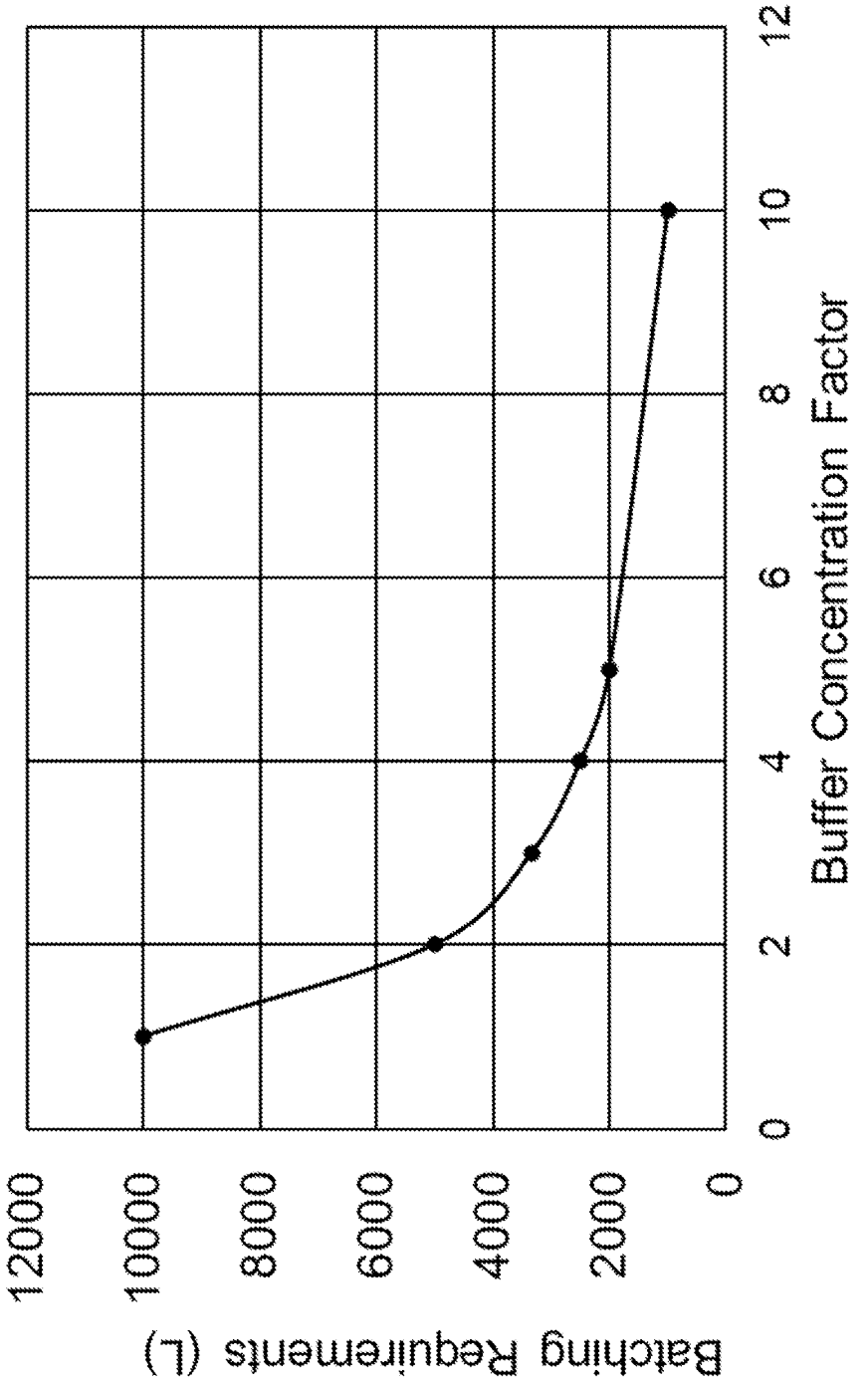
Batching Requirements (L)
12000
10000
8000
6000
4000
2000
0
Buffer Concentration Factor
0
2
4
6
8
10
12

FIG. 1

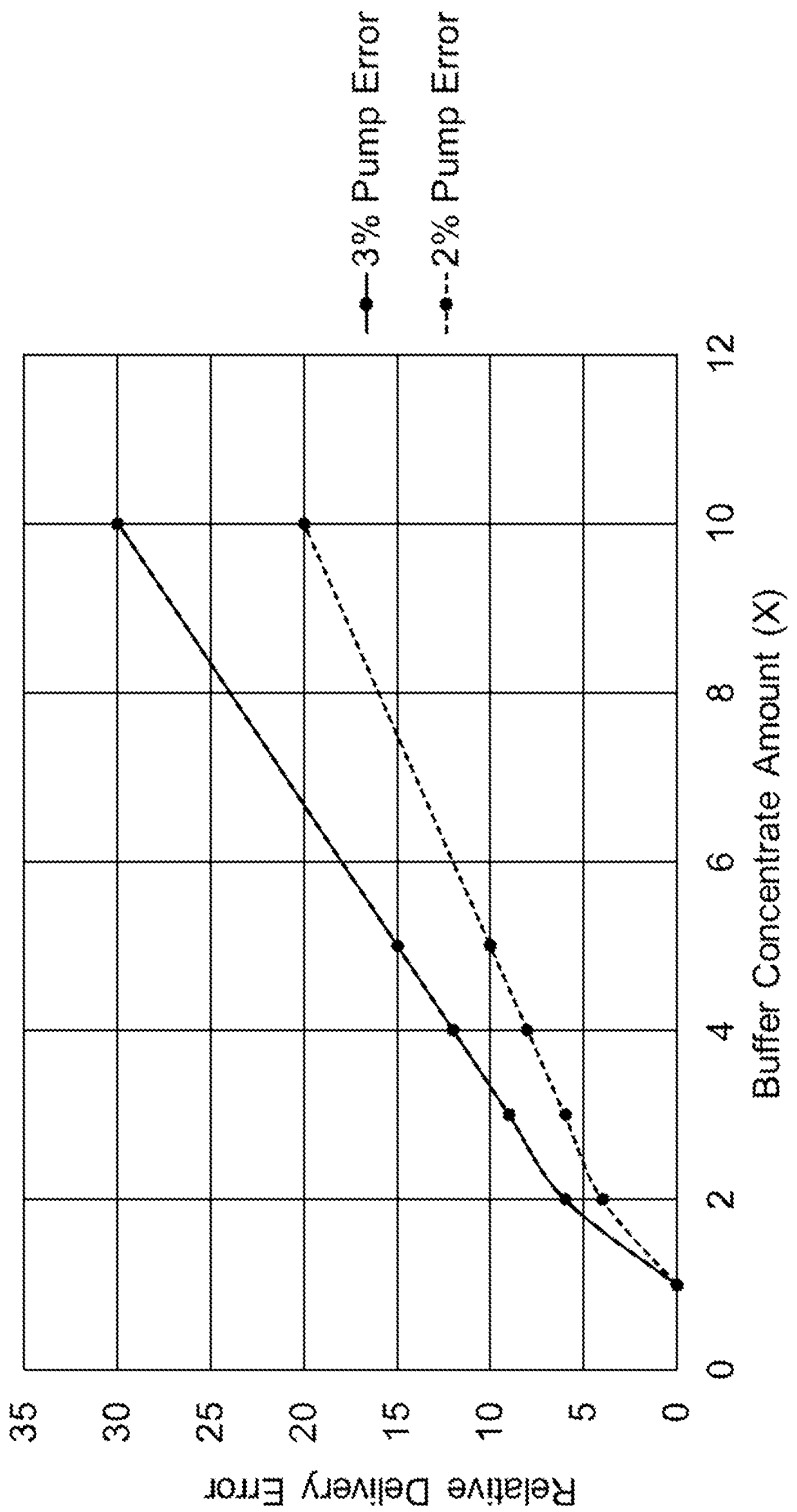
3% Pump Error
2% Pump Error
Relative Delivery Error
35
30
25
20
15
10
5
0
Buffer Concentrate Amount (X)
0
2
4
6
8
10
12

FIG. 2

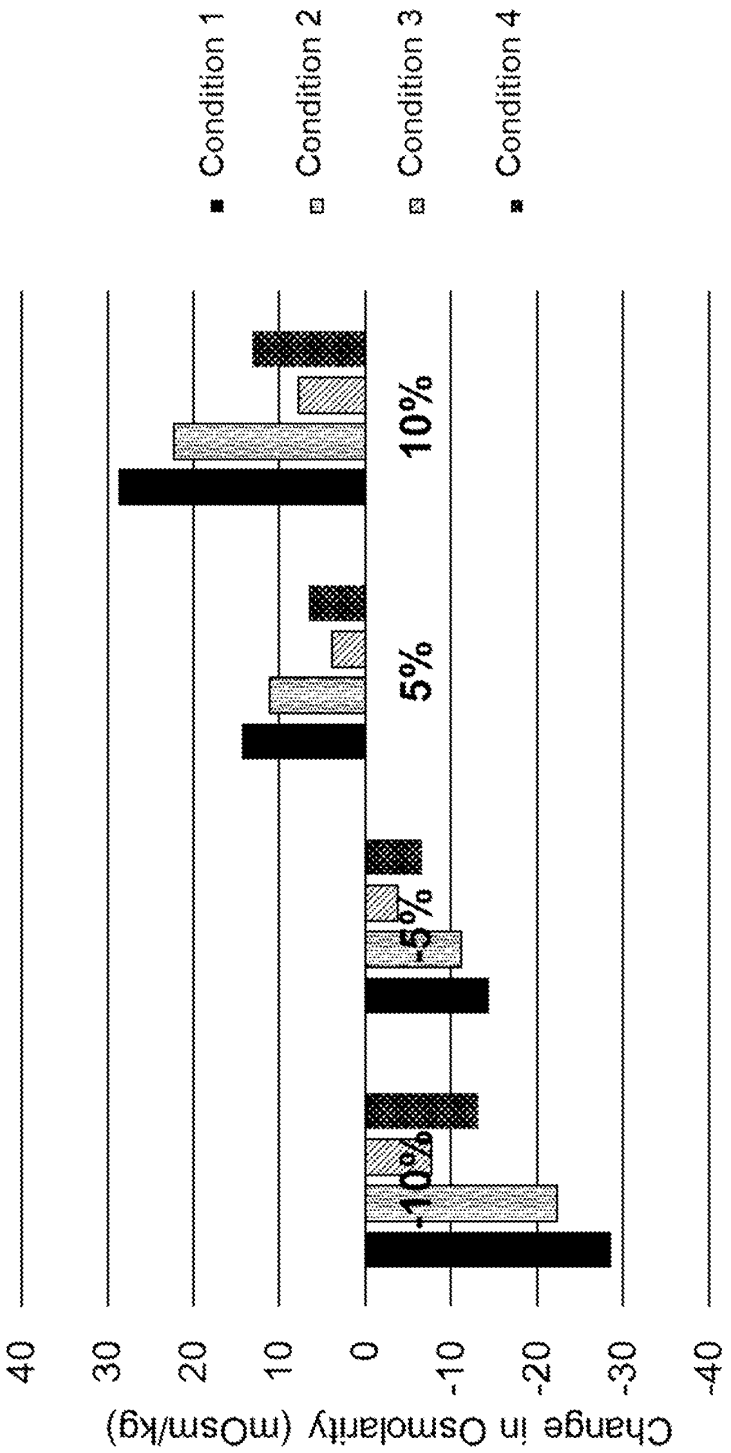
Condition 1
Condition 2
Condition 3
Condition 4
10%
5%
-5%
-10%
40
30
20
10
0
-10
-20
-30
-40
Change in Osmolarity (mOsm/kg)

FIG. 3

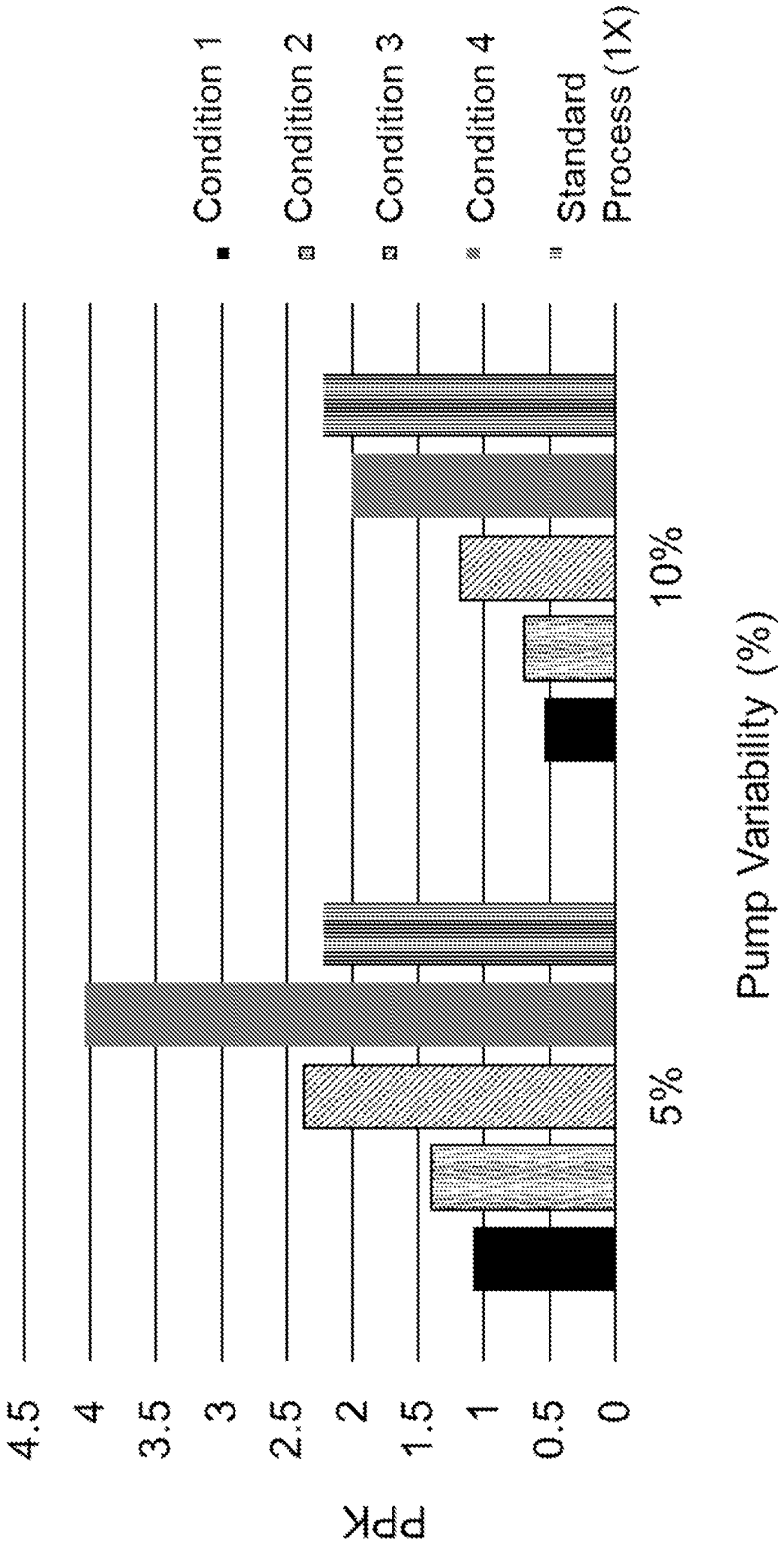
Condition 1
Condition 2
Condition 3
Condition 4
Standard Process (1X)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
ppK
5%
10%
Pump Variability (%)

FIG. 4

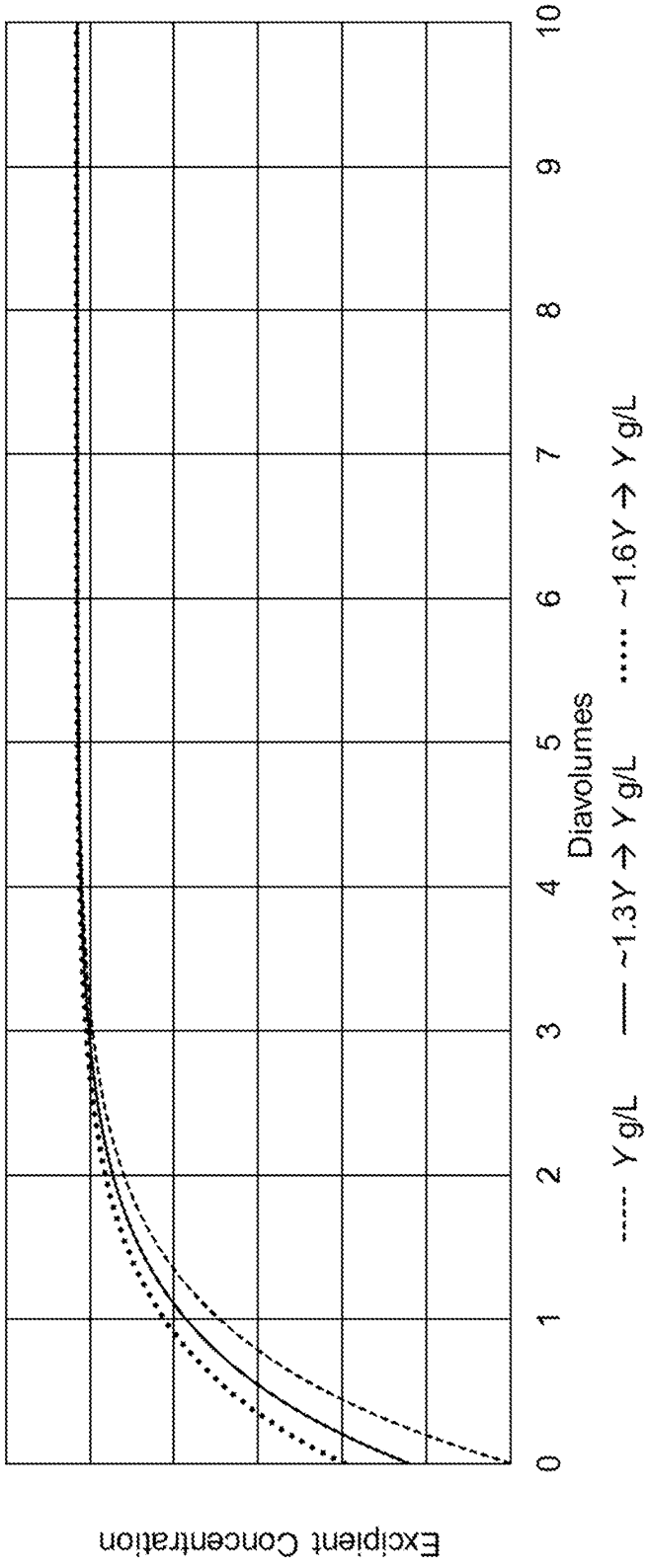
Excipient Concentration
0
1
2
3
4
5
6
7
8
9
10
Diavolumes
---- Y g/L
—— ~1.3Y → Y g/L
····· ~1.6Y → Y g/L

FIG. 5

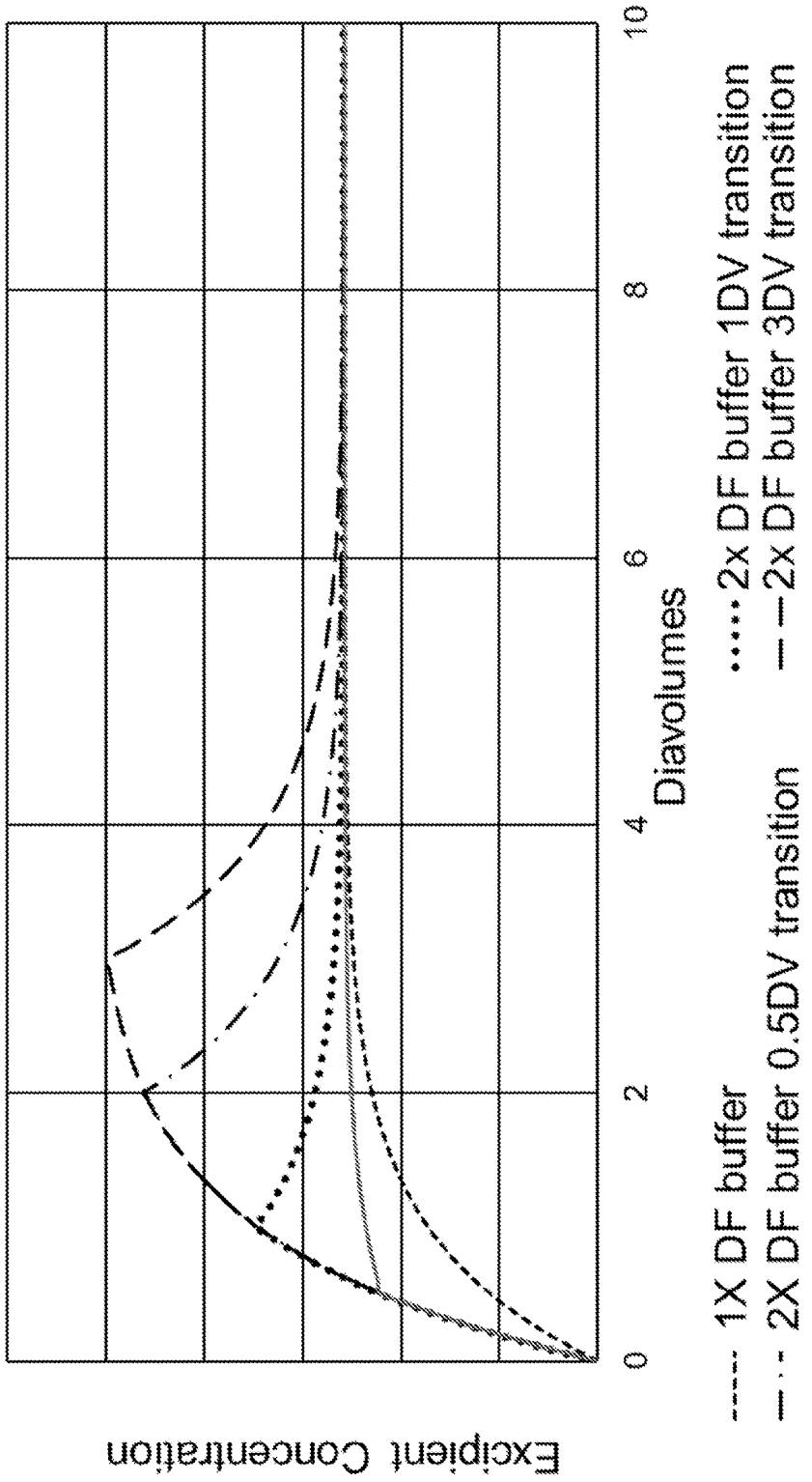
Excipient Concentration
0
2
4
6
8
10
Diavolumes
---- 1X DF buffer
— · - 2X DF buffer 0.5DV transition
••••• 2x DF buffer 1DV transition
— — 2x DF buffer 3DV transition

FIG. 6