micromeritics®

UES - UEDA ENVIRONMENTAL SOLUTIONS

Sample: GNL
Operator: W.S
Submitter: s/n 212
File: C:\MicroActive for ASAP 2460\data\UES\GNL.SMP

Started:	2016/11/25 14:34:52	Analysis Adsorptive:	N2
Completed:	2016/11/25 20:11:09	Analysis Bath Temp.:	-195.800 °C
Report Time:	2016/11/29 10:54:06	Thermal Correction:	No
Sample Mass:	0.0861 g	Warm Free Space:	17.9751 cm³ Measured
Cold Free Space:	51.2023 cm³	Equilibration Interval:	10 s
Low Pressure Dose:	20.0000 cm³/g STP	Sample Density:	1.000 g/cm³
Automatic Degas:	No		

Summary Report

Surface Area

BET Surface Area: 917.7786 m²/g

Langmuir Surface Area: 1,095.4412 m²/g

t-Plot Micropore Area: 710.6223 m²/g

Pore Volume

t-Plot micropore volume: 0.275292 cm³/g

BJH Adsorption cumulative volume of pores between 1.7000 nm and 300.0000 nm diameter: 0.065439 cm³/g

BJH Desorption cumulative volume of pores between 1.7000 nm and 300.0000 nm diameter: 0.064344 cm³/g

Pore Size

BJH Adsorption average pore diameter (4V/A): 2.7791 nm

BJH Desorption average pore diameter (4V/A): 2.6505 nm

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BJH Adsorption Pore Distribution Report

Faas Correction
Harkins and Jura
t = [13.99 / (0.034 - log(P/Po))] ^ 0.5

Diameter Range: 1.7000 nm to 300.0000 nm
Adsorbate Property Factor: 0.95300 nm
Density Conversion Factor: 0.0015468
Fraction of Pores Open at Both Ends: 0.00

Pore Diameter Range (nm)	Average Diameter (nm)	Incremental Pore Volume (cm³/g)	Cumulative Pore Volume (cm³/g)	Incremental Pore Area (m²/g)	Cumulative Pore Area (m²/g)
362.2 - 183.5	219.4	0.001525	0.001525	0.028	0.028
183.5 - 97.2	115.6	0.001560	0.003085	0.054	0.082
97.2 - 65.8	75.5	0.000999	0.004084	0.053	0.135
65.8 - 50.0	55.7	0.000907	0.004991	0.065	0.200
50.0 - 40.1	43.9	0.000893	0.005885	0.081	0.281
40.1 - 27.2	31.1	0.002043	0.007928	0.263	0.544
27.2 - 20.7	23.0	0.001810	0.009738	0.315	0.859
20.7 - 16.7	18.2	0.001408	0.011147	0.309	1.168
16.7 - 14.0	15.1	0.001061	0.012207	0.281	1.449
14.0 - 12.1	12.9	0.000767	0.012974	0.238	1.687
12.1 - 10.6	11.2	0.000699	0.013673	0.249	1.936
10.6 - 9.4	9.9	0.000604	0.014277	0.243	2.179
9.4 - 8.5	8.9	0.000522	0.014799	0.234	2.413
8.5 - 7.7	8.1	0.000491	0.015290	0.244	2.657
7.7 - 7.1	7.4	0.000388	0.015678	0.211	2.868
7.1 - 6.5	6.8	0.000469	0.016147	0.278	3.146
6.5 - 6.0	6.2	0.000343	0.016490	0.220	3.366
6.0 - 5.6	5.8	0.000365	0.016855	0.252	3.618
5.6 - 5.2	5.4	0.000387	0.017242	0.288	3.906
5.2 - 4.9	5.0	0.000422	0.017665	0.336	4.242
4.9 - 4.6	4.7	0.000441	0.018105	0.375	4.617
4.6 - 4.3	4.4	0.000456	0.018561	0.412	5.029
4.3 - 4.0	4.2	0.000573	0.019134	0.552	5.581
4.0 - 3.8	3.9	0.000645	0.019779	0.658	6.239
3.8 - 3.6	3.7	0.000610	0.020389	0.660	6.899
3.6 - 3.4	3.5	0.000840	0.021229	0.962	7.861
3.4 - 3.2	3.3	0.000911	0.022140	1.103	8.964
3.2 - 3.0	3.1	0.001098	0.023238	1.405	10.369
3.0 - 2.9	3.0	0.001299	0.024537	1.756	12.125
2.9 - 2.7	2.8	0.001450	0.025987	2.069	14.194
2.7 - 2.6	2.7	0.001720	0.027707	2.591	16.785
2.6 - 2.4	2.5	0.002076	0.029783	3.303	20.088
2.4 - 2.3	2.4	0.002431	0.032214	4.087	24.175
2.3 - 2.2	2.3	0.003061	0.035275	5.440	29.615
2.2 - 2.1	2.1	0.003833	0.039107	7.207	36.823
2.1 - 1.9	2.0	0.005389	0.044496	10.746	47.568

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1.9 - 1.8	1.9	0.008118	0.052614	17.268	64.836
1.8 - 1.7	1.7	0.012825	0.065439	29.352	94.188