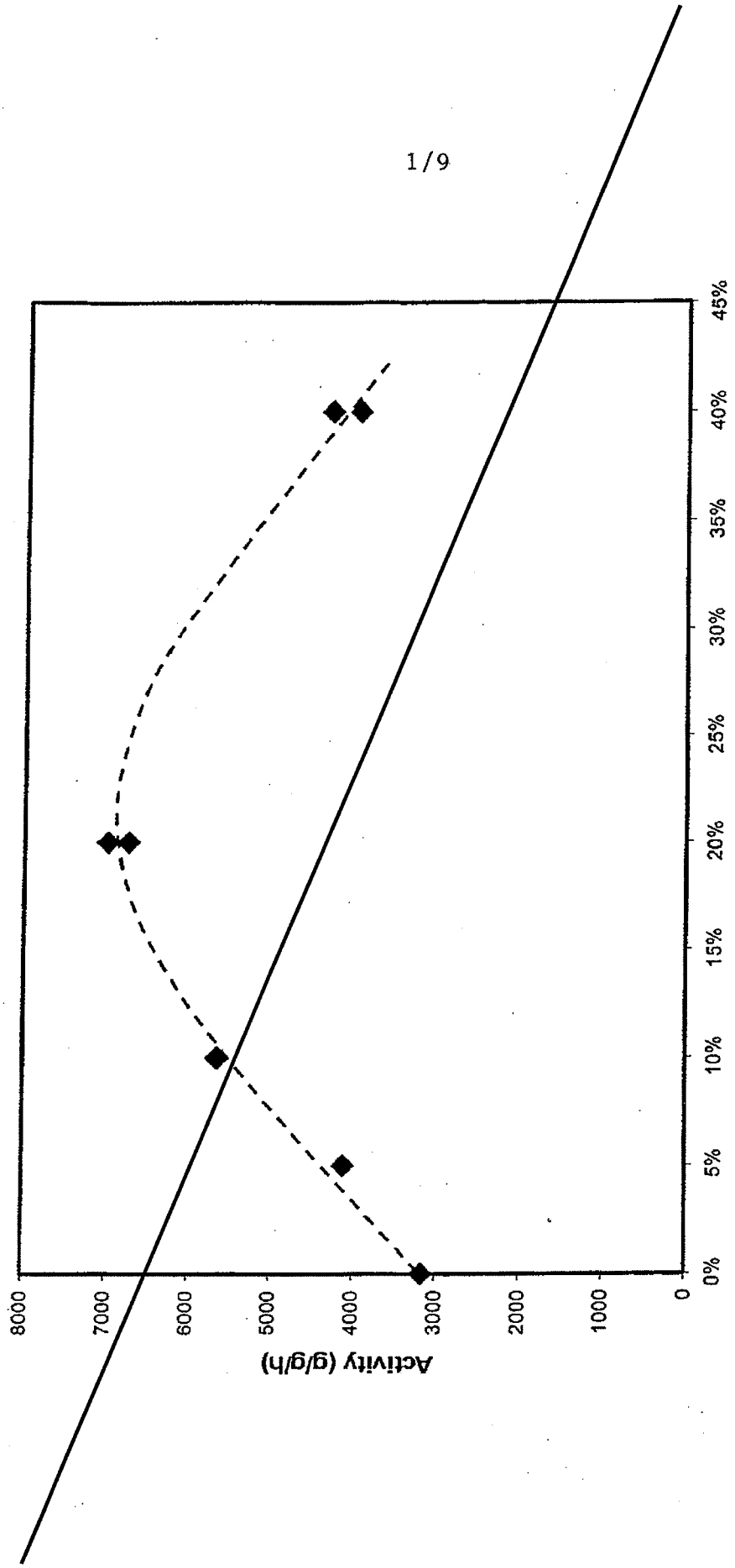

Activity (g/g/h)
8000
7000
6000
5000
4000
3000
2000
1000
0
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
Percent Ammonium Sulfate Added

Figure 1

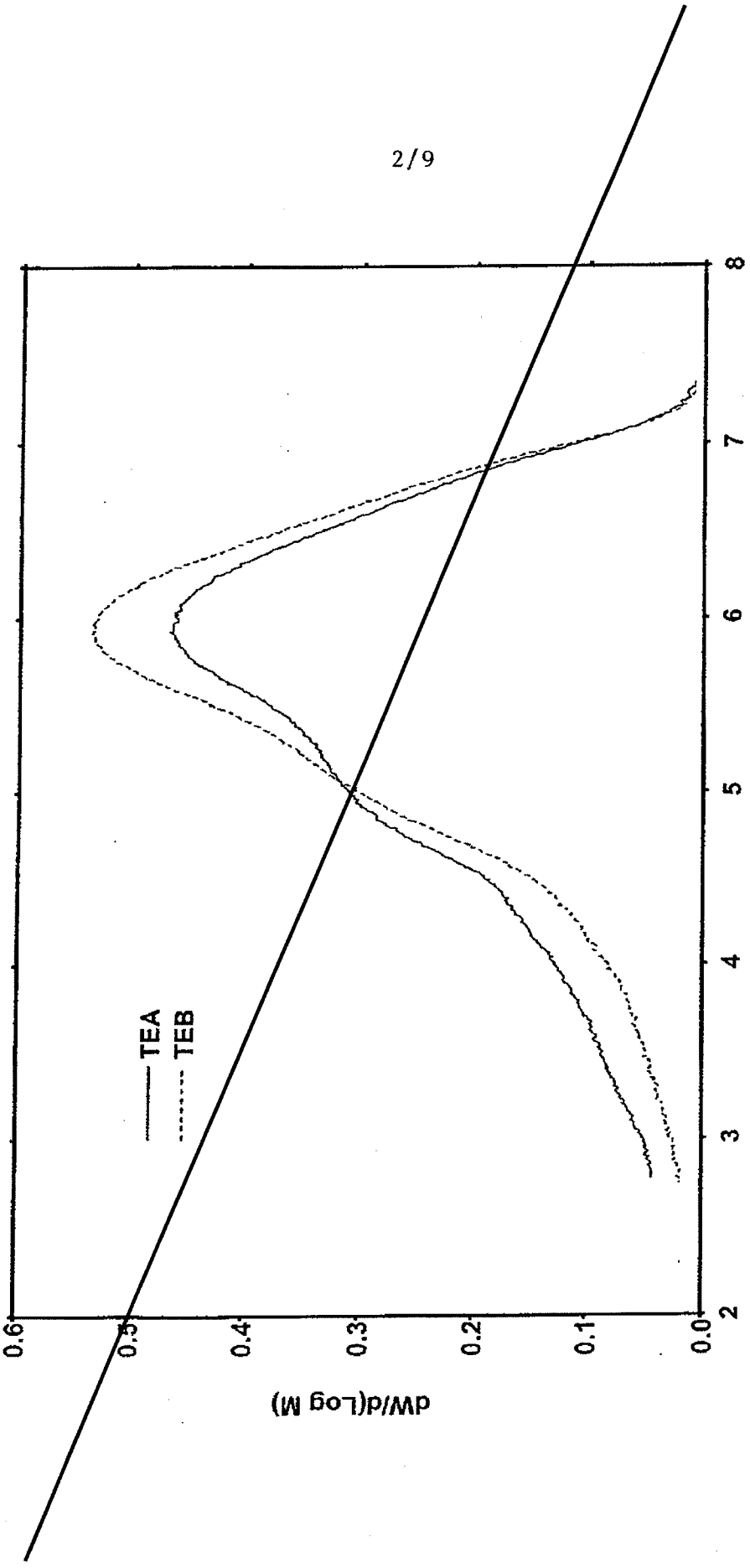

TEA
TEB
dW/d(Log M)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2
3
4
5
6
7
8
Log Molecular Weight

Figure 2

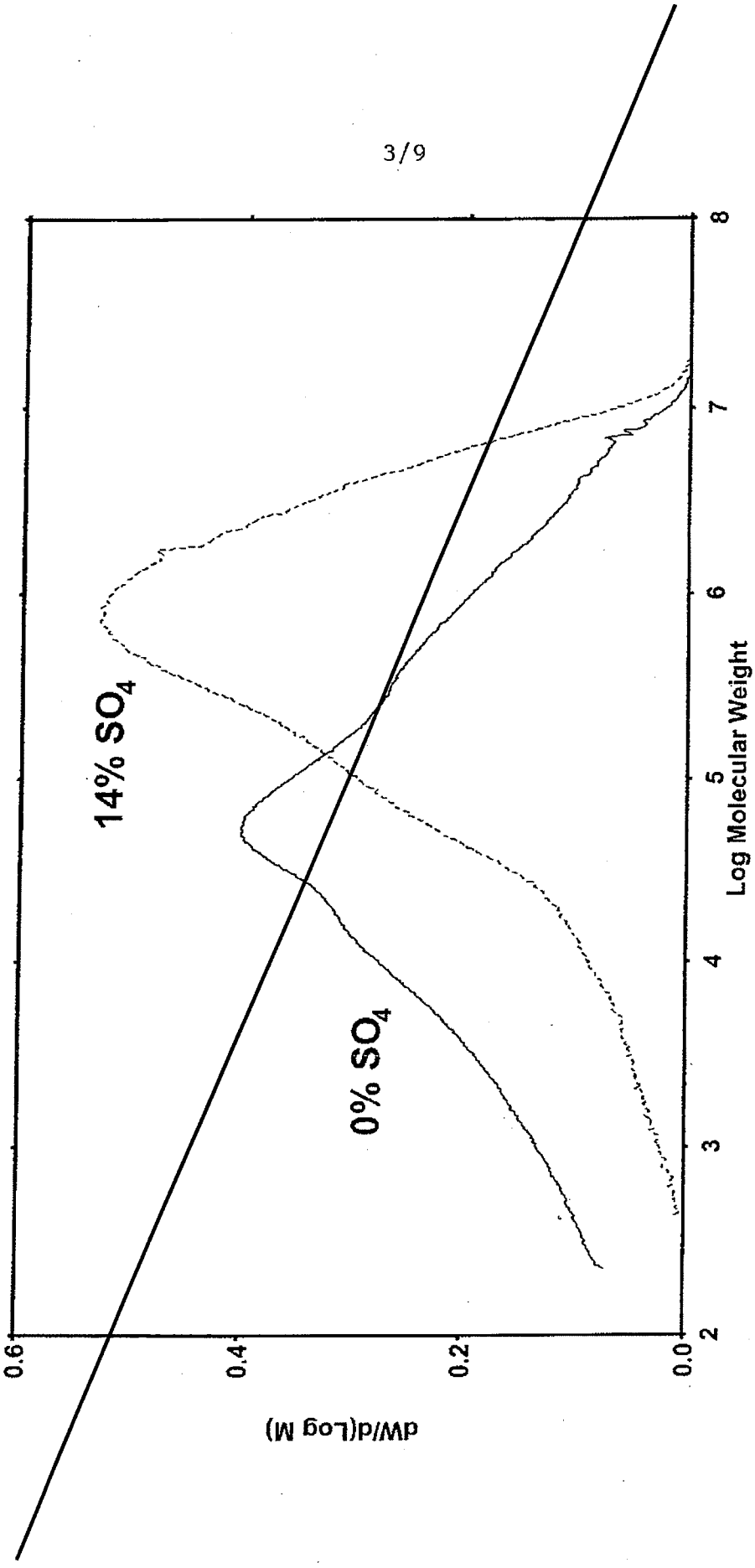


Figure 3

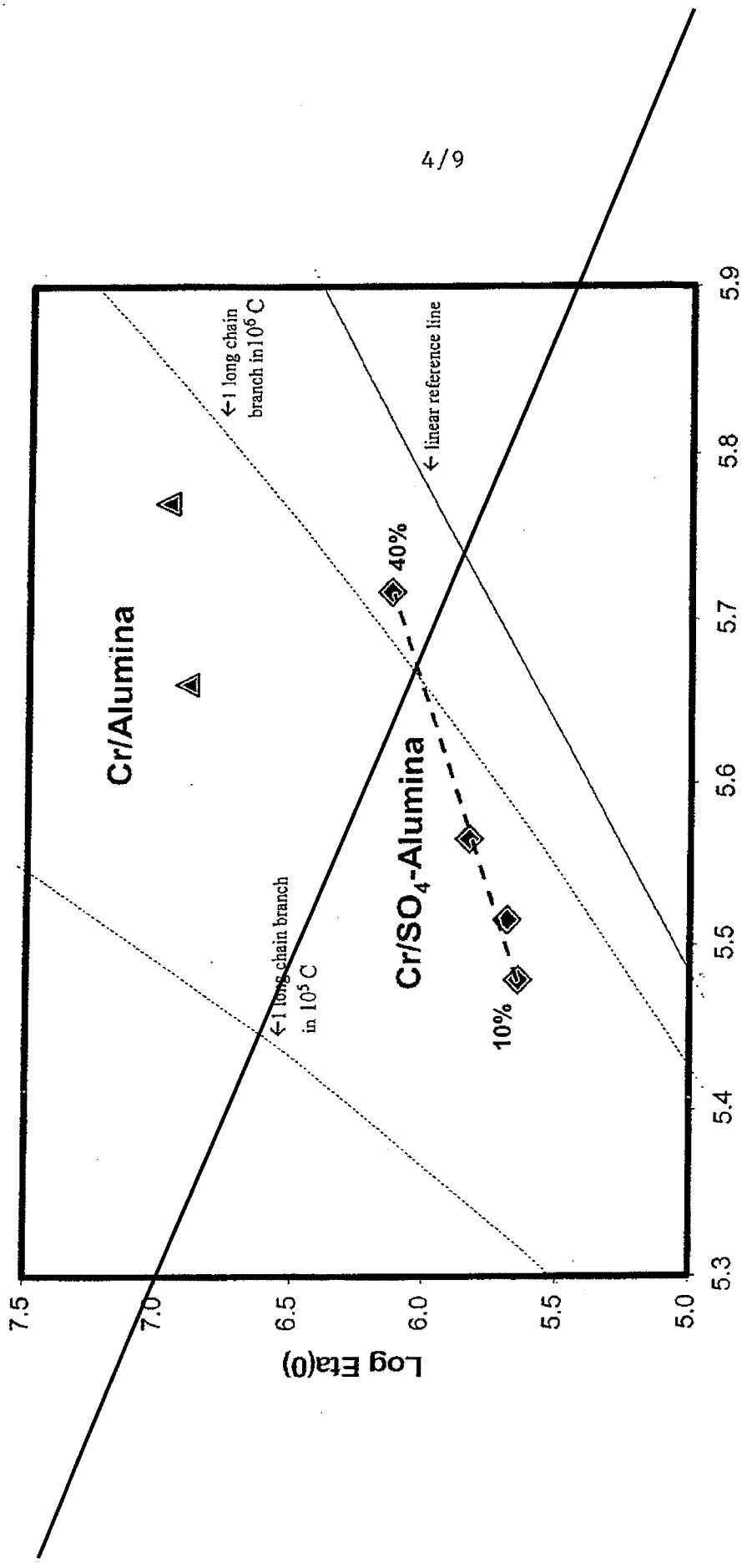

Cr/Alumina
Cr/SO4-Alumina
40%
10%
←1 long chain branch in 10^6 C
←1 long chain branch in 10^5 C
← linear reference line
Log Eta(0)
7.5
7.0
6.5
6.0
5.5
5.0
5.3
5.4
5.5
5.6
5.7
5.8
5.9
Log Molecular Weight

Figure 4

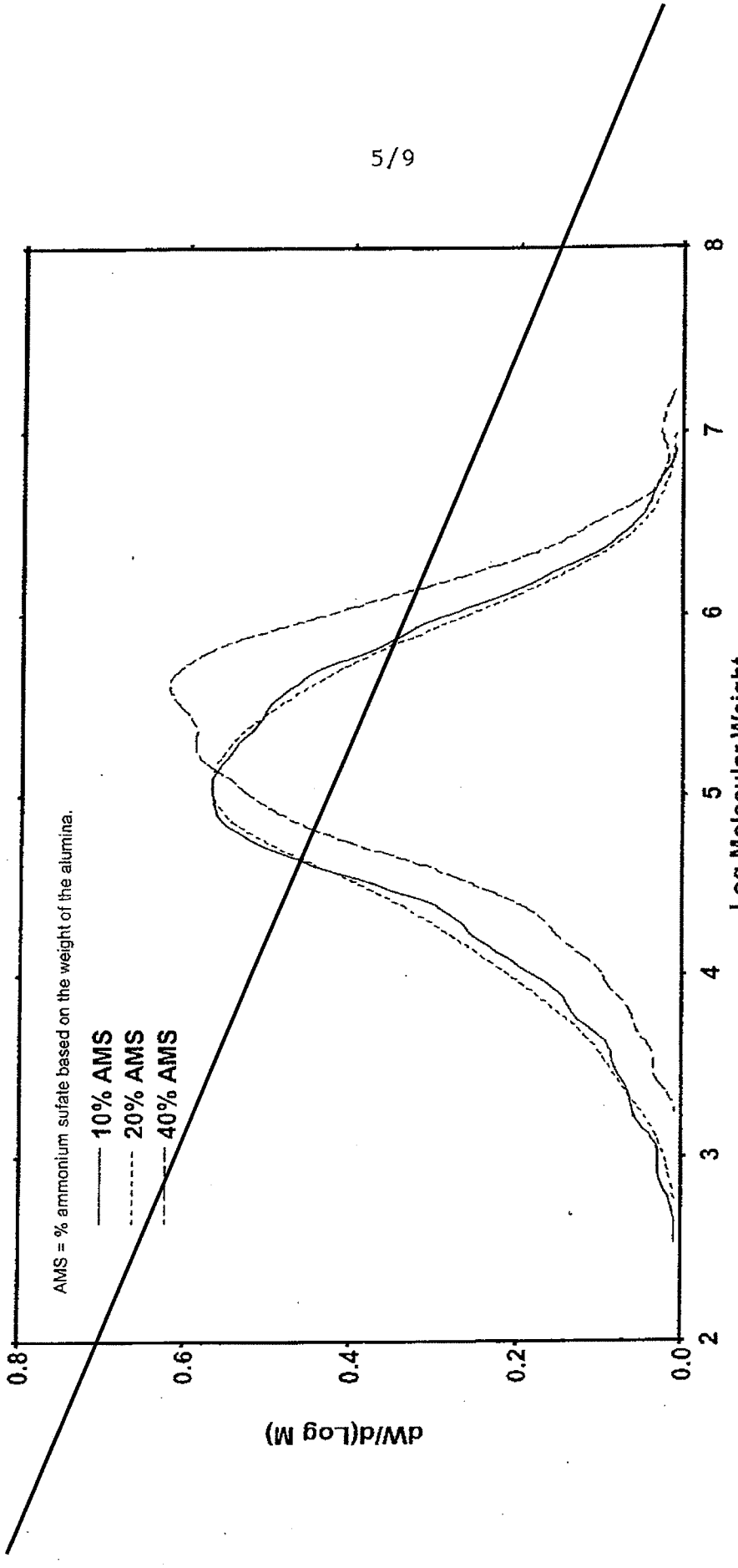

AMS = % ammonium sufate based on the weight of the alumina.
10% AMS
20% AMS
40% AMS
dW/d(Log M)
0.0
0.2
0.4
0.6
0.8
2
3
4
5
6
7
8
Log Molecular Weight

Figure 5

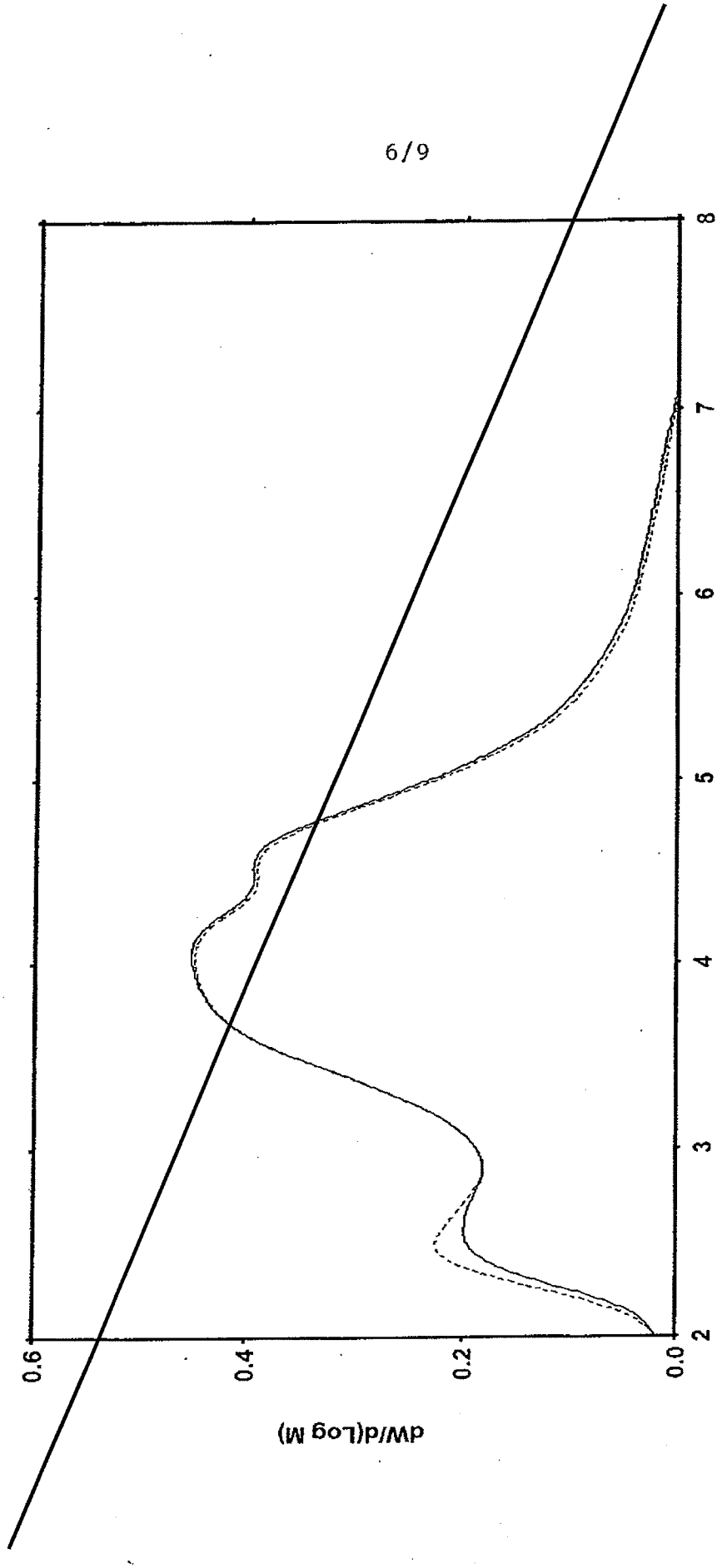


Figure 6

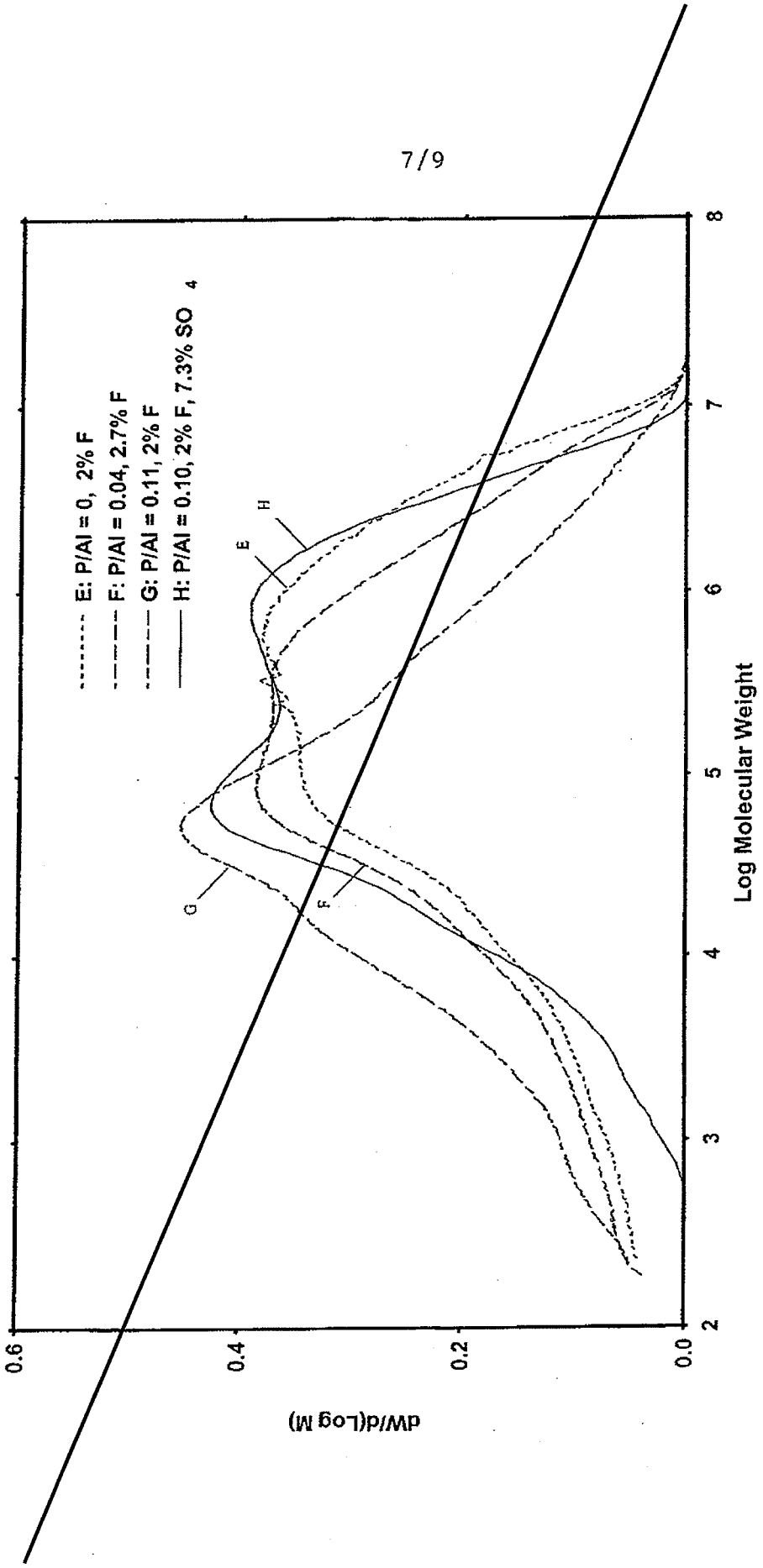

E: P/Al = 0, 2% F
F: P/Al = 0.04, 2.7% F
G: P/Al = 0.11, 2% F
H: P/Al = 0.10, 2% F, 7.3% SO 4
E
H
G
F
dW/d(Log M)
0.0
0.2
0.4
0.6
2
3
4
5
6
7
8
Log Molecular Weight

Figure 7

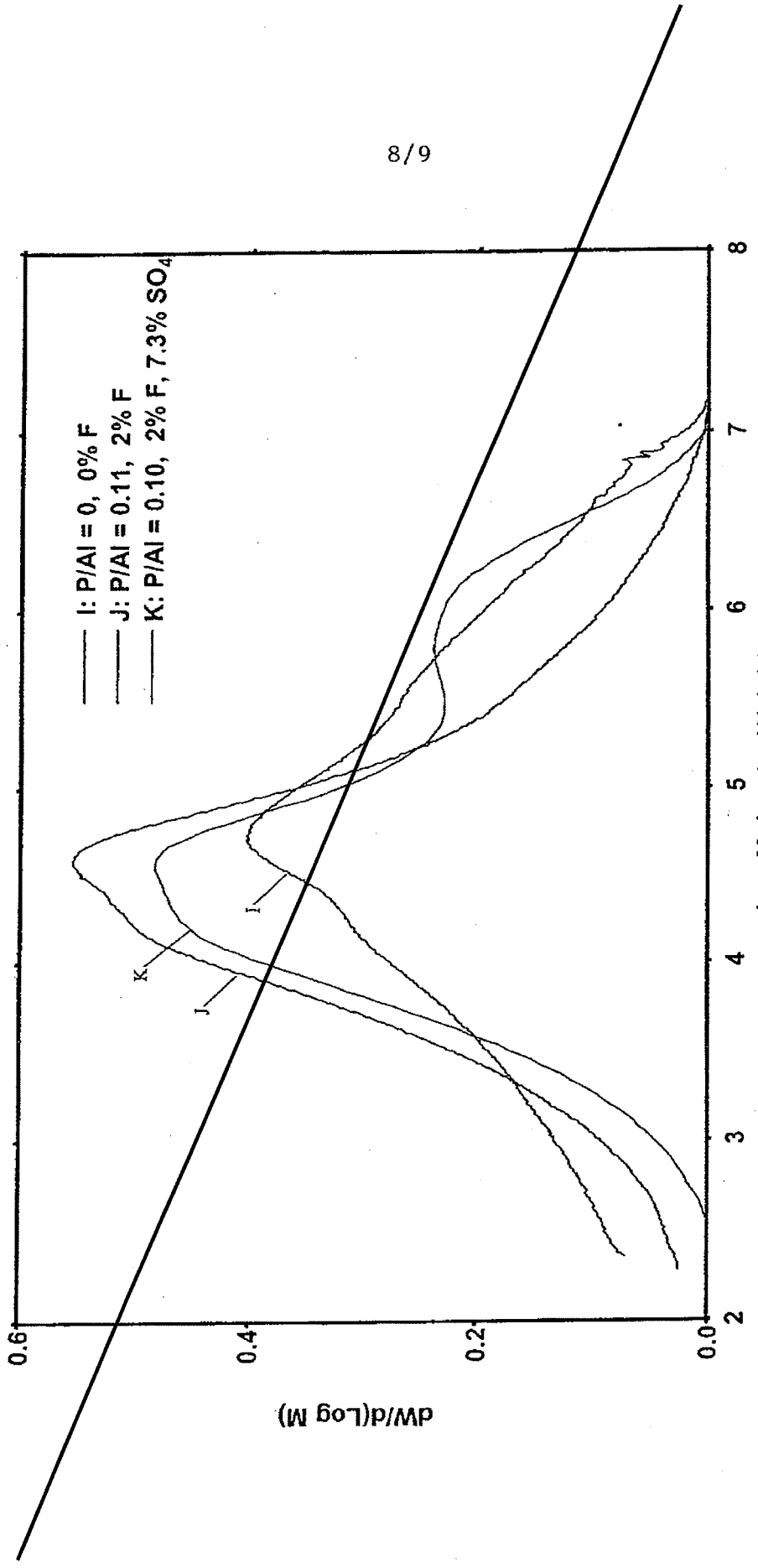

I: P/Al = 0, 0% F
J: P/Al = 0.11, 2% F
K: P/Al = 0.10, 2% F, 7.3% SO4
I
J
K
dW/d(Log M)
0.0
0.2
0.4
0.6
2
3
4
5
6
7
8
Log Molecular Weight

Figure 8

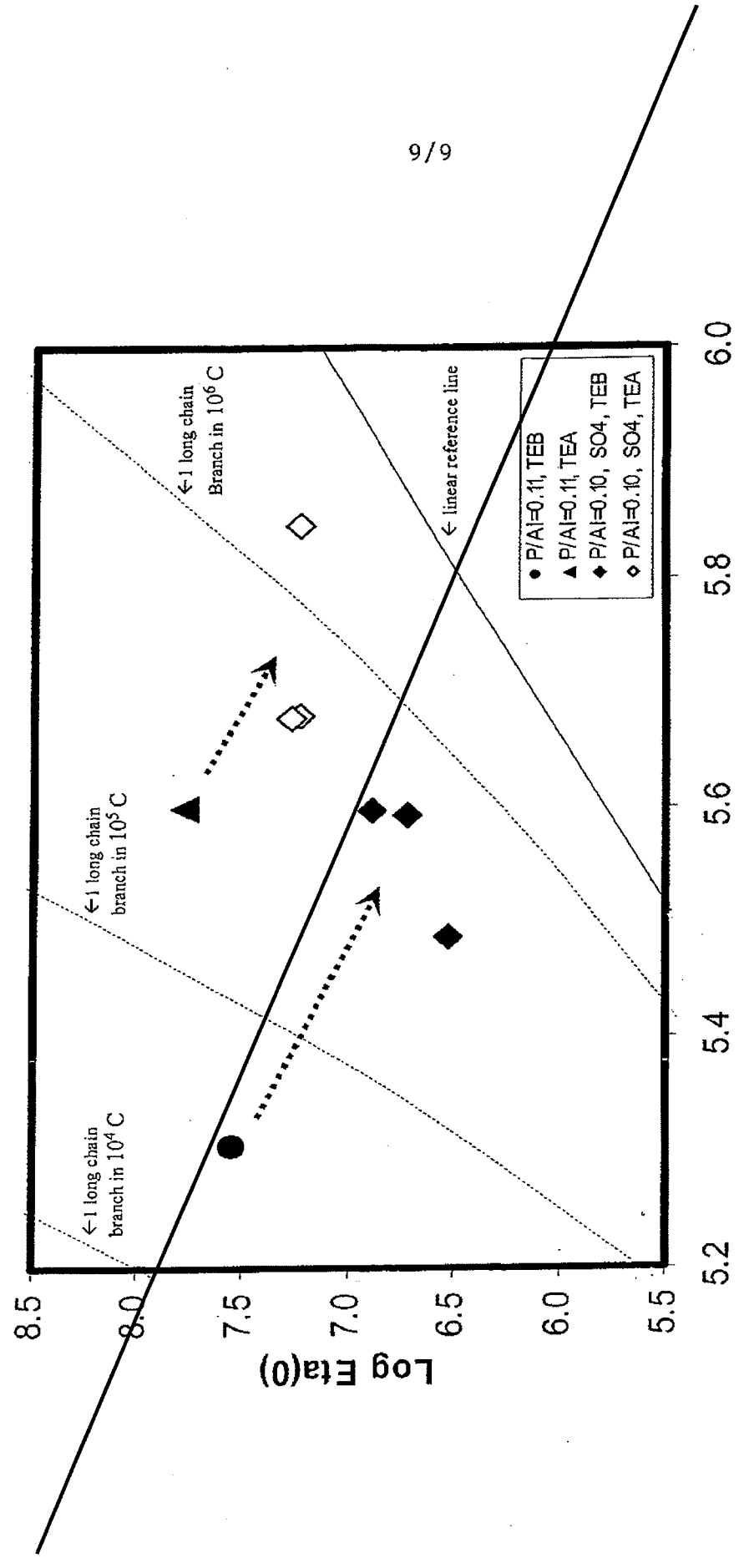

Log Eta(0)
8.5
8.0
7.5
7.0
6.5
6.0
5.5
Log Molecular Weight
5.2
5.4
5.6
5.8
6.0
←1 long chain branch in 10^4 C
←1 long chain branch in 10^5 C
←1 long chain Branch in 10^6 C
← linear reference line
P/Al=0.11, TEB
P/Al=0.11, TEA
P/Al=0.10, SO4, TEB
P/Al=0.10, SO4, TEA

Figure 9

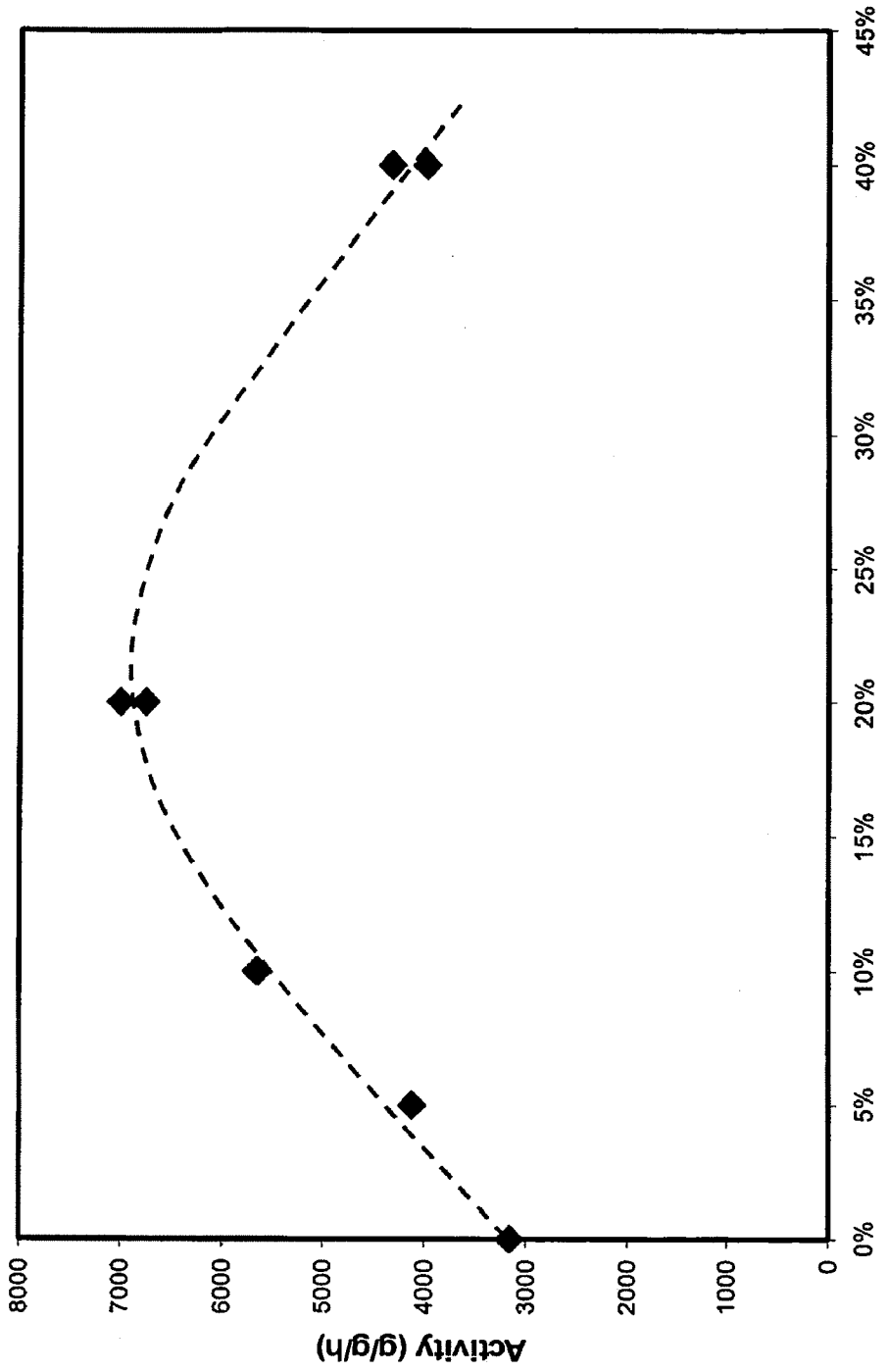

Activity (g/g/h)
8000
7000
6000
5000
4000
3000
2000
1000
0
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
Percent Ammonium Sulfate Added

Figure 1

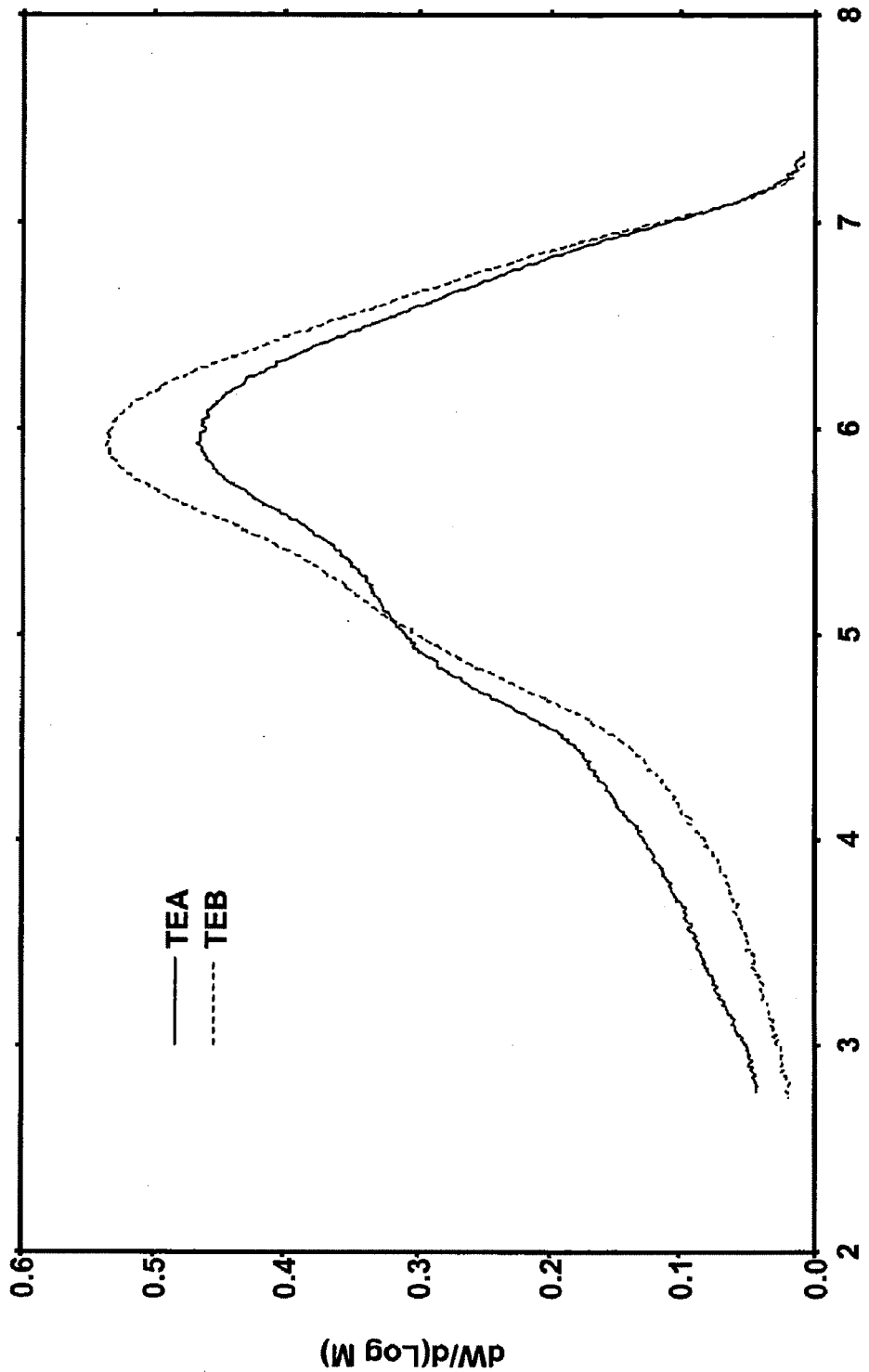

TEA
TEB
dW/d(Log M)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2
3
4
5
6
7
8
Log Molecular Weight

Figure 2

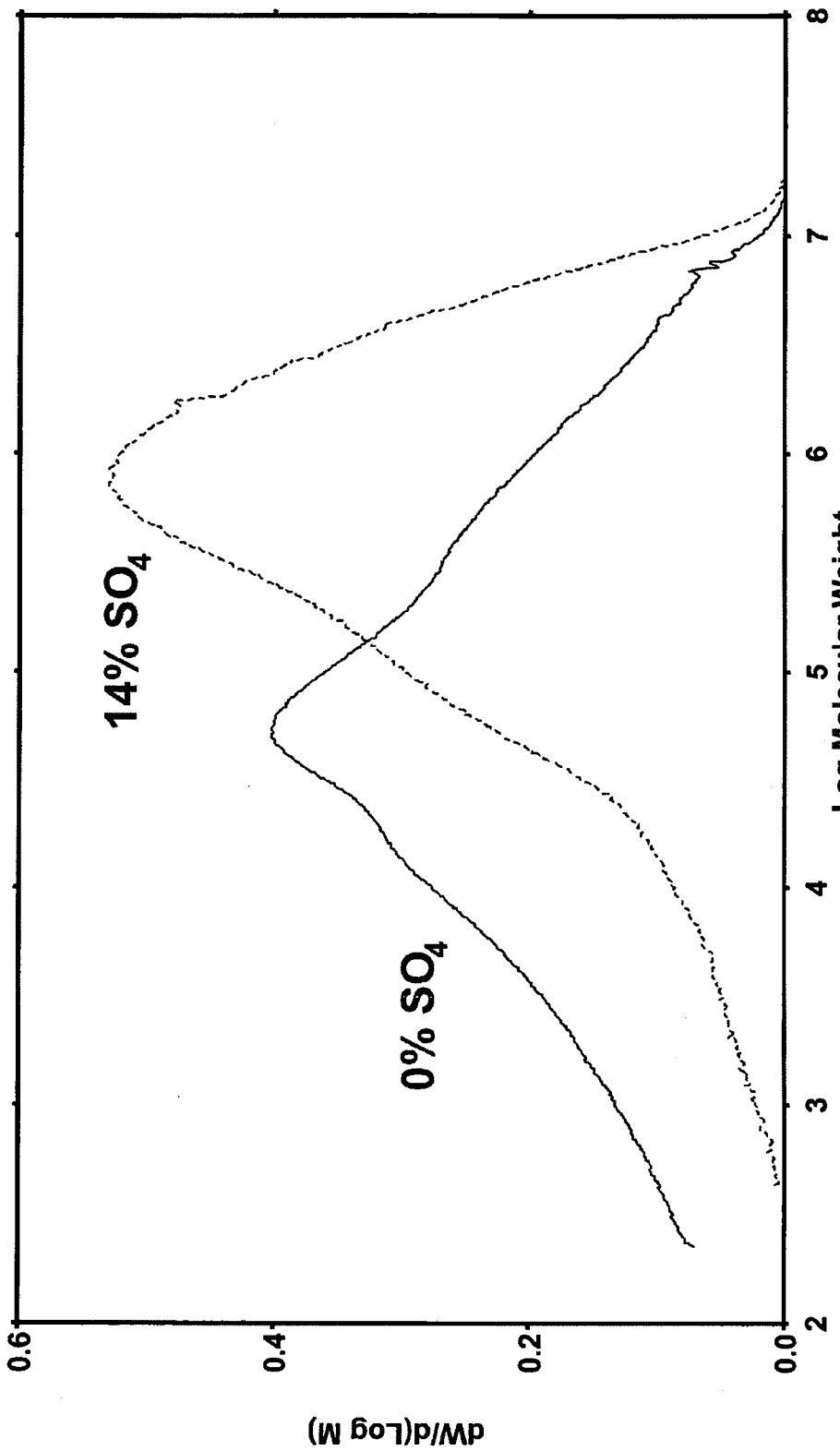


Figure 3

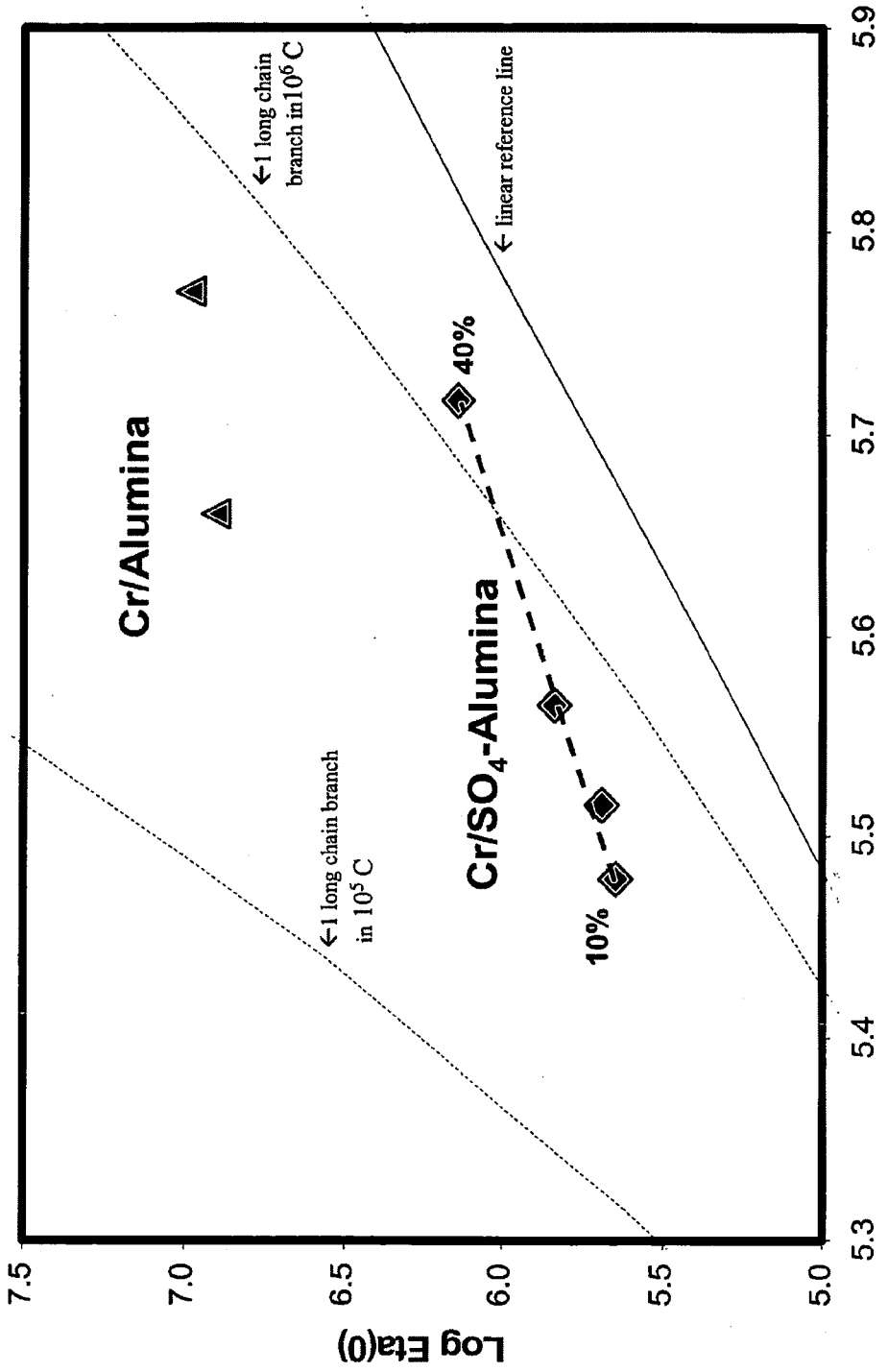

Log Eta(0)
7.5
7.0
6.5
6.0
5.5
5.0
5.3
5.4
5.5
5.6
5.7
5.8
5.9
Log Molecular Weight
Cr/Alumina
Cr/SO4-Alumina
10%
40%
←1 long chain branch in 10^5 C
←1 long chain branch in 10^6 C
← linear reference line

Figure 4

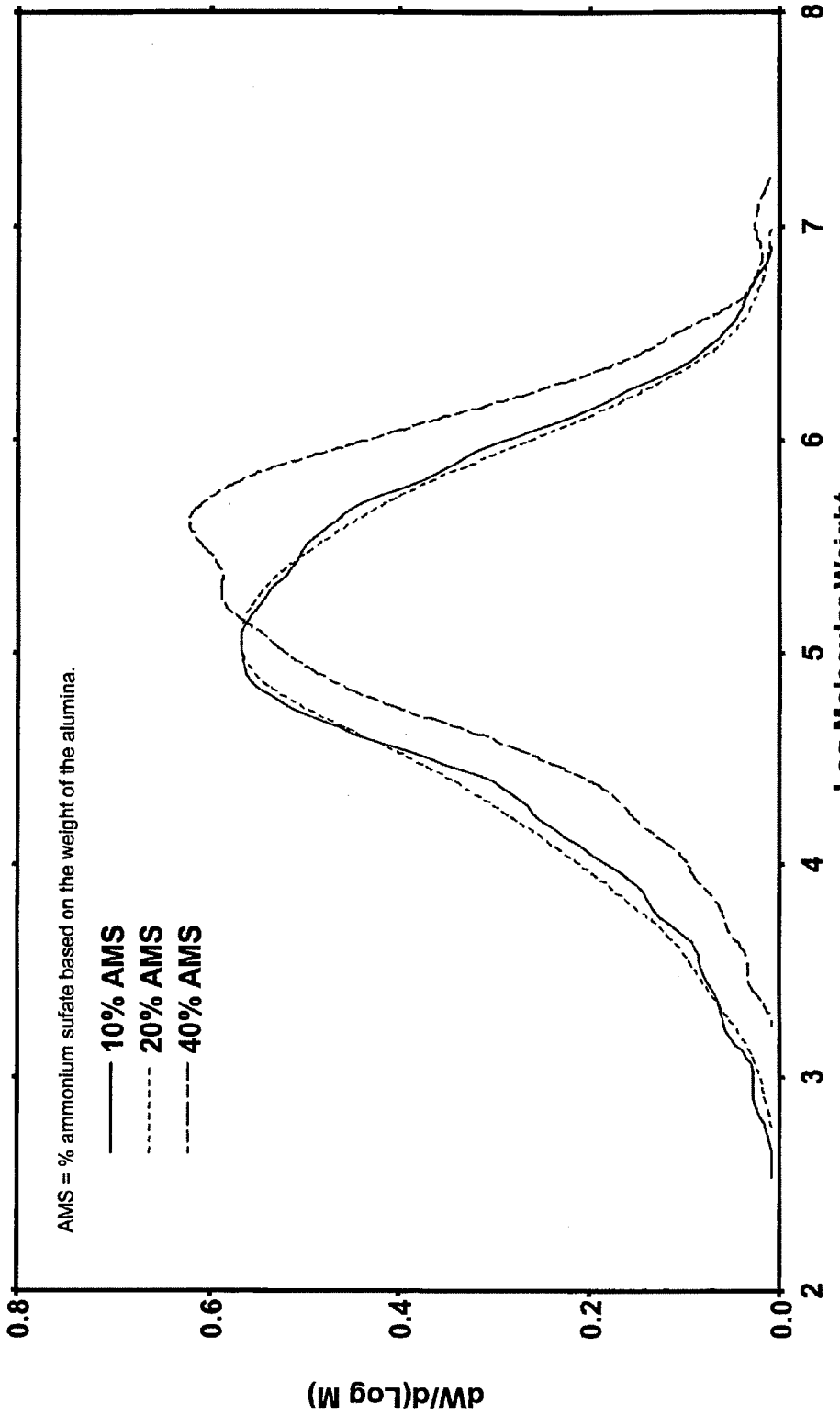

AMS = % ammonium sufate based on the weight of the alumina.
10% AMS
20% AMS
40% AMS
dW/d(Log M)
0.0
0.2
0.4
0.6
0.8
2
3
4
5
6
7
8
Log Molecular Weight

Figure 5

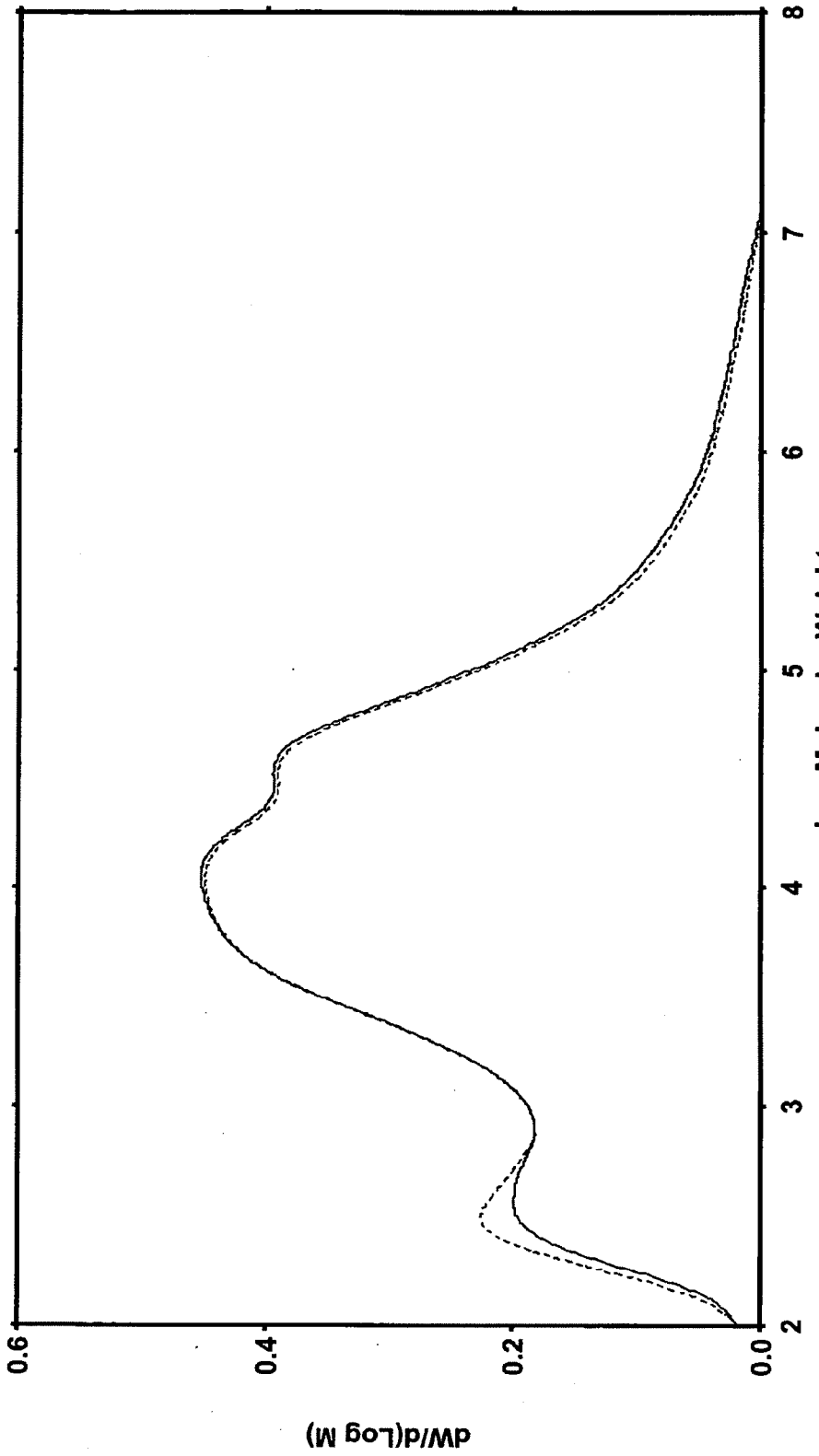


Figure 6

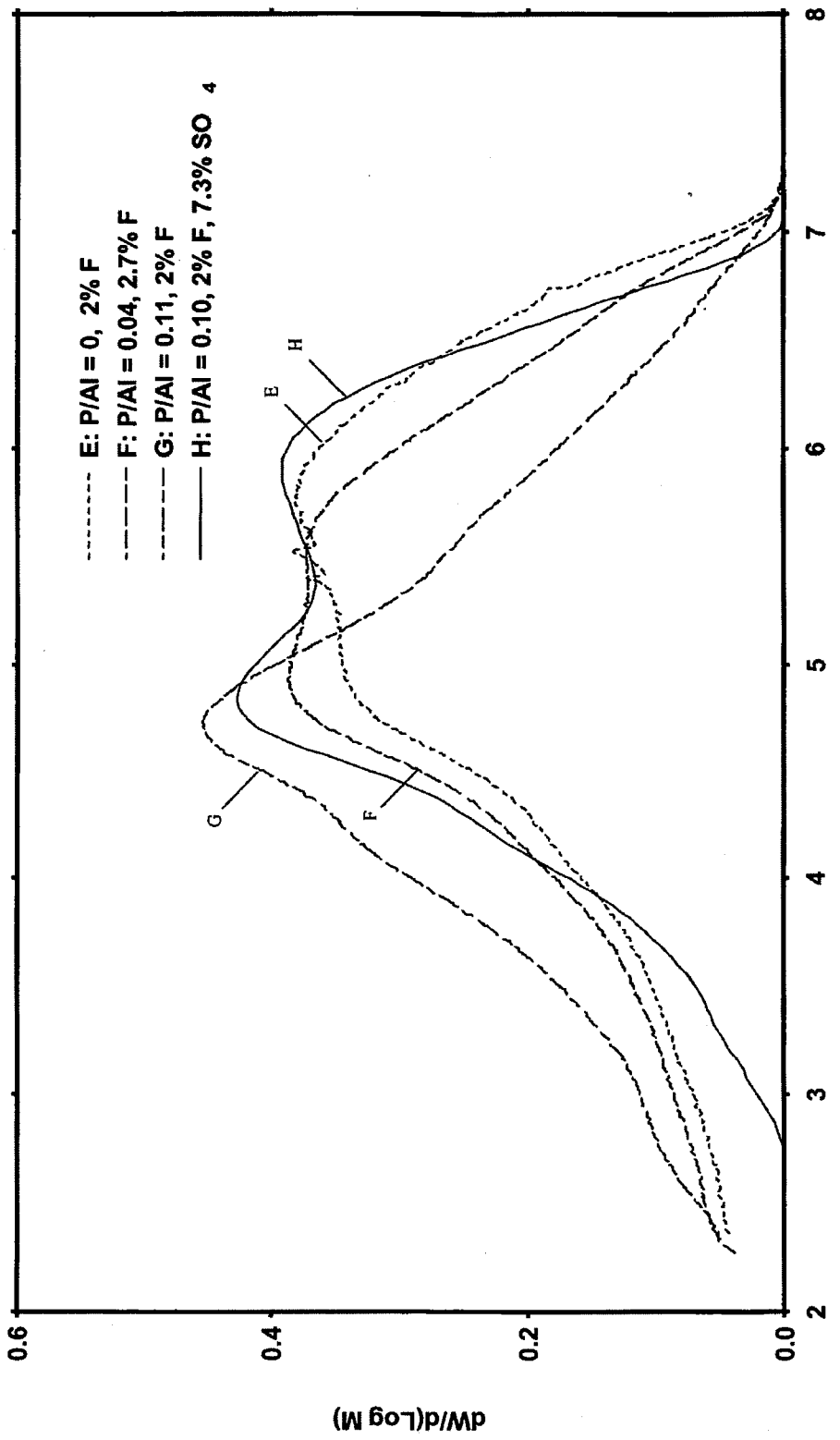

E: P/Al = 0, 2% F
F: P/Al = 0.04, 2.7% F
G: P/Al = 0.11, 2% F
H: P/Al = 0.10, 2% F, 7.3% SO 4
E
H
G
F
0.6
0.4
0.2
0.0
dW/d(Log M)
2
3
4
5
6
7
8
Log Molecular Weight

Figure 7

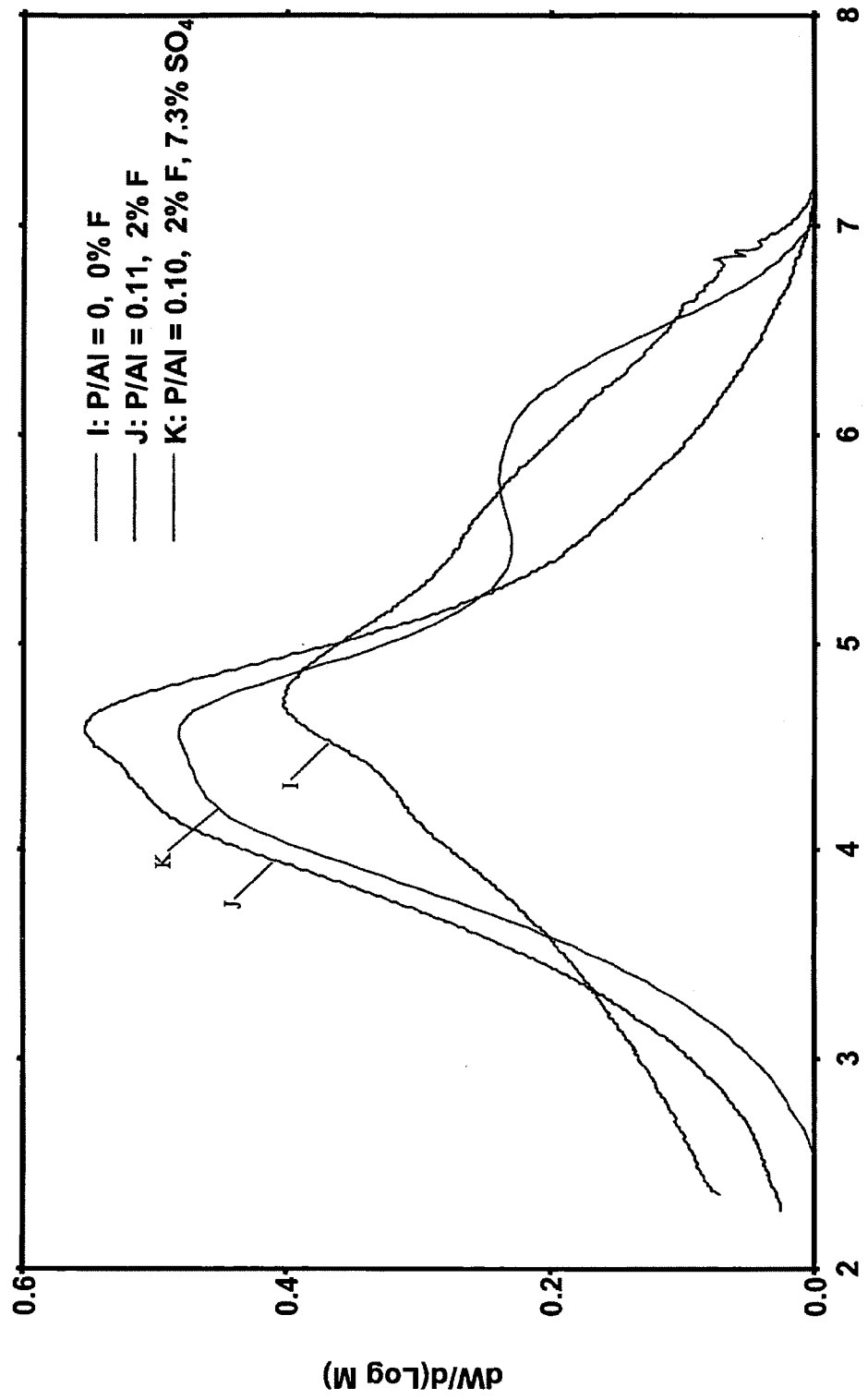

I: P/Al = 0, 0% F
J: P/Al = 0.11, 2% F
K: P/Al = 0.10, 2% F, 7.3% SO4
I
J
K
dW/d(Log M)
0.0
0.2
0.4
0.6
2
3
4
5
6
7
8
Log Molecular Weight

Figure 8

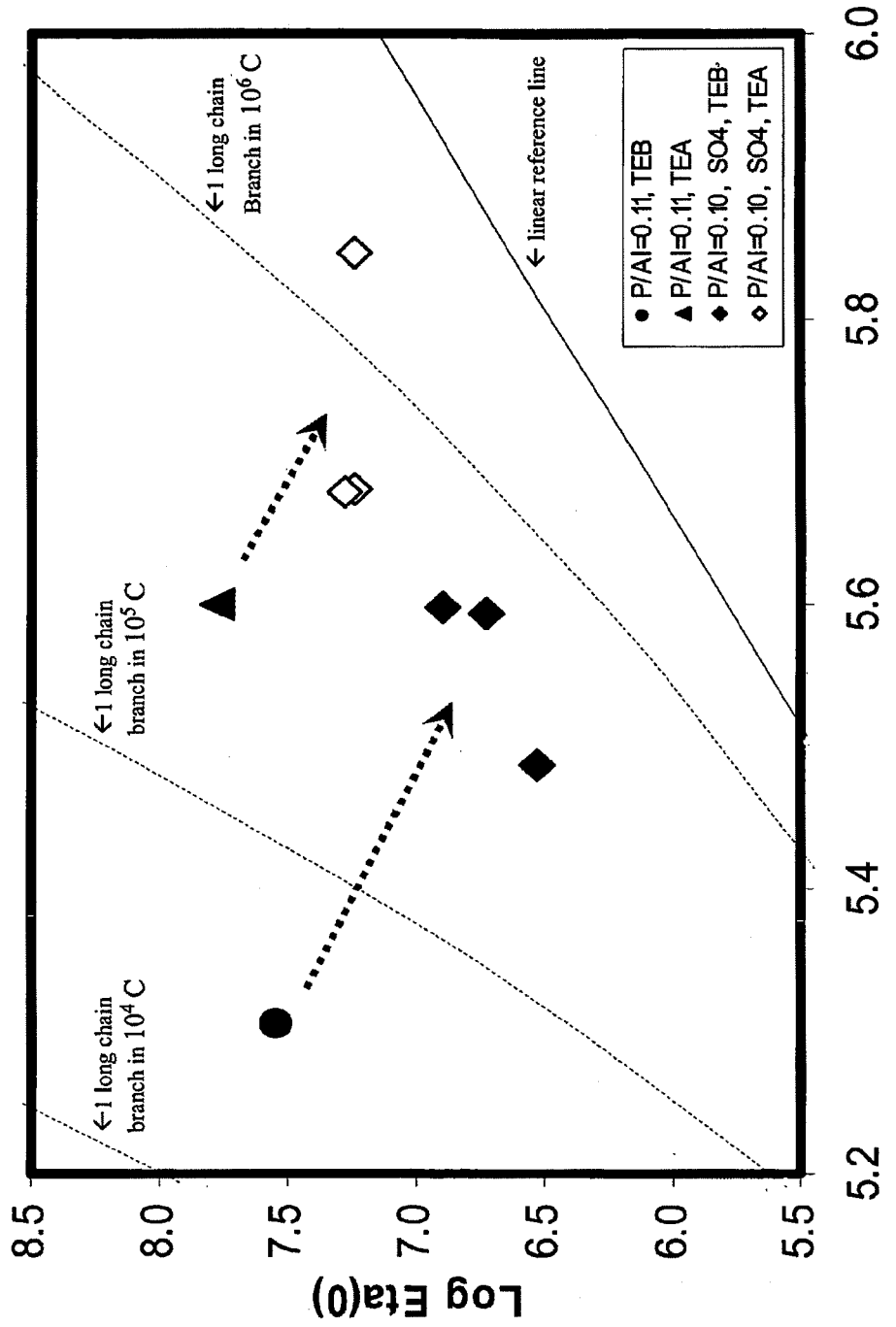

Log Eta(0)
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.2
5.4
5.6
5.8
6.0
Log Molecular Weight
←1 long chain branch in 10^4 C
←1 long chain branch in 10^5 C
←1 long chain Branch in 10^6 C
← linear reference line
P/Al=0.11, TEB
P/Al=0.11, TEA
P/Al=0.10, SO4, TEB
P/Al=0.10, SO4, TEA

Figure 9