

File Revision Date:

May 20, 2002

Data Set Description:

PI: Dr. Hugo De Backer
Instrument: Dobson
Site(s): Uccle, Royal Meteorological Institute
Measurement Quantities: Total column ozone

Contact Information:

Name: Dr. Hugo De Backer
Address: Royal Meteorological Institute, Dept. Observations,
Ringlaan 3
B-1180 Brussels
Belgium
Phone: +32 (0)2 373 05 94
FAX: +32 (0)2 375 12 59
Email: Hugo.DeBacker@kmi-irm.be

Reference Articles:

"Operations handbook - ozone observations with a Dobson spectrophotometer", W.D. Komhyr, Global Ozone Research and Monitoring Project. Report 6, World Meteorological Organization, Geneva, 1980.

De Muer and De Backer, Revision of 20 years of Dobson total ozone data at Uccle (Belgium): Fictitious trends induced by sulfur dioxide trends, J. Geophys. Res., 97, 5921-5937, 1992.

Instrument Description:

Dobson nr 40.

Algorithm Description:

Uses algorithm set out in "Operations handbook - ozone observations with a Dobson spectrophotometer", W.D. Komhyr, Global Ozone Research and Monitoring Project. Report 6, World Meteorological Organisation, Geneva, 1980.

Uses Bass/Paur (1992) ozone absorption coefficients.

See Brewer Manual or:

De Backer, Zenith observations of total ozone in Uccle, Wetenschappelijke en technische publicatie nr 8, Koninklijk Meteorologisch Instituut, Edt. H. Malcorps, Brussel, Belgium, ISSN D/1998/0224/006, 1998

* The SO2 correction is NOT applied to the data in the database!!!! *

Expected Precision/Accuracy of Instrument:

"Review of the Dobson spectrophotometer and its accuracy", Reid E. Basher, Global Ozone Research and Monitoring Project. Report 13, World Meteorological Organization, Geneva,1982.

Instrument History:

Complete overhaul and calibration in 1971

1978 International Calibration in Arosa

1986 International Calibration in Arosa

1990 International Calibration in Arosa

1995 International Calibration in Arosa

2000 International Calibration in Hohenpeissenberg