

参考文献

- 気象庁(1992),地球温暖化監視レポート1991
- 気象庁(1993),地球温暖化監視レポート1992
- 気象庁(1994),オゾン層観測報告:1993
- 気象庁(1995),オゾン層観測報告:1994
- 気象庁(1996),オゾン層観測報告:1995
- 気象庁(1997),オゾン層観測報告:1996
- 気象庁(1998),オゾン層観測報告:1997
- 気象庁(1999a),オゾン層観測報告:1998
- 気象庁(1999b),近年における世界の異常気象と気候変動(VI)
- 気象庁(2000),オゾン層観測報告:1999
- 気象庁(2001),オゾン層観測報告:2000
- 気象庁(2002),オゾン層観測報告:2001
- 伊藤朋之,迫田優一,上窪哲郎,長沼 弘,柴田誠司(1993),南極オゾンホール of 強さ・規模の定量的表現と経験的予測に関する研究,研究時報,45巻1号,1-16.
- 伊藤朋之,上野丈夫,梶原良一,下道正則,上窪哲郎,伊藤真人,小林正人(1991),地上到達紫外線量の監視技術の開発 - オゾン層変化に伴う地上到達紫外線量の変化のスペクトル観測による評価 -, 研究時報,43巻5号,213-273.
- 牧野行雄,忠鉢繁,澤庸介,関山剛,財前祐二,佐々木徹,廣田道夫,宮川幸治(2001),北半球オゾン層変動過程の日本付近への影響に関する研究、平成12年度研究報告書 気象研究所
- Apenzeller,C., A.K.Weiss, and J.Staehelin(2000),North Atlantic Oscillation modulates total ozone winter trends, *Geophys. Res. Lett.*,27,1131-1141.
- Aoki, Te., Ta. Aoki, M. Fukabori, and T. Takao(2002), Characteristics of UV-B irradiance at Syowa Station, Antarctica: Analyses of the measurements and comparison with numerical simulations, *J. Meteorol. Soc. Japan*, 80, in press.
- Bronnimann, S., J.Luterbacher, C. Schmutz, H. Wanner, J.Staehelin(2000), Variability of total ozone at Arosa, Switzerland, since 1931 related to atmospheric circulation indices,*Geophys. Res. Lett.*, 22,2213-2216.
- Fioletov, V. E, E. Griffioen, J. B. Kerr, D. I. Wardle, and O. Uchino(1998), Influence of volcanic sulfur dioxide on spectral UV irradiance as measured by Brewer spectrophotometers, *Geophys. Res. Lett.*, 25, 1665-1668.
- Herman, J. R., P. K. Bhartia, J. Ziemke, Z. Ahmad, and D. Larko(1996),UV-B increases(1979-1992) from decreases in total ozone,*Geophys. Res. Lett.*, 23, 2117-2120.
- Hofmann,D.J.,S.J.Oltmans,M.Harris, B.J.Johnson, and J.A.Lathrop(1997), Ten years of ozonesonde measurements at the south pole: Implications for recovery of springtime Antarctic ozone, *J. Geophys. Res.*, 102(D7), 8931-8943.
- Hollandsworth, S. M., K. P.Bowman and R. D. McPeters(1995), Observational study of the quasi-biennial oscillation in ozone, *J. Geophys. Res.*, 100, 7347-7361
- Kondo, Y., Y. Zhao, O. Uchino, T. Nagai, T. Fujimoto, T. Itabe, K. Mizutani and T. Shibata (1995), Stratospheric ozone changes at 43N and 36N over Japan between 1991 and 1994,*Geophys. Res. Lett.*, 22, 3223-3226.
- Logan, J. A.,I. A. Megretskaja, A. J. Miller, G. C. Tiao, D. Choi, L. Zhang, R.S.Stplarski, G.L.Labow, S.M.Hollandsworth, G.E.Bodeker, H.Claude, D.De Muer, J.B.Kerr, D.W.Tarasick, S.J.Oltmans, B.Johnson, F.Schmidlin, J.Staehelin, P.Viatte, and O.Uchino(1999),Trends in the vertical distribution of ozone:A comparison of two analyses of ozonesonde data, *J. Geophys. Res.*,104(D21), 26373-26399.
- Long, C. S., Miller, A. J., Lee, H. T., Wild, J. D., Przywarty, R. C., and D. Hufford(1996),Ultraviolet index forecasts Issued by the national Weather Service, *Bul. American Met.*

- Society., 729-748.
- McKinlay, A. F. and B. L. Diffey(1987), A reference action spectrum for ultraviolet Radiation: Risks and Regulations, Elsevier, Amsterdam, pp83-87
- Newman, P. A., J. F. Gleason, R. D. McPeters and R. S. Stolarski(1997), Anomalously low ozone over the Arctic, *Geophys. Res. Lett.*, 24, 2689-2692.
- Oltmans, S.J., A.S.Lefohn, H.E.Scheel, J.M.Harris, H.LevyII, I.E.Galbally, E.G.Brunke, C.P.Meryer, J.A.Lathrop, B.J.Johnson, D.S.Shadwick, E.Cuevas, F.J.Schmidlin, D.W.Tarasick, H.Claude, J.B.Kerr, O.Uchino, and V.Mohnen(1998), Trends of ozone in the troposphere, *Geophys.Res.Lett.*, 25, 139-142.
- Plumb, R.(1985), On the three-dimensional propagation of stationary waves. *J. Atmos. Sci.*, 42, 217-229.
- Rabbe, A. and S. H. H. Soren(1995), On the low ozone values over Scandinavia during the winter of 1991-1992, *J. Atmos. Terr. Phys.*, 57, 367-373.
- Uchino, O., R. D. Bojkov, D. S. Balis, K. Akagi, M. Hayashi and R. Kajihara(1999), Essential characteristics of the Antarctic-spring ozone decline: Update to 1998, *Geophys. Res. Lett.*, 26, 1377-1380.
- WHO, WMO, UNEP, NIR(2002), Global Solar UV Index. A practical Guide, http://www.who.int/peh-uv/Solar_UV_Index_Guide_Final.pdf
- WMO(1992), Scientific assessment of ozone depletion: 1991, Global Ozone Research and Monitoring Project Report No. 25.
- WMO(1994), Report of the WMO meeting of experts on UV-B measurements, data quality and standardization of UV indices, Environmental pollution monitoring and research programme report series No. 95.
- WMO(1995), Scientific assessment of ozone depletion: 1994, Global Ozone Research and Monitoring Project Report No. 37.
- WMO (1998), SPARC-WCRP/IOC Assessment of Trends in the Vertical Distribution of Ozone, WMO-Ozone Research and Monitoring Project Report, No.43.
- WMO(1999), Scientific assessment of ozone depletion: 1998, Global Ozone Research and Monitoring Project Report No.44.
- WMO(2002), Scientific assessment of ozone depletion: 2002, Executive Summary.
- Zerefos, C.S., A.F.Bais., and J.C.Zimomas, R.D.Bojkov(1992), On the relative importance of Quasi-biennial oscillation and El Nino/Southern oscillation in the revised Dobson total ozone records, *J. Geophys. Res.*, 97(D9), 10135-10144.