CALIBRATION OF CO2-010
Relative vs. NOAA-1 /NOAA-2 on 1.5.2014 17:26

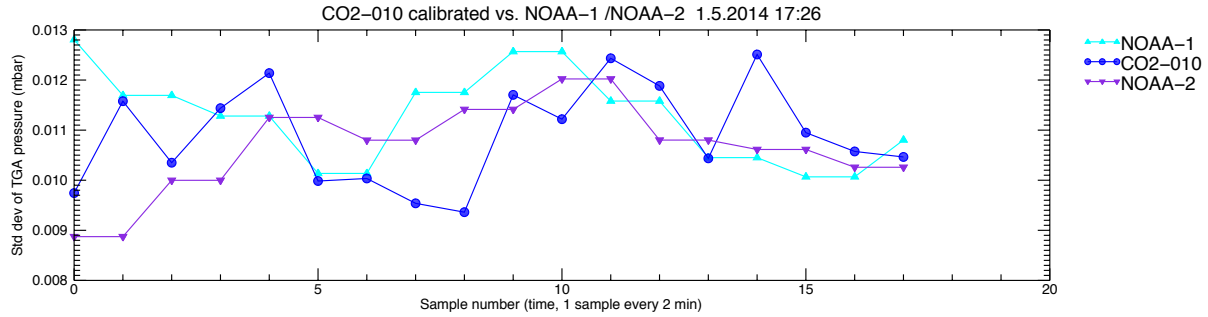
SUMMARY

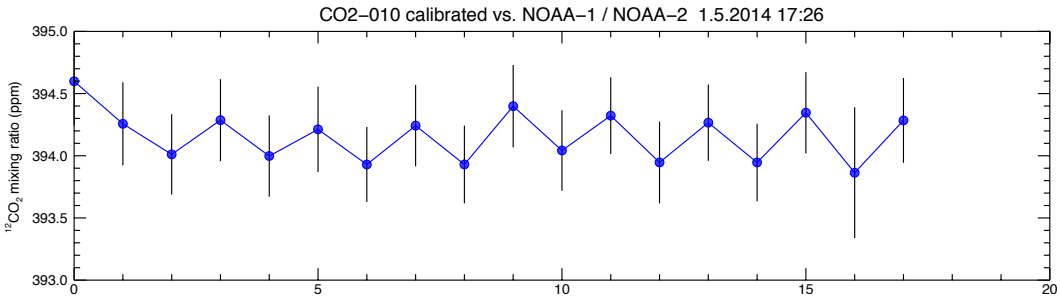
CO2_ppm	=	400.374 (+- 0.208, n= 18)	
d13C	=	-33.489 (+- 0.304, n= 18)	
d18O	=	-8.738 (+- 0.345, n= 18)	

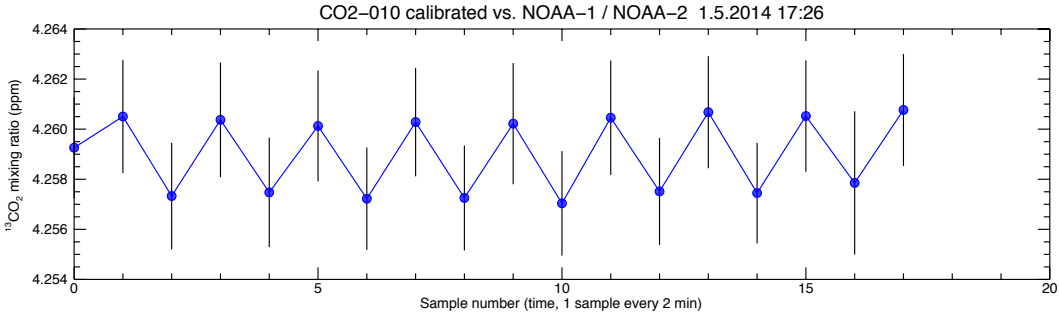
DETAILS OF CALIBRATION

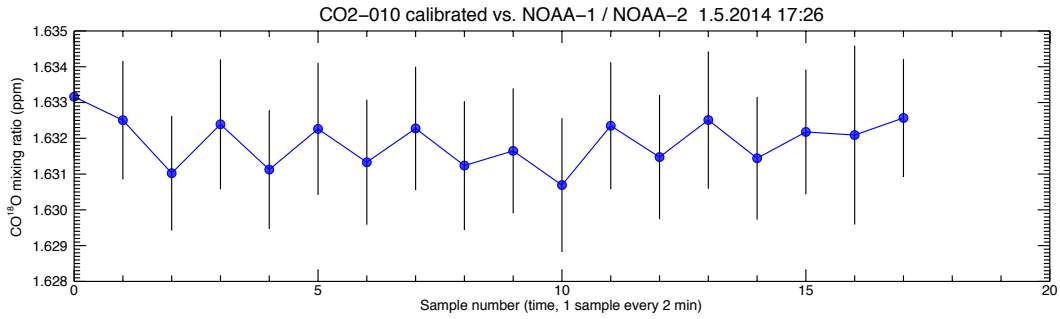
Raw Measured 12CO2 CO2-010	=	413.3111 (+- 0.18920) ppm
Raw Measured 13CO2 CO2-010	=	4.4834 (+- 0.00211) ppm
Raw Measured 18O CO2-010	=	1.7124 (+- 0.00098) ppm
Raw Measured T_CO2 CO2-010	=	419.8460 (+- 0.19192) ppm
Raw Measured 12CO2 NOAA-1	=	411.0085 (+- 0.20110) ppm
Raw Measured 13CO2 NOAA-1	=	4.5706 (+- 0.00148) ppm
Raw Measured 18O NOAA-1	=	1.7105 (+- 0.00101) ppm
Raw Measured T_CO2 NOAA-1	=	417.6270 (+- 0.20323) ppm
Raw Measured 12CO2 NOAA-2	=	481.7482 (+- 0.12173) ppm
Raw Measured 13CO2 NOAA-2	=	5.3410 (+- 0.00141) ppm
Raw Measured 18O NOAA-2	=	1.9982 (+- 0.00091) ppm
Raw Measured T_CO2 NOAA-2	=	489.4828 (+- 0.12216) ppm
Ext Standard T_CO2 NOAA-1	=	398.231 (+- 398.231) ppm
Ext Standard d13C NOAA-1	=	-8.899 (+- 0.003) per mil
Ext Standard d18O NOAA-1	=	-4.227 (+- 0.003) per mil
Ext Standard T_CO2 NOAA-2	=	467.628 (+- 467.628) ppm
Ext Standard d13C NOAA-2	=	-12.312 (+- 0.006) per mil
Ext Standard d18O NOAA-2	=	-7.636 (+- 0.006) per mil
No of values filtered	=	8
RMSE for 12CO2 linear fit	=	0.156024 ppm
RMSE for 13CO2 linear fit	=	0.001350 ppm
RMSE for 18O linear fit	=	0.000905 ppm
Slope for 12CO2 linear fit	=	0.9658 ppm / ppm
Slope for 13CO2 linear fit	=	0.9598 ppm / ppm
Slope for 18O linear fit	=	0.9648 ppm / ppm
Offs. for 12CO2 linear fit	=	-5.026844 ppm
Offs. for 13CO2 linear fit	=	-0.044322 ppm
Offs. for 18O linear fit	=	-0.020235 ppm

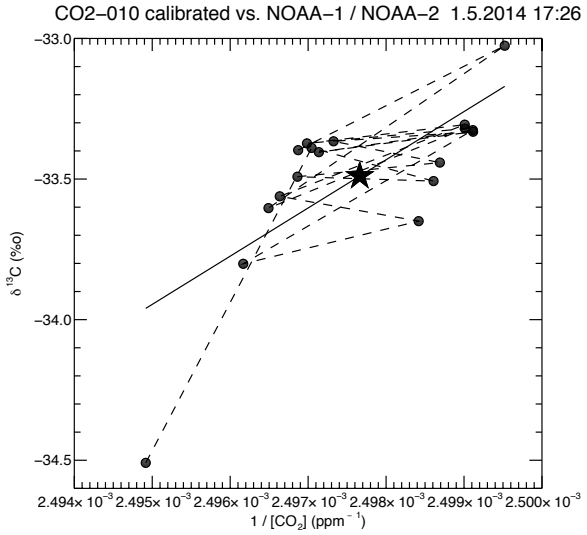
Output created on Wed May 14 16:35:05 2014

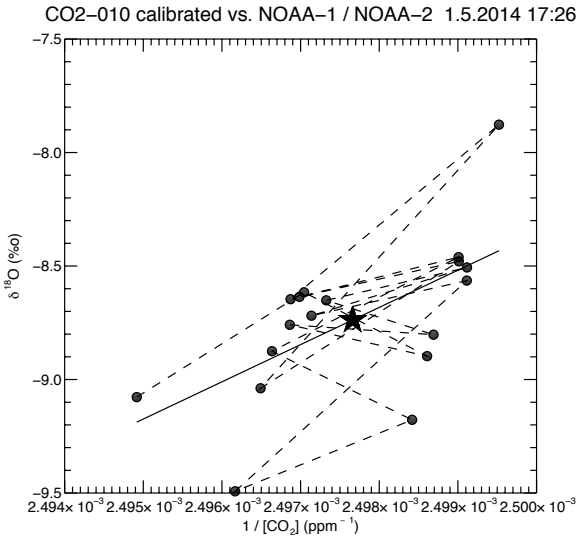

CO2−010 calibrated vs. NOAA−1 /NOAA−2 1.5.2014 17:26
Std dev of TGA pressure (mbar)
0.013
0.012
0.011
0.010
0.009
0.008
0
5
10
15
20
Sample number (time, 1 sample every 2 min)
NOAA−1
CO2−010
NOAA−2

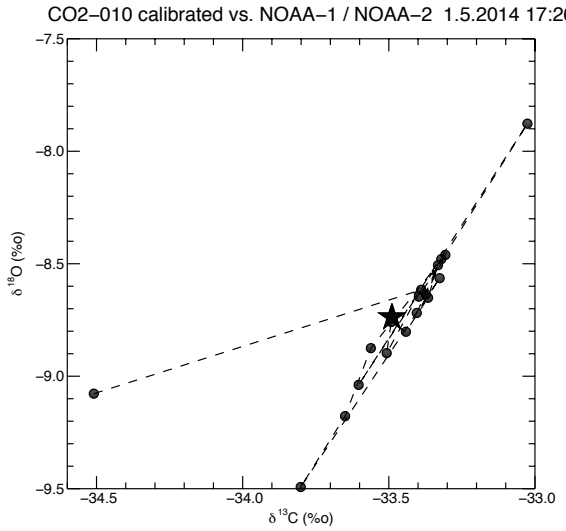

CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
$^{12}CO_2$ mixing ratio (ppm)
395.0
394.5
394.0
393.5
393.0
0
5
10
15
20


CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
$^{13}CO_2$ mixing ratio (ppm)
4.264
4.262
4.260
4.258
4.256
4.254
0
5
10
15
20
Sample number (time, 1 sample every 2 min)


CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
$CO^{18}O$ mixing ratio (ppm)
1.635
1.634
1.633
1.632
1.631
1.630
1.629
1.628
0
5
10
15
20
Sample number (time, 1 sample every 2 min)


CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
−33.0
−33.5
−34.0
−34.5
δ 13C (‰)
2.494× 10−3 2.495× 10−3 2.496× 10−3 2.497× 10−3 2.498× 10−3 2.499× 10−3 2.500× 10−3
1 / [CO2] (ppm−1)


CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
−7.5
−8.0
−8.5
−9.0
−9.5
δ 18O (‰)
2.494× 10−3 2.495× 10−3 2.496× 10−3 2.497× 10−3 2.498× 10−3 2.499× 10−3 2.500× 10−3
1 / [CO2] (ppm−1)


CO2−010 calibrated vs. NOAA−1 / NOAA−2 1.5.2014 17:26
−7.5
−8.0
−8.5
−9.0
−9.5
δ 18O (‰)
−34.5
−34.0
−33.5
−33.0
δ 13C (‰)