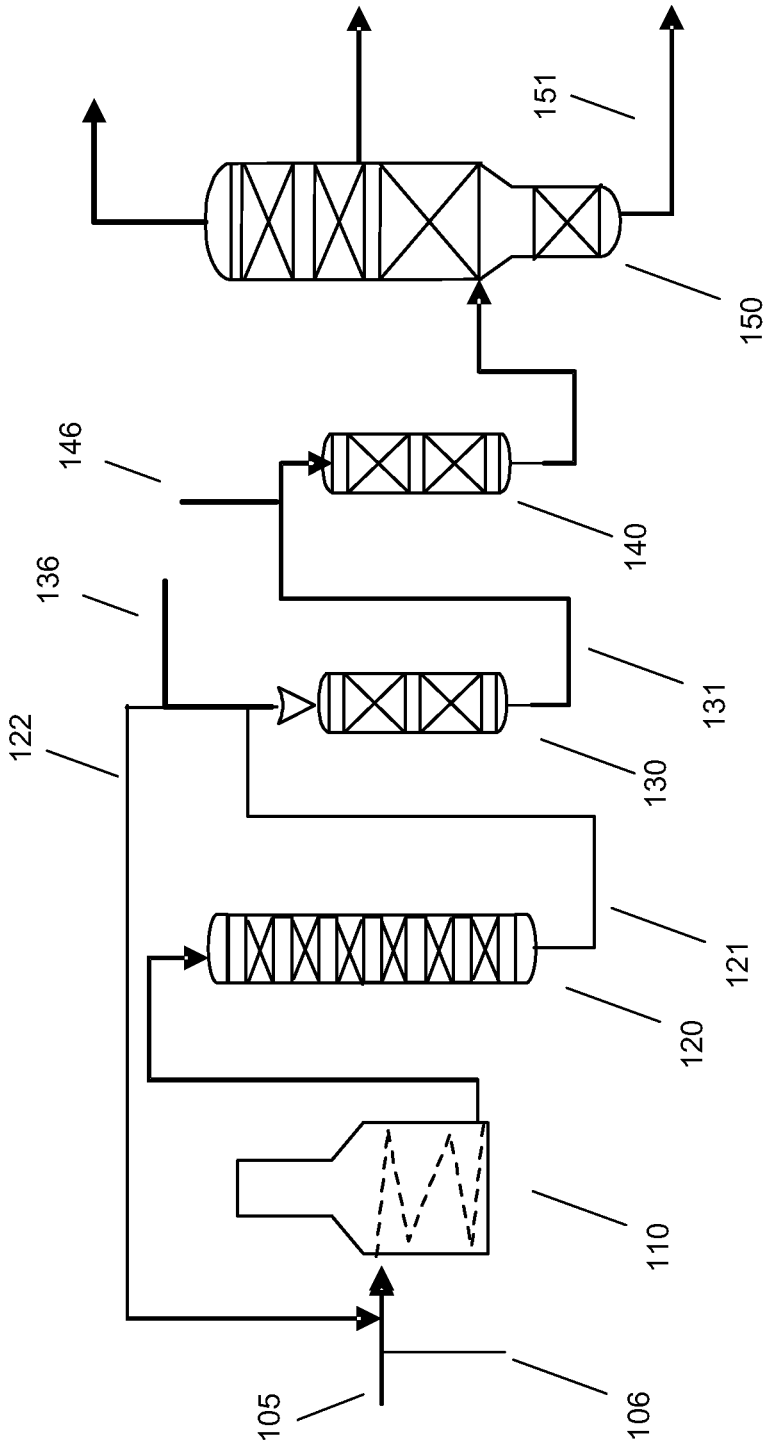


FIG. 1

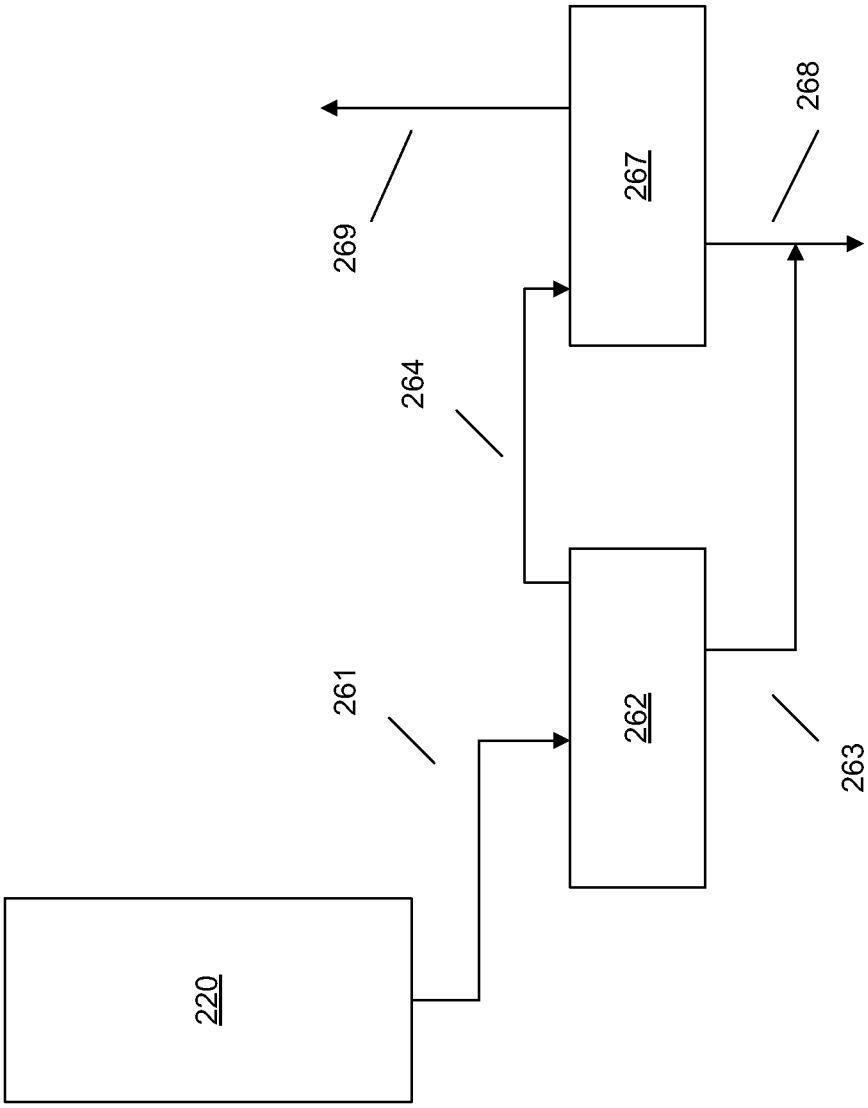


FIG. 2

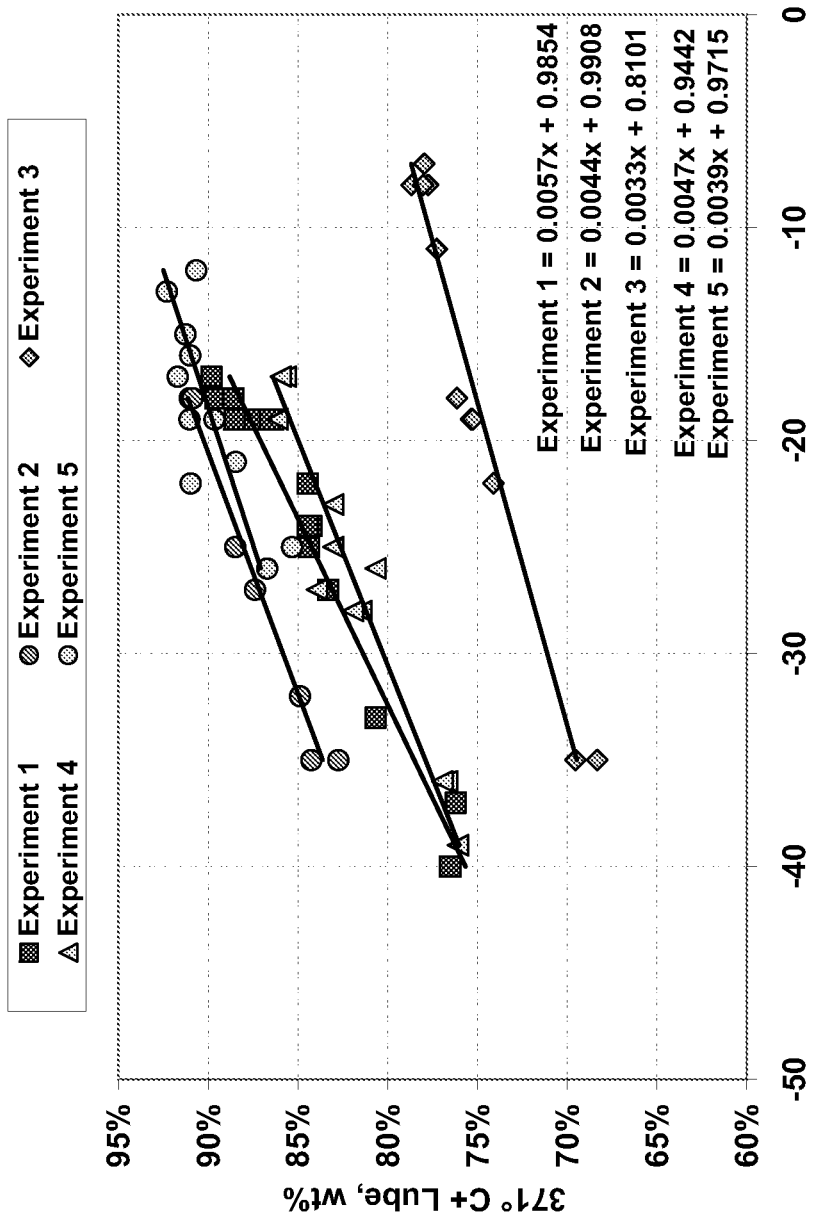

Experiment 1
Experiment 2
Experiment 3
Experiment 4
Experiment 5
Experiment 1 = 0.0057x + 0.9854
Experiment 2 = 0.0044x + 0.9908
Experiment 3 = 0.0033x + 0.8101
Experiment 4 = 0.0047x + 0.9442
Experiment 5 = 0.0039x + 0.9715
371° C+ Lube, wt%
95%
90%
85%
80%
75%
70%
65%
60%
-50
-40
-30
-20
-10
0
Total Liquid Product Pour Point (°C)

FIG. 3

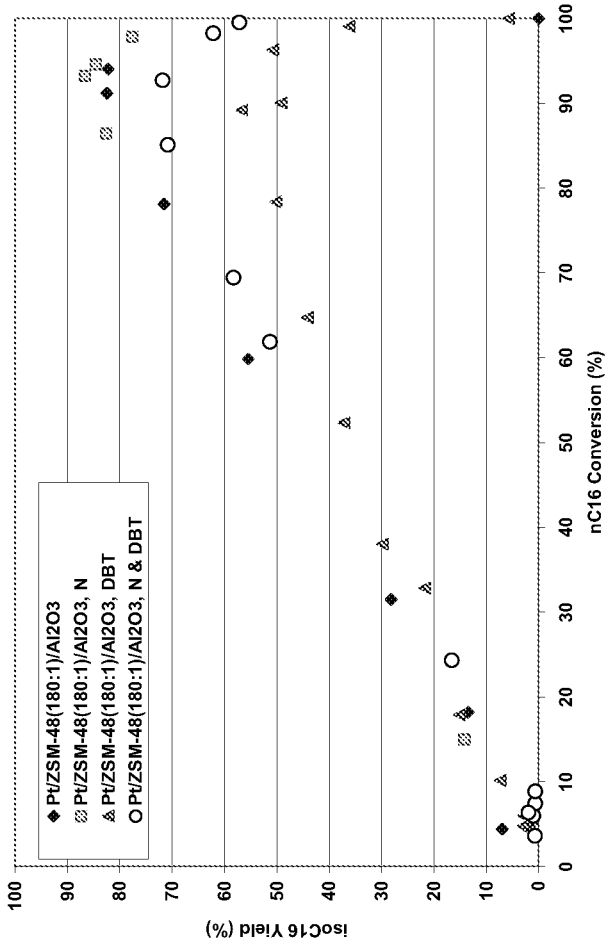

Pt/ZSM-48(180:1)/Al2O3
Pt/ZSM-48(180:1)/Al2O3, N
Pt/ZSM-48(180:1)/Al2O3, DBT
Pt/ZSM-48(180:1)/Al2O3, N & DBT
isoC16 Yield (%)
nC16 Conversion (%)
0
10
20
30
40
50
60
70
80
90
100

FIGURE 4

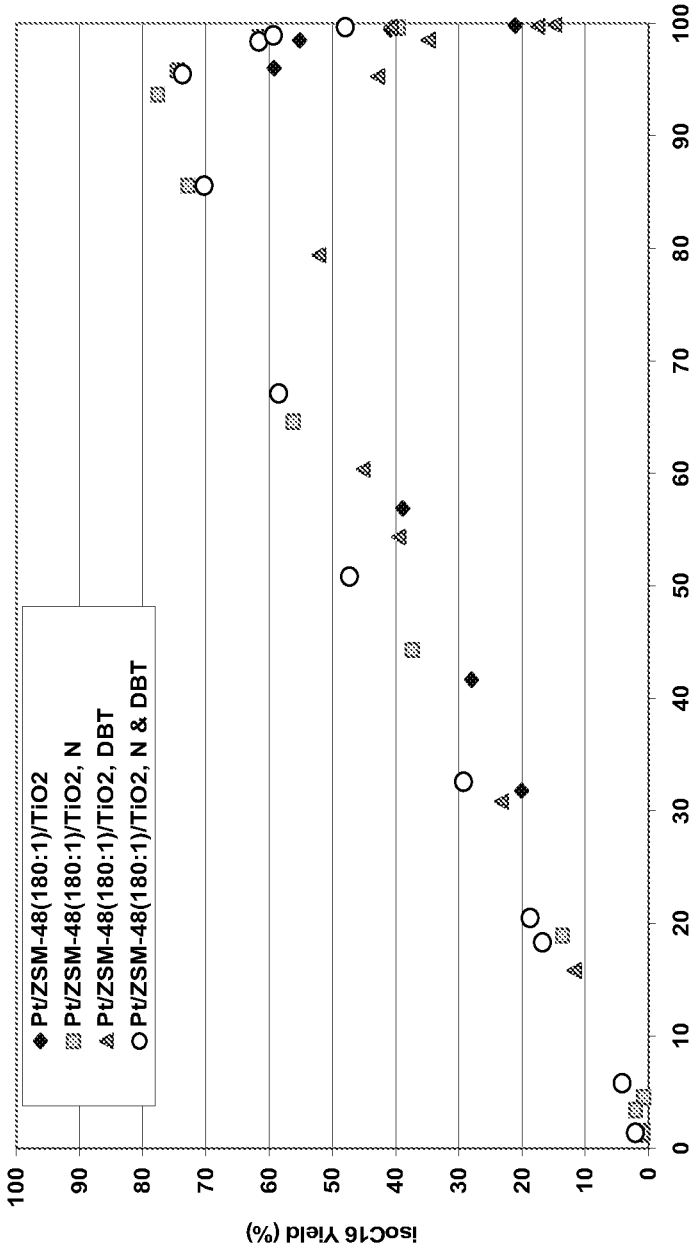

Pt/ZSM-48(180:1)/TiO2
Pt/ZSM-48(180:1)/TiO2, N
Pt/ZSM-48(180:1)/TiO2, DBT
Pt/ZSM-48(180:1)/TiO2, N & DBT
isoC16 Yield (%)
nC16 Conversion (%)
0
10
20
30
40
50
60
70
80
90
100

FIGURE 5

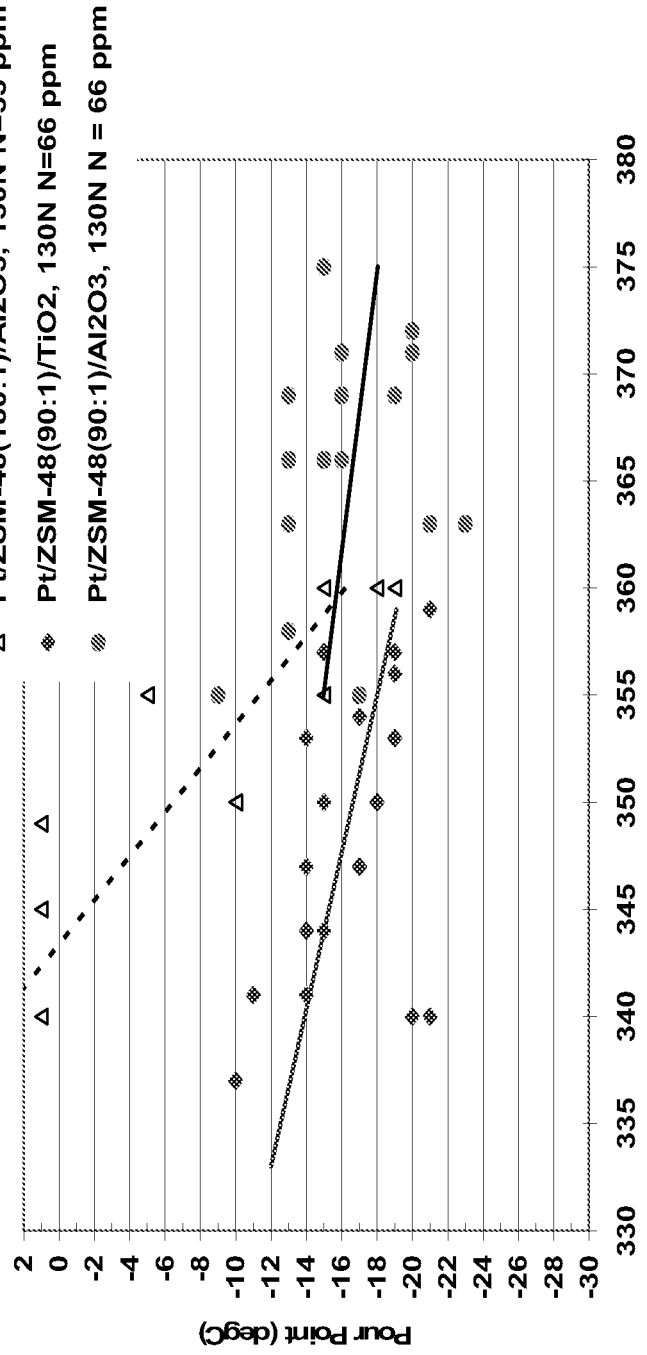

Pt/ZSM-48(180:1)/Al2O3, 130N N=33 ppm
Pt/ZSM-48(90:1)/TiO2, 130N N=66 ppm
Pt/ZSM-48(90:1)/Al2O3, 130N N = 66 ppm
Pour Point (degC)
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
-28
-30
330
335
340
345
350
355
360
365
370
375
380
Reaction Temperature (degC)

FIGURE 6

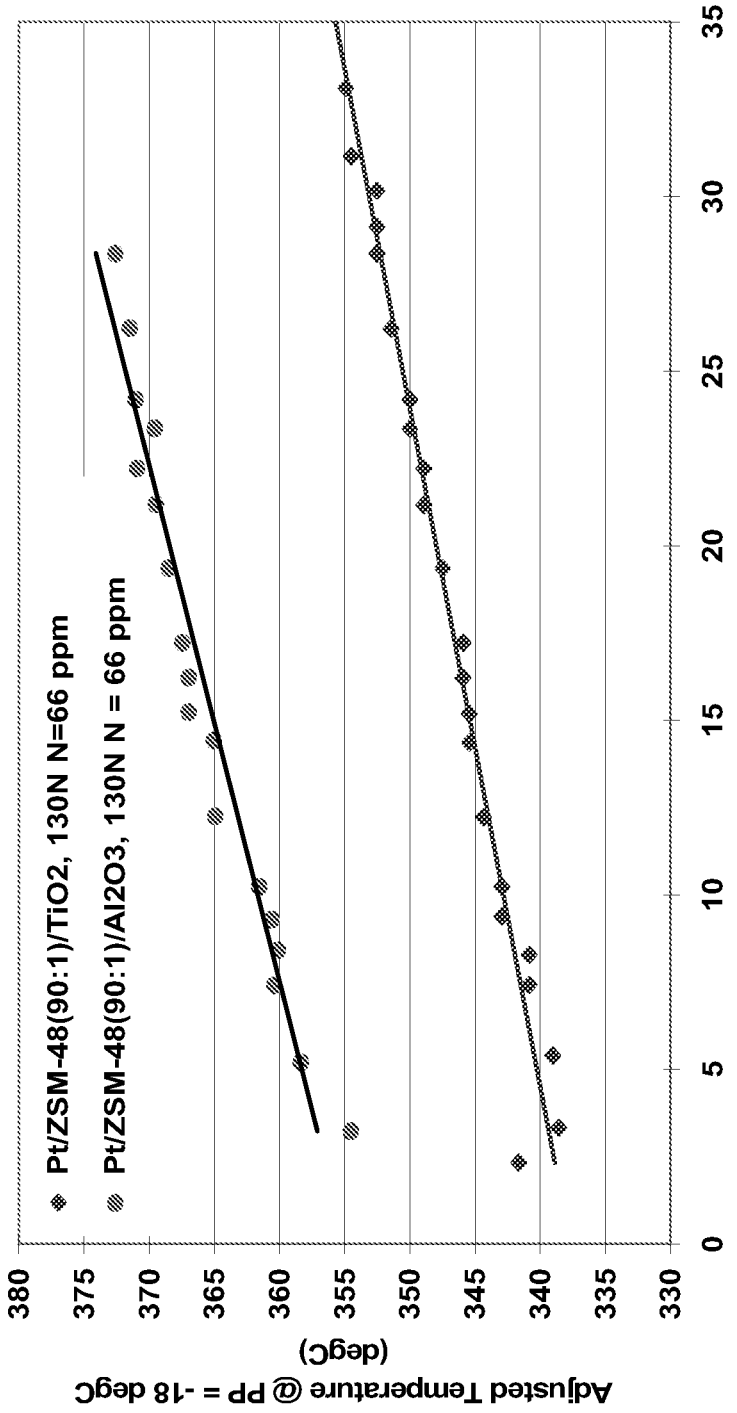

Adjusted Temperature @ PP = -18 deg C
(deg C)
380
375
370
365
360
355
350
345
340
335
330
0
5
10
15
20
25
30
35
TOS (Days)
Pt/ZSM-48(90:1)/TiO2, 130N N=66 ppm
Pt/ZSM-48(90:1)/Al2O3, 130N N = 66 ppm

FIGURE 7

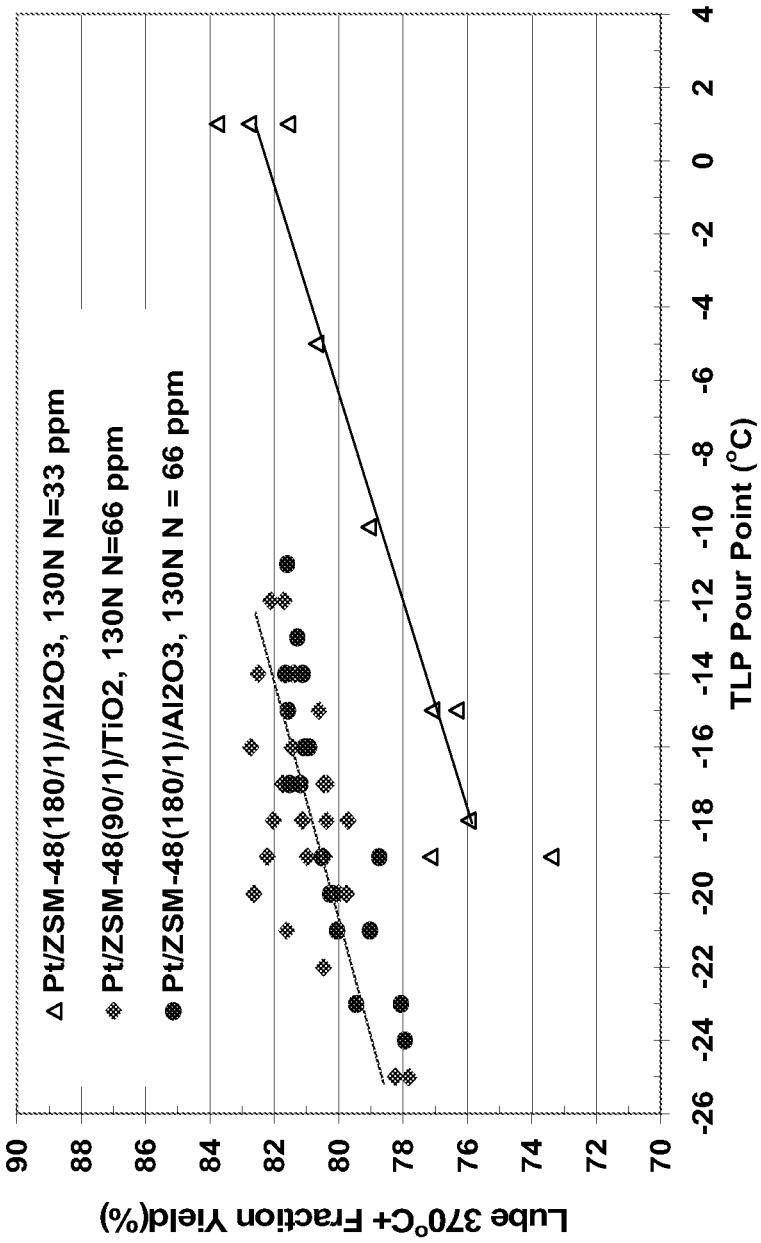

Pt/ZSM-48(180/1)/Al2O3, 130N N=33 ppm
Pt/ZSM-48(90/1)/TiO2, 130N N=66 ppm
Pt/ZSM-48(180/1)/Al2O3, 130N N = 66 ppm
Lube 370°C+ Fraction Yield(%)
TLP Pour Point (°C)
90
88
86
84
82
80
78
76
74
72
70
-26
-24
-22
-20
-18
-16
-14
-12
-10
-8
-6
-4
-2
0
2
4

FIGURE 8

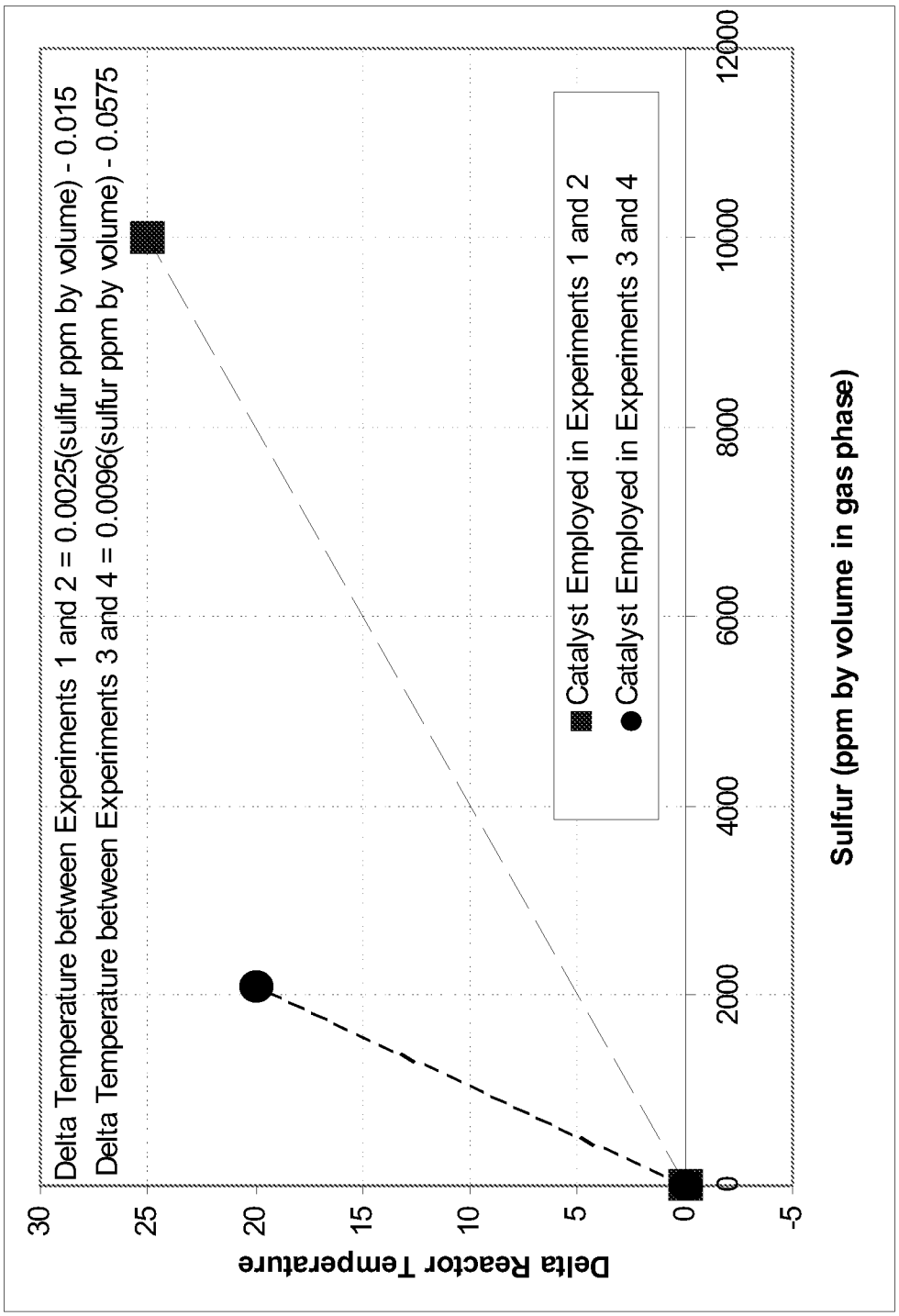

Delta Temperature between Experiments 1 and 2 = 0.0025(sulfur ppm by volume) - 0.015
Delta Temperature between Experiments 3 and 4 = 0.0096(sulfur ppm by volume) - 0.0575
Catalyst Employed in Experiments 1 and 2
Catalyst Employed in Experiments 3 and 4
Delta Reactor Temperature
Sulfur (ppm by volume in gas phase)
30
25
20
15
10
5
0
-5
0
2000
4000
6000
8000
10000
12000

FIGURE 9