

Dr. Anne M. Thompson

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RESEARCH EXPERTISE:

Atmospheric Chemistry & Climate Change: Modeling and measurements of trace gases, air-sea gas exchange, ozone and convective systems, lightning, biomass burning. Global Change: Simulation of future and pre-industrial troposphere. Remote Sensing. Applications and validation.

EDUCATION:

1970 - B.A., Chemistry (Honors), Swarthmore College

1972 - M.A., Chemistry, Princeton University

1978 - Ph.D., Physical Chemistry, Bryn Mawr College

POSITIONS:

1978 - 1979 Woods Hole Oceanographic Institution, Woods Hole, MA, Postdoctoral Scholar

1979 - 1981 UC-SD - Scripps Institution of Oceanography, LaJolla, CA, Postgraduate Marine Chemist

1981 - 1984 National Center for Atmospheric Research (NCAR), Boulder, CO, Visiting Scientist; ASP Postdoctoral Fellow

1984 - 1986 Applied Research Corporation, Landover, MD, Contract Scientist at NASA/GSFC

1986 - 2004 Physical Scientist, Atmospheric Chemistry and Dynamics Branch, Lab. for Atmospheres, NASA/Goddard Space Flight Center, Greenbelt, MD

1995 - Adjunct Faculty, Univ. Maryland-College Park, Atmospheric & Oceanic Sciences Dept.

2005 - Professor, Penn State University, Meteorology Department

MEMBERSHIPS:

AAAS, AMS, AGU -- Member and Fellow; AWIS; Am. Chemical Society

AWARDS:

1970 BA with Honors (External Examination), Phi Beta Kappa, Sigma Xi, Phila. Chapter ACS
Best Student Award; NSF Predoctoral Fellowship

1987, 1989, 1995, 2003 GSFC Director's Discretionary Fund;

1990-1996, 1998-2002 GSFC Performance Awards;

1992 Goddard Equal Opportunity Award;

1993, 2001 GSFC Lab. for Atmospheres Peer Award for Outstanding Leadership

1995 NASA Exceptional Achievement Medal.

1995 Fellow, American Meteorological Society (AMS)

1998 Nordberg Medal, COSPAR (Committee for Space Research)

2002 Fellow, American Association for Advancement of Science (AAAS)

2003 Fellow, American Geophysical Union (AGU)

2004 Women in Aerospace, International Achievement Award

2004 NASA Honor Award (SHADOZ Group Achievement)

2004 ISI - Highly Cited Author (Geosciences)

2007 William T. Pecora Award for Satellite Achievement (NASA/Dept. Interior to TOMS Team)

2007 Wilson Award for Excellence in Research (Penn State Univ, College of Earth and Mineral Sciences)

2007 NOAA OAR Outstanding Paper Award for IONS-04 (Cooper et al, *JGR*, 2006)

2007 UNEP/WMO Recognition Letter (for Nobel Peace Prize IPCC Contributions)

2009 Penn State College of Earth and Mineral Sciences Faculty Mentoring Award

SPECIAL EXPERIENCE:

Research & Projects

1. PI on NASA Project: “Tropospheric Photochemical Modeling” 1984-present. Also PI on EPA and NOAA Interagency Agreements, 1985-present.
2. EOS-IDS Teams: Stratospheric Chemistry and Dynamics (M. Schoeberl, PI); Biogeochemical Fluxes at Air-Sea Interface (P. Brewer, PI); Chemistry-Climate Interaction (D. Jacob, PI), 1988-1995.
3. NASA Satellite & Aircraft Science Teams: TOMS Satellite, 1994-2004; GTE/TRACE-A; PEM-Tropics-B, TRACE-P; UARP/ STRAT, POLARIS, ACCENT, SAFARI-2000; INTEX-NA (2004), INTEX-B (2006), TC4 (2007), ARCTAS (2008)
4. Oceanographic cruises, *Knorr 73/7*, 1978; Soviet-American Gases and Aerosols (SAGA 3), 1990; Aerosols99 Cruise, *R/V R H Brown*, 1-2/99; NEAQS, July 2004
5. Co-Mission Scientist, SONEX (SASS Ozone and Nitrogen Experiment), 1997
6. NASA HQ Detail: Project Scientist, AEAP/Subsonic Assessment, HQ Office of Aeronautics, 1993-1994
7. SHADOZ PI (Southern Hemisphere Additional Ozonesondes, 1997-present) and Field Work - Aerosols99 Cruise, PAUR II, 1999 (Crete); SAFARI-2000, Zambia
8. IONS (INTEX Ozone Sonde Network Study) PI, 2004; 2006. Ozone sonde Field work at INTEX-B/Milagro in Mexico City & Richland, Washington, 2006, TC4 at Panama, 2007.

Service & Committees

1. AGU: Education and Human Resource Committee, 1986-1988; Editorial Advisory Board, *Earth in Space*, 1988-1990; Secretary, AGU Atmospheric Sciences Section, 1990-1992; AGU Publications Committee, 1994-1996; Associate Editor, *Journal of Geophysical Research*, 1992-1996; Chair, GRL Editors Search Committee, 1995-1996; Member, JGR-Atmospheres Editors Search Committee, 1996; Chair, 1999-2000.
2. AMS: Atmos. Chemistry Committee, 1996-1998; AMS Council and Executive Council, 2001-2004; Nomination Committee, 2004-2007; Subject Matter Editor, *Bull. Am. Meteorological Society*, 2005-2008
3. International Societies: (A) Commission on Atmospheric Chemistry and Global Pollution (CACGP), 1994-2002. President, 2002-2006. (B) Member, International Ozone Commission, 1996-2004; (C) IGBP/IGAC Steering Committee (2000-2002); (D) WCRP/SPARC Scientific Steering Comm., 2007-2009; (E) Vice-President, ICSU/Intl Association for Meteorology and Atmospheric Science, 2007-2011
4. Global Change and Assessments: Rapporteur, Workshop on UV Effects on Aquatic Systems, 1989; Working Group 1, IPCC (Intergov. Panel on Climate Change) 1989; Rapporteur, NASA/NOAA /EPA Workshop on Global Warming Potentials, 1990; Lead Author, Tropospheric Ozone Chapter, UNEP/WMO 1998 Ozone Assessment.
5. NSF-NAS/NRC: Chair, NSF, NCAR-Atmos. Chemistry Div. Review Panel, 1996. NAS/NRC Committee - Major Ocean Programs (1996-1998); NAS/NRC Climate Research Committee (1996-2000); NAS/NRC Earth from Space Committee (2006-2007)
6. AAAS: Member-at-Large (2002-2005); Council (Section W, 2005-2007); Chair-Elect (Section W, 2007-2008)
7. UCAR/NCAR, University Relations Committee, 2005-2006; Board of Trustees, 2007-2009
8. WMO: Committee on Atmospheric Science, Management Advisory Council, 2006-2008

Education & Outreach

1. Adjunct Professor - University of Maryland Earth Systems Science Interdisciplinary Center (ESSIC), 2000-present; previously JCESS Fellow, 1995-2000. Course Taught: Atmospheric Chemistry & Physics, 2002.
2. Adjunct Research Professor (Thesis Committees): U. Miami (Rosenstiel School), NC State, Florida State U.
3. Students Advised/Co-advised: PhD -- C. Herbster, Florida State Univ. (1998), S. A. Yvon, U. Miami (1990-95); J-H Kim, U. Maryland (1996), D. J. Allen (1998); Masters -- C. Phelps, U. Maryland (1995), R. M. Todaro, U. Maryland (1997), H. Guo, U. Maryland (1999); M. G. Seybold, NC State (1999); J B. Stone, PSU (2006); S. M. Michaels, PSU (2006); A. Loucks, PSU (2007), D. Giles (U. Md., 2007); J. E. Yorks, PSU (MS, 2007), K. M. Dougherty (MS, 2007), W-C Hui, PSU (MS, 2007), A M Luzik (MS, 2009)
4. External Examiner or Student Host/Co-author: G. Bodeker (U. Natal, So. Africa, 1995), D. Jeker (ETH-Zürich, 1999), K. Longo (U. Sao Paulo, 1998), W. Peters (U. Utrecht, Netherlands, 2002)

5. GSFC Programs: Summer Institute Atmos. Sciences, Coordinator 1987-1989; Education Office, Public Affairs Speaker, 1988-Present; Summer Advisor: 1989, D. Davidoff, Yale; 1996, N. Dang, UNH; 1993-94, K. Patterson, Salisbury State and UCSB; 1996, M. Lakin, UC-Irvine; 2003 E. Deviatova, UMCP
6. Courses Taught: Penn State - Meteo 565: Middle Atmosphere, Meteo 532, Chemistry of the Atmosphere; Meteo 436: Atmospheric Physics I; Meteo 440W, Meteorol. Measurements; Meteo 597, Remote Sensing
7. NCAR - Advanced Study Program, Philip D. Thompson Lecturer, 2005
8. Penn State Committees: Meteorology MS: 2005: A. Metcalf; K Bailey; 2006: C. Beatty; 2007: M Root, A K. Huff, D. M. Shelow. PhD - J. Mao (Meteorology, 2007), J.H. Park (Elec. Engineering, 2008), A. Wyant (Elec. Engineering, expect 2010), S. Chen (Meteorology, expect 2011).

REFEREED PUBLICATIONS:

1. **A. M. Thompson**, The photochemical *cis-trans* isomerization of azomethane: A kinetic investigation, Ph.D. Thesis, Bryn Mawr College, 1978.
2. **A. M. Thompson**, P. C. Goswami, and G. L. Zimmerman, A kinetic analysis of the photochemistry of alkyldiazenes in hydrocarbon solution, *J. Phys. Chem.*, **83**, 314-320, 1979.
3. **A. M. Thompson**, Wet and dry removal of tropospheric formaldehyde at a coastal site, *Tellus*, **32**, 376-383, 1980.
4. **A. M. Thompson** and R. J. Cicerone, Clouds and wet removal as causes of variability in the trace gas composition of the marine troposphere, *J. Geophys. Res.*, **87**, 8811-8826, 1982.
5. **A. M. Thompson** and O. C. Zafiriou, Air-sea fluxes of transient atmospheric species, *J. Geophys. Res.*, **88**, 6696-6708, 1983.
6. B. G. Heikes and **A. M. Thompson**, Effects of heterogeneous processes on NO₃, HONO, and HNO₃ in the troposphere, *J. Geophys. Res.*, **88**, 10,883-10,895, 1983.
7. **A. M. Thompson**, The effect of clouds on photolysis rates and ozone formation in the unpolluted troposphere, *J. Geophys. Res.*, **89**, 1341-1349, 1984.
8. **A. M. Thompson** and D. H. Lenschow, Mean profiles of trace reactive species in the unpolluted marine surface layer, *J. Geophys. Res.*, **89**, 4788-4796, 1984.
9. **A. M. Thompson** and R. J. Cicerone, Possible perturbations to atmospheric CO, CH₄, and OH, *J. Geophys. Res.*, **91**, 10,853-10,864, 1986.
10. **A. M. Thompson** and R. J. Cicerone, Atmospheric CH₄, CO, and OH from 1860-1985, *Nature*, **321**, 148-150, 1986.
11. **A. M. Thompson**, R. W. Stewart, M. A. Owens, and J. A. Herwehe, Sensitivity of tropospheric oxidants to global chemical and climate change, *Atmos. Environ.*, **23**, 519-532, 1989.
12. R. W. Stewart, **A. M. Thompson**, M. A. Owens, and J. A. Herwehe, Comparison of parameterized nitric acid rainout rates using a coupled stochastic-photochemical tropospheric model, *J. Geophys. Res.*, **94**, 5219-5226, 1989.
13. **A. M. Thompson**, M. A. Owens, and R. W. Stewart, Sensitivity of atmospheric hydrogen peroxide to global chemical and climate change, *Geophys. Res. Lett.*, **16**, 53-56, 1989.
14. C. J. Nappo, J. A. Herwehe, and **A. M. Thompson**, Observations of ozone profiles in the developing convective boundary layer, *Ozone in the Atmosphere*, edited by R. D. Bojkov and P. Fabian, pp. 477-480, A. Deepak Publishing, 1989.
15. **A. M. Thompson**, Atmospheric chemical and climate change: Possible effects on tropospheric ozone, *Ozone in the Atmosphere*, edited by R. D. Bojkov and P. Fabian, pp. 580-583, A. Deepak Publishing, 1989.
16. **A. M. Thompson**, Effects of atmospheric chemical and climate change on tropospheric ozone, *Ozone Sci. and Engin.*, **7**, 177-194, 1990.
17. R. W. Stewart, **A. M. Thompson**, and M. A. Owens, Atmospheric residence times for soluble species: Differences in numerical and theoretical model results, *Atmos. Environ.*, **24A**, 519-524, 1990.
18. K. E. Pickering, **A. M. Thompson**, R. R. Dickerson, W. T. Luke, D. P. McNamara, P. R. Zimmerman, and J. P. Greenberg, Model calculations of tropospheric ozone production potential following observed convective events, *J. Geophys. Res.*, **95**, 14049-14062, 1990.
19. **A. M. Thompson**, M. A. Huntley, and R. W. Stewart, Perturbations to tropospheric oxidants, 1985-2035: 1. Model calculations of ozone and OH in chemically coherent regions, *J. Geophys. Res.*, **95**, 9829-9844, 1990.
20. J. R. Scala, M. Garstang, W-K. Tao, K. E. Pickering, **A. M. Thompson**, J. Simpson, V. W. J. H. Kirchhoff, E. V. Browell, G. W. Sachse, A. L. Torres, G. L. Gregory, R. A. Rasmussen and M. A. K. Khalil, Cloud draft structure and trace gas transport, *J. Geophys. Res.*, **95**, 17017-17030, 1990.
21. **A. M. Thompson**, W. E. Esaias, and R. L. Iverson, Two approaches to determining the sea-to-air flux of DMS: Satellite ocean color and a photochemical model with atmospheric measurements, *J. Geophys.*

- Res.*, **95**, 20551-20558, 1990.
22. **A. M. Thompson**, M. A. Huntley, and R. W. Stewart, Perturbations to tropospheric oxidants, 1985-2035: 2. Model calculations of hydrogen peroxide in chemically coherent regions, *Atmos. Environ.* **25A**, 1837-1850, 1991.
 23. **A. M. Thompson**, Interaction of atmospheric chemical and climate change: implications for tropospheric ozone, in *Atmospheric Chemistry: Models and Predictions for Climate and Air Quality*, ed. C. S. Sloane and T. W. Tesche, Lewis Pub., Boca Raton, FL, 1991, pp. 47-61.
 24. **A. M. Thompson** and R. W. Stewart, How chemical kinetics uncertainties affect concentrations computed in an atmospheric photochemical model, *Chemometrics and Intelligent Laboratory Systems*, **10**, 69-79, 1991.
 25. K. E. Pickering, **A. M. Thompson**, J. R. Scala, W.-K. Tao, J. Simpson, and M. Garstang, Photochemical ozone production in tropical squall line convection in ABLE 2A, *J. Geophys. Res.*, **96**, 3099-3114, 1991.
 26. **A. M. Thompson** and R. W. Stewart, The effect of chemical kinetics uncertainties on calculated constituents in a tropospheric photochemical model, *J. Geophys. Res.*, **96**, 13089-13108, 1991.
 27. **A. M. Thompson**, New ozone hole phenomenon, News and Views in *Nature*, **352**, 282-283, 1991.
 28. Commentary by K. B. Hogan, **A. M. Thompson**, and J. S. Hoffman, Methane on the greenhouse agenda, *Nature*, **354**, 181-182, 1991.
 29. K. S. Law and J. Pyle, **A. M. Thompson**, Discussion on modelling the response of tropospheric trace species to changing source gas concentrations, *Atmos. Environ.* **26A**, 195-197, 1992.
 30. K. E. Pickering, **A. M. Thompson**, J. R. Scala, W.-K. Tao, and J. Simpson, Ozone production potential following convective redistribution of biomass burning emissions, *J. Atmos. Chem.*, **14**, 297-313, 1992.
 31. K. E. Pickering, J. R. Scala, **A. M. Thompson**, W.-K. Tao, and J. Simpson, A regional estimate of convective transport of CO from biomass burning, *Geophys. Res. Lett.*, **19**, 289-292, 1992.
 32. **A. M. Thompson**, K. B. Hogan, and J. S. Hoffman, Methane reductions: Implications for global warming and atmospheric chemical change, *Atmos. Environ.*, **26A**, 2665-2688, 1992.
 33. **A. M. Thompson**, The oxidizing capacity of the Earth's atmosphere: Probable past and future changes, *Science*, **256**, 1157-1165, 1992.
 34. K. E. Pickering, **A. M. Thompson**, J. R. Scala, W.-K. Tao, R. R. Dickerson, and J. Simpson, Free tropospheric ozone production following entrainment of urban plumes into deep convection, *J. Geophys. Res.*, **97**, 17985-18000, 1992.
 35. A. L. Torres and **A. M. Thompson**, Nitric oxide in the equatorial Pacific boundary layer: SAGA-3 measurements, *J. Geophys. Res.*, **98**, 16949-16954, 1993.
 36. J. A. Chappellaz, I. Y. Fung, and **A. M. Thompson**, Atmospheric methane increase since the last glacial maximum. 1. Source estimates, *Tellus*, **45B**, 228-241, 1993.
 37. **A. M. Thompson**, J. A. Chappellaz, I. Y. Fung, and T. L. Kucsera, Atmospheric methane increase since the last glacial maximum. 2. Effect on oxidants, *Tellus*, **45B**, 242-257, 1993.
 38. **A. M. Thompson**, J. E. Johnson, A. L. Torres, and 10 others, SAGA-3 ozone observations and a photochemical model analysis of the marine boundary layer during SAGA-3, *J. Geophys. Res.*, **98**, 16955-16968, 1993.
 39. E. Atlas, W. Pollock, J. Greenberg, L. Heidt, and A. Thompson, Alkyl nitrates, nonmethane hydrocarbons, and halocarbon gases over the equatorial Pacific Ocean during SAGA-3, *J. Geophys. Res.*, **98**, 16933-16948, 1993.
 40. K. E. Pickering, **A. M. Thompson**, W.-K. Tao, and T. L. Kucsera, Upper tropospheric production following mesoscale convection during STEP/EMEX, *J. Geophys. Res.*, **98**, 8737-8749, 1993.
 41. **A. M. Thompson**, D. P. McNamara, K. E. Pickering, and R. D. McPeters, Effect of marine stratocumulus clouds on TOMS ozone, *J. Geophys. Res.*, **98**, 23051-23057, 1993.
 42. J. E. Johnson, V. M. Koropalov, K. E. Pickering, **A. M. Thompson**, N. Bond, and J. W. Elkins, Third Soviet-American Gases and Aerosols (SAGA 3) Experiment: Overview and meteorological and oceanographic conditions, *J. Geophys. Res.*, **98**, 16893-16908, 1993.

REFEREED PUBLICATIONS

THOMPSON, ANNE M.

43. J. P. Pinto, C. H. Brühl, and **A. M. Thompson**, The current and future environmental role of atmospheric methane: Model studies and uncertainties: Working Group Report, in *Atmospheric Methane: Sources, Sinks and Role in global Change*, ed. by M. A. K. Khalil, Springer-Verlag, 1993, Chapter 21.
44. **A. M. Thompson**, K. E. Pickering, R. R. Dickerson, W. G. Ellis, Jr., D. J. Jacob, J. R. Scala, W.-K. Tao, D. P. McNamara, and J. Simpson, Convective transport over the central United States and its role in the regional CO and ozone budgets, *J. Geophys. Res.*, **99**, 18703-18711, 1994.
45. K. E. Pickering, **A. M. Thompson**, D. P. McNamara, M. R. Schoeberl, L. R. Lait, P. A. Newman, C. O. Justice, and J. D. Kendall, A trajectory modeling investigation of the biomass burning - tropical ozone relationship, *Ozone in the Troposphere and Stratosphere*, ed. R. D. Hudson, NASA CP-3266, 101-104, 1994.
46. K. E. Pickering, **A. M. Thompson**, J. R. Scala, W.-K. Tao, and J. Simpson, Enhancement of free tropospheric ozone production by deep convection, *Ozone in the Troposphere and Stratosphere*, ed. R. D. Hudson, NASA CP-3266, 105-108, 1994.
47. **A. M. Thompson**, Aspects of modeling the tropospheric hydroxyl radical concentration, *Israel J. Chem*, **34**, 277-288, 1994.
48. K. E. Pickering, **A. M. Thompson**, D. P. McNamara, and M. R. Schoeberl, An intercomparison of isentropic trajectories over the South Atlantic, *Mon. Wea. Rev.*, **122**, 864-879, 1994.
49. **A. M. Thompson**, Photochemical modeling of chemical cycles: Issues related to the interpretation of ice core data, in *Biogeochemical Cycles and Ice Cores*, NATO ASI Series I-30, ed. R. J. Delmas, Springer-Verlag, Vol. I30, 265-297, 1995.
50. C. W. Brown, W. E. Esaias, and **A. M. Thompson**, Using the ratio of euphotic depth to mixed-layer depth to predict phytoplankton composition: An evaluation, *Remote Sensing of Env.*, **53**, 172-176, 1995.
51. R. D. Hudson, J. Kim, and **A. M. Thompson**, On the derivation of tropospheric column ozone from radiances measured by the total ozone mapping spectrometer, *J. Geophys. Res.* **100**, 11137-11145, 1995.
52. **A. M. Thompson**, Measuring and modeling the tropospheric hydroxyl radical (OH), *J. Atmos. Sci.*, **52**, 3315-3327, 1995.
53. K. E. Pickering, **A. M. Thompson**, D. P. McNamara, W.-K. Tao, A. M. Molod, and R. B. Rood, Vertical transport by convective clouds: Comparisons between cloud-scale and global-scale models, *Geophys. Res. Lett.*, **22**, 1089-1092, 1995.
54. M. A. Carroll and **A. M. Thompson**, NO_x in the non-urban troposphere, 198-255 in *Problems and Progress in Atmospheric Chemistry*, ed. J. Barker, World Pub. Company, 1995.
55. B. Heikes, M. Lee, D. Jacob, R. Talbot, J. Bradshaw, H. Singh, D. Blake, B. Anderson, H. Fuelberg, and **A. Thompson**, Ozone, hydroperoxides, oxides of nitrogen, and hydrocarbon budgets in the marine boundary layer over the South Atlantic, *J. Geophys. Res.*, **101**, 24221-24234, 1996.
56. J.-H. Kim, R. D. Hudson, and **A. M. Thompson**, A new method of deriving time-averaged tropospheric column ozone over the tropics using TOMS radiances: Intercomparison and analysis, *J. Geophys. Res.*, **101**, 24317-24330, 1996.
57. J. R. Ziemke, S. Chandra, **A. M. Thompson**, and D. P. McNamara, Zonal asymmetries in southern hemisphere column ozone: Implications of biomass burning, *J. Geophys. Res.*, **101**, 14421-14427, 1996.
58. S. A. Yvon, E. S. Saltzman, D. J. Cooper, T. S. Bates, and **A. M. Thompson**, The flux of dimethylsulfide from the tropical South Pacific during a time-series station at 12°S, 135°W, *J. Geophys. Res.*, **101**, 6899-6909, 1996.
59. **A. M. Thompson**, R. D. Diab, G. E. Bodeker, M. Zunckel, G. Coetzee, C. B. Archer, D. P. McNamara, K. E. Pickering, J. B. Combrink, J. Fishman, and D. Nganga, Ozone over southern Africa during SAFARI-92/TRACE-A, *J. Geophys. Res.*, **101**, 23793-23807, 1996.
60. R. D. Diab, **A. M. Thompson**, M. Zunckel, G. J. R. Coetzee, J. B. Combrink, G. E. Bodeker, J. Fishman, F. Sokolic, D. P. McNamara, C. B. Archer, and D. Nganga, Vertical ozone distribution over southern Africa and adjacent oceans during SAFARI-92, *J. Geophys. Res.*, **101**, 23,809-23,821, 1996.
61. K. E. Pickering, **A. M. Thompson**, D. P. McNamara, M. R. Schoeberl, H. E. Fuelberg, R. O. Loring, Jr., M. V. Watson, K. Fakhruzzaman, and A. S. Bachmeier, TRACE-A trajectory intercomparison: 1. Effects of different input analyses, *J. Geophys. Res.*, **101**, 23,909-23,925, 1996.
62. H. E. Fuelberg, R. O. Loring, Jr., M. V. Watson, M. C. Sinha, K. E. Pickering, **A. M. Thompson**, D. R. Blake, G. W. Sachse, and M. R. Schoeberl, TRACE-A trajectory model intercomparison: 2. Isentropic

- and kinematic methods, *J. Geophys. Res.*, **101**, 23,927-23,939, 1996.
63. W. G. Ellis, Jr., **A. M. Thompson**, S. Kondragunta, K. E. Pickering, G. Stenchikov, R. R. Dickerson, and W.-K. Tao, Potential ozone production following convective transport based on future emission scenarios, *Atmos. Environ.*, **30**, 667-672, 1996.
64. K. E. Pickering, **A. M. Thompson**, Y. Wang, W.-K. Tao, D. P. McNamara, V. W. J. H. Kirchhoff, B. G. Heikes, G. W. Sachse, J. D. Bradshaw, G. L. Gregory, and D. R. Blake, Convective transport of biomass burning emissions over Brazil during TRACE-A, *J. Geophys. Res.*, **101**, 23,993-24,012, 1996.
65. Y. Wang, W.-K. Tao, K. E. Pickering, **A. M. Thompson**, R. Adler, J. Simpson, P. Keehn, and J. Lai, Mesoscale (MM5) simulations of TRACE-A and PRE-STORM convective events, *J. Geophys. Res.*, **101**, 24,013-24,027, 1996.
66. N. C. Hsu, J. R. Herman, P. K. Bhartia, C. J. Seftor, **A. M. Thompson**, J. Gleason, T. Eck, and B. N. Holben, Detection of biomass burning smoke from TOMS measurements, *Geophys. Res. Lett.*, **23**, 745-748, 1996.
67. R. W. Stewart and **A. M. Thompson**, Kinetic data imprecisions in photochemical rate calculations: Means, medians and temperature dependence, *J. Geophys. Res.*, **101**, 20,953-20,964, 1996.
68. T. Zenker, **A. M. Thompson**, D. P. McNamara, T. L. Kucsera, G. W. Harris, F. G. Wienhold, P. Le Canut, M. O. Andreae and R. Koppman, Regional trace gas distribution and airmass characteristics in the haze layer over southern Africa during the biomass burning season (Sep./Oct. 92): Observations and modeling from the STARE/SAFARI '92/DC-3, *Biomass Burning and Global Change*, ed. J. S. Levine, MIT Press, 296-308, 1996.
69. P. D. Tyson, M. Garstang, R. J. Swap, E. V. Browell, R. D. Diab and **A. M. Thompson**, Transport and vertical structure of ozone and aerosol distributions over southern Africa, *Biomass Burning and Global Change*, ed. J. S. Levine, MIT Press, 403-421 1996.
70. D. J. Allen, R. B. Rood, **A. M. Thompson**, and R. D. Hudson, Three-dimensional Rn-222 calculations using assimilated meteorological data and a convective mixing algorithm, *J. Geophys. Res.*, **101**, 6,871-6, 881, 1996.
71. **A. M. Thompson**, Modeling framework for atmospheric trace gas measurements at the air-snow interface, in *Processes of Chemical Exchange Between the Atmosphere and Polar Snow*, ed. by E. W. Wolff and R. C. Bales, NATO ASI Springer-Verlag, **143**, 225-248, 1996.
72. **A. M. Thompson**, Evaluation of biomass burning effects on ozone during SAFARI/TRACE-A: Examples from process models, in *Biomass Burning and Global Change*, ed. J. S. Levine, MIT Press, Chapter 32, 1996.
73. **A. M. Thompson**, K. E. Pickering, D. P. McNamara, M. R. Schoeberl, R. D. Hudson, J. H. Kim, E. V. Browell, V. W. J. H. Kirchhoff, and D. Nganga, Where did tropospheric ozone over southern Africa and the tropical Atlantic come from in October 1992? Insights from TOMS, GTE/TRACE-A and SAFARI-92, *J. Geophys. Res.*, **101**, 24,251-24,278, 1996.
74. **A. M. Thompson**, Biomass burning and the environment: Accomplishments and research opportunities, *Atmos. Environ.*, **30** (19), I-ii, 1996.
75. D. J. Allen, P. Kasibhatla, **A. M. Thompson**, R. B. Rood, B. Doddridge, K. E. Pickering, R. D. Hudson, and S.-J. Lin, Transport-induced interannual variability of carbon monoxide determined using a chemistry and transport model, *J. Geophys. Res.*, **102**, 28,655-28,669, 1996.
76. N. C. Hsu, R. D. McPeters, C. J. Seftor, and **A. M. Thompson**, The effect of an improved cloud climatology on the TOMS total ozone record, *J. Geophys. Res.*, **102**, 4,247-4,255, 1997.
77. **A. Thompson**, T. Zenker, G. Bodeker, and D. McNamara, Ozone over southern Africa: Patterns and influences, *Fire in Southern African Savanna: Ecological and Atmospheric Perspectives*, ed. B. Van Wilgen, M. O. Andreae, J. G. Goldammer and J. A. Lindesay, Univ. of Witwatersrand Press, Chapter 9, 1997.
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