pH 6.0, 1% SBE-β-CD
35 mM Tris, 17.5 mM Na phosphate, 50 mM Arg, 1.4% Trehalose, 0.05% PEG 4000, pH 6.0
10 mM Citrate, 50 mM Arg, 50 mM Glu, 2% Sucrose, 4% Mannitol, 0.01% PS-80, pH 6.0
No buffer exchange or protein concentration (35 mM Tris, 17.5 mM Na phosphate, 50 mM Arg, 1.4% Trehalose, pH 6.0

Figure 12

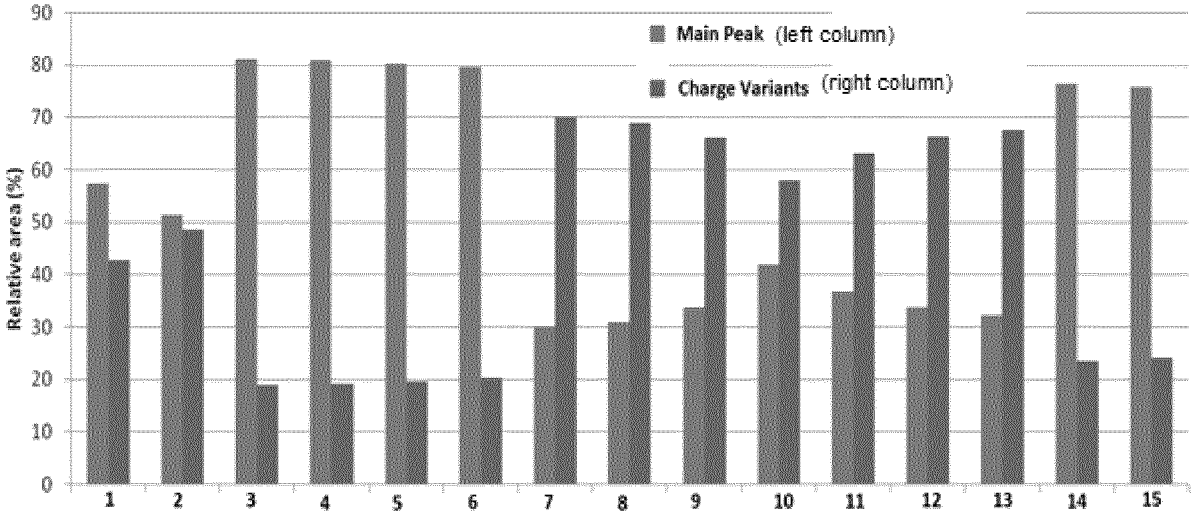
A


Concentration (mg/mL)
0
1
2
3
4
5
6
7
8
9
Control
0.5% SBE-β-CD
1% SBE-β-CD
2% SBE-β-CD
1% SBE-β-CD, 2% Glycine, 1% Sucrose
2% Glycine, 1% Sucrose
0.4 mg/mL AMG 330

B


Relative area (%)
HMW
main
0
10
20
30
40
50
60
70
80
90
100
Control
0.5% SBE-β-CD
1% SBE-β-CD
2% SBE-β-CD
1% SBE-β-CD, 2% Glycine, 1% Sucrose
2% Glycine, 1% Sucrose
0.4 mg/mL AMG 330

C


Main Peak (left column)
Charge Variants (right column)
Relative area (%)
0
10
20
30
40
50
60
70
80
90
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

D

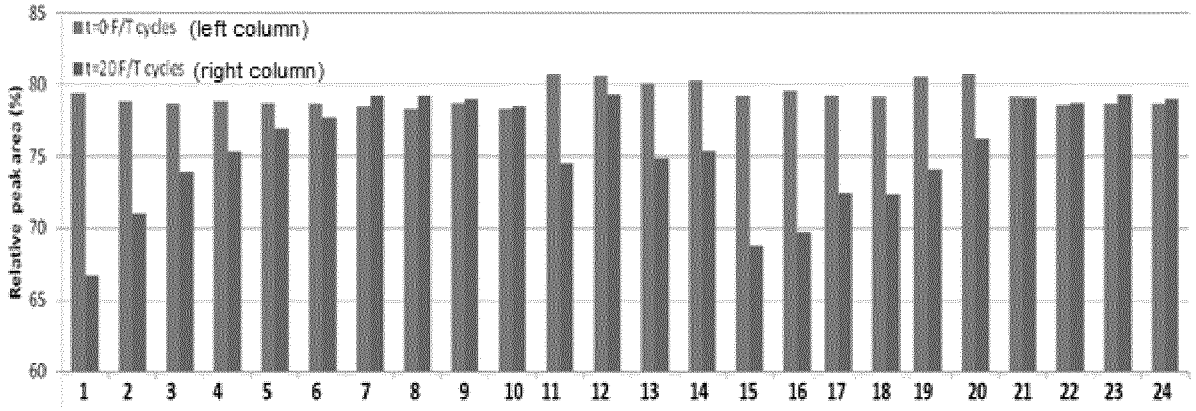

t=0 F/T cycles (left column)
t=20 F/T cycles (right column)
Relative peak area (%)
60
65
70
75
80
85
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

Figure 13

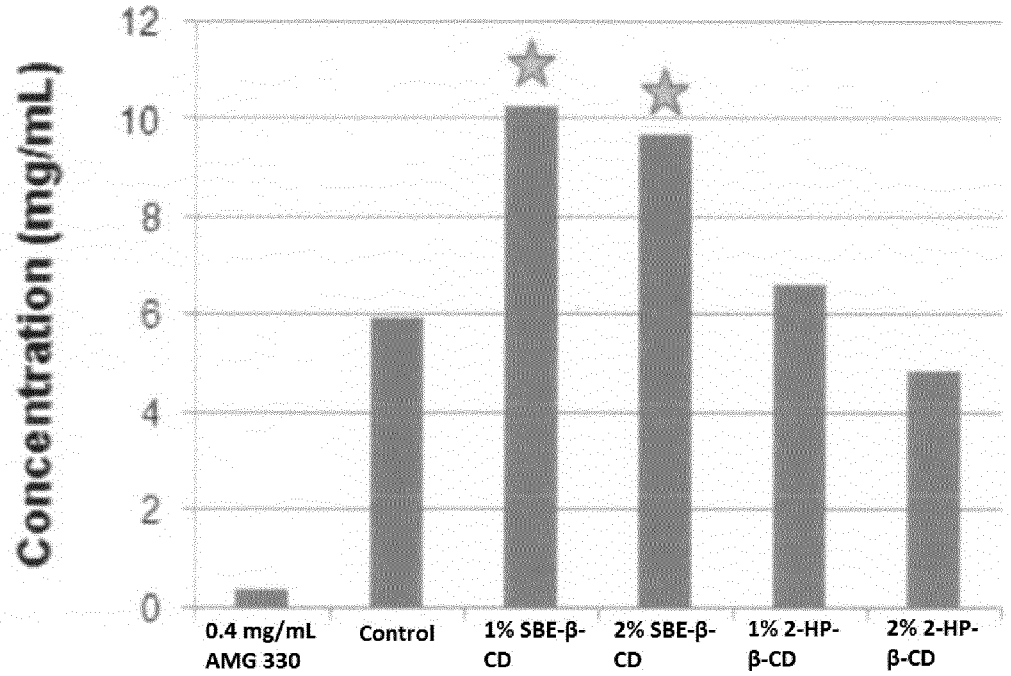


Figure 14

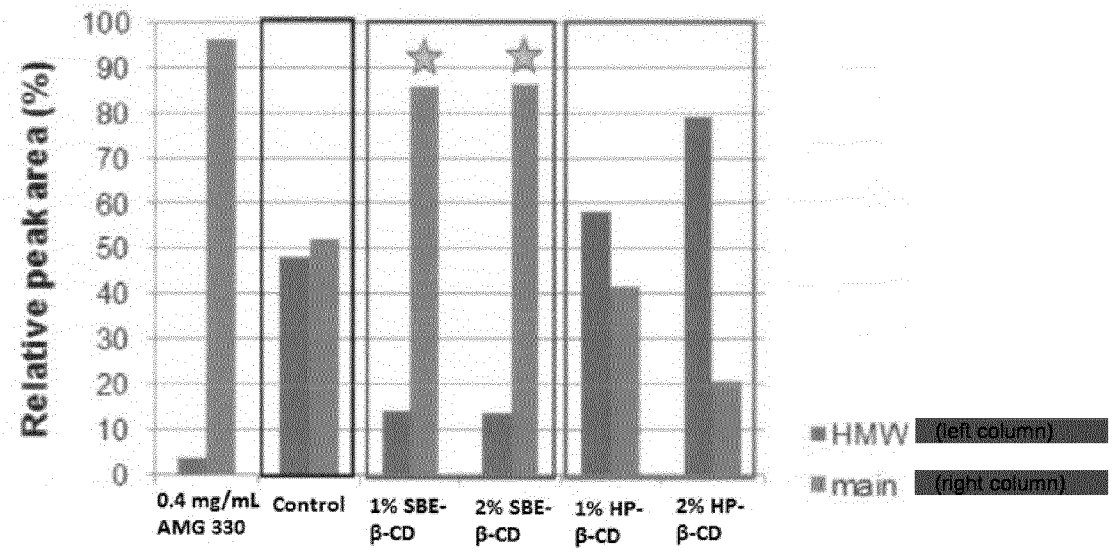


Figure 15

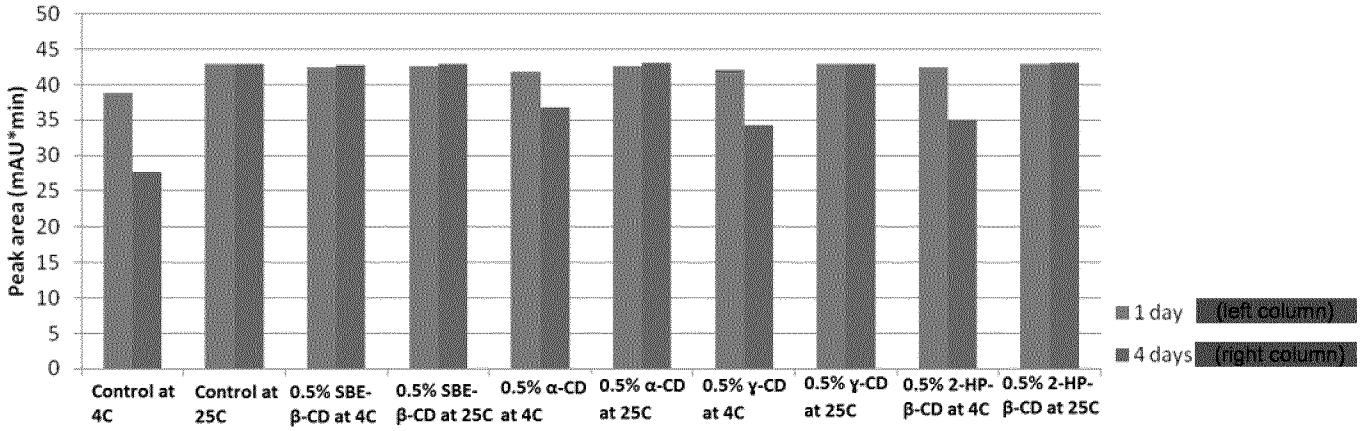


Figure 16

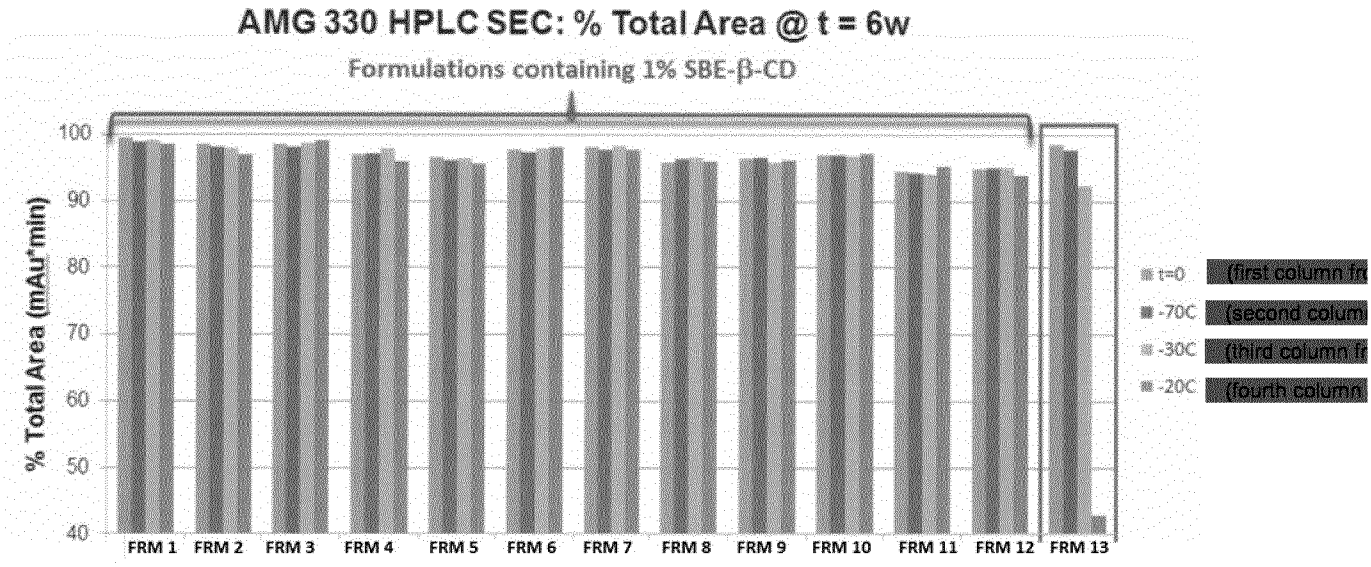
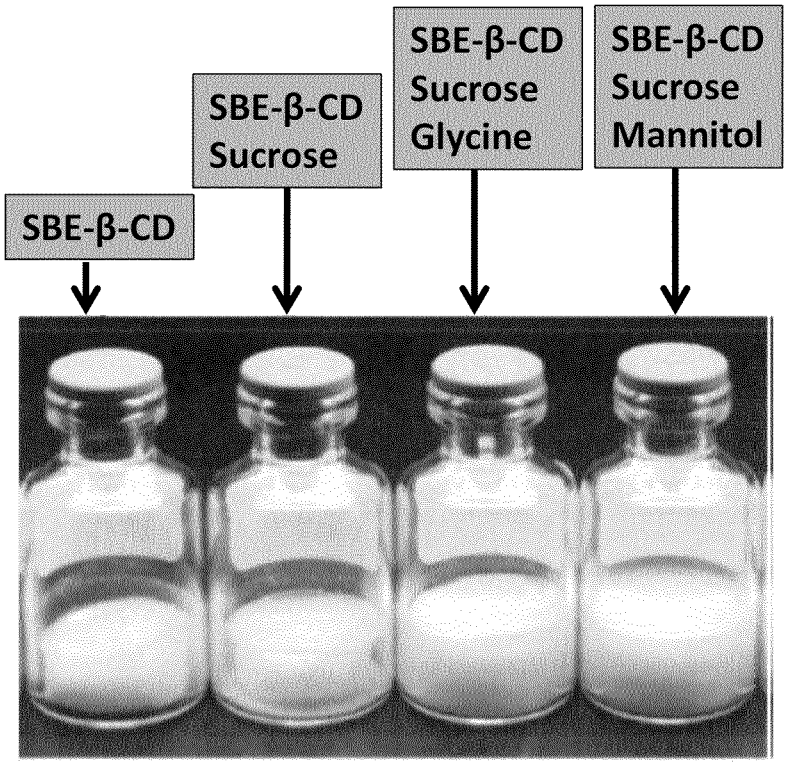


Figure 17

A


SBE-β-CD
SBE-β-CD Sucrose
SBE-β-CD Sucrose Glycine
SBE-β-CD Sucrose Mannitol

B

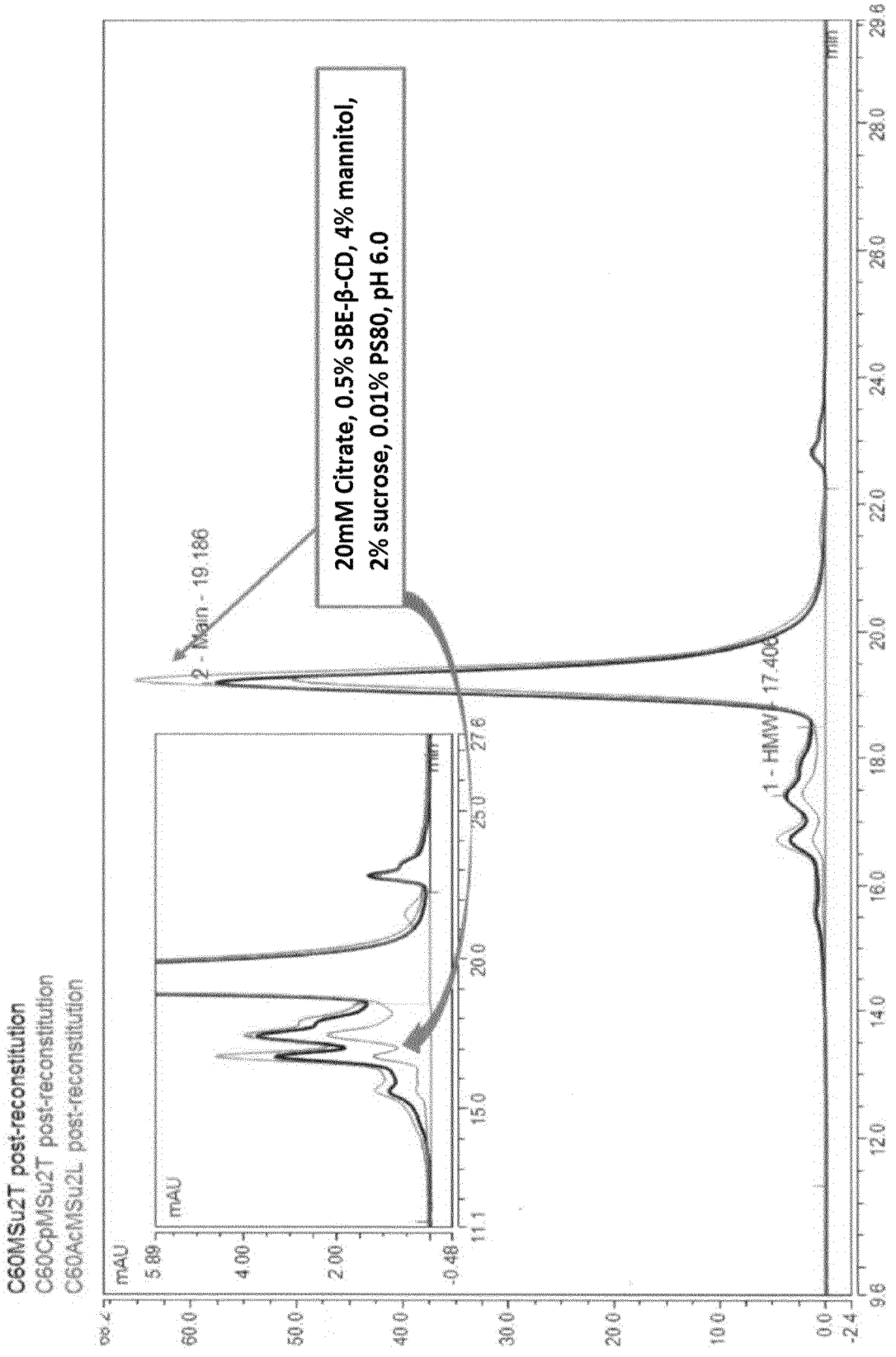
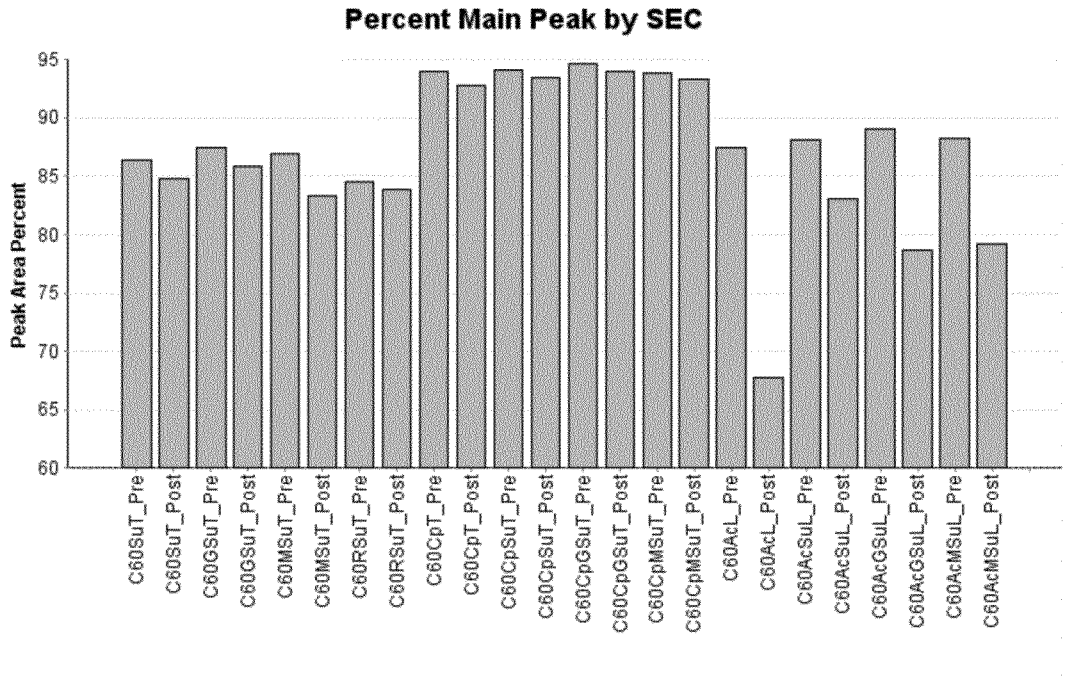


Figure 17 (continued)

Figure 17 (continued)

C



D

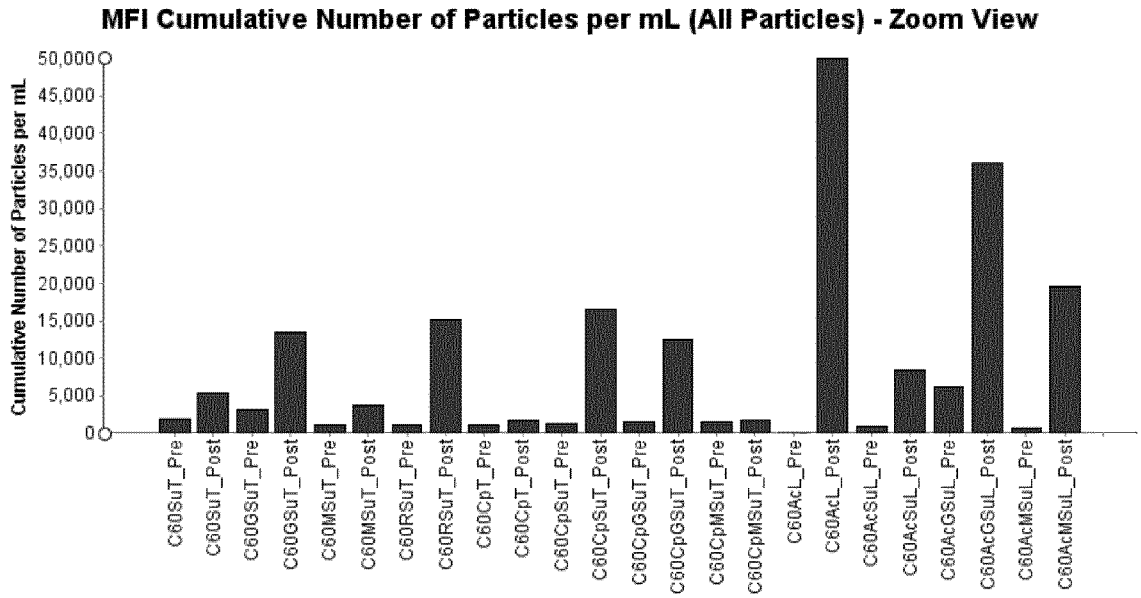


Figure 18

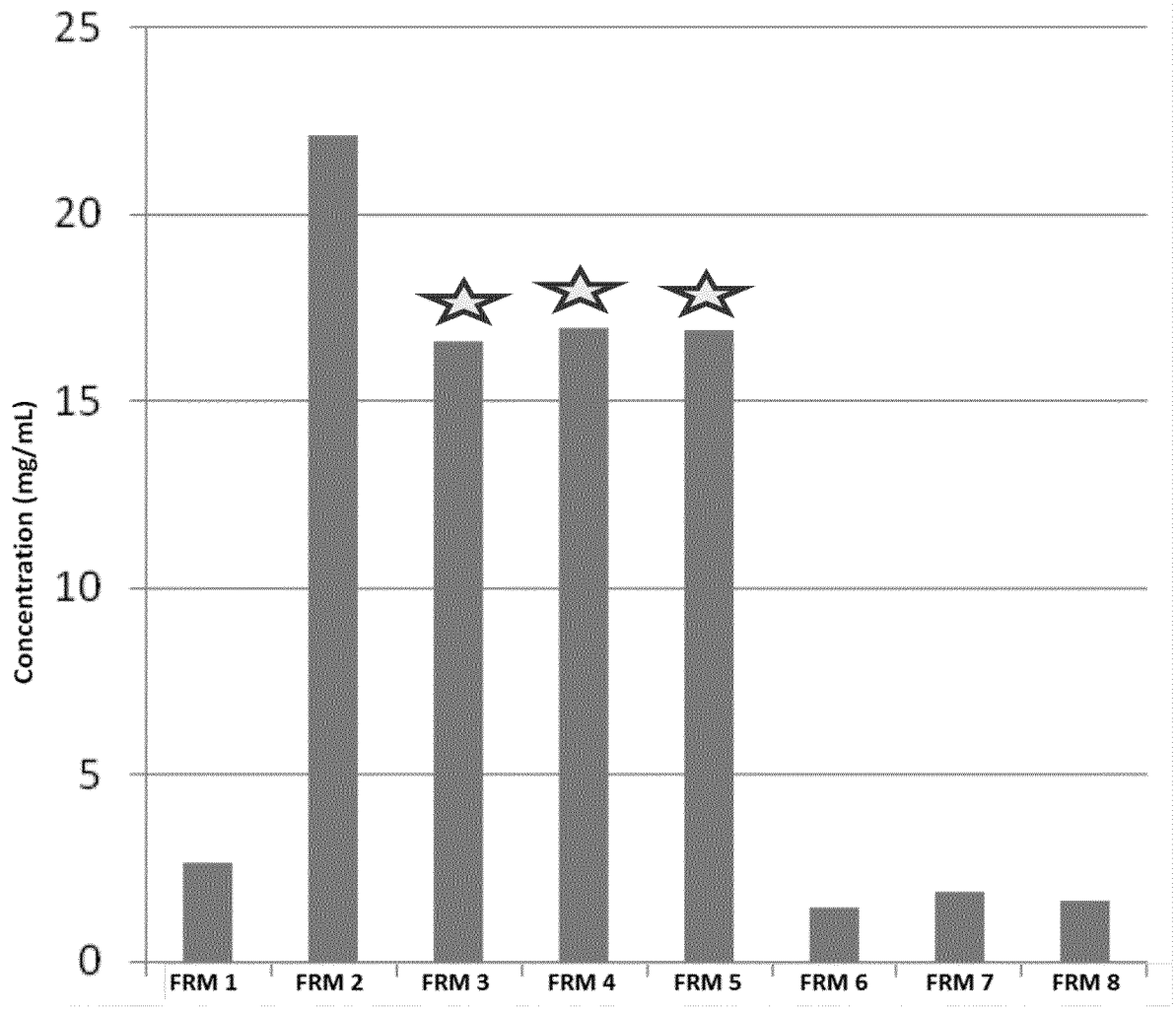


Figure 19

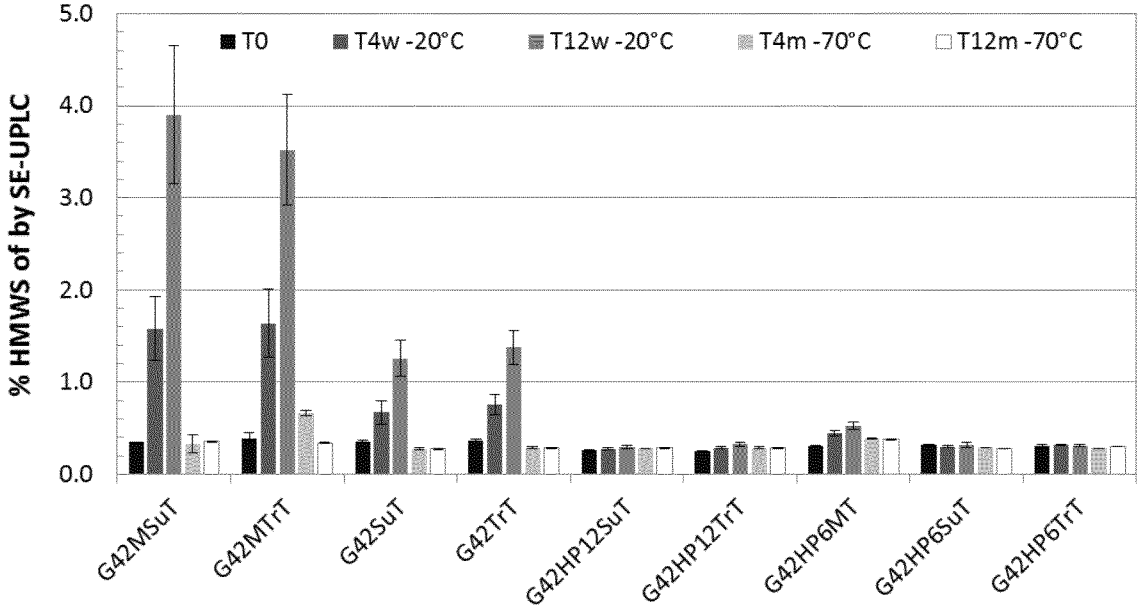


Figure 20

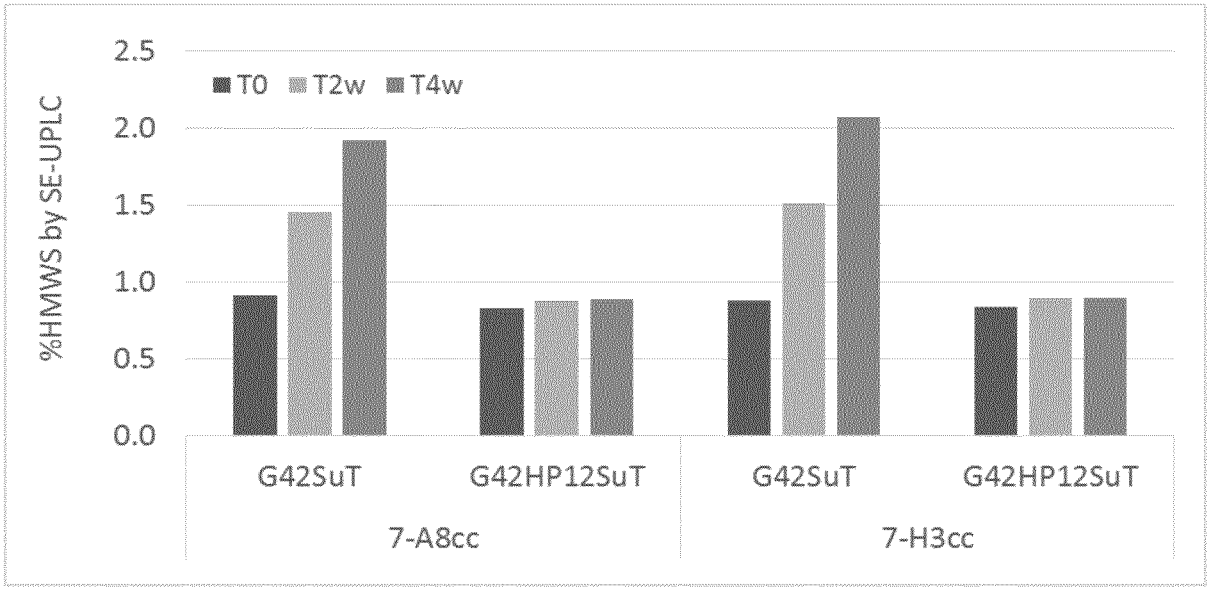
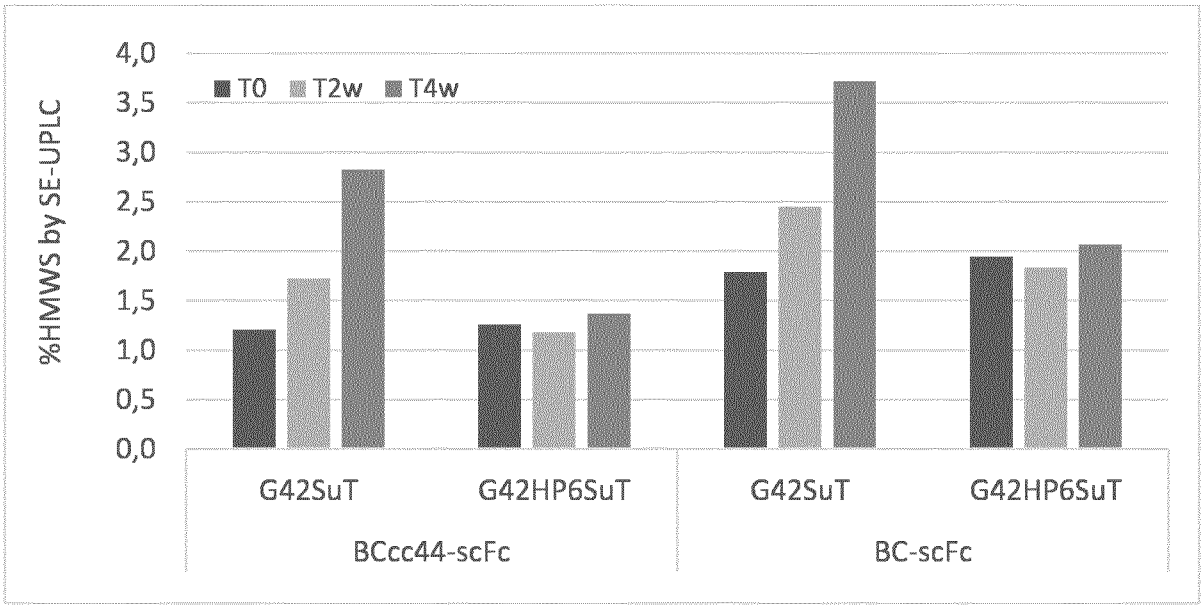



Figure 21