Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started: 30/10/2024 15:41:08
Completed: 30/10/2024 18:46:46
Report Time: 30/10/2024 18:46:46
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

Summary Report

Surface Area

Single point surface area at P/Po = 0.199530301:	41.9645 m²/g
BET Surface Area:	43.2744 m²/g
Langmuir Surface Area:	59.7150 m²/g
t-Plot Micropore Area:	4.8568 m²/g
t-Plot External Surface Area:	38.4176 m²/g
BJH Adsorption cumulative surface area of pores between 17.000 Å and 3000.000 Å diameter:	49.717 m²/g
BJH Desorption cumulative surface area of pores between 17.000 Å and 3000.000 Å diameter:	57.5457 m²/g

Pore Volume

Single point adsorption total pore volume of pores less than 1274.856 Å diameter at P/Po = 0.984579173:	0.109443 cm³/g
Single point desorption total pore volume of pores less than 677.759 Å diameter at P/Po = 0.970603211:	0.108455 cm³/g
t-Plot micropore volume:	0.001846 cm³/g
BJH Adsorption cumulative volume of pores between 17.000 Å and 3000.000 Å diameter:	0.116157 cm³/g
BJH Desorption cumulative volume of pores between 17.000 Å and 3000.000 Å diameter:	0.115680 cm³/g

Pore Size

Adsorption average pore width (4V/A by BET):	101.1622 Å
Desorption average pore width (4V/A by BET):	100.2483 Å
BJH Adsorption average pore diameter (4V/A):	93.455 Å
BJH Desorption average pore diameter (4V/A):	80.409 Å

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Thermal Correction: No
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Equilibration Interval: 5 s
Automatic Degas: Yes

Isotherm Tabular Report

Relative Pressure (P/Po)	Absolute Pressure (mmHg)	Quantity Adsorbed (cm³/g STP)	Elapsed Time (h:min)	Saturation Pressure (mmHg)
			01:05	711.072876
0.064960694	46.191788	9.5621	01:17	
0.079559810	56.572823	9.9251	01:19	
0.119870450	85.236626	10.7028	01:21	
0.139892189	99.473541	11.0387	01:22	
0.159907877	113.706154	11.3815	01:24	
0.199530301	141.880585	12.0428	01:26	
0.298885566	212.529419	13.7411	01:28	
0.350722986	249.389603	14.6506	01:30	
0.449964885	319.957825	16.5077	01:32	
0.549463967	390.708923	18.9026	01:34	
0.736156010	523.460571	26.7469	01:38	
0.839571071	596.996216	34.7701	01:43	
0.905795153	644.086365	43.1164	01:48	
0.940813897	668.987244	50.2861	01:52	
0.964166507	685.592651	57.7512	01:57	
0.977064635	694.764160	64.6007	02:01	
0.984579173	700.107544	70.7547	02:06	
0.986766600	701.662964	73.6628	02:08	
0.970603211	690.169617	70.1154	02:11	
0.955259378	679.259033	64.0105	02:15	
0.933592745	663.852478	56.5539	02:21	
0.903793045	642.662720	49.0071	02:26	
0.839092110	596.655640	39.2474	02:32	
0.745568538	530.153564	31.2738	02:37	
0.538646873	383.017181	21.9590	02:42	
0.337712414	240.138138	14.6110	02:46	
0.146734572	104.338974	11.2060	02:50	

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

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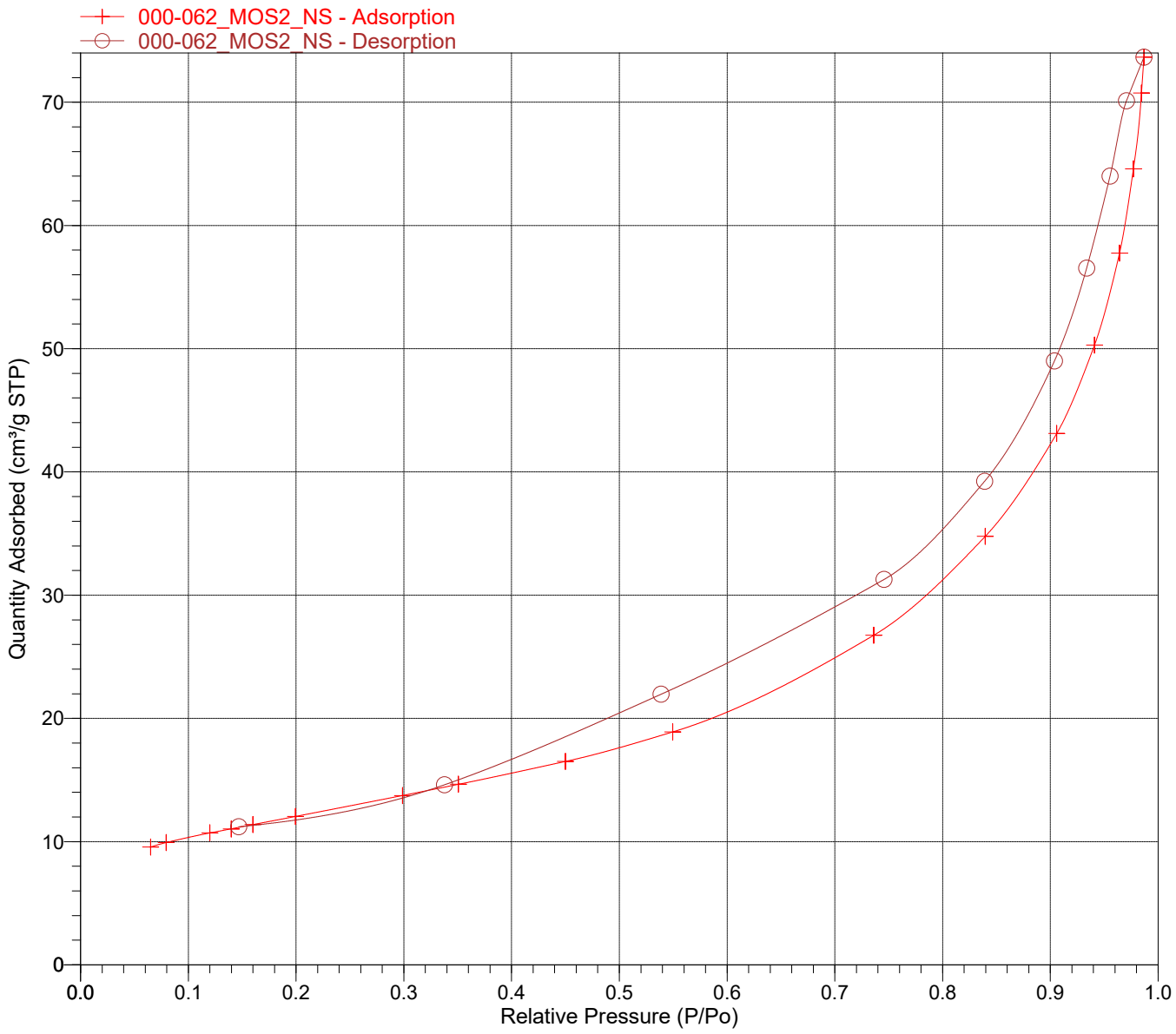
Completed: 30/10/2024 18:46:46
Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

Isotherm Linear Plot



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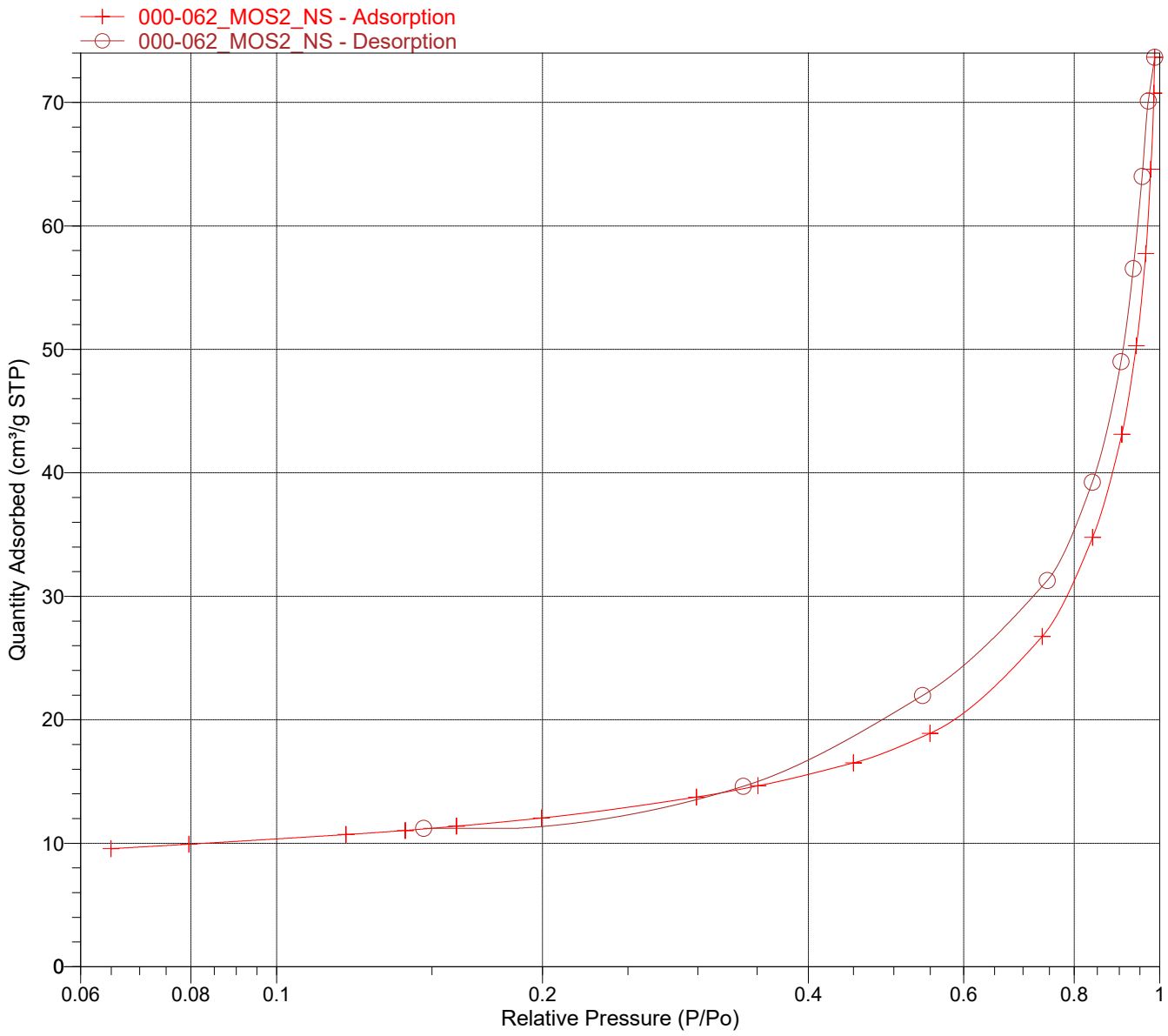
Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

Isotherm Log Plot



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File: C:\2020\DATA\000-062.SMP

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Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

BET Surface Area Report

BET Surface Area: 43.2744 ± 0.0461 m²/g
Slope: 0.099826 ± 0.000106 g/cm³ STP
Y-Intercept: 0.000770 ± 0.000014 g/cm³ STP
C: 130.705340
Qm: 9.9408 cm³/g STP
Correlation Coefficient: 0.9999983
Molecular Cross-Sectional Area: 0.1620 nm²

Relative Pressure (P/Po)	Quantity Adsorbed (cm³/g STP)	1/[Q(Po/P - 1)]
0.064960694	9.5621	0.007266
0.079559810	9.9251	0.008709
0.119870450	10.7028	0.012725
0.159907877	11.3815	0.016724
0.199530301	12.0428	0.020698

Sample: 000-062_MOS2_NS
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Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started: 30/10/2024 15:41:08
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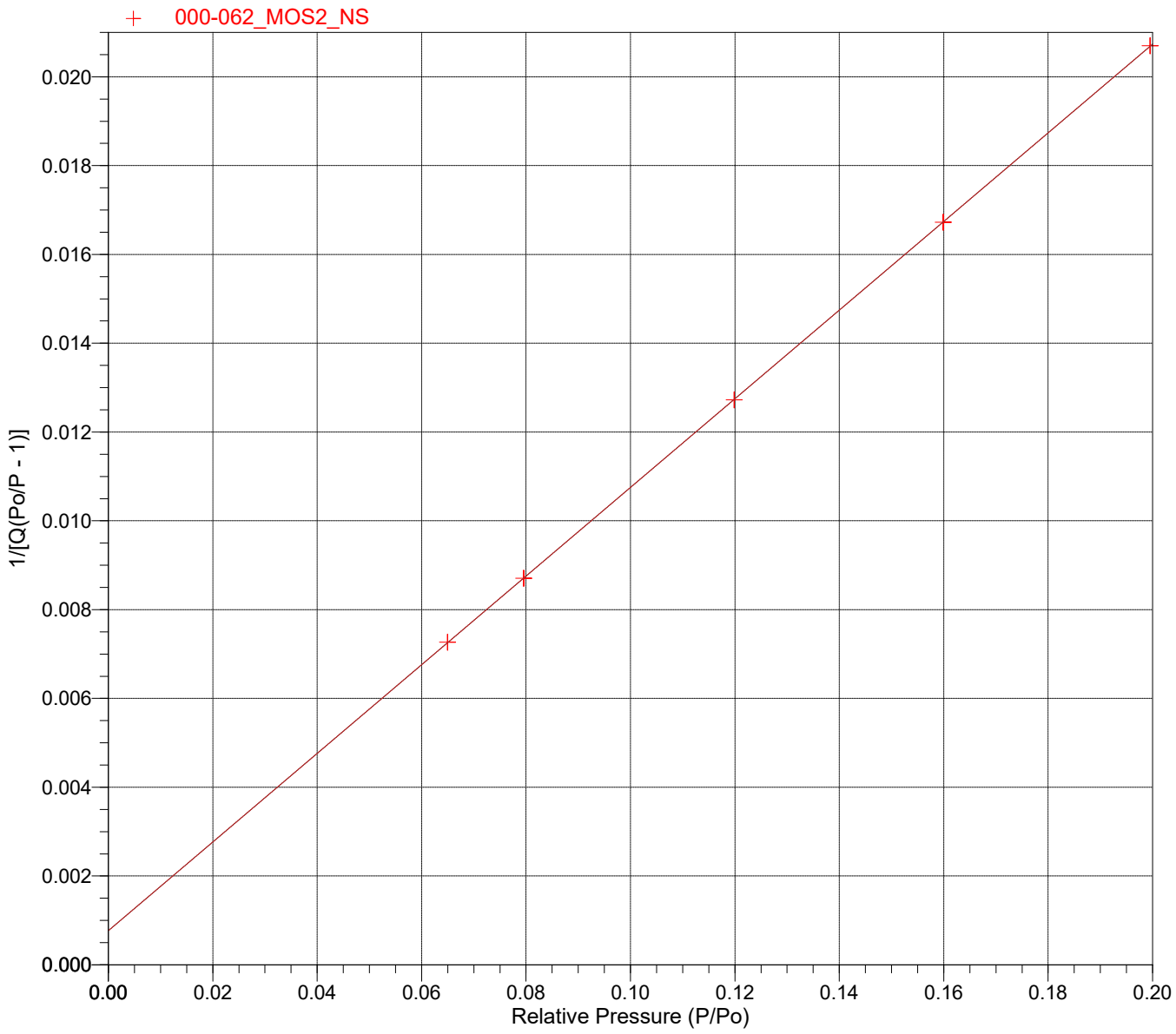
Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

BET Surface Area Plot



Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started: 30/10/2024 15:41:08
Completed: 30/10/2024 18:46:46
Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

Langmuir Surface Area Report

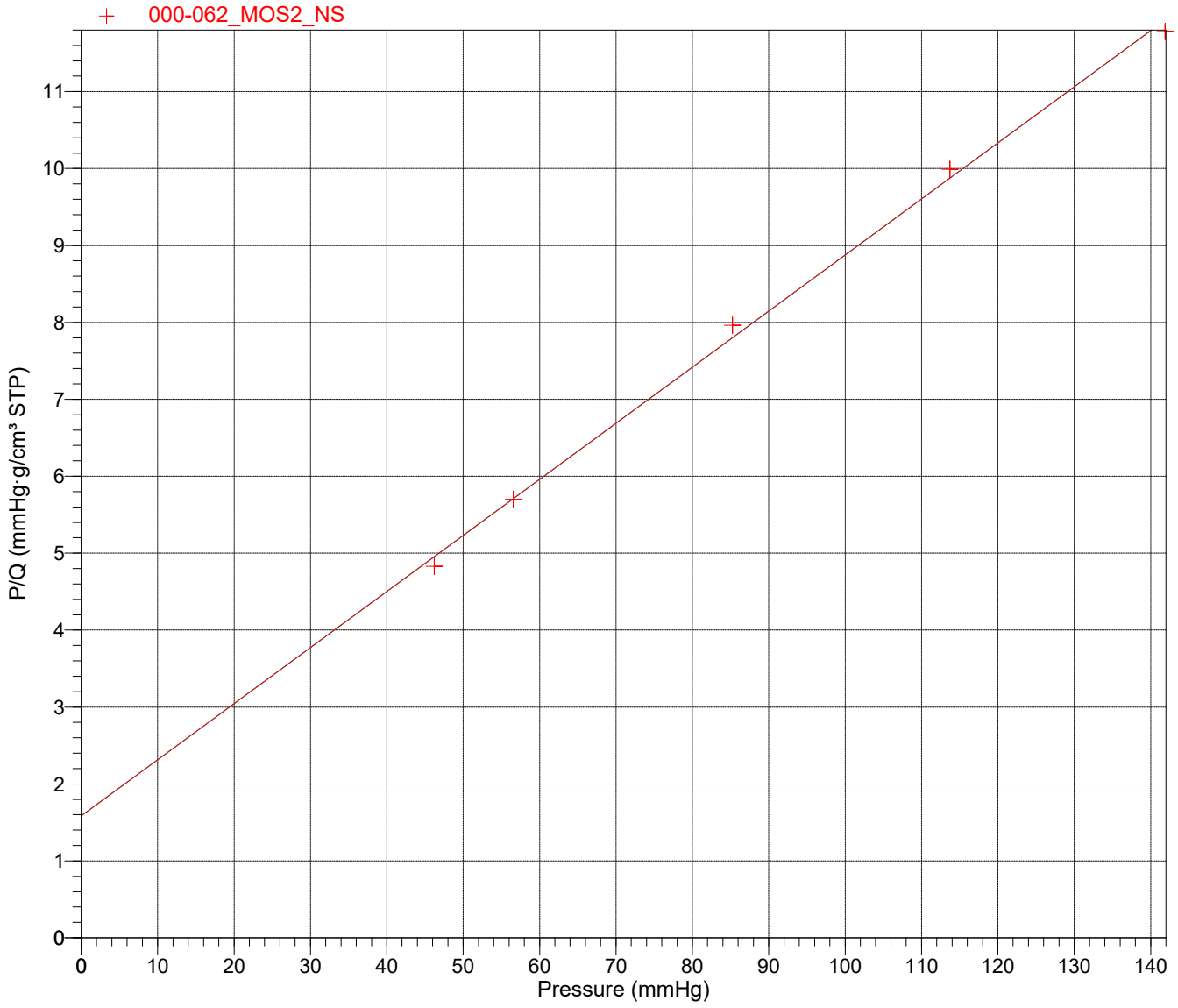
Langmuir Surface Area: 59.7150 ± 1.6553 m²/g
Slope: 0.072900 ± 0.002021 g/cm³ STP
Y-Intercept: 1.585825 ± 0.193105 mmHg·g/cm³ STP
b: 0.045969 1/mmHg
Qm: 13.7175 cm³/g STP
Correlation Coefficient: 0.998849
Molecular Cross-Sectional Area: 0.1620 nm²

Pressure (mmHg)	Quantity Adsorbed (cm³/g STP)	P/Q (mmHg·g/cm³ STP)
46.191788	9.5621	4.831
56.572823	9.9251	5.700
85.236626	10.7028	7.964
113.706154	11.3815	9.990
141.880585	12.0428	11.781

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started:	30/10/2024 15:41:08	Analysis Adsorptive:	N2
Completed:	30/10/2024 18:46:46	Analysis Bath Temp.:	-196.359 °C
Report Time:	30/10/2024 18:46:47	Thermal Correction:	No
Sample Mass:	0.1981 g	Warm Free Space:	26.1740 cm³ Measured
Cold Free Space:	82.7168 cm³	Equilibration Interval:	5 s
Low Pressure Dose:	None	Automatic Degas:	Yes

Langmuir Surface Area Plot



Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started:	30/10/2024 15:41:08	Analysis Adsorptive:	N2
Completed:	30/10/2024 18:46:46	Analysis Bath Temp.:	-196.359 °C
Report Time:	30/10/2024 18:46:47	Thermal Correction:	No
Sample Mass:	0.1981 g	Warm Free Space:	26.1740 cm³ Measured
Cold Free Space:	82.7168 cm³	Equilibration Interval:	5 s
Low Pressure Dose:	None	Automatic Degas:	Yes

Freundlich Reports

Primary Data
4057- At least two data points are needed for Freundlich calculations.
Primary Data
4057- At least two data points are needed for Freundlich calculations.

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started:	30/10/2024 15:41:08	Analysis Adsorptive:	N2
Completed:	30/10/2024 18:46:46	Analysis Bath Temp.:	-196.359 °C
Report Time:	30/10/2024 18:46:47	Thermal Correction:	No
Sample Mass:	0.1981 g	Warm Free Space:	26.1740 cm³ Measured
Cold Free Space:	82.7168 cm³	Equilibration Interval:	5 s
Low Pressure Dose:	None	Automatic Degas:	Yes

Temkin Reports

Primary Data
4058- At least two data points are needed for Temkin calculations.
Primary Data
4058- At least two data points are needed for Temkin calculations.

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started: 30/10/2024 15:41:08
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Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

t-Plot Report

Micropore Volume: 0.001846 cm³/g
Micropore Area: 4.8568 m²/g
External Surface Area: 38.4176 m²/g
Slope: 2.483682 ± 0.023744 cm³/g·Å STP
Y-Intercept: 1.193331 ± 0.094136 cm³/g STP
Correlation Coefficient: 0.999954
Surface Area Correction Factor: 1.000
Density Conversion Factor: 0.0015468
Total Surface Area (BET): 43.2744 m²/g
Thickness Range: 3.5000 Å to 5.0000 Å
Thickness Equation: Harkins and Jura

$$t = [\ 13.99 / (\ 0.034 - \log(P/Po)\ )\ ]\ ^{\wedge}\ 0.5$$

Relative Pressure (P/Po)	Statistical Thickness (Å)	Quantity Adsorbed (cm³/g STP)
0.079559810	3.5135	9.9251
0.139892189	3.9687	11.0387
0.199530301	4.3658	12.0428
0.298885566	5.0049	13.7411
0.449964885	6.0611	16.5077

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
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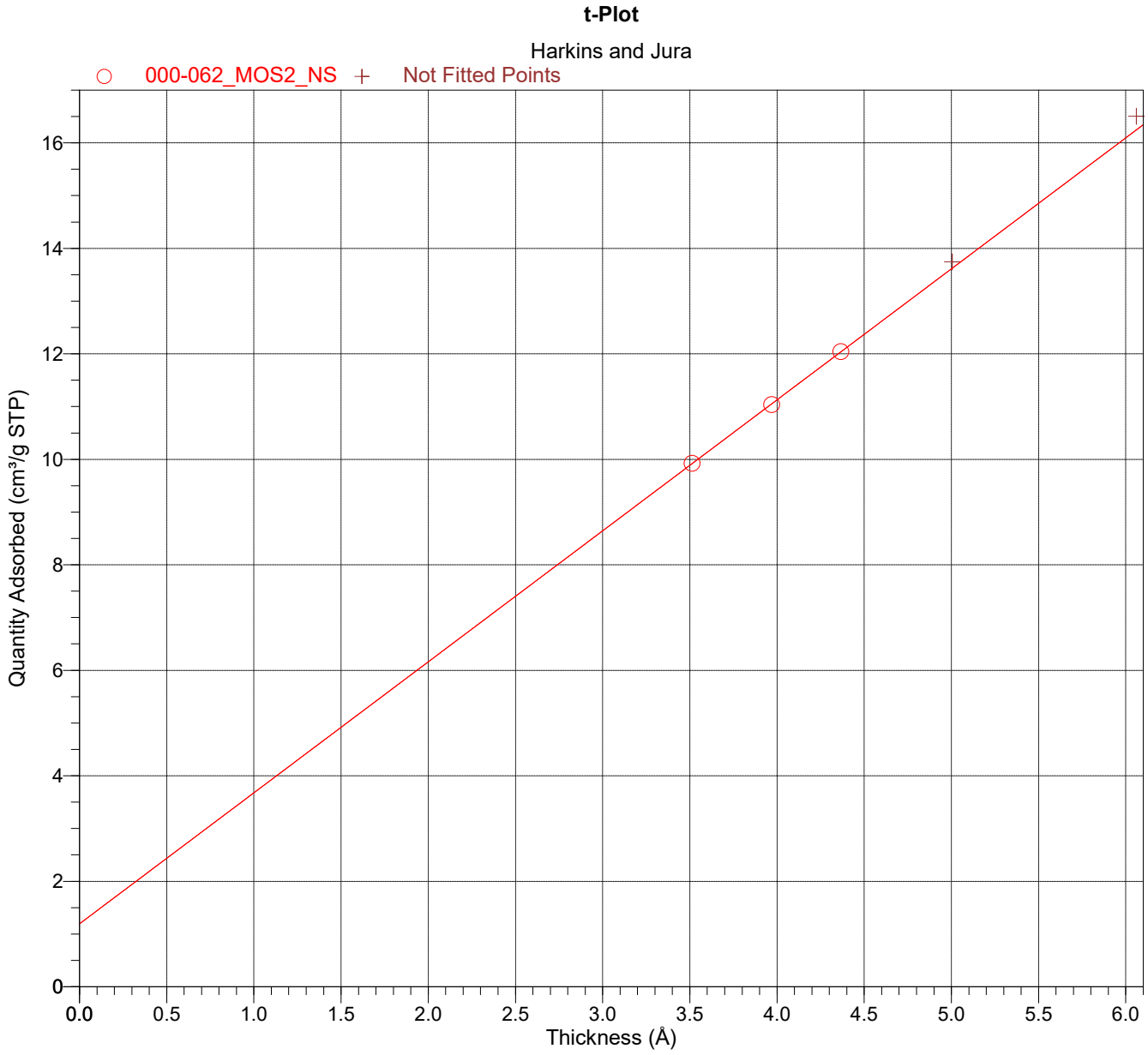
Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes



Sample: 000-062_MOS2_NS
Operator: Danilo Janes
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File: C:\2020\DATA\000-062.SMP

Started: 30/10/2024 15:41:08
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Report Time: 30/10/2024 18:46:47
Sample Mass: 0.1981 g
Cold Free Space: 82.7168 cm³
Low Pressure Dose: None

Analysis Adsorptive: N2
Analysis Bath Temp.: -196.359 °C
Thermal Correction: No
Warm Free Space: 26.1740 cm³ Measured
Equilibration Interval: 5 s
Automatic Degas: Yes

Alpha-S Method

Primary Data
4029- At least two fitted data points are needed for Alpha-S calculations.
4029- At least two fitted data points are needed for Alpha-S calculations.

Sample: 000-062_MOS2_NS
Operator: Danilo Janes
Submitter: Raphaella
File: C:\2020\DATA\000-062.SMP

Started:	30/10/2024 15:41:08	Analysis Adsorptive:	N2
Completed:	30/10/2024 18:46:46	Analysis Bath Temp.:	-196.359 °C
Report Time:	30/10/2024 18:46:47	Thermal Correction:	No
Sample Mass:	0.1981 g	Warm Free Space:	26.1740 cm³ Measured
Cold Free Space:	82.7168 cm³	Equilibration Interval:	5 s
Low Pressure Dose:	None	Automatic Degas:	Yes

f-Ratio Method

Primary Data
A reference file has not been chosen.