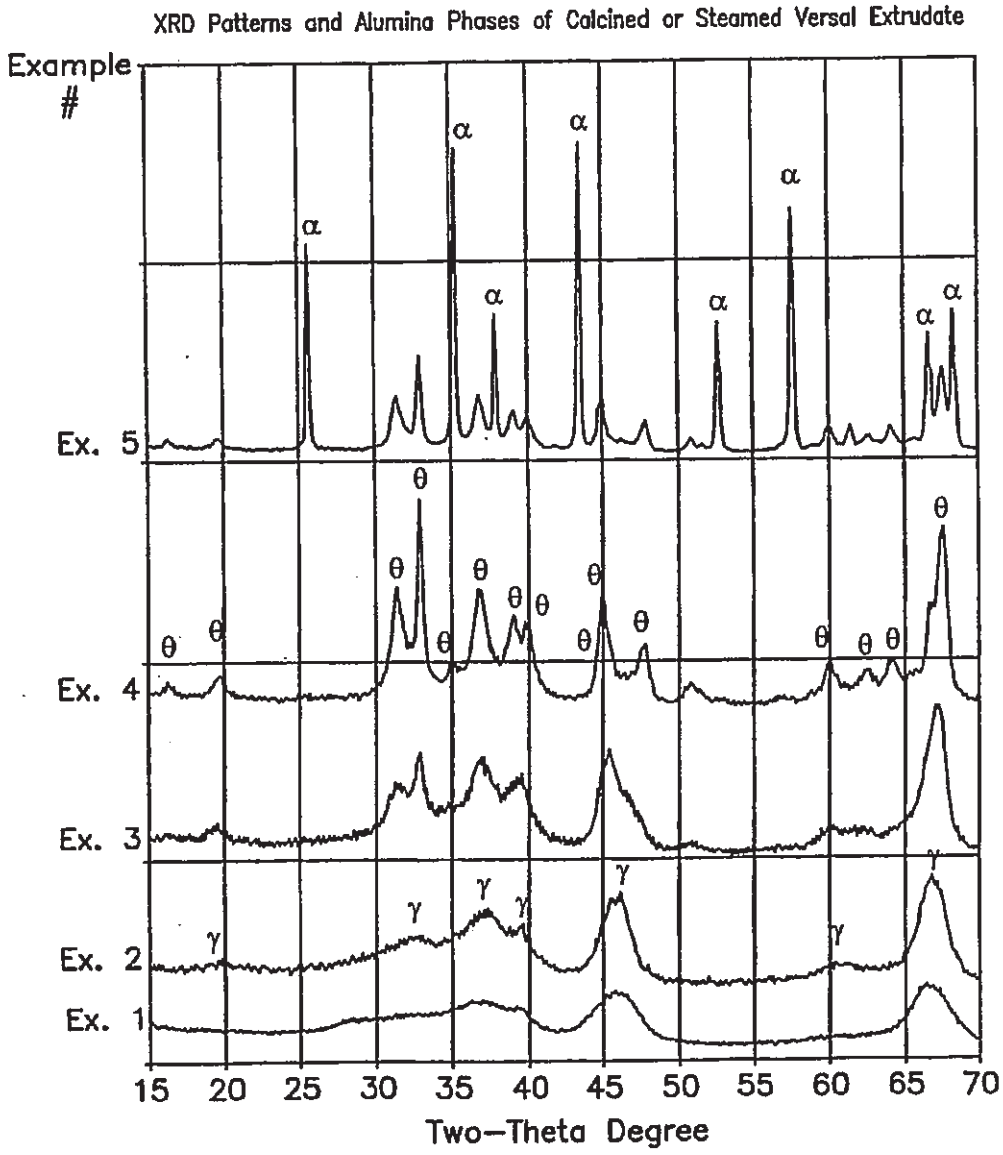

XRD Patterns and Alumina Phases of Calcined or Steamed Versal Extrudate
Example #
Ex. 5
Ex. 4
Ex. 3
Ex. 2
Ex. 1
15 20 25 30 35 40 45 50 55 60 65 70
Two-Theta Degree

FIG. 1

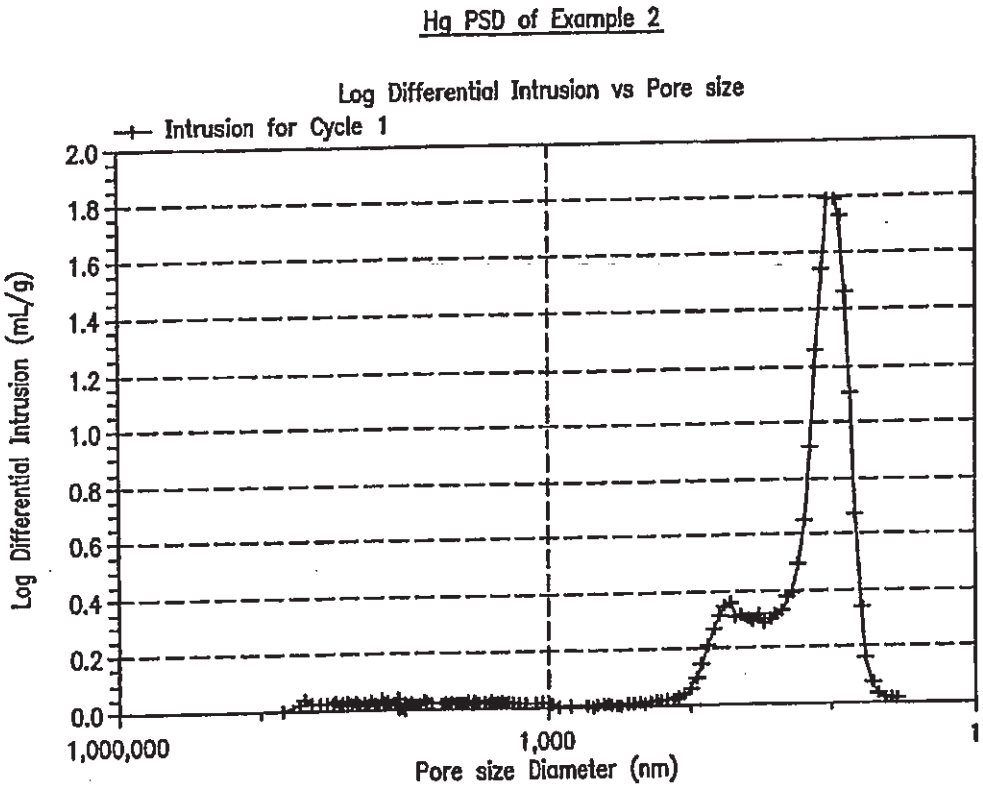

Hg PSD of Example 2
Log Differential Intrusion vs Pore size
Intrusion for Cycle 1
Log Differential Intrusion (mL/g)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1,000,000
1,000
1
Pore size Diameter (nm)

FIG. 2

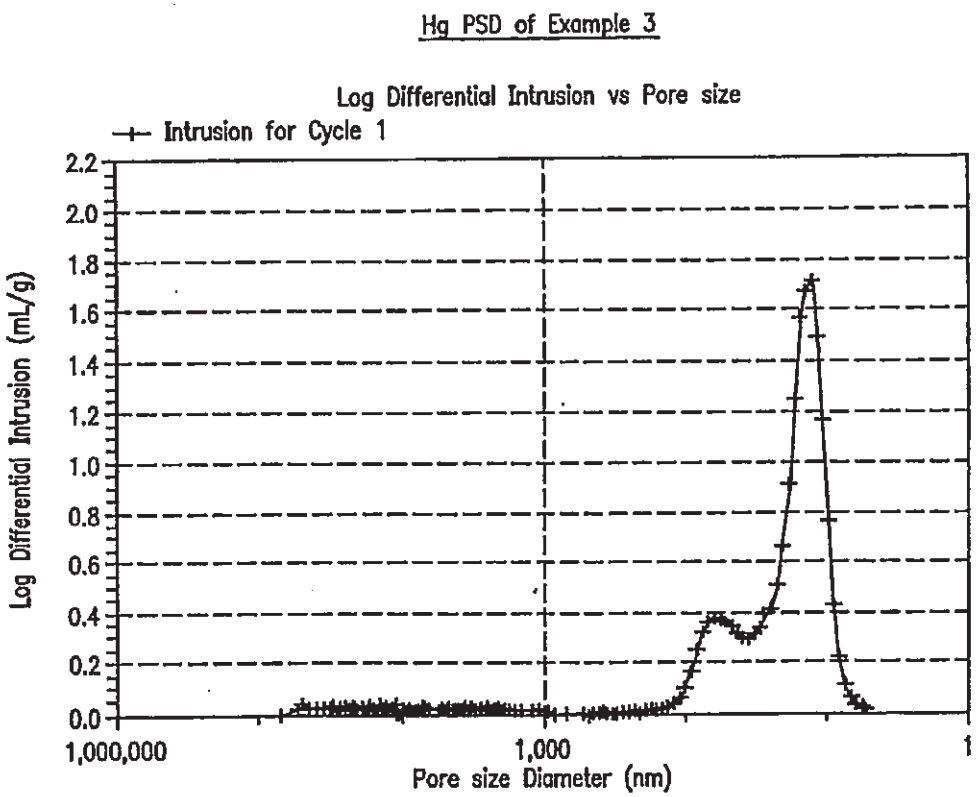

Hg PSD of Example 3
Log Differential Intrusion vs Pore size
Intrusion for Cycle 1
Log Differential Intrusion (mL/g)
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1,000,000
1,000
1
Pore size Diameter (nm)

FIG. 3

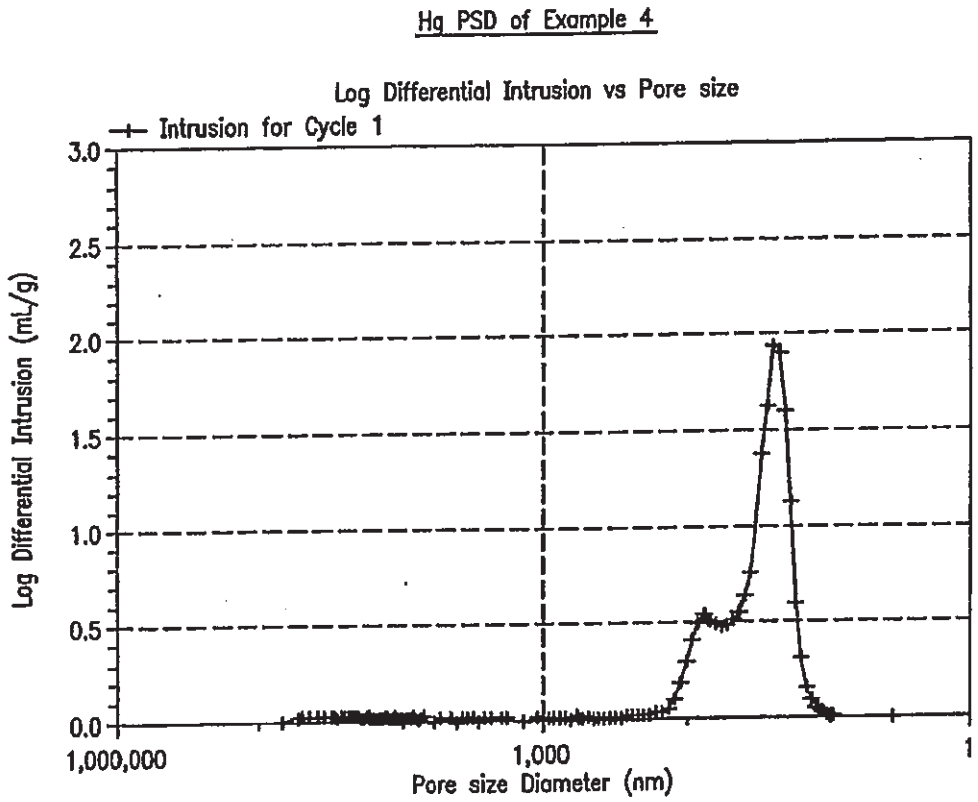

Hg PSD of Example 4
Log Differential Intrusion vs Pore size
Intrusion for Cycle 1
Log Differential Intrusion (mL/g)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1,000,000
1,000
1
Pore size Diameter (nm)

FIG. 4

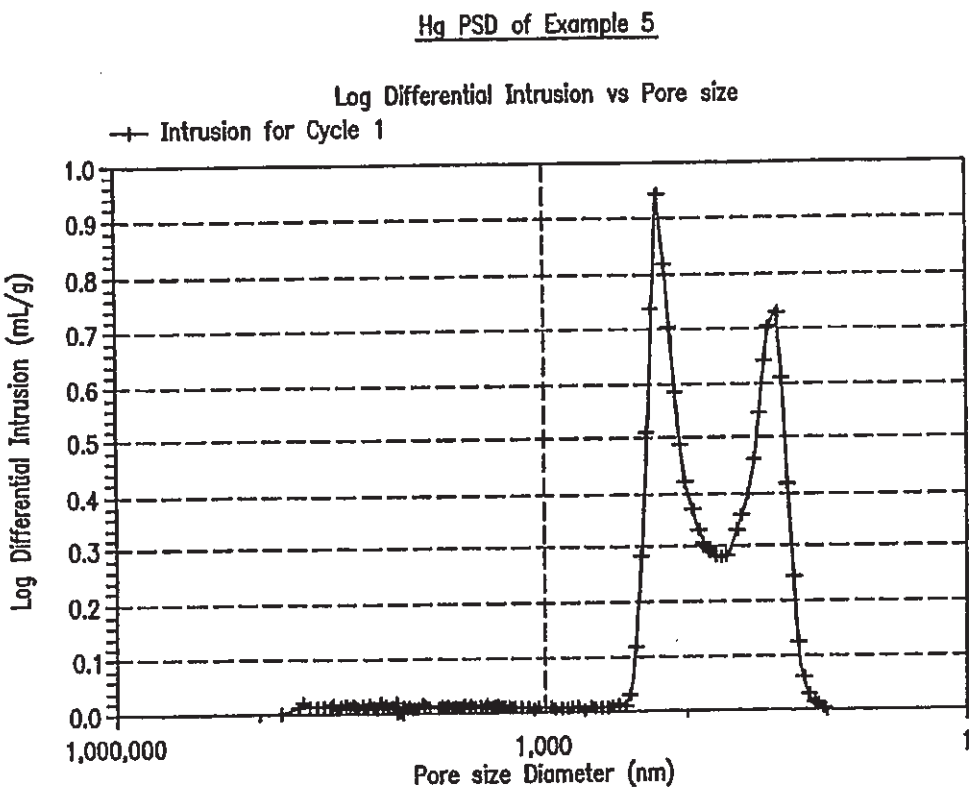

Hg PSD of Example 5
Log Differential Intrusion vs Pore size
Intrusion for Cycle 1
Log Differential Intrusion (mL/g)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1,000,000
1,000
1
Pore size Diameter (nm)

FIG. 5

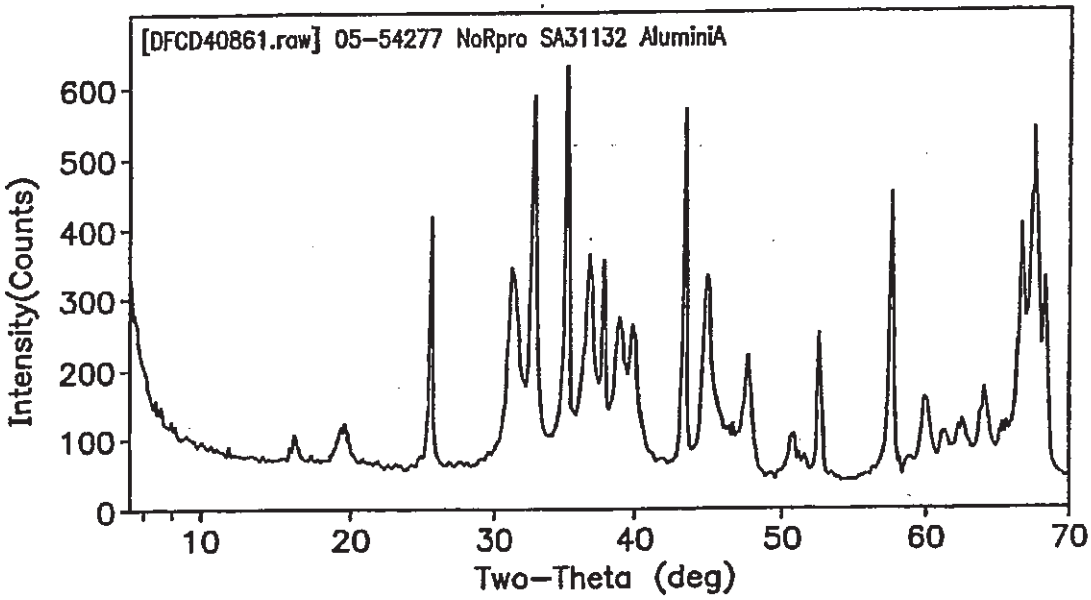

[DFCD40861.raw] 05-54277 NoRpro SA31132 AluminiA
Intensity(Counts)
600
500
400
300
200
100
0
10
20
30
40
50
60
70
Two-Theta (deg)

FIG. 6

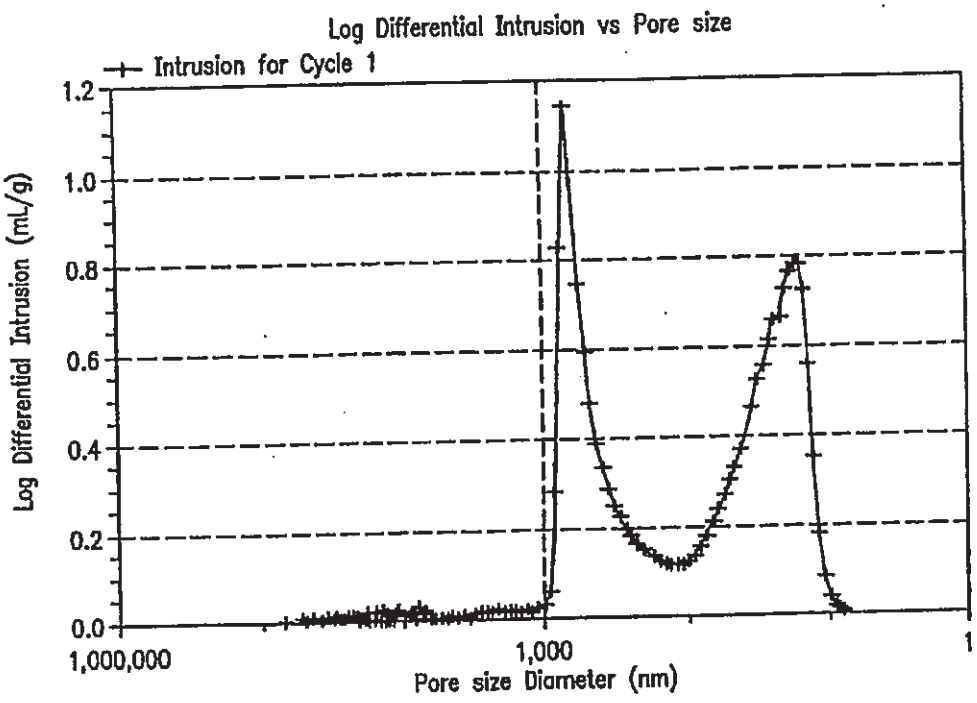

Log Differential Intrusion vs Pore size
Intrusion for Cycle 1
Log Differential Intrusion (mL/g)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1,000,000
1,000
1
Pore size Diameter (nm)

FIG. 7

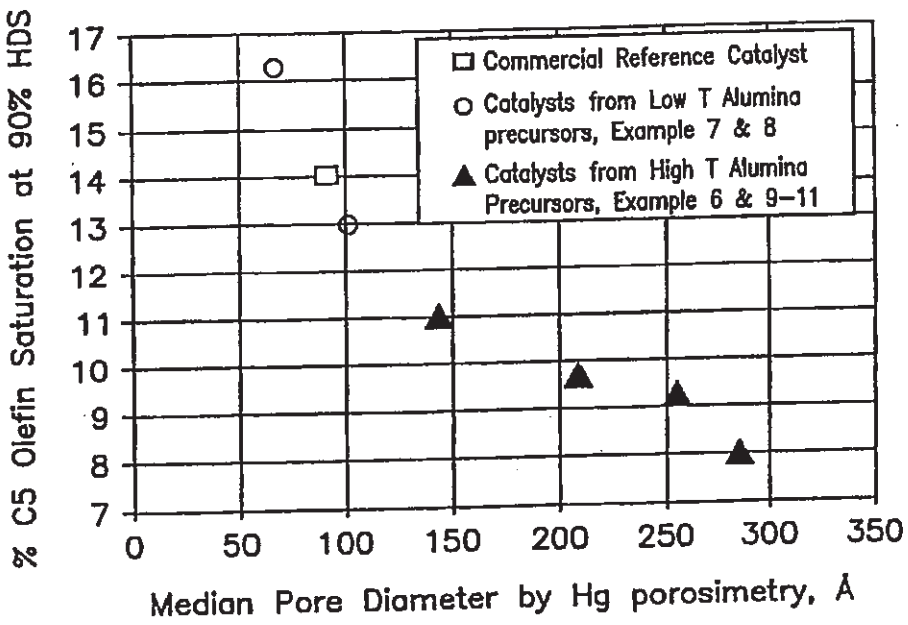

% C5 Olefin Saturation at 90% HDS
17
16
15
14
13
12
11
10
9
8
7
0
50
100
150
200
250
300
350
Median Pore Diameter by Hg porosimetry, Å
Commercial Reference Catalyst
Catalysts from Low T Alumina precursors, Example 7 & 8
Catalysts from High T Alumina Precursors, Example 6 & 9–11

FIG. 8

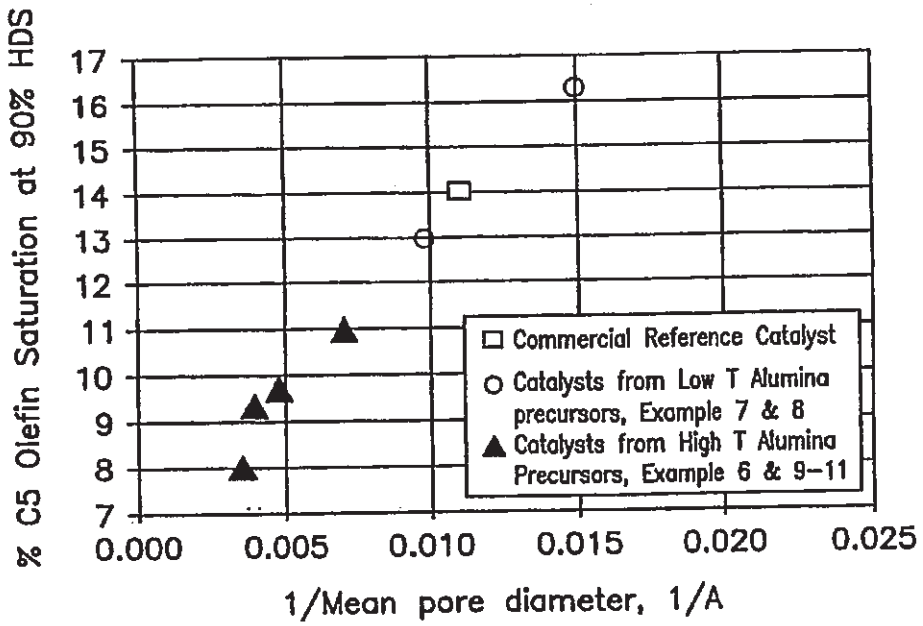

% C5 Olefin Saturation at 90% HDS
17
16
15
14
13
12
11
10
9
8
7
0.000
0.005
0.010
0.015
0.020
0.025
1/Mean pore diameter, 1/A
Commercial Reference Catalyst
Catalysts from Low T Alumina precursors, Example 7 & 8
Catalysts from High T Alumina Precursors, Example 6 & 9–11

FIG. 9

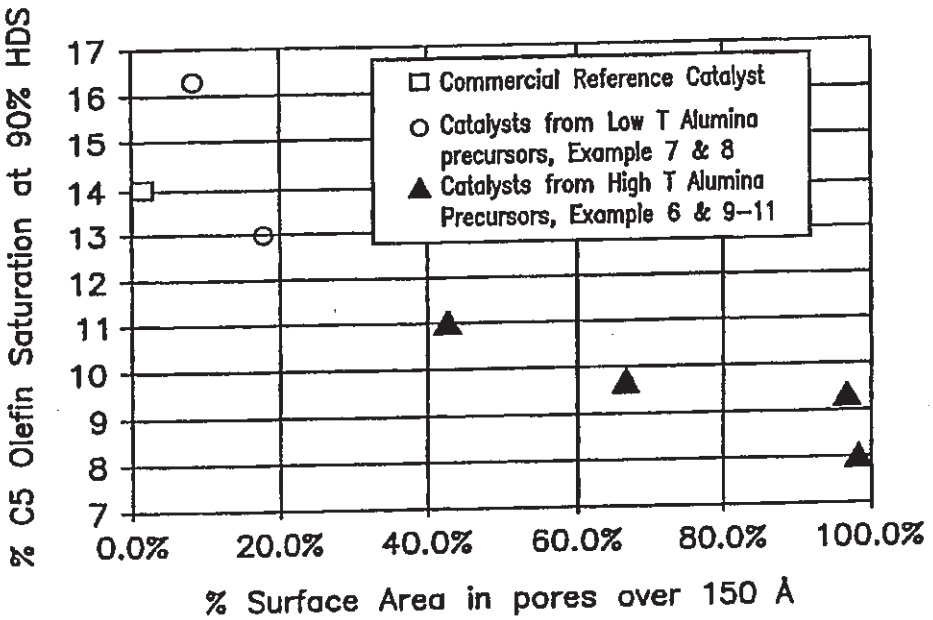

% C5 Olefin Saturation at 90% HDS
17
16
15
14
13
12
11
10
9
8
7
0.0%
20.0%
40.0%
60.0%
80.0%
100.0%
% Surface Area in pores over 150 Å
Commercial Reference Catalyst
Catalysts from Low T Alumina precursors, Example 7 & 8
Catalysts from High T Alumina Precursors, Example 6 & 9–11

FIG. 10