



Analysis

Operator: Demo
Sample ID: Ironoide07152024
Sample Desc:
Sample Weight: 0.1488 g
Approx. Outgas Time: 9.4 hrs
Analysis gas: Nitrogen
Analysis Time: 9:51 hr:min
Analysis Mode: Standard
VoidVol. Mode: He Measure

Date: 2024/07/16

Filename: Ironoxide07162024.qps
Comment:
Instrument: Autosorb iQ Station 1
Final Outgas Temp.: 300 °C
Non-ideality: 6.58e-05 1/Torr
Bath temp.: 77.35 K
Cold Zone V: 2.70818 cc

Report

Operator: Anton Parr

Date: 2024/07/17

Extended info: Available
CellType: 6mm w/o rod
VoidVol Remeasure: off
Warm Zone V: 8.41758 cc

Data Reduction Parameters

DFT method

Thermal Transpiration: on
Calc. Model: N2 at 77 K on silica (cylindr. pore, NLDFT adsorption branch model)
Rel. press. range: 0.0000 - 1.0000

Eff. cell stem diam. (d): 4.0000 mm
Moving pt. avg: off

Adsorbate model

Nitrogen
Molec. Wt.: 28.013

Temperature 77.350K
Cross Section: 16.200 Å²

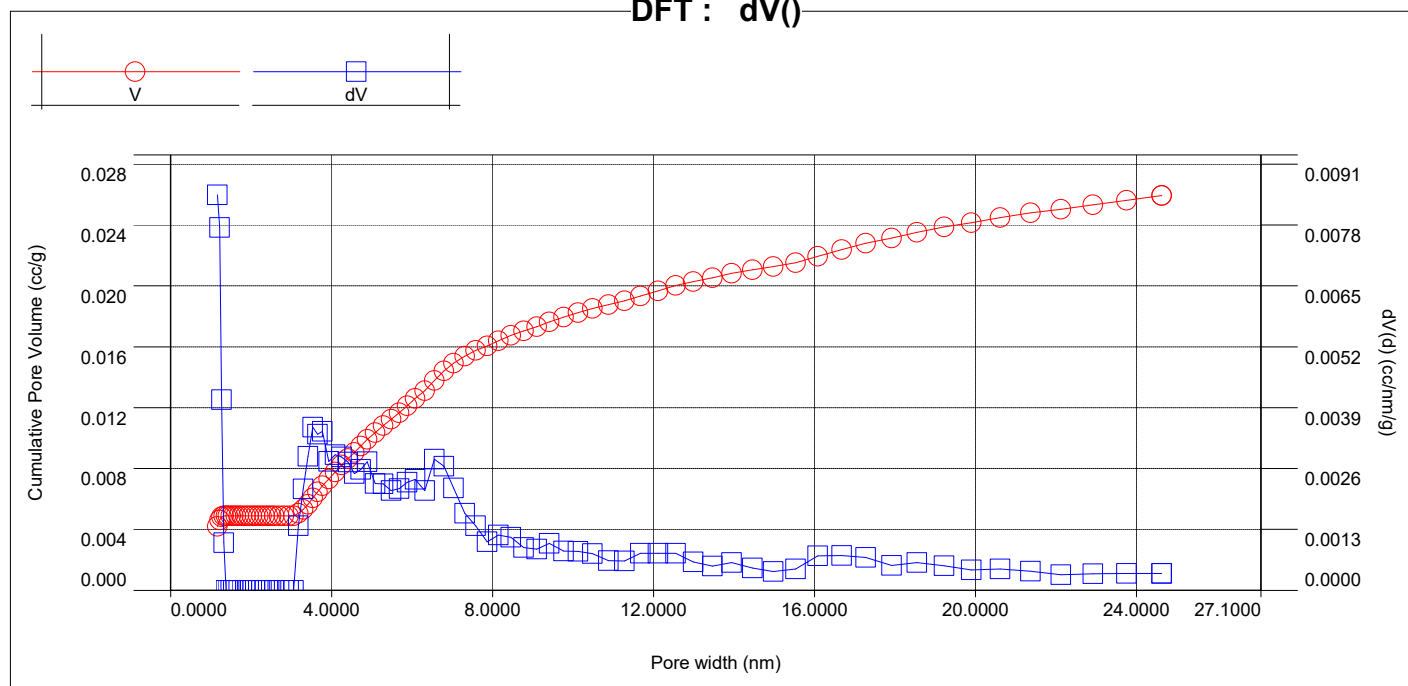
Liquid Density: 0.806 g/cc

DFT method summary

Pore volume = 0.026 cc/g
Surface area = 35.136 m²/g
Lower confidence limit = 1.167 nm
Fitting error = 1.249 %
Pore width (Mode) = 1.167 nm

Moving point average : off

DFT : dV()





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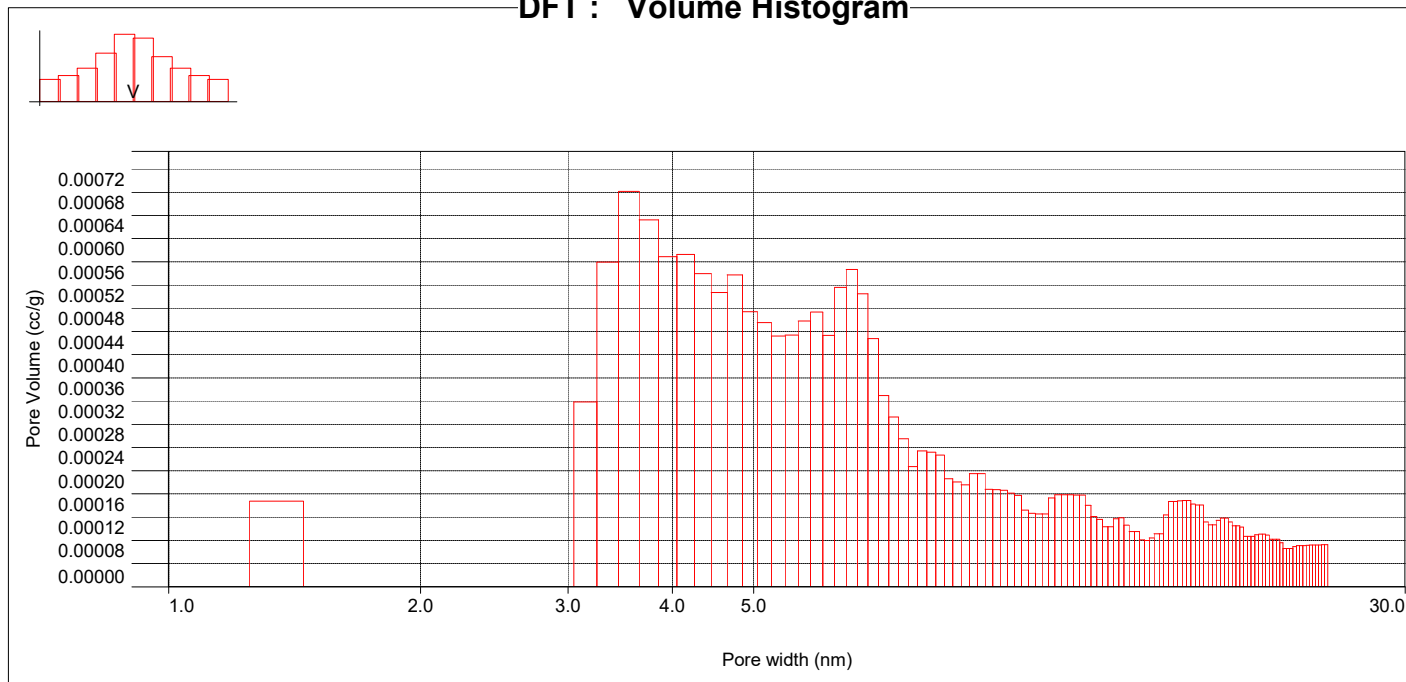
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DFT : Volume Histogram



DFT method Pore Size Distribution

Pore width [nm]	Cumulative Pore Volume [cc/g]	Cumulative Surface Area [m ² /g]	dV(d) [cc/nm/g]	dS(d) [m ² /nm/g]
1.1670	4.2037e-03	2.1061e+01	8.4680e-03	2.9025e+01
1.2200	4.6154e-03	2.2411e+01	7.7677e-03	2.5468e+01
1.2730	4.8317e-03	2.3091e+01	4.0821e-03	1.2827e+01
1.3260	4.8856e-03	2.3253e+01	1.0172e-03	3.0684e+00
1.3790	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.4320	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.4980	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.5640	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.6310	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.6970	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.7800	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.8680	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
1.9480	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.0270	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.1070	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.1860	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.2660	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.3450	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.4250	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.5040	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.5830	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.7030	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.8220	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
2.9410	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
3.0600	4.8856e-03	2.3253e+01	0.0000e+00	0.0000e+00
3.1790	5.0500e-03	2.3460e+01	1.3813e-03	1.7380e+00
3.2980	5.3082e-03	2.3773e+01	2.1699e-03	2.6317e+00
3.4180	5.6521e-03	2.4176e+01	2.8654e-03	3.3533e+00
3.5370	6.0677e-03	2.4646e+01	3.4924e-03	3.9495e+00

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DFT method Pore Size Distribution continued

Pore width [nm]	Cumulative Pore Volume [cc/g]	Cumulative Surface Area [m ² /g]	dV(d) [cc/nm/g]	dS(d) [m ² /nm/g]
3.6560	6.4650e-03	2.5081e+01	3.3388e-03	3.6529e+00
3.7750	6.8703e-03	2.5510e+01	3.4059e-03	3.6089e+00
3.9340	7.3091e-03	2.5956e+01	2.7598e-03	2.8061e+00
4.0930	7.7711e-03	2.6408e+01	2.9058e-03	2.8398e+00
4.2520	8.2244e-03	2.6834e+01	2.8512e-03	2.6822e+00
4.4110	8.6608e-03	2.7230e+01	2.7444e-03	2.4887e+00
4.5700	9.0583e-03	2.7578e+01	2.4998e-03	2.1880e+00
4.7280	9.4669e-03	2.7923e+01	2.5863e-03	2.1881e+00
4.8870	9.9044e-03	2.8282e+01	2.7514e-03	2.2520e+00
5.0860	1.0359e-02	2.8639e+01	2.2825e-03	1.7951e+00
5.2850	1.0812e-02	2.8982e+01	2.2764e-03	1.7229e+00
5.4830	1.1235e-02	2.9290e+01	2.1370e-03	1.5590e+00
5.6820	1.1667e-02	2.9595e+01	2.1747e-03	1.5310e+00
5.8800	1.2125e-02	2.9906e+01	2.3112e-03	1.5722e+00
6.0790	1.2598e-02	3.0218e+01	2.3774e-03	1.5644e+00
6.3170	1.3106e-02	3.0539e+01	2.1316e-03	1.3497e+00
6.5560	1.3776e-02	3.0948e+01	2.8047e-03	1.7112e+00
6.7940	1.4408e-02	3.1320e+01	2.6565e-03	1.5640e+00
7.0320	1.4929e-02	3.1616e+01	2.1881e-03	1.2447e+00
7.3100	1.5387e-02	3.1867e+01	1.6476e-03	9.0157e-01
7.5880	1.5771e-02	3.2070e+01	1.3831e-03	7.2908e-01
7.8670	1.6060e-02	3.2217e+01	1.0361e-03	5.2682e-01
8.1450	1.6390e-02	3.2378e+01	1.1843e-03	5.8162e-01
8.4620	1.6750e-02	3.2548e+01	1.1355e-03	5.3674e-01
8.7800	1.7042e-02	3.2681e+01	9.1770e-04	4.1809e-01
9.0980	1.7321e-02	3.2804e+01	8.7910e-04	3.8651e-01
9.4160	1.7640e-02	3.2940e+01	1.0037e-03	4.2638e-01
9.7730	1.7940e-02	3.3063e+01	8.4043e-04	3.4397e-01
10.1310	1.8238e-02	3.3180e+01	8.3190e-04	3.2846e-01
10.4880	1.8520e-02	3.3288e+01	7.8836e-04	3.0068e-01
10.8850	1.8770e-02	3.3380e+01	6.3169e-04	2.3213e-01
11.2830	1.9020e-02	3.3468e+01	6.2770e-04	2.2253e-01
11.6800	1.9335e-02	3.3576e+01	7.9333e-04	2.7169e-01
12.1170	1.9681e-02	3.3690e+01	7.9266e-04	2.6167e-01
12.5540	2.0026e-02	3.3800e+01	7.8899e-04	2.5139e-01
12.9910	2.0291e-02	3.3882e+01	6.0656e-04	1.8676e-01
13.4670	2.0537e-02	3.3955e+01	5.1574e-04	1.5318e-01
13.9440	2.0820e-02	3.4036e+01	5.9421e-04	1.7045e-01
14.4600	2.1066e-02	3.4104e+01	4.7646e-04	1.3181e-01
14.9770	2.1273e-02	3.4159e+01	4.0011e-04	1.0686e-01
15.5330	2.1527e-02	3.4225e+01	4.5698e-04	1.1768e-01
16.0890	2.1936e-02	3.4326e+01	7.3460e-04	1.8263e-01
16.6850	2.2378e-02	3.4433e+01	7.4295e-04	1.7811e-01
17.2810	2.2799e-02	3.4530e+01	7.0551e-04	1.6331e-01
17.9160	2.3137e-02	3.4605e+01	5.3269e-04	1.1893e-01
18.5520	2.3513e-02	3.4686e+01	5.9101e-04	1.2743e-01
19.2270	2.3867e-02	3.4760e+01	5.2447e-04	1.0911e-01
19.9020	2.4160e-02	3.4819e+01	4.3447e-04	8.7325e-02
20.6170	2.4485e-02	3.4882e+01	4.5420e-04	8.8122e-02
21.3720	2.4794e-02	3.4940e+01	4.0998e-04	7.6728e-02
22.1270	2.5044e-02	3.4985e+01	3.3101e-04	5.9838e-02
22.9210	2.5325e-02	3.5034e+01	3.5380e-04	6.1741e-02
23.7550	2.5625e-02	3.5085e+01	3.5975e-04	6.0578e-02
24.6290	2.5942e-02	3.5136e+01	3.6175e-04	5.8753e-02