

Correction to “Retrieval and characterization of ozone profiles from solar infrared spectra at the Jungfraujoch”

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INDEX TERMS: 0340 Atmospheric Composition and Structure: Middle atmosphere—composition and chemistry; 0365 Atmospheric Composition and Structure: Troposphere—composition and chemistry; 3360 Meteorology and Atmospheric Dynamics: Remote sensing; 9900 Corrections; **KEYWORDS:** FTIR, ozone, profile inversion, error budget, validation

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[1] In the paper “Retrieval and characterization of ozone profiles from solar infrared spectra at the Jungfraujoch” by B. Barret, M. De Mazière, and P. Demoulin (*Journal of Geophysical Research*, 108(D24), 4788, doi:10.1029/2001JD001298, 2002), Tables 2, 3, and 4 were inadvertently omitted. These tables appear below.

Table 2. Random Error Budget for the Ozone Partial Columns in the Four Independent Layers Mentioned on Top and for the O₃ Total Column, for Retrievals in the Broad (B) and Narrow (N) Microwindows^a

Error Source	3.58–12 km		12–18 km		18–24 km		24–40 km		Total Column	
	N	B	N	B	N	B	N	B	N	B
Temperature uncertainty	0.9	1.9	1.3	2.8	0.7	0.3	4.4	4.9	3.0	3.3
Measurement noise	1.5	0.5	1.2	0.9	1.0	0.7	0.6	0.4	0.3	0.1
Smoothing error	15.3	7.8	14.2	9.2	6.0	3.7	2.6	1.6	0.8	0.2
Total random error	15.4	8.0	14.3	9.6	6.1	3.8	5.1	5.2	3.1	3.3

^aValues are given in percent.

Table 3. Systematic Error Budget for the Ozone Partial Columns in the Four Independent Layers Mentioned on Top and for the O₃ Total Column for Retrievals in the Broad (B) and Narrow (N) Microwindows^a

Error Source	3.6–12 km		12–18 km		18–24 km		24–40 km		Total Column	
	N	B	N	B	N	B	N	B	N	B
O ₃ air broadening coefficient uncertainty	3.0	4.6	2.6	1.6	−1.4	0.9	−2.9	−3.9	−0.3	0.1
O ₃ line intensity uncertainty	−3.4	−2.6	−2.4	−2.9	−2.8	−2.0	−5.2	−5.6	−3.6	−3.4
EAP uncertainty	1.8	0.8	2.5	1.9	8.3	8.4	−4.8	−7.9	1.8	0.6
Total systematic error	4.9	5.3	4.3	3.8	8.9	8.7	7.6	10.4	4.0	3.4

^aValues are given in percent.

Table 4. Statistics of the Comparisons Between O₃ Partial Columns From FTIR Measurements and the Other Techniques X (X = Sonde, Lidar, or Microwave)^a

Instrument X	Statistic	3.6–12 km		12–18 km		18–24 km		24–40 km		Total Column	
		N	B	N	B	N	B	N	B	N	B
Sondes	(FTIR - X)/X, %	−4.4	0.3	6.2	0.1	4.2	3.9				
Sondes	RSD	15.1 (9.3)	14.6 (11.1)	10.7 (8.4)	10.0 (9.2)	6.2 (5.8)	6.1 (5.9)				
Lidar	(FTIR - X)/X, %					3.1	2.9	−8.0	−5.5		
Lidar	RSD					6.9 (7.0)	7.0 (7.3)	4.5 (4.9)	4.6 (5.8)		
Microwave	(FTIR - X)/X, %					1.8	1.5	−2.4	0.3		
Microwave	RSD					8.5	8.7	4.5	4.5		
Dobson	(FTIR - X)/X, %									−1.2	−0.8
Dobson	RSD									2.8	2.6
O ₃ natural variability		31	31	40	40	16	16	12	12	11	11

^aValues in parentheses are the relative standard deviations (RSD) of the biases calculated from profiles smoothed by the averaging kernels (equation (10)) for ozone sonde and lidar data only. B, broad microwindow; N, narrow microwindow.