

References

- Bekki, S., K. S. Law, and J. A. Pyle, 1994: Effects of ozone depletion on atmospheric CH₄ and CO concentrations. *Nature*, **371**, 595-597.
- Bell, G.D., M. S. Halpert, C.R. Ropelewski, V.E. Kousky, A.V. Douglas, R.C. Schnell, and M. E. Gelman, 1999: Climate assessment for 1998, *Bull. Amer. Meteor. Soc.*, **80**, S1-S48.
- Ciais, P., P.P. Tans, M. Trolier, J.W.C. White, and R.J. Francey, 1995: A large northern hemisphere terrestrial CO₂ sink indicated by the ¹³C/¹²C ratio of atmospheric CO₂, *Science*, **269**, 1098-1102.
- Conway, T.J., P.P. Tans, L. S. Waterman, K. W. Thoning, D. R. Kitzis, K. A. Masarie, and N. Zhang, 1994: Evidence for interannual variability of the carbon cycle from the National Oceanic and Atmospheric Administration/Climate Monitoring and Diagnostics Laboratory global air sampling network. *J. Geophys. Res.*, **99**, 22831-22855.
- Dettinger, M.D. and M. Ghill, 1998: Seasonal and interannual variations of atmospheric CO₂ and climate. *Tellus*, **50B**, 1-24.
- Dlugokencky, E.J., L. P. Steele, P.M. Lang, and K.A. Masarie, 1994: The growth rate and distribution of atmospheric methane, *J. Geophys. Res.*, **99**, 17021-17043.
- Dlugokencky, E.J., E.G. Dutton, P.C. Novelli, P.P. Tans, K. A. Masarie, K. O. Lantz, and S. Mardronich, 1996: Changes in CH₄ and CO growth rates after the eruption of Mt. Pinatubo and their link with changes in tropical tropospheric UV flux. *Geophys.Res.Lett.*, **23**, 2761-2764.
- Dlugokencky, E.J., K. A. Masarie, P.M. Lang, and P.P. Tans, 1998: Continuing decline in the growth rate of the atmospheric methane burden. *Nature*, **393**, 447-450.
- Duchon, C. E., 1979: Lanczos Filtering in One and Two Dimensions. *J. Appl. Meteor.*, **18**, 1016-1022.
- Etherridge, D. M., L. P. Steele, R.J. Francey, and R.L. Langenfelds, 1998: Atmospheric methane between 1000 A.D. and present: Evidence of anthropogenic emissions and climatic variability, *J. Geophys. Res.*, **103**, 15979-15993.
- Francey, R.J., P.P. Tans, C. E. Allison, I.G. Enting, J.W.C. White, and M. Trolier, 1995: Changes in oceanic and terrestrial carbon uptake since 1982, *Nature*, **373**, 326-330.
- Haan, D. and D. Raynaud, 1998: Ice core record of CO variations during the last two millennia: atmospheric implications and chemical interactions within the Greenland ice, *Tellus*, **50B**, 253-262.
- IPCC, 1990: Climate Change : The IPCC Scientific Assessment, J. T. Houghton, G.J. Jenkins and J.J. Ephraums (eds.), Cambridge Univ. Press, Cambridge, UK., 365 pp.
- IPCC, 1995: Climate Change 1994: Radiative forcing of climate change and an evaluation of the IPCC IS92 emission scenarios, J.T. Houghton, L.G. Meira Filho, J. Bruce, Hoesung Lee, B. A. Callandar, E. Haites, N. Harris and K. Maskell (eds.). Cambridge Univ. Press, Cambridge, UK., 339 pp.
- IPCC, 1996: Climate Change 1995: The science of climate change, J. T. Houghton, L.G. Meira

- Filho, B. A. Callandar, N. Harris, A. Kattenberg and K. Maskell (eds.). Cambridge Univ. Press, Cambridge, UK., 572 pp.
- JMA, 1999: CLIMATE CHANGE MONITORING REPORT 1998, Japan Meteorological Agency, Tokyo, Japan, 49 pp.
- Keeling, C. D., R. B. Bacastow, A. F. Carter, S.C. Piper, T. P. Whorf, M. Heimann, W. G. Mook, and H. Roeloffzen, 1989, A three-dimensional model of atmospheric CO₂ transport based on observed winds: 1. Analysis of observational data, in aspects of climate variability in the Pacific and the Western Americas, edited by D.H. Peterson, *Geophysical Monograph* **55**, 165-236, American Geophysical Union, Washington, D.C.
- Keeling, C.D., T.P. Whorf, M. Wahlen, and J. van der Plicht, 1995: Interannual extremes in the rate of rise of atmospheric carbon dioxide since 1980, *Nature*, **375**, 666-670.
- Lowe, D.C., M.R. Manning, G.W. Brailsford, and A.M. Bromley, 1997: The 1991-1992 atmospheric methane anomaly: Southern hemisphere ¹³C decrease and growth rate fluctuations. *Geophys.Res.Lett.*, **24**, 857-860.
- Matsueda, H., H. Inoue, Y. Sawa, Y. Tsutsumi, and M.Ishii, 1998: Carbon monoxide in the upper troposphere over the western Pacific between 1993 and 1996. *J. Geophys. Res.*, **103**, 19093-19110.
- Nakazawa, T., K. Miyashita, S. Aoki, and M. Tanaka, 1991: Temporal and spatial variations of upper tropospheric and lower stratospheric carbon dioxide. *Tellus*, **43B**, 106-117.
- Nakazawa, T., S. Morimoto, S. Aoki and M. Tanaka, 1993: Time and space variations of the carbon isotopic ratio of tropospheric carbon dioxide over Japan. *Tellus*, **45B**, 258-274.
- Nakazawa, T., S. Morimoto, S. Aoki and M. Tanaka, 1997a: Temporal and spatial variations of the carbon isotopic ratio of atmospheric carbon dioxide in the western Pacific region. *J. Geophys. Res.*, **102**, 1271-1285.
- Nakazawa, T., S. Murayama, M. Toi, M. Ishizawa, K. Otonashi, S. Aoki and S. Yamamoto, 1997b: Temporal variations of CO₂ concentration and its carbon and oxygen isotopic ratios in a temperate forest in the central part of the main island of Japan. *Tellus*, **49B**, 364-381.
- NOAA/CMDL, 1998: Climate Monitoring and Diagnostics Laboratory Summary Report No.24 1996-1997, National Oceanic and Atmospheric Administration, Boulder, Colorado, USA, 166 pp.
- Novelli, P.C., K.A. Masarie, P.P. Tans, and P.M. Lang, 1994: Recent changes in atmospheric carbon monoxide. *Science*, **263**, 1587-1590.
- Novelli, P.C., K.A. Masarie, and P.M. Lang, 1998: Distributions and recent changes of carbon monoxide in the lower troposphere. *J. Geophys. Res.*, **103**, 19015-19033.
- Rayner, P.J., I.G. Enting, R.J. Francey and R. Langenfelds, 1999: Reconstructing the recent carbon cycle from atmospheric CO₂, ¹³C and O₂/N₂ observations. *Tellus*, **51B**, 213-232.
- Ramonet, M. and P. Monfray, 1996: CO₂ baseline concept in 3-D atmospheric transport models. *Tellus*, **48B**, 502-520.
- Tanaka, M., T. Nakazawa, S. Aoki, 1987: Seasonal and meridional variations of atmospheric carbon dioxide in the lower troposphere of the northern and southern hemispheres, *Tellus*,

39B, 29-41.

- Tans, P.P., T.J. Conway, and T. Nakazawa, 1989: Latitudinal distribution of the sources and sinks of atmospheric carbon dioxide derived from surface observations and an atmospheric transport model, *J. Geophys. Res.*, **94**, 5151-5172.
- Thoning, K.W., P.P. Tans, and W. D. Komhyr, 1989: Atmospheric carbon dioxide at Mauna Loa observatory, 2. Analysis of the NOAA GMCC data, 1974-1985, *J. Geophys. Res.*, **94**, 8549-8565.
- Watanabe, F., O. Uchino, Y. Joo, M. Aono, K. Higashijima, Y. Hirano, K. Tsuboi and K. Suda, 1999: Large Increase in Concentration of Atmospheric Carbon Dioxide Observed in 1998, submitted to *J. Meteor. Soc. Japan*.
- Wittenberg, U., M. Heimann, G. Esser, A.D. Mcguire, and W. Sauf, 1998: On the influence of biomass burning on the seasonal CO₂ signal as observed at monitoring stations, *Global Biogeochem. Cycles*, **12**, 531-544.
- WMO, 1998: World Data Centre for Greenhouse Gases (WDCGG) Data Summary, WDCGG No.15, 223 pp.
- WMO, 1999a, Scientific assessment of ozone depletion: 1998. WMO global ozone research and monitoring project --- Report No.44, World Meteorological Organization, Geneva.
- WMO, 1999b, WMO STATEMENT ON THE STATUS OF THE GLOBAL CLIMATE IN 1998, WMO- No.896, World Meteorological Organization, Geneva.