

Sample Id: Pt on Alumina catalyst
 Operator Id: GEW (EST. WT.)
 Submitter Id: ASAP201C
 File: C:\DEMO202C\DATA\PTCO_08.SMP

Started: 8/3/1994 4:18:40PM
 Completed: 8/4/1994 6:37:25AM
 Report Time: 3/31/2006 3:36:53PM
 Sample Mass: 0.7373 g
 Measured free space: 17.1799 cm³
 Automatic Degas: No

Analysis Gas: CO
 Analysis Temp: 36.0 °C
 Equilibration Interval: 10 s
 Low Pressure Dose: None
 Smoothed Pressures: No

Isotherm Tabular Report

Analysis Data

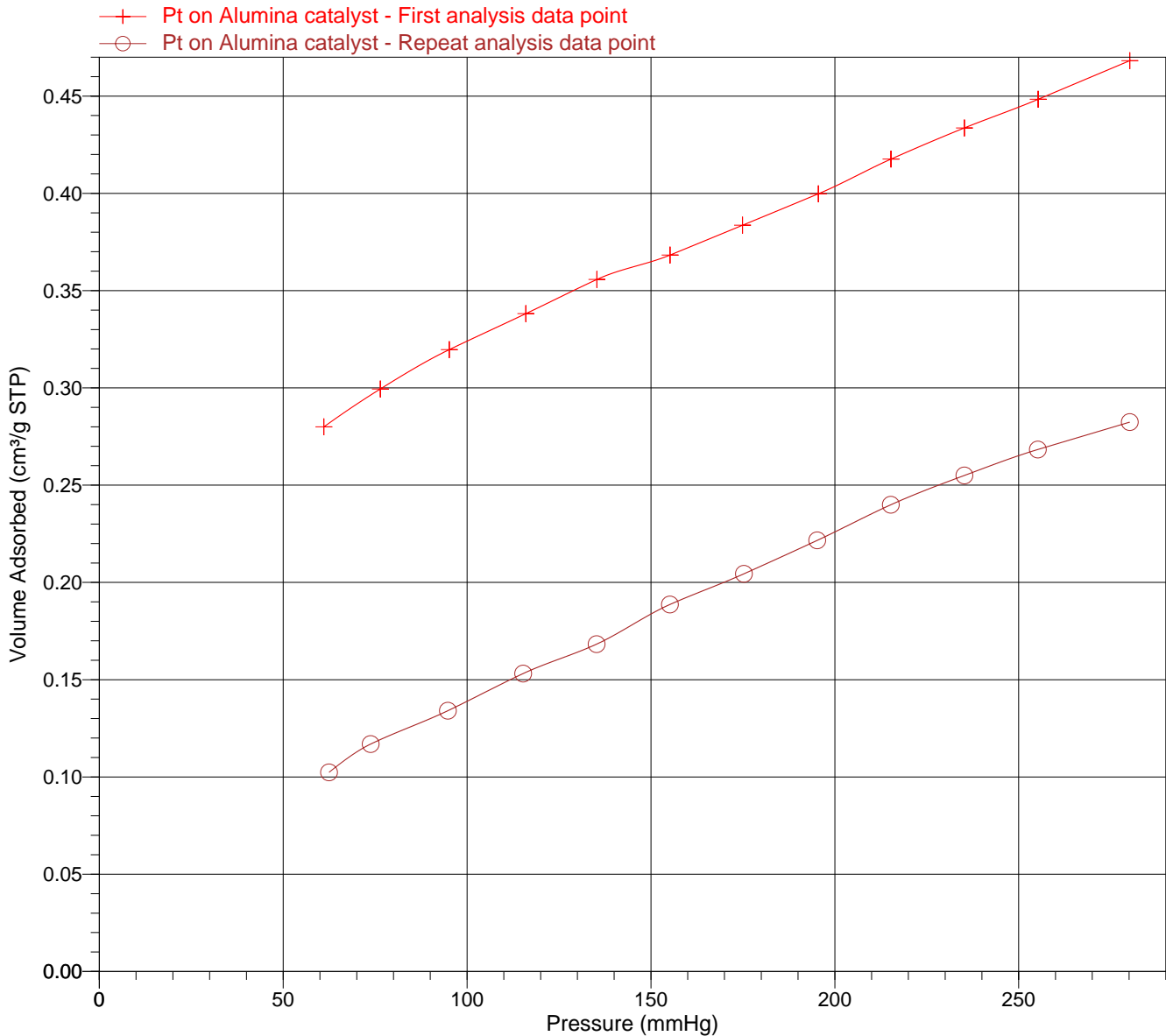
Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	Time (hh:mm)	Repeat Pressure (mmHg)	Repeat Quantity Adsorbed (cm ³ /g STP)	Time (hh:mm)
61.0736	0.2800	00:44	62.4682	0.1024	02:35
76.4329	0.2995	00:47	73.7938	0.1169	02:38
95.1589	0.3197	00:50	94.7901	0.1341	02:40
115.9949	0.3382	00:53	115.2692	0.1532	02:43
135.2846	0.3557	00:55	135.2312	0.1683	02:45
155.1897	0.3683	00:58	155.1467	0.1887	02:48
174.8983	0.3836	01:00	175.2690	0.2044	02:51
195.5119	0.3998	01:04	195.2206	0.2216	02:53
215.2463	0.4176	01:07	215.2344	0.2399	02:56
235.2497	0.4337	01:09	235.2222	0.2550	02:58
255.2737	0.4484	01:12	255.2100	0.2683	03:01
280.2107	0.4682	01:15	280.1884	0.2824	03:04

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Isotherm Plot



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Analysis Summary

Element	Percent of Sample Weight (%)	Atomic Weight	Stoichiometry Factor	Atomic Cross-Sectional Area (nm ²)	Density (cm ³ /g)
platinum	0.500	195.090	1.000	0.0800	21.450

Analysis Results

Metal Dispersion: 42.1686 %
 Metallic Surface Area: 0.5207 m²/g sample
 Metallic Surface Area: 104.1495 m²/g metal
 Crystallite Size (6.000 V / A): 2.68576 nm
 Y-Intercept Quantity Adsorbed: 0.2422 ± 0.0022 cm³/g STP
 Slope: 0.000810 ± 0.000010
 Correlation Coefficient: 9.99670E-01

Difference Results

Metal Dispersion: 31.1486 %
 Metallic Surface Area: 0.3847 m²/g sample
 Metallic Surface Area: 76.9320 m²/g metal
 Crystallite Size (6.000 V / A): 3.63594 nm
 Y-Intercept Quantity Adsorbed: 0.1789 ± 0.0025 cm³/g STP
 Slope: 0.000000 ± 0.000012
 Correlation Coefficient: -7.52218E-03

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Analysis Tabular Report

Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	1st - Repeat (cm ³ /g STP)
61.0736	0.2800	62.4682	0.1024	0.1776
76.4329	0.2995	73.7938	0.1169	0.1825
95.1589	0.3197	94.7901	0.1341	0.1856
115.9949	0.3382	115.2692	0.1532	0.1850
135.2846	0.3557	135.2312	0.1683	0.1875
155.1897	0.3683 *	155.1467	0.1887 *	0.1796 *
174.8983	0.3836 *	175.2690	0.2044 *	0.1792 *
195.5119	0.3998 *	195.2206	0.2216 *	0.1782 *
215.2463	0.4176 *	215.2344	0.2399 *	0.1777 *
235.2497	0.4337 *	235.2222	0.2550 *	0.1787 *
255.2737	0.4484 *	255.2100	0.2683 *	0.1800 *
280.2107	0.4682	280.1884	0.2824	0.1858

* Included in calculation of line fit and difference data.

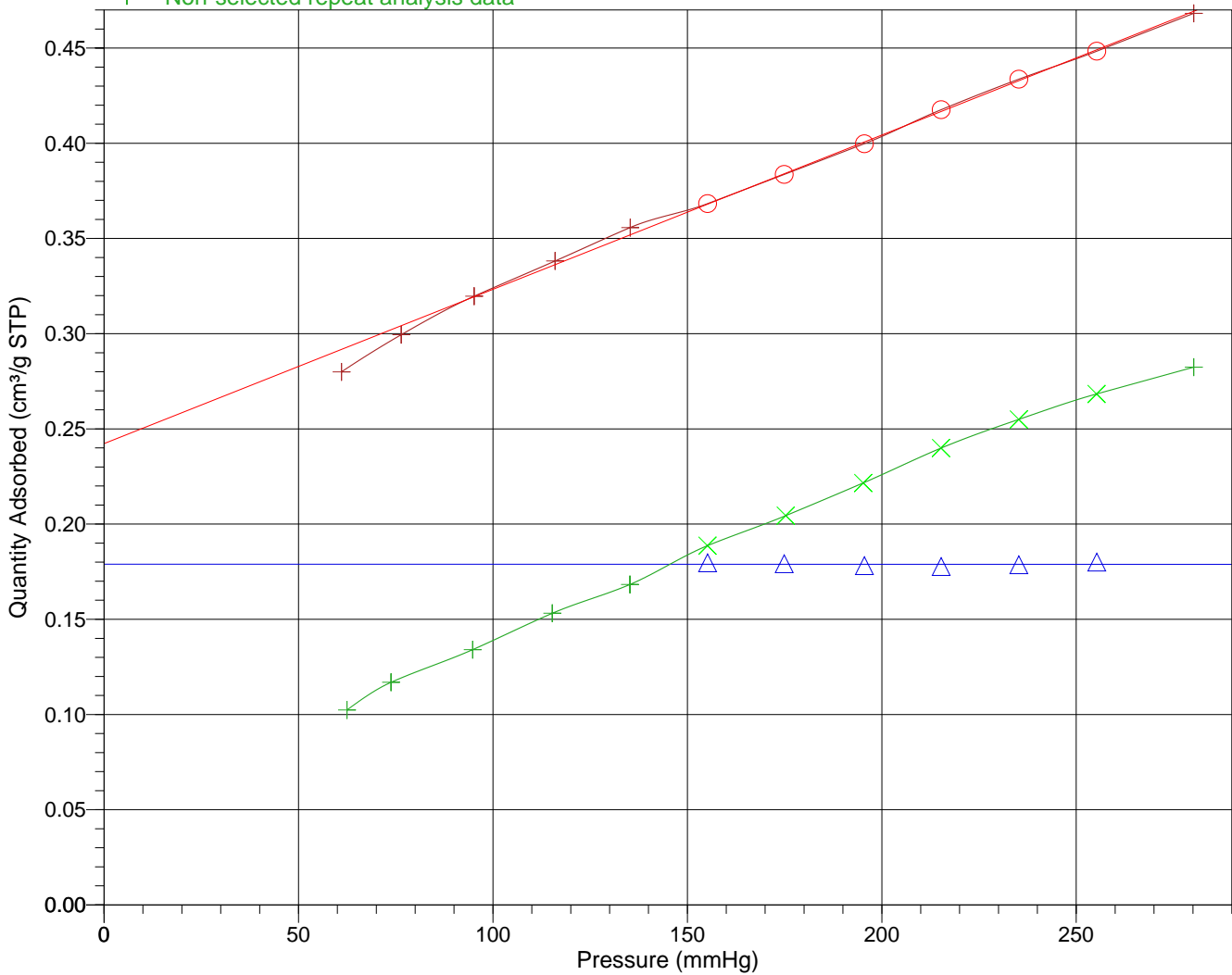
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Line Fit Plot

- Selected first analysis data
- × Selected repeat analysis data
- △ Difference
- + Non-selected first analysis data
- + Non-selected repeat analysis data



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 Completed: 8/4/1994 6:37:25AM Analysis Temp: 36.0 °C
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 Sample Mass: 0.7373 g Low Pressure Dose: None
 Measured free space: 17.1799 cm³ Smoothed Pressures: No
 Automatic Degas: No

Options Report

Task Summary

Task Number	Task Name	Gas	Temp (°C)	Rate (°C/min)	Time (min)	Pressure (mmHg)
1	Evacuation	HE	100	0.5	30	
2	Leak Test		100	10.0		
3	Flow	O2	100	10.0	5	
4	Flow	O2	350	10.0	30	
5	Evacuation	O2	350	10.0	30	
6	Evacuation	O2	100	10.0	10	
7	Flow	H2	100	10.0	5	
8	Flow	H2	350	10.0	120	
9	Evacuation	H2	350	10.0	60	
10	Evacuation	H2	35	10.0	30	
11	Leak Test		35	10.0		
12	Analysis	CO	35	10.0		
13	Evacuation	HE	35	10.0	5	

Task Number: 12
 Adsorptive: Carbon Monoxide
 Temperature: 35 °C
 Heat rate: 10.0 °C/min
 Equilibration interval: 10 s
 Relative target tolerance: 5.0 %
 Absolute target tolerance: 5.000 mmHg

Repeat analysis: Yes
 Fast evacuation: Yes
 Unrestricted evac. pressure: 30.0 mmHg
 Evacuation time: 60 min

Free space group: Measured
 Estimated free space: 17.2000 cm³

Incremental dosing: No

Experiment Log

Task Number	Task Name	Start Time (h:min)	Gas	Furnace Temp. (°C)	Sample Temp. (°C)	Time (min)	Pressure (mmHg)
1	EVAC	0:06	HE	102.0	105.2	30	0.0517
2	LEAK	2:42		100.0	105.4	0	0.0517
3	FLOW	2:47	O2	100.0	105.6	5	755.0390
4	FLOW	2:54	O2	347.0	366.0	30	755.7631
5	EVAC	3:49	O2	349.0	364.8	30	0.1034
6	EVAC	4:30	O2	100.0	106.3	10	
7	FLOW	5:05	H2	99.0	103.8	5	744.3857

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Experiment Log

Task Number	Task Name	Start Time (h:min)	Gas	Furnace Temp. (°C)	Sample Temp. (°C)	Time (min)	Pressure (mmHg)
8	FLOW	5:14	H2	347.0	360.6	120	744.4374
9	EVAC	7:39	H2	349.0	364.1	60	0.1034
10	EVAC	8:44	H2	35.0	34.3	30	
11	LEAK	10:01		35.0	34.3	0	
12	ANL	10:05	CO	35.0	35.6	249	625.4377
13	EVAC	14:14	HE	35.0	35.7	5	0.0482

Leak Test Results

Start Time (min)	Maximum Allowed Outgas Rate (µmHg/min)	Observed Outgas Rate (µmHg/min)	Status
167	100	40	Pass
605	10	0	Pass