



**\*\*\* The data this report is based upon is incomplete (analysis unfinished) \*\*\***

<u>Analysis</u>		<u>Date:</u> 2025/07/02	<u>Report</u>	<u>Operator:</u> Nova3200e	<u>Date:</u> 2025/07/17
<u>Operator:</u>	thomas		<u>Filename:</u>	528_FZM_0029.qps	
<u>Sample ID:</u>	1219		<u>Comment:</u>		
<u>Sample Desc:</u>			<u>Sample Volume:</u>	1 cc	
<u>Sample weight:</u>	0.0212 g		<u>OutgasTemp:</u>	350.0 C	
<u>Outgas Time:</u>	1.0 hrs		<u>Bath Temp:</u>	273.0 K	
<u>Analysis gas:</u>	Nitrogen		<u>Equil time:</u>	180/180 sec (ads/des)	
<u>Press. Tolerance:</u>	0.100/0.050 (ads/des)		<u>End of run:</u>	2025/07/02 19:06:19	
<u>Analysis Time:</u>	541.5 min				<u>Equil timeout:</u>
<u>Cell ID:</u>	0				<u>Instrument:</u>
					1200/480 sec (ads/des)
					Nova Station A

### Data Reduction Parameters

<u>t-Method</u>	Calc. method: de Boer
<u>BJH/DH method</u>	Moving pt. avg.: off
<u>Adsorbate</u>	Nitrogen
	Molec. Wt.: 28.013

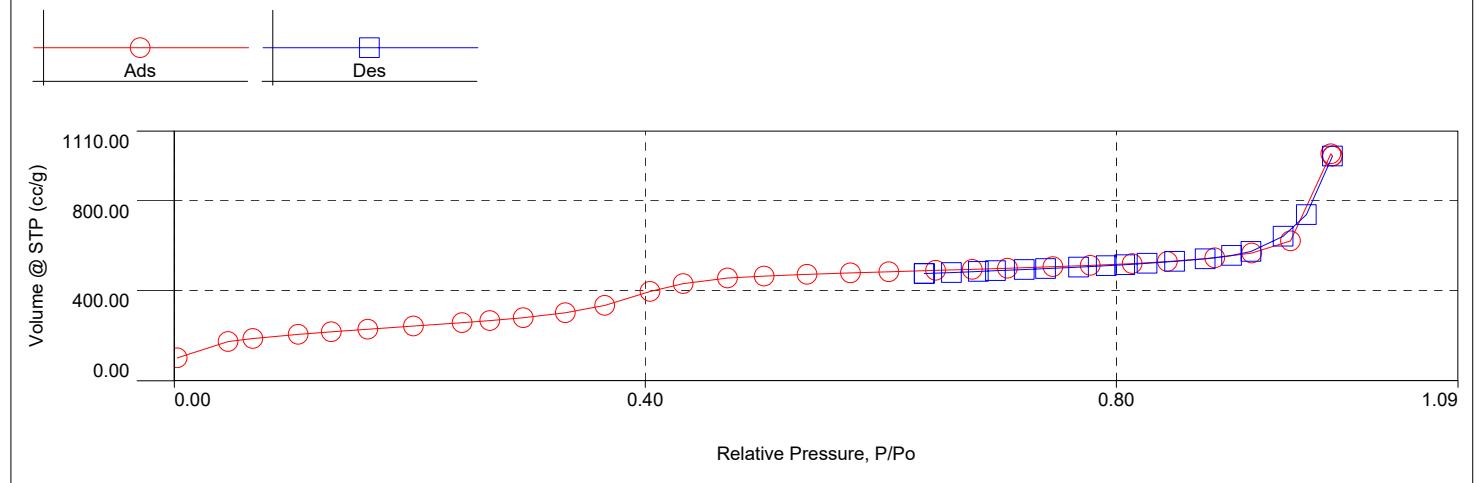
Ignoring P-tags below 0.35 P/Po

Temperature 77.350K

Cross Section: 16.200 Å<sup>2</sup>

Liquid Density: 0.808 g/cc

### Isotherm : Linear



### Isotherm

Relative Pressure	Volume @ STP [cc/g]	Relative Pressure	Volume @ STP [cc/g]	Relative Pressure	Volume @ STP [cc/g]
2.56800e-03	101.7150	5.37439e-01	472.9515	9.41589e-01	642.2369
4.58770e-02	173.8643	5.74268e-01	479.5062	9.14245e-01	574.7816
6.68520e-02	187.1691	6.06812e-01	484.3276	8.97918e-01	556.9586
1.05302e-01	206.1968	6.46529e-01	490.3547	8.75480e-01	541.9407
1.33450e-01	217.6100	6.77645e-01	495.0228	8.49453e-01	530.2049
1.64464e-01	229.0178	7.07554e-01	499.8762	8.26057e-01	521.7401
2.03143e-01	242.7075	7.46173e-01	506.7566	8.07012e-01	515.4276
2.44555e-01	258.1904	7.77821e-01	512.6538	7.91446e-01	511.5043
2.68021e-01	267.4413	8.13462e-01	520.7485	7.68014e-01	505.2037
2.96429e-01	280.1404	8.43299e-01	529.8933	7.39878e-01	498.4245
3.32167e-01	302.2405	8.83641e-01	545.8709	7.21851e-01	494.1211
3.65582e-01	334.6513	9.14888e-01	567.7880	6.97353e-01	489.0398
4.04119e-01	396.9689	9.47860e-01	621.4130	6.82800e-01	485.7869
4.32163e-01	431.9670	9.82190e-01	1008.3706	6.59890e-01	480.9016
4.69811e-01	456.1316	9.83486e-01	998.6522	6.36797e-01	476.2484
5.01012e-01	465.3185	9.61346e-01	738.5670		

### MBET summary

Slope =	3.918
Intercept =	4.398e-02
Correlation coefficient, r =	0.999991
C constant=	90.074

Surface Area = 879.028 m<sup>2</sup>/g



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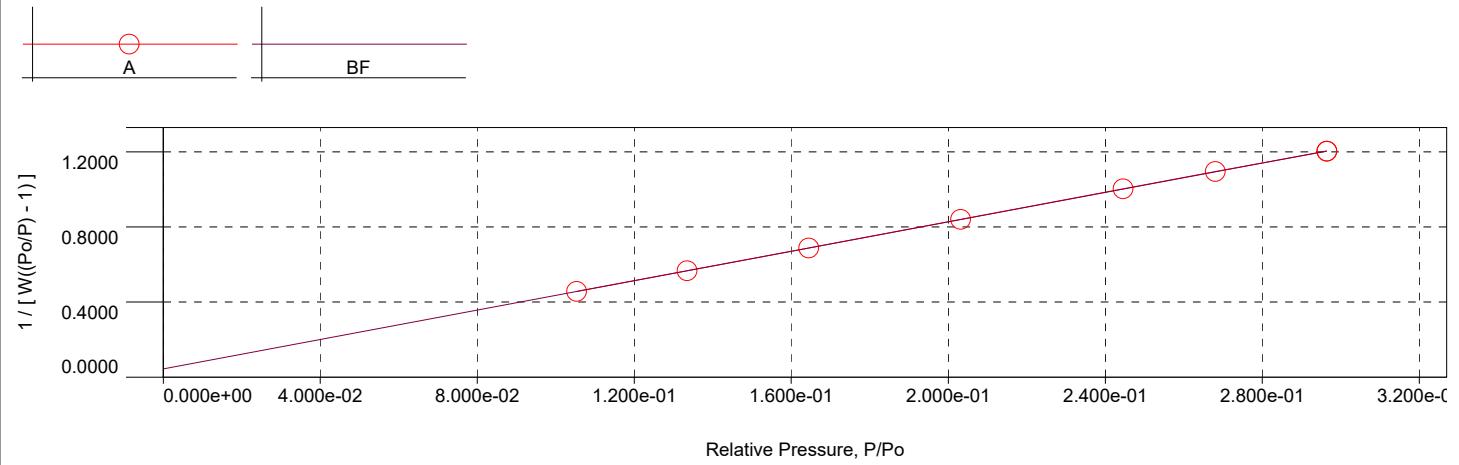
**Analysis**  
**Operator:** thomas  
**Sample ID:** 1219

**Date:**2025/07/02  
**Filename:**

**Report**  
**Operator:** Nova3200e  
**File:** 528\_FZM\_0029.qps

**Date:**2025/07/17

### Multi-Point BET Plot



### Multi-Point BET

Relative Pressure [P/Po]	Volume @ STP [cc/g]	$1 / [W((P_o/P) - 1)]$	Relative Pressure [P/Po]	Volume @ STP [cc/g]	$1 / [W((P_o/P) - 1)]$
1.05302e-01	206.1968	4.5670e-01	2.44555e-01	258.1904	1.0032e+00
1.33450e-01	217.6100	5.6623e-01	2.68021e-01	267.4413	1.0954e+00
1.64464e-01	229.0178	6.8768e-01	2.96429e-01	280.1404	1.2033e+00
2.03143e-01	242.7075	8.4040e-01			

### V-t method summary

Thickness method: DeBoer  
 Slope = 122.528  
 Intercept = -316.184  
 Correlation coefficient, r = 0.982410  
 Micropore volume = 0.000 cc/g  
 Micropore area = 0.000 m<sup>2</sup>/g  
 External surface area = 879.028 m<sup>2</sup>/g

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Analysis  
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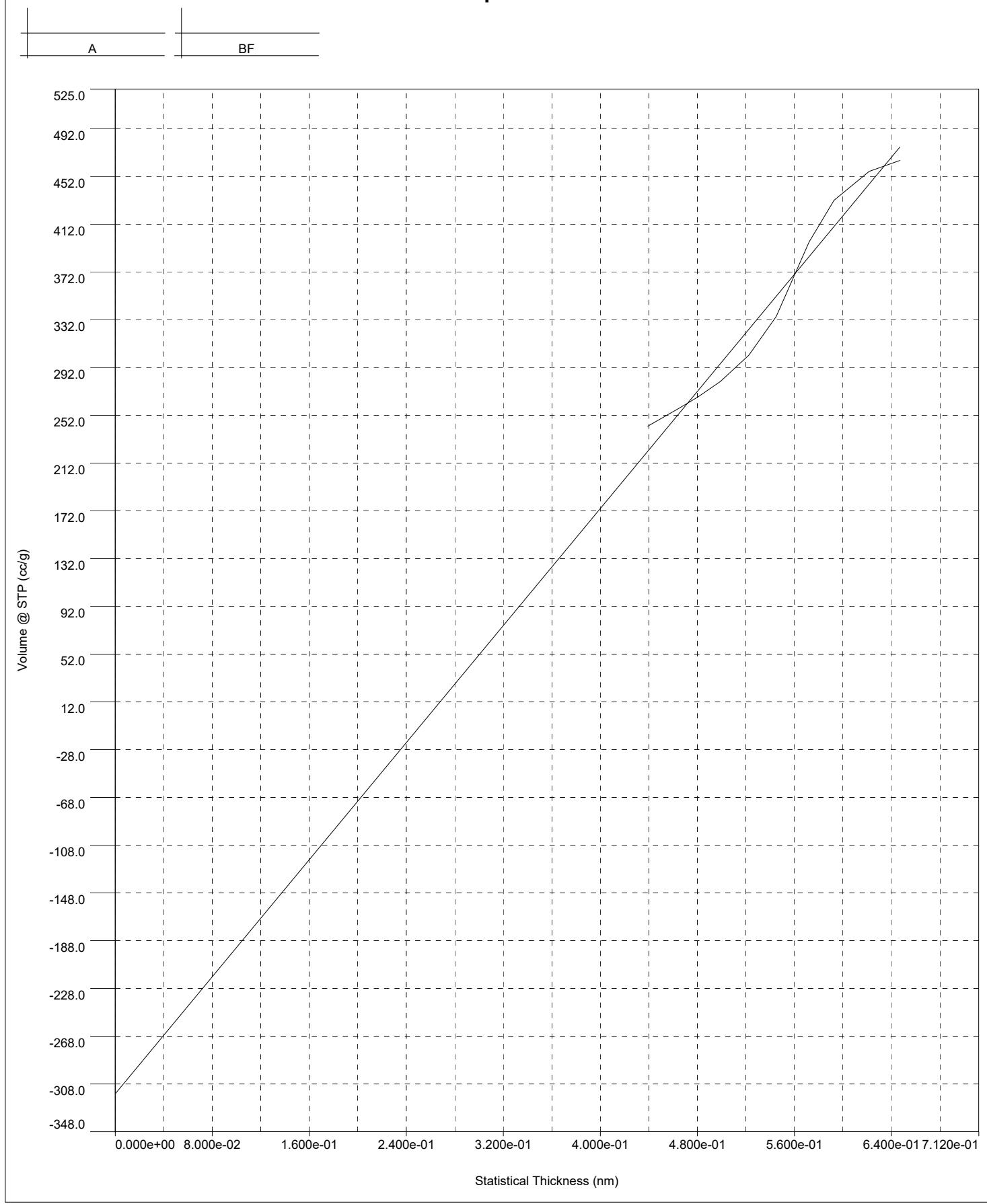
thomas  
1219

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### t plot





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### t-Plot Method Micropore Analysis

Relative Pressure	Thickness [(nm)]	Volume @ STP [(cc/g)]	Relative Pressure	Thickness [(nm)]	Volume @ STP [(cc/g)]
2.031430e-01	4.3892e-01	242.708	3.655820e-01	5.4499e-01	334.651
2.445550e-01	4.6550e-01	258.190	4.041190e-01	5.7207e-01	396.969
2.680210e-01	4.8054e-01	267.441	4.321630e-01	5.9262e-01	431.967
2.964290e-01	4.9890e-01	280.140	4.698110e-01	6.2160e-01	456.132
3.321670e-01	5.2240e-01	302.241	5.010120e-01	6.4705e-01	465.318

### BJH desorption summary

Surface Area = 109.932 m<sup>2</sup>/g  
Pore Volume = 0.889 cc/g  
Pore Diameter D<sub>v</sub>(d) = 5.997 nm

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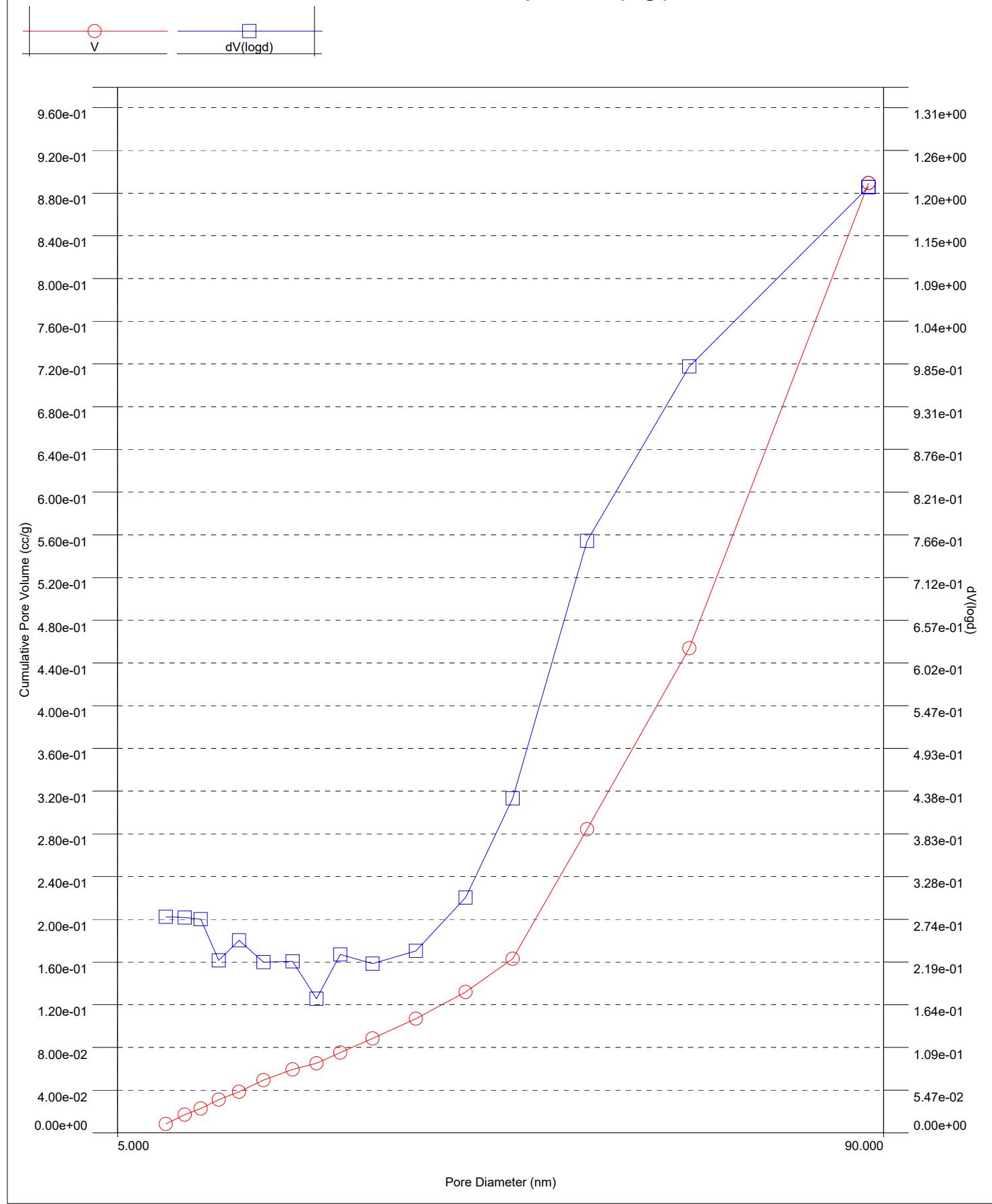
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### BJH method Desorption dV(log )





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## Desorption

Diameter [nm]	Pore Volume [cc/g]	Pore Surf Area [m <sup>2</sup> /g]	dV(d) [cc/nm/g]	dS(d) [m <sup>2</sup> /nm/g]	dV(logd) [cc/g]	dS(logd) [cc/g]
5.9972	8.3824e-03	5.5908e+00	2.0071e-02	1.3387e+01	2.7705e-01	1.8479e+02
6.4408	1.7125e-02	1.1020e+01	1.8621e-02	1.1564e+01	2.7603e-01	1.7143e+02
6.8418	2.2906e-02	1.4400e+01	1.7392e-02	1.0168e+01	2.7394e-01	1.6016e+02
7.3242	3.1202e-02	1.8931e+01	1.3116e-02	7.1628e+00	2.2105e-01	1.2072e+02
7.9087	3.8479e-02	2.2611e+01	1.3565e-02	6.8605e+00	2.4692e-01	1.2489e+02
8.6738	4.9379e-02	2.7638e+01	1.0970e-02	5.0590e+00	2.1886e-01	1.0093e+02
9.6807	5.9448e-02	3.1798e+01	9.8692e-03	4.0779e+00	2.1979e-01	9.0814e+01
10.5947	6.5146e-02	3.3950e+01	7.0552e-03	2.6637e+00	1.7203e-01	6.4949e+01
11.5862	7.5229e-02	3.7431e+01	8.5782e-03	2.9615e+00	2.2865e-01	7.8940e+01
13.0901	8.8434e-02	4.1466e+01	7.2061e-03	2.2020e+00	2.1684e-01	6.6262e+01
15.4133	1.0698e-01	4.6278e+01	6.5903e-03	1.7103e+00	2.3324e-01	6.0530e+01
18.5879	1.3196e-01	5.1654e+01	7.0659e-03	1.5205e+00	3.0151e-01	6.4883e+01
22.2055	1.6305e-01	5.7256e+01	8.4049e-03	1.5140e+00	4.2874e-01	7.7232e+01
29.4069	2.8434e-01	7.3753e+01	1.1332e-02	1.5414e+00	7.5875e-01	1.0321e+02
43.2387	4.5387e-01	8.9437e+01	9.9958e-03	9.2470e-01	9.8229e-01	9.0872e+01
85.0040	8.8942e-01	1.0993e+02	6.5428e-03	3.0788e-01	1.2122e+00	5.7044e+01