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CURRICULUM VITAE

Name:

Mr. Zhen Wang

Birth Date:

March 4, 1964

Nationality:

Chinese

University Education:

1980-1984

B. Sc. in Aerodynamics

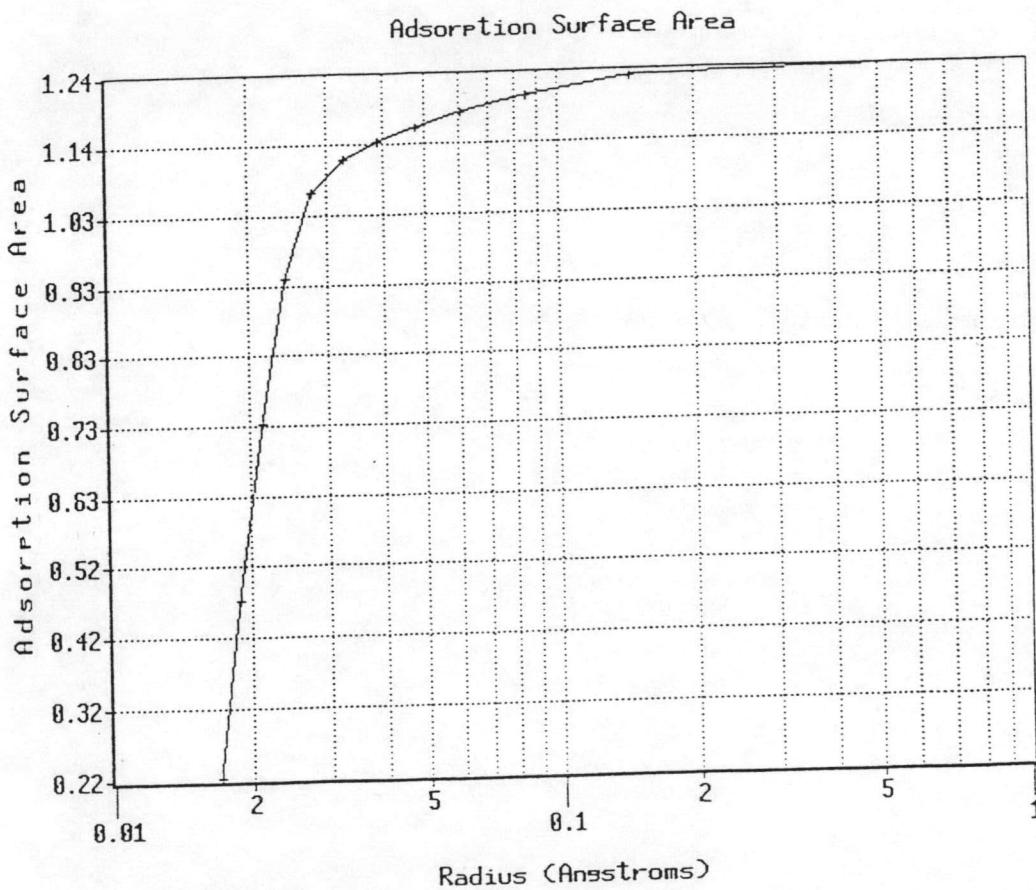
Aerodynamics Dept., Nanjing University
of Aeronautics and Astronautics, China

Date: 09/14/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Al2O3
Sample Description..... Powder Al2O3
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.4819 g P/Po Toler... 3 File Name.. WANG.RPT
Analysis Time... 698.4 min Equil Time... 2 Operator... Wang Zhen
Outgas Time..... 6.0 hrs Outgas Temp.. 120 °C Station #.. 1
End of Run..... 09-14-95 05:34am

Sample #1



X-AXIS SCALE UNIT..... Angstroms x 10E3
Y-AXIS SCALE UNIT..... m²/g x 10E2

Date: 09/23/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Al2O3[High surface] #2
Sample Description. Blank
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.4929 g P/Po Toler... 3 File Name.. BAL203.RAW
Analysis Time... 683.2 min Equil Time... 2 Operator...
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 09-23-95 05:26am

AREA-VOLUME-PORE SIZE SUMMARY

SURFACE AREA DATA

Multi-Point BET.....	1.833E+02	m ² /g
Langmuir Surface Area.....	1.212E+03	m ² /g
Meso Pore Area.....	1.428E+02	m ² /g
* t-Method Micro Pore Area.....	4.048E+01	m ² /g
* MP-Method Micro Pore Area.....	1.271E+02	m ² /g
DR-Method Micro Pore Area.....	4.016E+02	m ² /g
Cumulative Adsorption Surface Area.....	1.477E+02	m ² /g

PORE VOLUME DATA

Total Pore Volume for pores with Radius less than 1111.8 Å at P/Po = 0.99130.....	2.654E-01	cc/g
* t-Method Micro Pore Volume.....	3.303E-02	cc/g
* MP-Method Micro Pore Volume.....	1.719E-01	cc/g

PORE SIZE DATA

Average Pore Radius.....	2.896E+01	Å
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* Note: MP and t-Method values based on data points with t-Tags.

Date: 09/23/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Al2O3 [High surface] #
Sample Description..... Blank
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.4929 g P/Po Toler... 3 File Name.. BAL203.RAW
Analysis Time... 683.2 min Equil Time... 2 Operator...
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 09-23-95 05:26am

ADSORPTION PORE SIZE DISTRIBUTION

Radius Å	Pore Vol cc/g	Pore Surf Area m ² /g	Dv(r) cc/Åg	Ds(r) m ² /Åg	Dv(Log r) cc/g	Ds(Log r) m ² /g
16.97	1.673E-02	1.972E+01	9.050E-03	1.067E+01	3.533E-01	4.163E+02
18.99	3.981E-02	4.403E+01	1.058E-02	1.114E+01	4.619E-01	4.865E+02
21.36	6.985E-02	7.216E+01	1.169E-02	1.094E+01	5.743E-01	5.377E+02
24.23	1.051E-01	1.012E+02	1.114E-02	9.199E+00	6.207E-01	5.124E+02
27.88	1.375E-01	1.245E+02	7.815E-03	5.606E+00	5.008E-01	3.592E+02
32.70	1.547E-01	1.350E+02	3.136E-03	1.918E+00	2.356E-01	1.441E+02
38.90	1.614E-01	1.385E+02	9.688E-04	4.981E-01	8.655E-02	4.450E+01
47.78	1.667E-01	1.407E+02	4.912E-04	2.056E-01	5.381E-02	2.252E+01
61.38	1.724E-01	1.425E+02	3.469E-04	1.130E-01	4.875E-02	1.588E+01
86.06	1.812E-01	1.446E+02	2.671E-04	6.207E-02	5.226E-02	1.215E+01
145.37	1.962E-01	1.466E+02	1.752E-04	2.410E-02	5.690E-02	7.828E+00
649.96	2.319E-01	1.477E+02	3.865E-05	1.189E-03	4.627E-02	1.424E+00

Date: 09/10/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Pure Al2O3
Sample Description..... Uncalcined
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.3456 g P/Po Toler... 3 File Name.. AS590803.R
Analysis Time... 391.0 min Equil Time... 2 Operator...
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 09-09-95 07:26am

AREA-VOLUME-PORE SIZE SUMMARY

SURFACE AREA DATA

Multi-Point BET.....	1.144E+02	m ² /g
Langmuir Surface Area.....	1.382E+03	m ² /g
Meso Pore Area.....	1.144E+02	m ² /g
* t-Method Micro Pore Area.....	0.000E+00	m ² /g
DR-Method Micro Pore Area.....	2.978E+02	m ² /g
Cumulative Adsorption Surface Area.....	1.033E+02	m ² /g

PORE VOLUME DATA

Total Pore Volume for pores with Radius less than 1238.5 Å at P/Po = 0.99220.....	2.275E-01	cc/g
* t-Method Micro Pore Volume.....	0.000E+00	cc/g

PORE SIZE DATA

Average Pore Radius.....	3.978E+01	Å
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* Note: MP and t-Method values based on data points with t-Tags.

Date: 09/10/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Pure Al2O3
Sample Description..... Uncalcined
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.3456 g P/Po Toler... 3 File Name.. AS590803.R
Analysis Time... 391.0 min Equil Time... 2 Operator...
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 09-09-95 07:26am

ADSORPTION PORE SIZE DISTRIBUTION

Radius Å	Pore Vol cc/g	Pore Surf Area m²/g	Dv(r) cc/Åg	Ds(r) m²/Åg	Dv(Log r) cc/g	Ds(Log r) m²/g
17.17	7.852E-03	9.147E+00	4.292E-03	5.000E+00	1.695E-01	1.974E+02
19.13	1.747E-02	1.920E+01	4.601E-03	4.810E+00	2.024E-01	2.117E+02
21.53	3.133E-02	3.208E+01	5.106E-03	4.743E+00	2.528E-01	2.348E+02
24.49	4.903E-02	4.653E+01	5.526E-03	4.513E+00	3.112E-01	2.541E+02
28.14	7.085E-02	6.204E+01	5.323E-03	3.783E+00	3.443E-01	2.447E+02
32.75	9.392E-02	7.613E+01	4.505E-03	2.751E+00	3.390E-01	2.070E+02
38.96	1.164E-01	8.765E+01	3.077E-03	1.580E+00	2.752E-01	1.413E+02
47.55	1.310E-01	9.382E+01	1.483E-03	6.238E-01	1.618E-01	6.805E+01
61.65	1.426E-01	9.759E+01	6.344E-04	2.058E-01	8.940E-02	2.900E+01
87.94	1.529E-01	9.993E+01	3.004E-04	6.832E-02	6.005E-02	1.366E+01
151.76	1.690E-01	1.020E+02	1.721E-04	2.268E-02	5.819E-02	7.669E+00
718.46	2.130E-01	1.033E+02	4.234E-05	1.179E-03	5.538E-02	1.541E+00

Date: 12/25/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Wang
Sample Description.....
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.3713 g P/Po Toler... 3 File Name.. WANG1.RAW
Analysis Time... 1196.0 min Equil Time... 2 Operator...
Outgas Time..... 6.0 hrs Outgas Temp.. 120 °C Station #.. 1
End of Run..... 12-25-95 15:55pm

AREA-VOLUME-PORE SIZE SUMMARY

SURFACE AREA DATA

Single-Point BET.....	4.670E+01	m ² /g
Multi-Point BET.....	4.773E+01	m ² /g
Langmuir Surface Area.....	1.500E+03	m ² /g
Meso Pore Area.....	4.773E+01	m ² /g
* t-Method Micro Pore Area.....	0.000E+00	m ² /g
* MP-Method Micro Pore Area.....	8.130E-01	m ² /g
DR-Method Micro Pore Area.....	2.049E+02	m ² /g
Cumulative Adsorption Surface Area.....	4.431E+01	m ² /g

PORE VOLUME DATA

Total Pore Volume for pores with Radius less than 1418.6 Å at P/Po = 0.99320.....	2.707E-01	cc/g
* t-Method Micro Pore Volume.....	0.000E+00	cc/g
* MP-Method Micro Pore Volume.....	3.236E-04	cc/g

PORE SIZE DATA

Average Pore Radius.....	1.134E+02	Å
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* Note: MP and t-Method values based on data points with t-Tags.

Date: 12/25/95

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Wang
Sample Description.....
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.3713 g P/Po Toler... 3 File Name.. WANG1.RAW
Analysis Time... 1196.0 min Equil Time... 2 Operator...
Outgas Time..... 6.0 hrs Outgas Temp.. 120 °C Station #.. 1
End of Run..... 12-25-95 15:55pm

ADSORPTION PORE SIZE DISTRIBUTION

Radius Å	Pore Vol cc/g	Pore Surf Area m ² /g	Dv(r) cc/Åg	Ds(r) m ² /Åg	Dv(Log r) cc/g	Ds(Log r) m ² /g
15.38	4.588E-04	5.967E-01	3.327E-04	4.328E-01	1.177E-02	1.531E+01
17.19	1.215E-03	1.477E+00	3.372E-04	3.924E-01	1.333E-02	1.551E+01
19.44	2.021E-03	2.306E+00	3.556E-04	3.658E-01	1.590E-02	1.636E+01
21.88	3.112E-03	3.303E+00	4.189E-04	3.829E-01	2.108E-02	1.927E+01
24.73	4.759E-03	4.635E+00	5.318E-04	4.301E-01	3.024E-02	2.446E+01
28.20	6.959E-03	6.195E+00	5.732E-04	4.066E-01	3.716E-02	2.636E+01
32.92	1.085E-02	8.561E+00	6.940E-04	4.216E-01	5.248E-02	3.188E+01
38.88	1.625E-02	1.134E+01	8.571E-04	4.410E-01	7.656E-02	3.939E+01
47.09	2.718E-02	1.598E+01	1.080E-03	4.588E-01	1.166E-01	4.955E+01
60.91	4.820E-02	2.288E+01	1.199E-03	3.936E-01	1.670E-01	5.482E+01
85.98	8.600E-02	3.168E+01	1.159E-03	2.697E-01	2.268E-01	5.275E+01
147.63	1.597E-01	4.166E+01	8.122E-04	1.100E-01	2.672E-01	3.619E+01
805.78	2.667E-01	4.431E+01	8.734E-05	2.168E-03	1.236E-01	3.067E+00



Date: Dec. 26

Page 1

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Wang2
Sample Description..... Sieved alumina
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.4828 g P/Po Toler... 3 File Name.. WANG2.RPT
Analysis Time... 586.4 min Equil Time... 2 Operator... Wang
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 12-26-95 18:56pm

AREA-VOLUME-PORE SIZE SUMMARY

SURFACE AREA DATA

Single-Point BET.....	1.819E+02	m ² /g
Multi-Point BET.....	1.887E+02	m ² /g
Langmuir Surface Area.....	1.127E+03	m ² /g
Meso Pore Area.....	1.381E+02	m ² /g
* t-Method Micro Pore Area.....	5.062E+01	m ² /g
* MP-Method Micro Pore Area.....	1.288E+02	m ² /g
DR-Method Micro Pore Area.....	4.184E+02	m ² /g
Cumulative Adsorption Surface Area.....	1.415E+02	m ² /g

PORE VOLUME DATA

Total Pore Volume for pores with Radius less than 1223.0 Å at P/Po = 0.99210.....	2.696E-01	cc/g
* t-Method Micro Pore Volume.....	3.753E-02	cc/g
* MP-Method Micro Pore Volume.....	1.586E-01	cc/g

PORE SIZE DATA

Average Pore Radius.....	2.858E+01	Å
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* Note: MP and t-Method values based on data points with t-Tags.

Date: Dec. 26

PETROLEUM & PETROCHEMICAL COLLEGE.
Quantachrome Autosorb Automated Gas Adsorption System Report
ANYGAS Version 2.10

Sample ID..... Wang2
Sample Description..... Sieved alumina #5
Comments.....
Gas Type..... Nitrogen
Cross-Sec Area.. 16.2 Å² Corr Factor.. 6.580E-05 Molec Wgt.. 28.0134
Sample Weight... 0.4828 g P/Po Toler... 3 File Name.. WANG2.RPT
Analysis Time... 586.4 min Equil Time... 2 Operator... Wang
Outgas Time..... 0.0 hrs Outgas Temp.. 0 °C Station #.. 1
End of Run..... 12-26-95 18:56pm

ADSORPTION PORE SIZE DISTRIBUTION

Radius Å	Pore Vol cc/g	Pore Surf Area m ² /g	Dv(r) cc/Åg	Ds(r) m ² /Åg	Dv(Log r) cc/g	Ds(Log r) m ² /g
16.96	1.918E-02	2.262E+01	1.016E-02	1.197E+01	3.962E-01	4.672E+02
19.04	4.526E-02	5.001E+01	1.153E-02	1.212E+01	5.050E-01	5.305E+02
21.45	7.607E-02	7.874E+01	1.201E-02	1.120E+01	5.924E-01	5.524E+02
24.27	1.076E-01	1.047E+02	1.023E-02	8.433E+00	5.713E-01	4.707E+02
27.83	1.309E-01	1.215E+02	5.769E-03	4.146E+00	3.691E-01	2.652E+02
32.44	1.414E-01	1.279E+02	2.018E-03	1.244E+00	1.505E-01	9.275E+01
38.81	1.472E-01	1.309E+02	7.706E-04	3.971E-01	6.864E-02	3.537E+01
47.79	1.526E-01	1.332E+02	5.181E-04	2.168E-01	5.678E-02	2.376E+01
61.81	1.596E-01	1.355E+02	4.007E-04	1.297E-01	5.664E-02	1.833E+01
86.17	1.695E-01	1.377E+02	3.177E-04	7.375E-02	6.235E-02	1.447E+01
148.24	1.890E-01	1.404E+02	2.092E-04	2.822E-02	6.900E-02	9.309E+00
708.87	2.292E-01	1.415E+02	3.909E-05	1.103E-03	5.038E-02	1.421E+00

ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: Alou6
Operator Id: Wang
Submitter Id:
File Name: C:\ASAP2010\ALOU6.SMP

Started: 04/05/96 13:47:21 Analysis Adsorptive: N2
Completed: 04/05/96 20:17:46 Analysis Bath: 77.30 K
Report Time: 04/15/96 23:06:47 Thermal Correction: No
Sample Weight: 0.5200 g Smoothed Pressures: No
Warm Freespace: 27.6141 cm³ Cold Freespace: 38.6929 cm³
Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP

BET Surface Area Report

BET Surface Area: 47.8056 ± 0.0369 m²/g
Slope: 0.090254 ± 0.000070
Y-Intercept: 0.000806 ± 0.000009
C: 112.919211
VM: 10.981718 cm³/g STP
Correlation Coefficient: 9.999989e-01

ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: ALOU6
 Operator Id: Wang
 Submitter Id:
 File Name: C:\ASAP2010\ALOU6.SMP

Started: 04/05/96 13:47:21 Analysis Adsorptive: N2
 Completed: 04/05/96 20:17:46 Analysis Bath: 77.30 K
 Report Time: 04/15/96 23:06:47 Thermal Correction: No
 Sample Weight: 0.5200 g Smoothed Pressures: No
 Warm Freespace: 27.6141 cm³ Cold Freespace: 88.6929 cm³
 Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP

BJH Adsorption Pore Distribution Report

$$t = [13.9900 / (0.0340 - \log(P/P_0))] 0.5000$$

Radius Range: 3.5000 to 1500.0000 A
 Adsorbate Property Factor: 9.530000 A
 Density Conversion Factor: 0.001547
 Fraction of Pores Open at Both Ends: 0.000

Pore Radius Range (A)	Average Radius (A)	dV/dR Pore Volume (cm ³ /g-A)	Cumulative Pore Volume (cm ³ /g)	dA/dR Pore Area (m ² /g-A)	Cumulative Pore Area (m ² /g)
1558.2-1367.7	1450.4	1.9883e-05	0.007574	2.7416e-04	0.104
1367.7- 415.6	492.0	5.2009e-06	0.017478	2.1140e-04	0.507
415.6- 336.5	367.5	7.9676e-05	0.030080	4.3363e-03	1.193
336.5- 194.9	229.0	1.5483e-04	0.073910	1.3521e-02	5.020
194.9- 128.4	147.7	2.8241e-04	0.111495	3.8234e-02	10.109
128.4- 102.1	112.0	3.0339e-04	0.127482	5.4167e-02	12.963
102.1- 81.6	89.4	3.0589e-04	0.139995	6.8448e-02	15.763
81.6- 69.3	74.4	3.4443e-04	0.148442	9.2607e-02	18.034
69.3- 59.1	63.4	3.1143e-04	0.154791	9.8311e-02	20.038
59.1- 52.1	55.1	3.1353e-04	0.159211	1.1375e-01	21.642
52.1- 42.3	46.1	3.3292e-04	0.165739	1.4453e-01	24.476
42.3- 35.1	38.0	2.8434e-04	0.169827	1.4984e-01	26.630
35.1- 29.9	32.1	2.9534e-04	0.172882	1.8428e-01	28.536
29.9- 26.0	27.6	2.6083e-04	0.174950	1.8880e-01	30.033
26.0- 22.8	24.2	2.3890e-04	0.176462	1.9785e-01	31.286
22.8- 20.2	21.3	2.4670e-04	0.177769	2.3175e-01	32.514
20.2- 18.0	18.9	2.5059e-04	0.178855	2.6478e-01	33.661
18.0- 16.1	16.9	2.3508e-04	0.179756	2.7814e-01	34.727
16.1- 14.5	15.2	2.8934e-04	0.180689	3.8157e-01	35.957
14.5- 13.0	13.6	2.7615e-04	0.181519	4.0579e-01	37.177
13.0- 11.6	12.2	3.1072e-04	0.182386	5.1085e-01	38.602
11.6- 10.3	10.8	2.7757e-04	0.183091	5.1222e-01	39.904
10.3- 9.5	9.9	3.6526e-04	0.183640	7.3925e-01	41.015
9.5- 8.8	9.1	3.3577e-04	0.184127	7.3448e-01	42.081

ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: alou7
Operator Id: Wang
Submitter Id:
File Name: C:\ASAP2010\OUW7.SMP

Started: 04/06/96 16:58:36 Analysis Adsorptive: N2
Completed: 04/07/96 06:30:57 Analysis Bath: 77.30 K
Report Time: 04/15/96 23:32:01 Thermal Correction: No
Sample Weight: 1.4400 g Smoothed Pressures: No
Warm Freespace: 27.7151 cm³ Cold Freespace: 88.3112 cm³
Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP

BET Surface Area Report

BET Surface Area: 109.0295 ± 0.3065 m²/g
Slope: 0.039551 ± 0.000111
Y-Intercept: 0.000376 ± 0.000015
C: 106.241379
VM: 25.045824 cm³/g STP
Correlation Coefficient: 9.999842e-01

Molecular Cross-section: 0.1620 nm²

Relative Pressure	Vol Adsorbed (cm ³ /g STP)	1/[VA*(Po/P - 1)]
0.057591217	23.1856	0.002636
0.083905591	24.7378	0.003702
0.109424740	26.0463	0.004717
0.139332668	27.4696	0.005893
0.169549589	28.8365	0.007080
0.199976964	30.2038	0.008276

ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: alcu7
 Operator Id: Wang
 Submitter Id:
 File Name: C:\ASAP2010\OUW7.SMP

Started: 04/06/96 16:58:36 Analysis Adsorptive: N2
 Completed: 04/07/96 06:30:57 Analysis Bath: 77.30 K
 Report Time: 04/15/96 23:32:01 Thermal Correction: No
 Sample Weight: 1.4400 g Smoothed Pressures: No
 Warm Freespace: 27.7151 cm³ Cold Freespace: 38.3112 cm³
 Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP

BJH Adsorption Pore Distribution Report

$$t = [13.9900 / (0.0340 - \log(P/P_0))] 0.5000$$

Radius Range: 8.5000 to 1500.0000 A
 Adsorbate Property Factor: 9.530000 A
 Density Conversion Factor: 0.001547
 Fraction of Pores Open at Both Ends: 0.000

Pore Radius Range (A)	Average Radius (A)	dV/dR Pore Volume (cm ³ /g-A)	Cumulative Pore Volume (cm ³ /g)	dA/dR Pore Area (m ² /g-A)	Cumulative Pore Area (m ² /g)
1259.9-1235.9	1247.6	6.3727e-05	0.003065	1.0215e-03	0.049
1235.9- 202.7	226.8	2.4513e-06	0.008130	2.1615e-04	0.496
202.7- 130.2	150.5	9.2749e-05	0.021587	1.2329e-02	2.285
130.2- 98.5	109.7	1.4348e-04	0.030687	2.6164e-02	3.944
98.5- 79.9	87.1	2.2500e-04	0.039036	5.1654e-02	5.361
79.9- 68.8	73.4	3.3471e-04	0.046506	9.1163e-02	7.895
68.8- 61.1	64.5	5.9117e-04	0.055542	1.8345e-01	10.699
61.1- 51.9	55.7	1.2323e-03	0.078372	4.4285e-01	18.904
51.9- 42.7	46.3	2.2569e-03	0.119958	9.7582e-01	36.884
42.7- 34.8	37.9	2.6713e-03	0.161644	1.4109e+00	58.903
34.8- 30.7	32.4	2.4307e-03	0.182025	1.4984e+00	71.466
30.7- 26.2	28.0	2.0575e-03	0.200409	1.4687e+00	84.588
26.2- 23.0	24.4	1.6129e-03	0.210647	1.3240e+00	92.993
23.0- 20.4	21.5	1.3515e-03	0.217792	1.2570e+00	99.639
20.4- 18.2	19.2	1.0940e-03	0.222491	1.1422e+00	104.545
18.2- 16.3	17.1	8.5660e-04	0.225791	9.9998e-01	108.397
16.3- 14.6	15.4	7.6088e-04	0.228339	9.9130e-01	111.716
14.6- 13.2	13.8	5.9403e-04	0.230020	8.5914e-01	114.147
13.2- 11.7	12.4	4.4921e-04	0.231344	7.2663e-01	116.290
11.7- 10.5	11.0	3.3092e-04	0.232168	6.0025e-01	117.783
10.5- 9.7	10.1	2.4841e-04	0.232540	4.9284e-01	118.522
9.7- 9.0	9.3	8.3826e-05	0.232664	1.7961e-01	118.788

ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: alc08
Operator Id: Wang
Submitter Id:
File Name: C:\ASAP2010\OUW6.SMP

Started: 04/07/96 11:18:14 Analysis Adsorptive: N2
Completed: 04/08/96 01:02:33 Analysis Bath: 77.30 K
Report Time: 04/15/96 23:42:13 Thermal Correction: No
Sample Weight: 0.8100 g Smoothed Pressures: No
Warm Freespace: 28.4542 cm³ Cold Freespace: 91.5536 cm³
Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP
Analysis Conditions Modified During Analysis

BET Surface Area Report

BET Surface Area: 194.4742 ± 0.3298 m²/g
Slope: 0.022179 ± 0.000038
Y-Intercept: 0.000206 ± 0.000005
C: 108.779676
VM: 44.673853 cm³/g STP
Correlation Coefficient: 9.999942e-01
Molecular Cross-section: 0.1620 nm²

Relative Pressure	Vol Adsorbed (cm ³ /g STP)	1/[VA*(Po/P - 1)]
0.063023364	42.0991	0.001598
0.085451645	44.4160	0.002104
0.109649317	46.6030	0.002643
0.139173253	49.0770	0.003294
0.169446482	51.4963	0.003962
0.199831162	53.8658	0.004636



ASAP 2010 V1.02 C

Unit 1

Serial # 726

Sample Id: alob8
 Operator Id: Wang
 Submitter Id:
 File Name: C:\ASAP2010\OUW6.SMP

Started: 04/07/96 11:18:14 Analysis Adsorptive: N2
 Completed: 04/08/96 01:02:33 Analysis Bath: 77.30 K
 Report Time: 04/15/96 23:42:13 Thermal Correction: No
 Sample Weight: 0.8100 g Smoothed Pressures: No
 Warm Freespace: 28.4542 cm³ Cold Freespace: 91.5536 cm³
 Equil. Interval: 5 secs Low Pressure Dose: 5.00 cm³/g STP
 Analysis Conditions Modified During Analysis

BJH Adsorption Pore Distribution Report

$$t = [13.9900 / (0.0340 - \log(P/P_0))] 0.5000$$

Radius Range: 8.5000 to 1500.0000 A
 Adsorbate Property Factor: 9.530000 A
 Density Conversion Factor: 0.001547
 Fraction of Pores Open at Both Ends: 0.000

Pore Radius Range (A)	Average Radius (A)	dV/dR Pore Volume (cm ³ /g-A)	Cumulative Pore Volume (cm ³ /g)	dA/dR Pore Area (m ² /g-A)	Cumulative Pore Area (m ² /g)
1151.1-1125.0	1137.8	1.5857e-05	0.000829	2.7873e-04	0.015
1125.0-492.3	590.7	1.5850e-06	0.002835	5.3660e-05	0.082
492.3-337.9	386.4	6.9261e-06	0.004974	3.5850e-04	0.193
337.9-233.2	266.1	1.2335e-05	0.007557	9.2697e-04	0.387
233.2-154.3	177.5	2.1847e-05	0.011002	2.4618e-03	0.776
154.3-97.8	113.2	7.3496e-05	0.019312	1.2989e-02	2.244
97.8-80.5	87.3	3.0428e-04	0.029839	6.9673e-02	4.655
80.5-71.3	75.3	7.6562e-04	0.044011	2.0344e-01	8.420
71.3-58.8	63.7	1.7910e-03	0.088661	5.6219e-01	22.436
58.8-51.5	54.6	3.4350e-03	0.138624	1.2577e+00	40.729
51.5-41.5	45.3	4.5158e-03	0.228950	1.9927e+00	80.586
41.5-34.8	37.5	4.4310e-03	0.288534	2.3639e+00	112.373
34.8-29.8	31.8	3.8262e-03	0.326869	2.4028e+00	136.447
29.8-26.1	27.7	3.1694e-03	0.350129	2.2904e+00	153.256
26.1-23.0	24.3	2.6604e-03	0.366879	2.1888e+00	167.036
23.0-20.4	21.5	2.2391e-03	0.378378	2.0821e+00	177.730
20.4-18.2	19.1	1.8949e-03	0.386869	1.9813e+00	186.607
18.2-16.3	17.1	1.6463e-03	0.392991	1.9241e+00	193.762
16.3-14.6	15.4	1.2782e-03	0.397275	1.6648e+00	199.342
14.6-13.2	13.8	1.0956e-03	0.400383	1.5844e+00	203.837
13.2-11.7	12.4	8.0369e-04	0.402732	1.2991e+00	207.633
11.7-10.5	11.0	4.9174e-04	0.403957	8.9098e-01	209.853
10.5-9.8	10.1	2.2048e-04	0.404287	4.3691e-01	210.508
9.8-9.0	9.3	7.5473e-05	0.404399	1.6151e-01	210.747