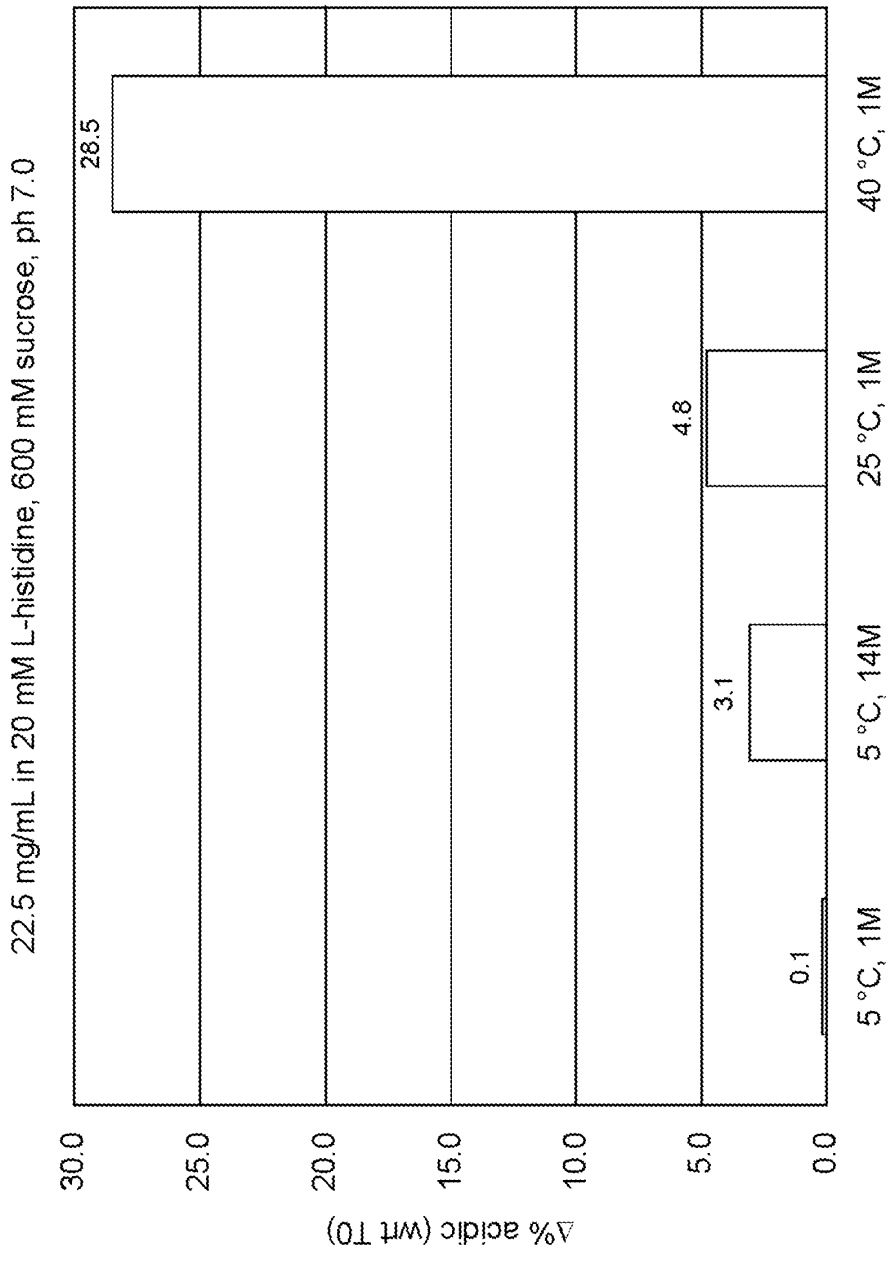

22.5 mg/mL in 20 mM L-histidine, 600 mM sucrose, ph 7.0
Δ% acidic (wrt T0)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
28.5
4.8
3.1
0.1
5 °C, 1M
5 °C, 14M
25 °C, 1M
40 °C, 1M

FIG. 1A

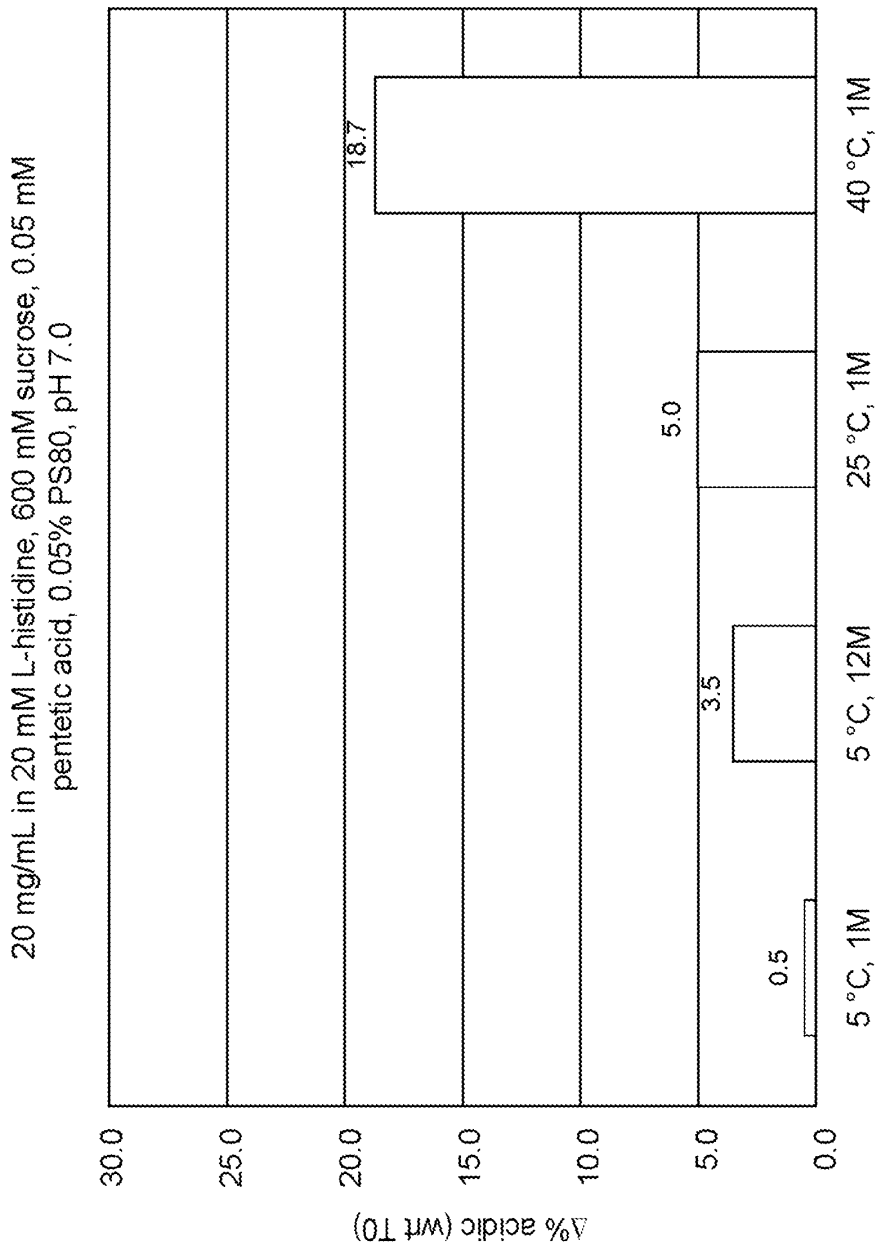

20 mg/mL in 20 mM L-histidine, 600 mM sucrose, 0.05 mM
pentetic acid, 0.05% PS80, pH 7.0
Δ% acidic (wrt T0)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0.5
3.5
5.0
18.7
5 °C, 1M
5 °C, 12M
25 °C, 1M
40 °C, 1M

FIG. 1B

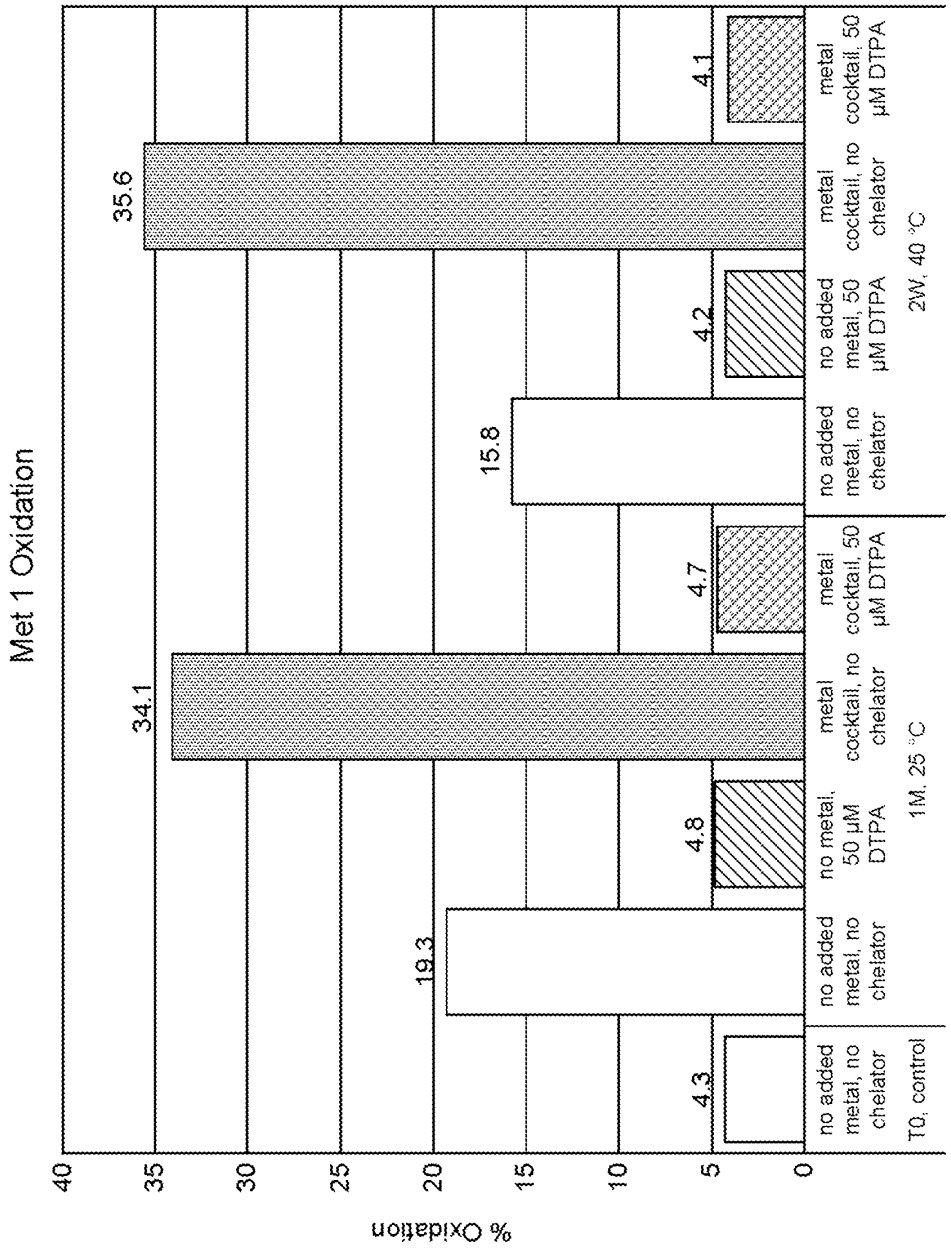

Met 1 Oxidation
% Oxidation
40
35
30
25
20
15
10
5
0
4.3
19.3
4.8
34.1
4.7
15.8
4.2
35.6
4.1
no added metal, no chelator
T0, control
no added metal, no chelator
no metal, 50 µM DTPA
metal cocktail, no chelator
metal cocktail, 50 µM DTPA
1M, 25 °C
no added metal, no chelator
no added metal, 50 µM DTPA
metal cocktail, no chelator
metal cocktail, 50 µM DTPA
2W, 40 °C

FIG. 2A

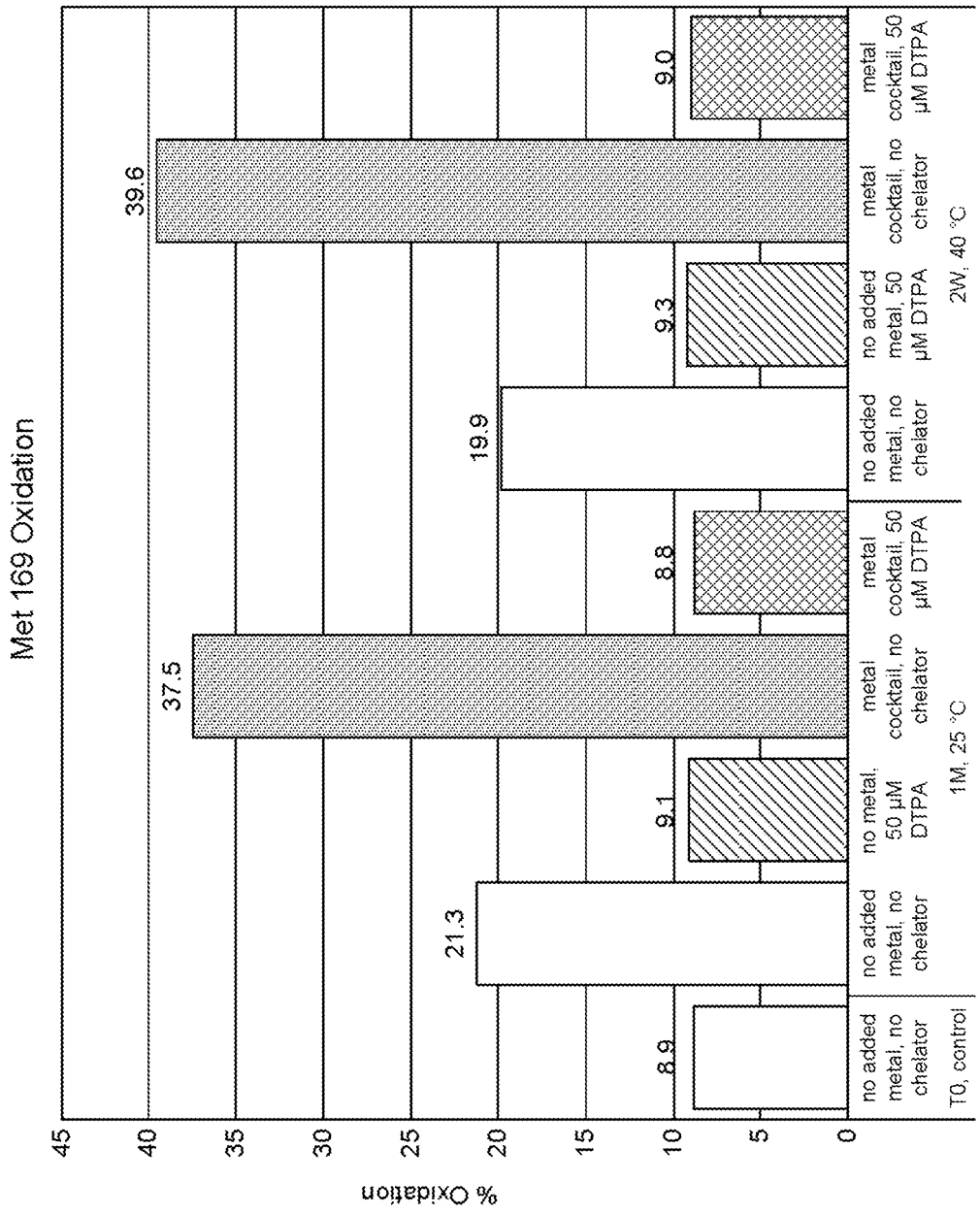

Met 169 Oxidation
% Oxidation
45
40
35
30
25
20
15
10
5
0
8.9
21.3
9.1
37.5
8.8
19.9
9.3
39.6
9.0
T0, control
no added metal, no chelator
no added metal, no chelator
no metal, 50 µM DTPA
metal cocktail, no chelator
metal cocktail, 50 µM DTPA
no added metal, no chelator
no added metal, 50 µM DTPA
metal cocktail, no chelator
metal cocktail, 50 µM DTPA
1M, 25 °C
2W, 40 °C

FIG. 2B

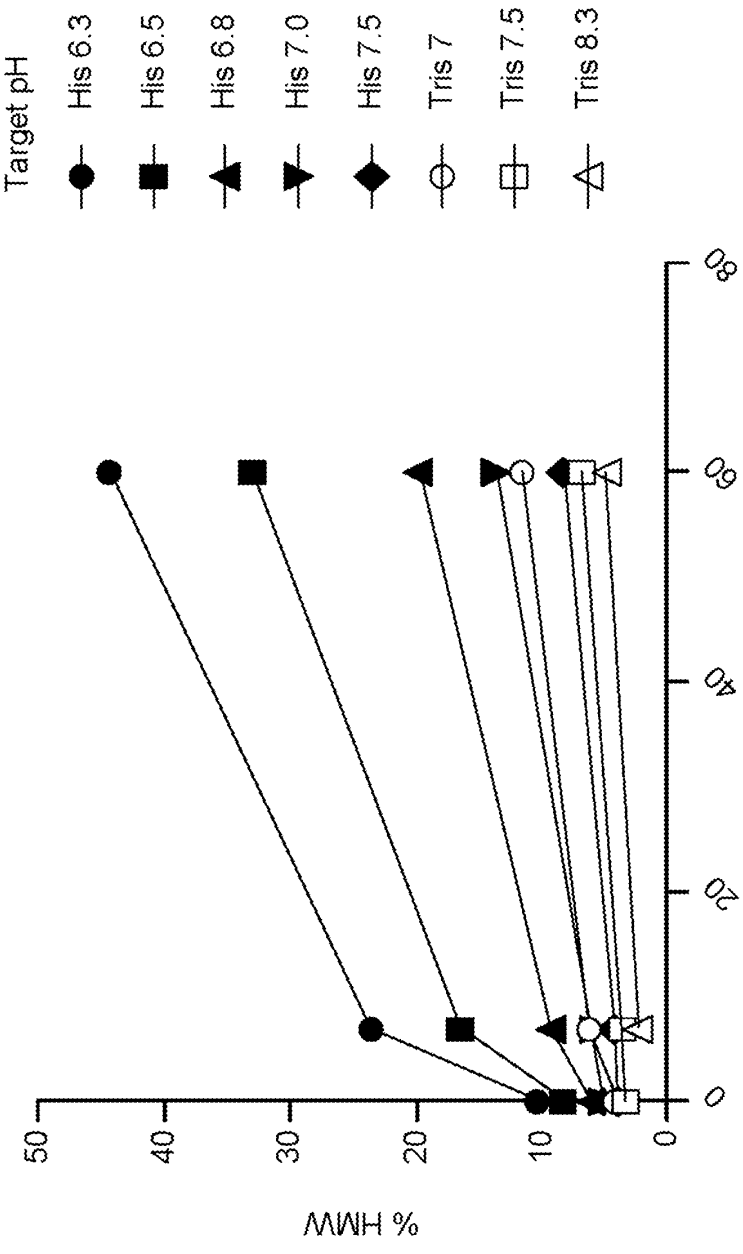

Target pH
His 6.3
His 6.5
His 6.8
His 7.0
His 7.5
Tris 7
Tris 7.5
Tris 8.3
% HMW
0
10
20
30
40
50
0
20
40
60
80
Time (Days at 40°C

FIG. 3A

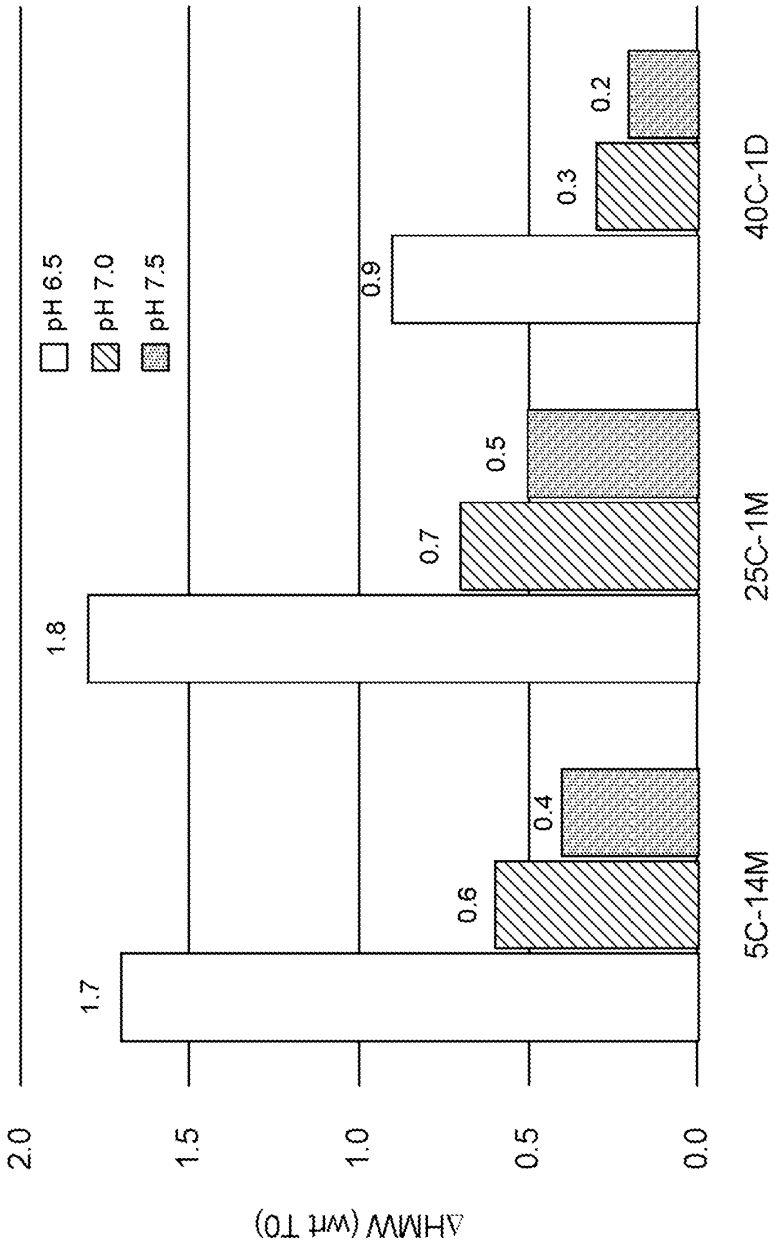

pH 6.5
pH 7.0
pH 7.5
ΔHMW (wt %)
2.0
1.5
1.0
0.5
0.0
1.7
0.6
0.4
1.8
0.7
0.5
0.9
0.3
0.2
5C-14M
25C-1M
40C-1D

FIG. 3B

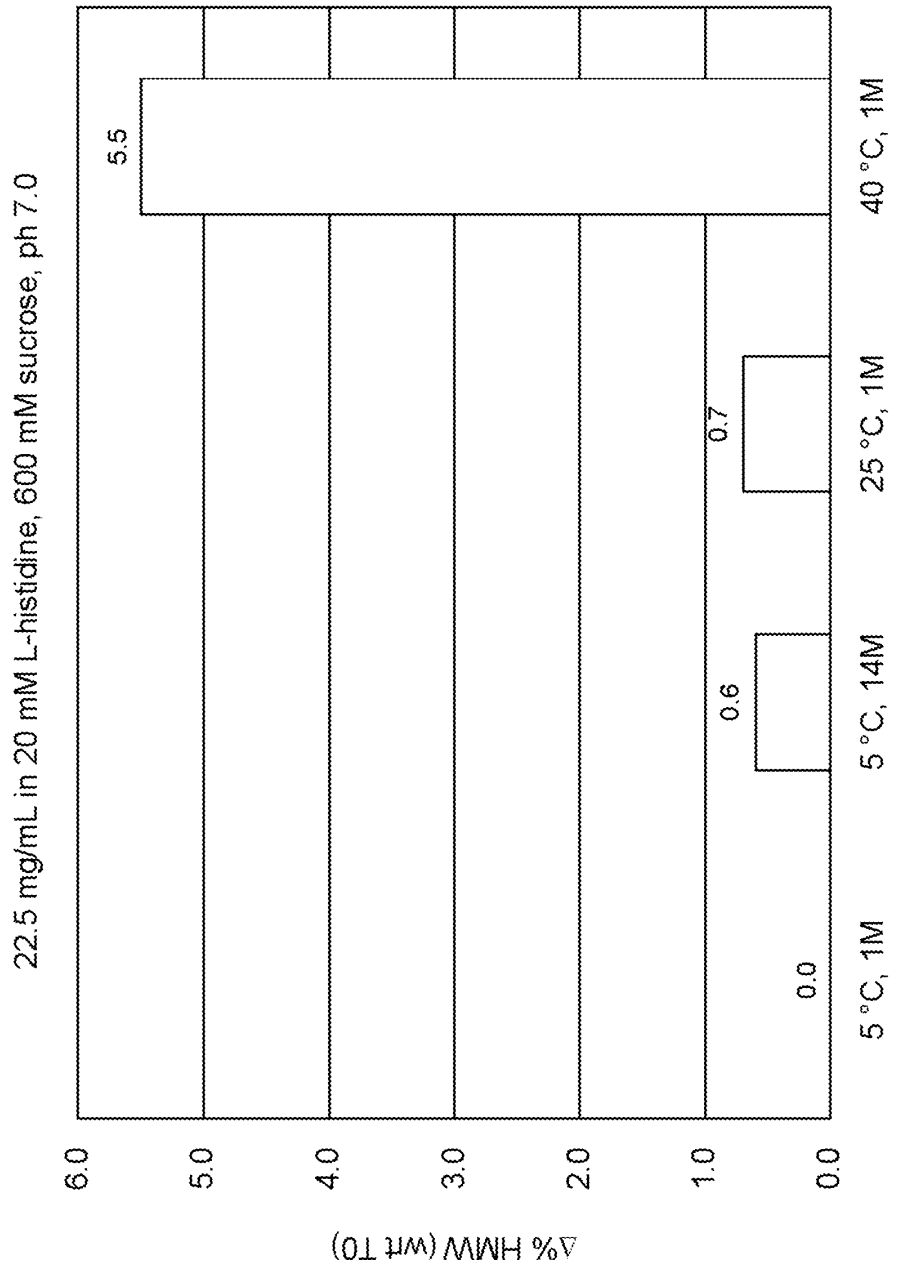

22.5 mg/mL in 20 mM L-histidine, 600 mM sucrose, ph 7.0
Δ% HMW (wt T0)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
5.5
0.7
0.6
0.0
40 °C, 1M
25 °C, 1M
5 °C, 14M
5 °C, 1M

FIG. 4A

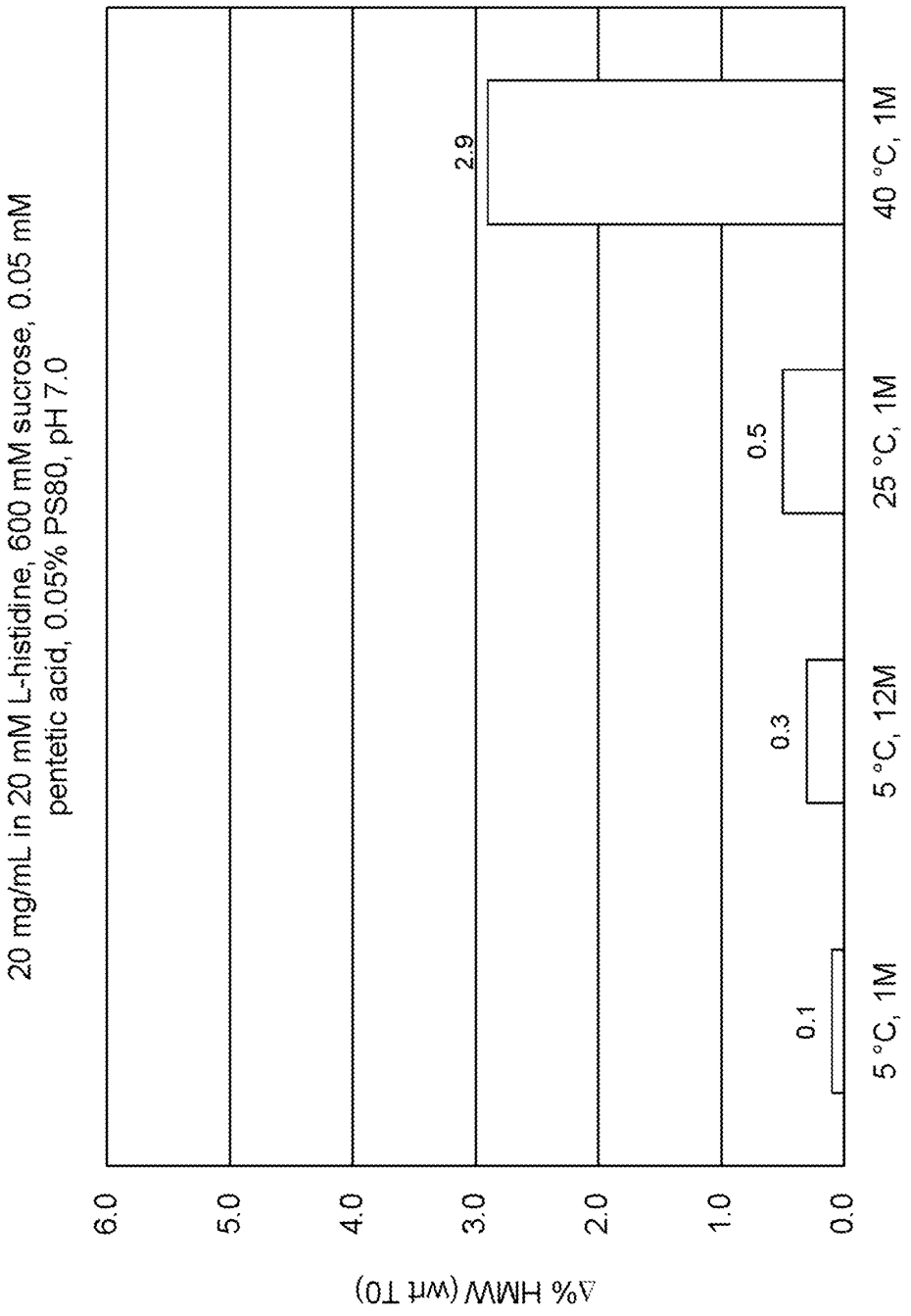

20 mg/mL in 20 mM L-histidine, 600 mM sucrose, 0.05 mM
pentetic acid, 0.05% PS80, pH 7.0
Δ% HMW (wrt T0)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.1
0.3
2.9
0.5
5 °C, 1M
5 °C, 12M
25 °C, 1M
40 °C, 1M

FIG. 4B

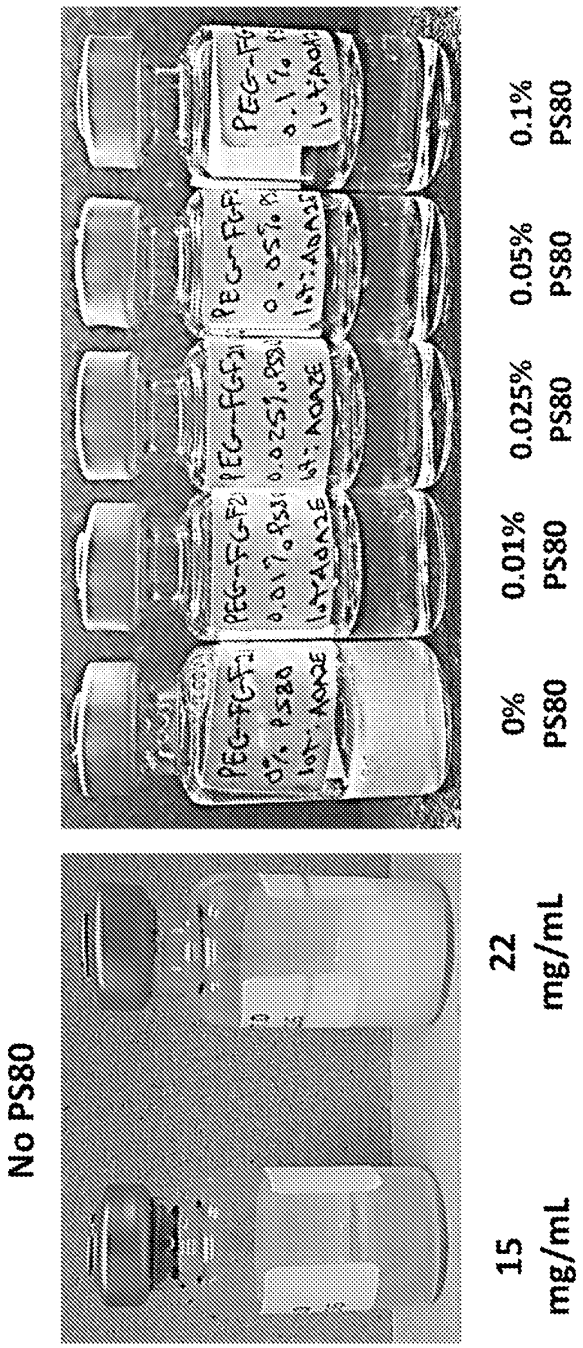
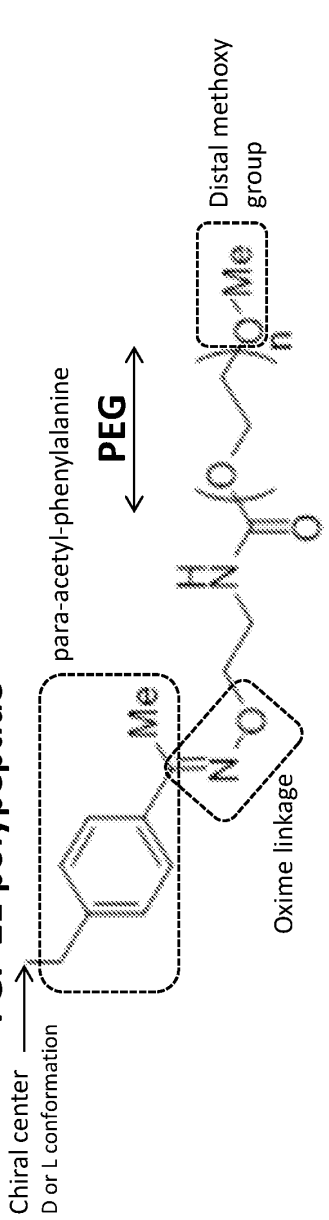

No PS80
15 mg/mL
22 mg/mL
0% PS80
0.01% PS80
0.025% PS80
0.05% PS80
0.1% PS80

FIG. 5



PEG-FGF-21

PEG ~ 28kD-32kD, e.g., 30kDa
n ~ 600-800, e.g., 681

FIG. 6

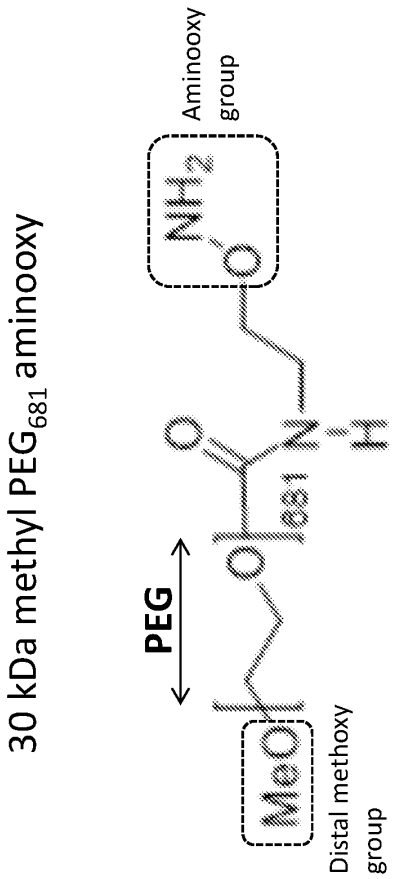

30 kDa methyl PEG681 aminooxy
PEG
MeO
Distal methoxy group
O
O
681
N
H
NH2
O
Aminooxy group

FIG. 7