

MICROMERITICS INSTRUMENT CORPORATION TRISTAR 3000

DEMO TriStar 3000 V6.04 A

Unit 1 Port 2

Serial #: 439

Page 1

Sample: Carbon Black surface area standard
 Operator: Ana Medina
 Submitter: MIC
 File: C:\DEMO3000\DATA\CARBOND4.SMP

Started: 6/21/2002 10:32:16AM
 Completed: 6/21/2002 11:00:13AM
 Report Time: 3/31/2006 2:11:50PM
 Warm Free Space: 6.7880 cm³ Calculated
 Equilibration Interval: 2 s
 Sample Density: 2.059 g/cm³

Analysis Adsorptive: N2
 Analysis Bath Temp.: 77.300 K
 Sample Mass: 0.5164 g
 Cold Free Space: 20.8317 cm³ Calculated
 Low Pressure Dose: None
 Automatic Degas: Yes

Sample Prep: Stage	Soak Temperature (°C)	Ramp Rate (°C/min)	Soak Time (min)
1	25	10	10
2	300	10	60

Isotherm Tabular Report

Relative Pressure (P/Po)	Absolute Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	Elapsed Time (h:min)	Saturation Pressure (mmHg)
			00:09	755.66492
0.052600838	39.74861	5.2840	00:13	
0.072072452	54.46262	5.5039	00:15	
0.098798966	74.65891	5.7702	00:16	
0.123680923	93.46133	6.0037	00:17	
0.148428326	112.16208	6.2343	00:19	
0.173186937	130.87129	6.4685	00:20	
0.197979188	149.60593	6.7089	00:21	
0.222827493	168.38292	6.9570	00:22	
0.247743101	187.21077	7.2130	00:24	
0.272720356	206.08521	7.4758	00:25	
0.297854608	225.07828	7.7441	00:26	

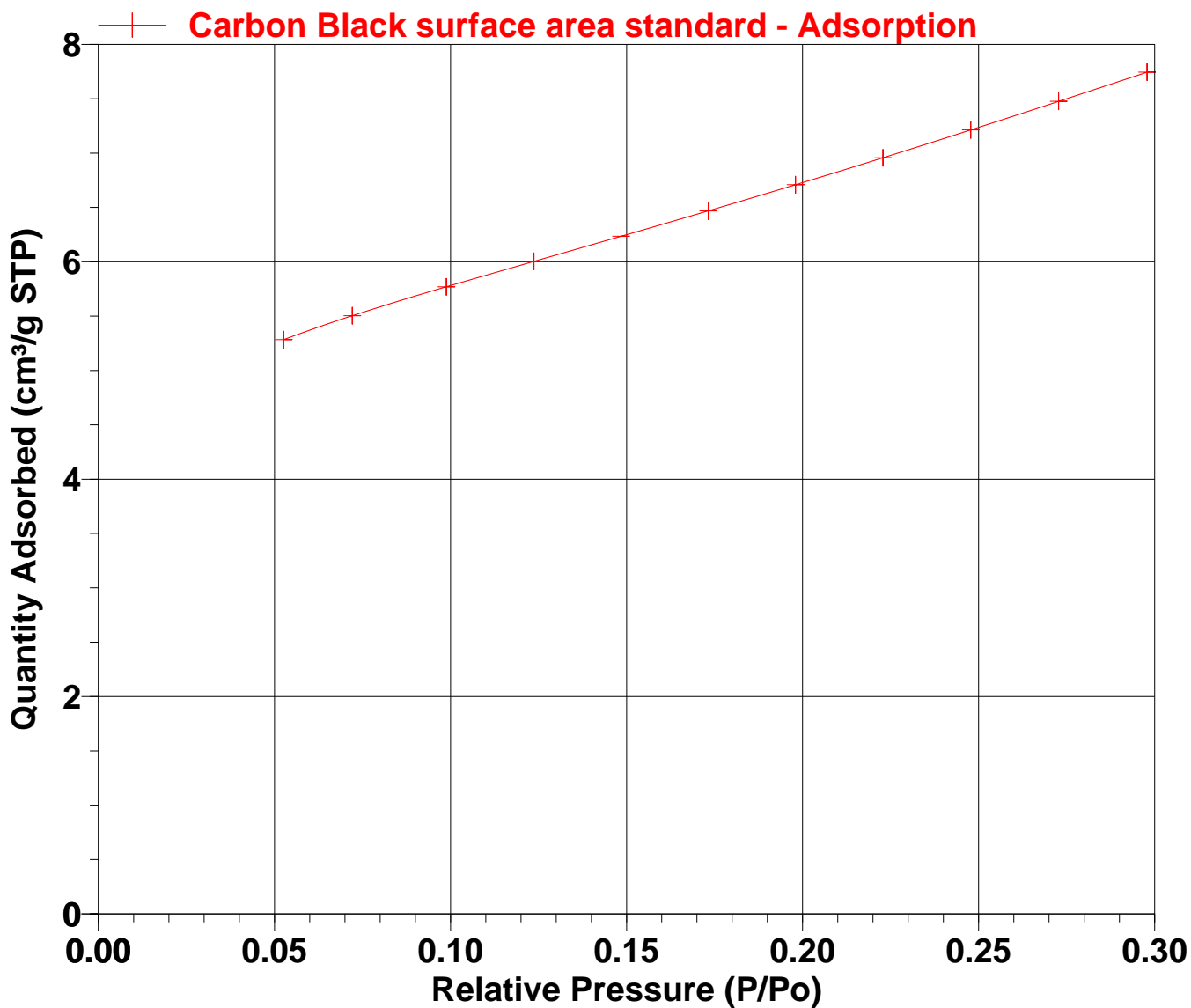
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Isotherm Linear Plot



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 Warm Free Space: 6.7880 cm³ Calculated Cold Free Space: 20.8317 cm³ Calculated
 Equilibration Interval: 2 s Low Pressure Dose: None
 Sample Density: 2.059 g/cm³ Automatic Degas: Yes

Sample Prep: Stage	Soak Temperature (°C)	Ramp Rate (°C/min)	Soak Time (min)
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BET Surface Area Report

BET Surface Area: 24.0504 ± 0.0394 m²/g
 Slope: 0.179822 ± 0.000291 g/cm³ STP
 Y-Intercept: 0.001181 ± 0.000055 g/cm³ STP
 C: 153.287194
 Qm: 5.5248 cm³/g STP
 Correlation Coefficient: 0.9999882
 Molecular Cross-Sectional Area: 0.1620 nm²

Relative Pressure (P/Po)	Quantity Adsorbed (cm ³ /g STP)	1/[Q(Po/P - 1)]
0.052600838	5.2840	0.010507
0.072072452	5.5039	0.014112
0.098798966	5.7702	0.018999
0.123680923	6.0037	0.023508
0.148428326	6.2343	0.027958
0.173186937	6.4685	0.032382
0.197979188	6.7089	0.036794
0.222827493	6.9570	0.041213
0.247743101	7.2130	0.045658
0.272720356	7.4758	0.050160
0.297854608	7.7441	0.054778

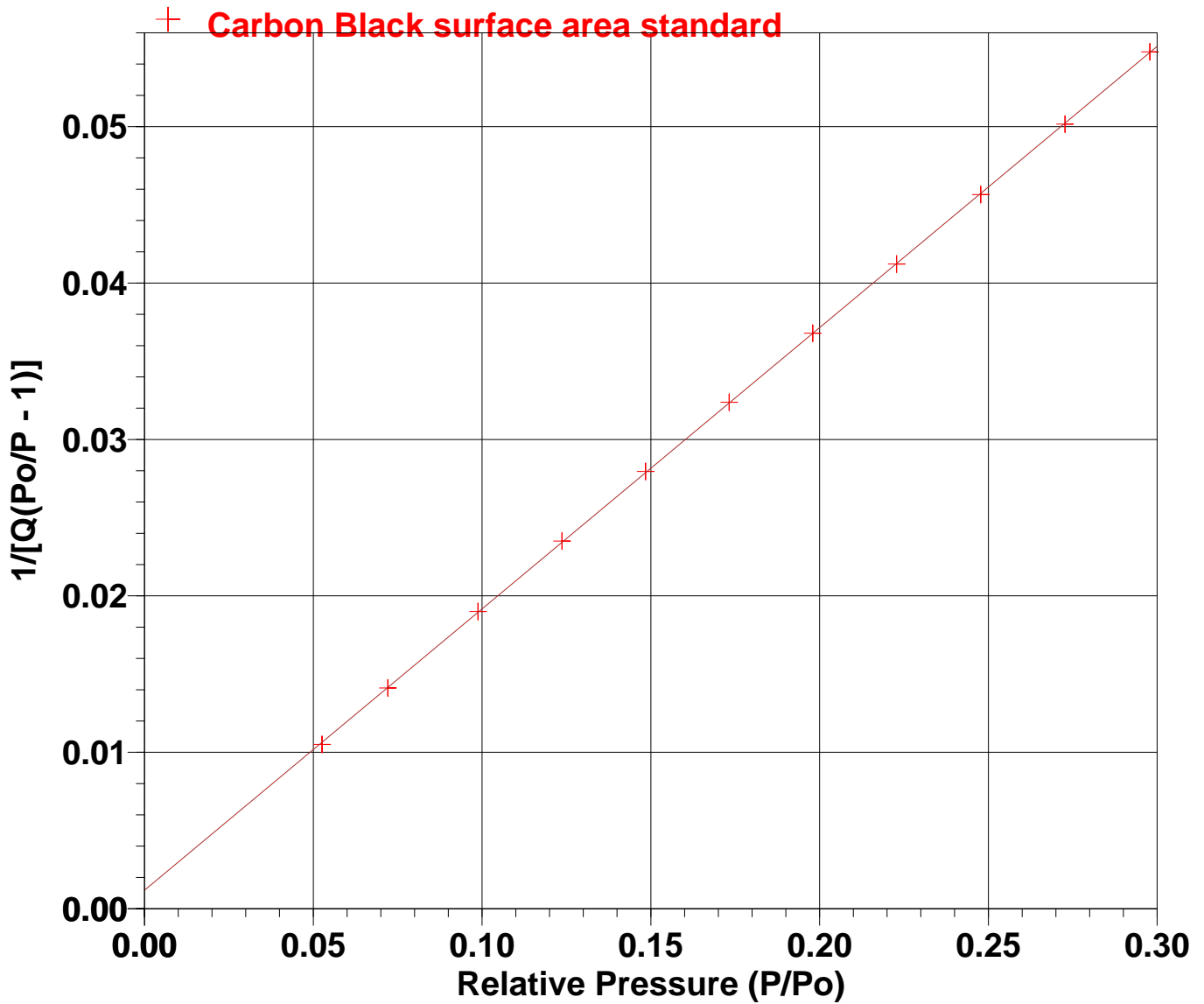
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BET Surface Area Plot



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Sample Density: 2.059 g/cm ³	Automatic Degas: Yes

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Summary Report

Surface Area

Single point surface area at P/Po = 0.297854608: 23.6703 m²/g

BET Surface Area: 24.0504 m²/g