

H2 measurements of 15 may 2013

Calib 300 2013 04 17 Calib 600 on 2013 04 25
 [10/11/2014 17:42 "/Graph8" (2456971)][10/11/2014 17:37 "/Graph4" (2456971)]
 Polynomial Regression for Derivative2_S Polynomial Regression for Derivative1_Smoothed1Cca:

$$Y = A + B1 \cdot X + B2 \cdot X^2$$

$$Y = A + B1 \cdot X + B2 \cdot X^2$$

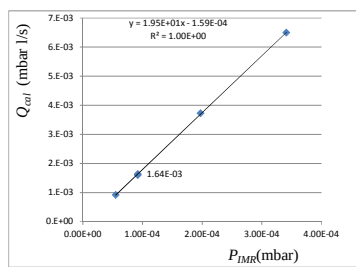
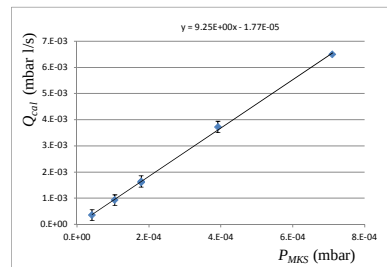
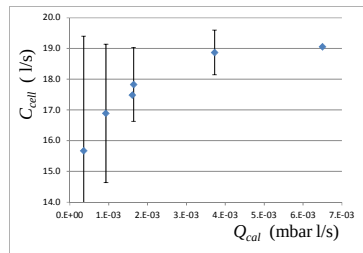
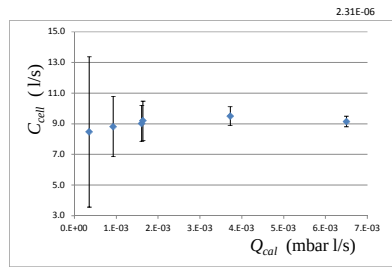
Paramet Value				Error				Parame Value				Error			
A		2.96E-05		3.35E-05		A		2.28E-04		5.19E-05					
B1		-5.57E-06		4.27E-07		B1		-6.58E-06		3.15E-07					
B2		-2.14E-08		1.23E-09		B2		-2.17E-08		4.34E-10					
R-Square		SD		N		P		R-Squar		SD		N		P	
0.8766		2.87E-04		5103		<0.0001		0.9854		3.13E-04		3232		<0.0001	
sy-x		1.01E-04						sy-x		3.78E-05					

V_{col}	δV_{col}
1	1
0.6967	0.0025

MKS zero	8.71E-08	1.89E-07
MKS BG_B	4.90E-07	2.33E-07

IKR	cold cathode gauge
PBR	Hot Cathode Gauge

Calibration Used	QcalFile	x													y				x ²				y	(Ay) ²																
		δP_{col}	δP_{col}	δP_{col}	P_{MMS}	δP_{MMS}	δP_{MMS}	P_{MR}	δP_{MR}	δP_{MR}	P_{DS}	δP_{DS}	δP_{DS}	P_{SR}	δP_{SR}	δP_{CC}	P_{PR}	δP_{PR}	δP_{BPR}	Q_{col}	$\delta Q_{col} fit$	$\delta Q_{col} fit$			C_{col}	$C_{col} [MKS]$	δC_{cell}	$C_{Cell-BG}$	MKS/IMR	$C_{col} [IMR]$	Dcell	PIMR - Pch								
300	75	75.18	0.06174	8.E-04	4.20E-05	5.26E-07	1.E-02	2.27E-05	6.61E-08	3.E-03	0.33	4.1E-03	1.E-02	2.42E-07	4.E-10	2.E-03	3.04E-07	1.E-09	4.E-03	3.56E-04	2.00E-04	5.6E-01	4.73E-06	8.5	4.9	8.5	1.85	15.68	5	1.77E-09	3.71E-04	2.4E-10								
300	150	153.68	9.46E-02	6.E-04	1.05E-04	4.31E-07	4.E-03	5.50E-05	7.55E-08	1.E-03	0.82	4.9E-03	6.E-07	5.78E-10	6.E-10	1.E+00	7.18E-07	7.E-10	9.E-04	9.28E-04	2.00E-04	2.2E-01	6.04E-06	8.8	2.0	8.8	1.92	16.89	4	1.11E-08	9.56E-04	8.0E-10								
300	225	225.11	0.03008	1.E-04	1.79E-04	5.16E-07	3.E-03	9.20E-05	9.23E-08	1.E-03	1.32	3.2E-03	2.E-03	1.05E-06	1.E-09	1.E-03	1.24E-06	1.E-09	1.E-03	1.61E-03	2.00E-04	1.2E-01	7.15E-06	9.0	1.2	9.0	1.94	17.48	2	3.19E-08	1.63E-03	6.4E-10								
600	225	225.11	0.03008	1.E-04	1.79E-04	5.16E-07	3.E-03	9.20E-05	9.23E-08	1.E-03	1.32	3.2E-03	2.E-03	1.05E-06	1.E-09	1.E-03	1.24E-06	1.E-09	1.E-03	1.64E-03	2.18E-04	1.3E-01	7.29E-06	9.2	1.3	9.2	1.94	17.83	2	3.19E-08	1.63E-03	5.1E-11								
600	375	377.11	2.50E-02	7.E-05	3.92E-04	6.04E-07	2.E-03	1.97E-04	2.47E-07	1.E-03	2.51	5.1E-03	2.E-03	2.37E-06	5.E-09	2.E-03	2.78E-06	1.E-08	4.E-03	3.73E-03	2.18E-04	5.9E-02	9.88E-06	9.5	0.6	9.5	1.99	18.87	1	1.54E-07	3.61E-03	1.4E-08								
600	550	528.697	0.03145	6.E-05	7.11E-04	2.39E-07	3.E-04	3.41E-04	3.60E-07	1.E-03	3.80	4.8E-03	1.E-03	4.20E-06	4.E-09	8.E-04	4.86E-06	9.E-09	2.E-03	6.50E-03	2.18E-04	3.4E-02	1.23E-05	9.1	0.3	9.2	2.08	19.05	1	5.05E-07	6.56E-03	3.0E-09								
		2.31E-06																					9.02				9.03				1.97		18.02		8		$\Sigma = 7.33E-07$		$\sigma_F = 6.8E-05$	


$$\Delta = 2.93373\text{E-}06$$
$$\delta B = 3.14\text{E-}01$$
 δy 2.09E-04

	C_{eff} (MKS)	δC_{eff}	
	1 s^{-1}	1 s^{-1}	
short and diaphragm	9.25		z
weighted average	9.21	0.28	0.14
fit	9.25	0.31	0.00
	1 s^{-1}	1 s^{-1}	
long tube formula	9.56		z
weighted average	9.21	0.28	1.25
fit	9.25	0.31	1.00
	C_{eff} (MKS)	δC_{eff}	
	1 s^{-1}	1 s^{-1}	
short tube formula	8.85		z
weighted average	9.21	0.28	1.29
fit	9.25	0.31	1.29

Weighted average of			
C_{gas} (MKs)	δC_{gas}	$(1/\delta C_{\text{gas}})^2$	
ls^{-1}	ls^{-1}		
8.5	4.9	0.0416417	$p_i \cdot x_i$ 0.35232
8.8	2.0	0.2579508	2.273599
9.0	1.2	0.7185897	6.474272
9.2	1.3	0.6101618	5.607822
9.5	0.6	2.733814	25.9794
9.1	0.3	8.51707	77.91755
Σ		12.879228	118.605
weighted average=		9.21	
weighted uncertainty=		0.28	