

Particle Technology Labs

AutoPore IV 9500 V1.05

Serial: 232

Port: 3/1

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Sample ID: PV on LP Port 3
Operator: WK
Submitter:
File: C:\9500\DATA\PORT3PV SMP

LP Analysis Time:	5/31/2006 9:20:55AM	Sample Weight:	1.7594 g
HP Analysis Time:	5/31/2006 11:41:51AM	Correction Type:	Blank
Report Time:	6/28/2006 1:04:16PM	Show Neg. Int:	No

Summary Report

Penetrometer parameters

Penetrometer:	#12-0619, 5 Bulb, 1.836 Stem, Powder		
Pen. Constant:	27.820 $\mu\text{L/pF}$	Pen. Weight:	55.3189 g
Stem Volume:	1.8360 mL	Max. Head Pressure:	4.4500 psia
Pen. Volume:	6.7236 mL	Assembly Weight:	127.9539 g

Hg Parameters

Adv. Contact Angle:	130.000 degrees	Rec. Contact Angle:	130.000 degrees
Hg Surface Tension:	485.000 dynes/cm	Hg Density:	13.5335 g/mL

User Parameters

Param 1:	0.000	Param 2:	0.000	Param 3:	0.000
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Low Pressure:

Evacuation Pressure:	50 μmHg
Evacuation Time:	5 mins
Mercury Filling Pressure:	0.47 psia
Equilibration Time:	10 secs
Maximum Intrusion Volume:	0.050 mL/g

High Pressure:

Equilibration Time:	10 secs
Maximum Intrusion Volume:	0.050 mL/g

Blank Correction Sample: C:\9500\DATA\PEN12CA3.SMP
Blank Correction ID: PEN12 Cal 4th run

Intrusion Data Summary

Total Intrusion Volume =	0.4943 mL/g
Total Pore Area =	251.383 m^2/g
Median Pore Diameter (Volume) =	0.0073 μm
Median Pore Diameter (Area) =	0.0073 μm
Average Pore Diameter (4V/A) =	0.0079 μm
Bulk Density at 0.47 psia =	1.1835 g/mL
Apparent (skeletal) Density =	2.8518 g/mL
Porosity =	58.4986 %
Stem Volume Used =	47 %

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Tabular Report

Pressure (psia)	Pore Diameter (µm)	Incremental Pore Volume (mL/g)	Smoothed dV/dD Pore Volume (mL/g/µm)	Cumulative Pore Volume (mL/g)	% of Total Intrusion Volume
0.47	388.6617	0.0000	2.603 x 10 ⁻⁵	-0.0000	-0.0061
2.01	89.9122	0.0152	9.308 x 10 ⁻⁵	0.0151	3.0617
3.04	59.4246	0.0016	3.537 x 10 ⁻⁵	0.0168	3.3893
4.05	44.7087	0.0007	4.717 x 10 ⁻⁵	0.0174	3.5249
5.54	32.6292	0.0006	5.775 x 10 ⁻⁵	0.0181	3.6553
6.05	29.9163	0.0002	5.374 x 10 ⁻⁵	0.0182	3.6916
7.54	23.9918	0.0003	4.906 x 10 ⁻⁵	0.0185	3.7438
8.54	21.1870	0.0002	5.430 x 10 ⁻⁵	0.0187	3.7802
10.53	17.1774	0.0002	5.859 x 10 ⁻⁵	0.0189	3.8218
13.03	13.8851	0.0002	7.033 x 10 ⁻⁵	0.0191	3.8687
16.00	11.3036	0.0002	5.548 x 10 ⁻⁵	0.0193	3.9052
20.00	9.0441	0.0001	7.352 x 10 ⁻⁵	0.0194	3.9260
24.99	7.2361	0.0002	1.113 x 10 ⁻⁴	0.0196	3.9677
30.00	6.0286	0.0001	2.579 x 10 ⁻⁴	0.0197	3.9937
37.34	4.8432	0.0006	7.613 x 10 ⁻⁴	0.0203	4.1153
46.76	3.8682	0.0009	4.792 x 10 ⁻⁴	0.0212	4.2985
57.05	3.1700	0.0000	6.483 x 10 ⁻⁵	0.0212	4.2985
71.64	2.5246	0.0001	1.817 x 10 ⁻⁴	0.0213	4.3176
87.37	2.0702	0.0001	1.137 x 10 ⁻⁴	0.0214	4.3374
111.54	1.6216	0.0000	2.639 x 10 ⁻⁵	0.0214	4.3374
135.95	1.3303	0.0000	5.180 x 10 ⁻⁴	0.0215	4.3417
171.57	1.0542	0.0003	6.808 x 10 ⁻⁴	0.0218	4.4009
217.08	0.8332	0.0000	2.975 x 10 ⁻⁴	0.0218	4.4077
266.84	0.6778	0.0001	8.975 x 10 ⁻⁴	0.0219	4.4244
326.62	0.5537	0.0002	7.371 x 10 ⁻⁴	0.0220	4.4579
417.41	0.4333	-0.0000	7.787 x 10 ⁻⁴	0.0220	4.4579
516.14	0.3504	0.0002	2.794 x 10 ⁻³	0.0222	4.4911
637.76	0.2836	0.0002	4.251 x 10 ⁻³	0.0224	4.5413
797.56	0.2268	0.0003	6.492 x 10 ⁻³	0.0227	4.6002
986.84	0.1833	0.0004	7.767 x 10 ⁻³	0.0231	4.6732
1196.60	0.1511	0.0002	4.942 x 10 ⁻³	0.0233	4.7182

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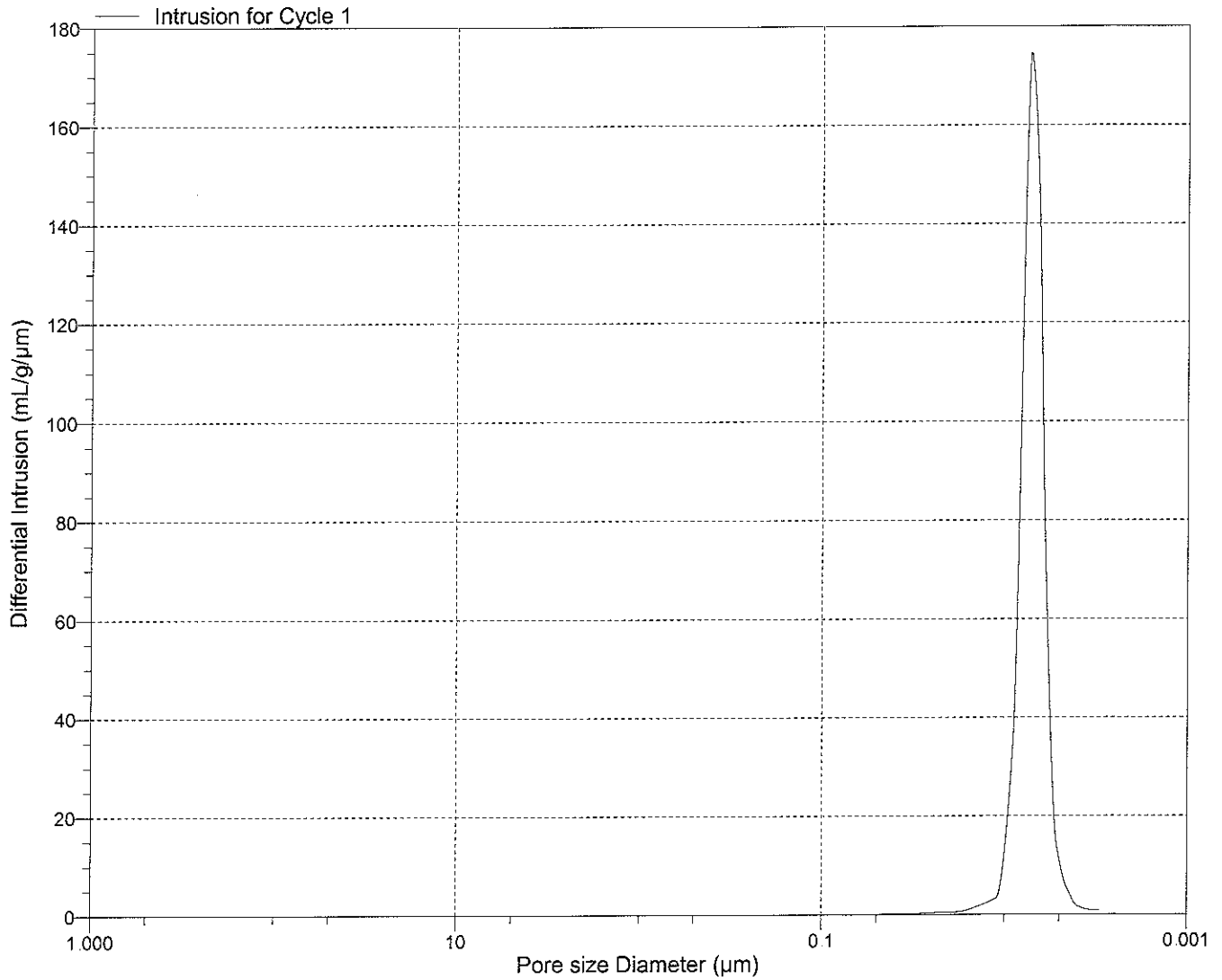
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Differential Intrusion vs Pore size



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Cumulative Intrusion vs Pore size

