

YI MING

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NOAA/Geophysical Fluid Dynamics Laboratory
Princeton University, 201 Forrestal Rd.
Princeton, NJ 08542

Phone: (609) 452-5338
Fax: (609) 987-5063
E-mail: Yi.Ming@noaa.gov

Education

Ph.D. in Civil and Environmental Engineering
Princeton University 2003
Certificate in Science and Environmental Policy
Woodrow Wilson School of Public and International Affairs, **Princeton University** 2003
B.E. in Chemical Engineering (with a **second B.E.** in Environmental Engineering)
Tsinghua University, Beijing, China 1998

Employment

Scientist, NOAA/Geophysical Fluid Dynamics Laboratory 08/05-Present
Visiting Scientist, NOAA/Geophysical Fluid Dynamics Laboratory 10/03-7/05
Postdoctoral Researcher, Department of Chemistry, University of Delaware 11/02-9/03
Research Assistant, Atmospheric Aerosol Group, Princeton University 09/98-10/02

Honors

2007 Presidential Early Career Award for Scientist and Engineers (PECASE)
National Science Foundation (NSF) Science Policy Fellowship 09/00-06/03
First-Grade Prize, National Challenge Cup Science and Technology Competition for
College Students 05/97

Professional Experience

Core Member, Global Atmospheric Model Development Team (GAMDT), Geophysical
Fluid Dynamics Laboratory
Member, AeroCom working group of aerosol-climate simulation
Member, AeroCom working group of indirect effects
Member, Committee on cloud, chemical and climate interactions, Atmospheric
Chemistry and Climate (AC&C) Initiative, WCRP/IGBP
Review Panelist, Atmospheric Composition and Climate (ACC), NOAA Climate
Program Office 10/07
Grant Reviewer, Atmospheric Science Program (ASP), DOE
Grant Reviewer, Atmospheric Radiation Measurement (ARM), DOE
Grant Reviewer, Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)
Journal Reviewer for *Journal of Geophysical Research – Atmosphere*, *Atmospheric
Chemistry and Physics*, *Tellus*, *Journal of Applied Meteorology and Climatology*,
International Journal of Climatology.

Teaching Experience

Co-instructor, AOS 580 Special Topics: Aerosol, Climate and Climate Change,
Atmospheric and Oceanic Sciences (AOS) Program, Princeton University

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Guest lecturer, AOS 527 Atmospheric Radiative Transfer, Atmospheric and Oceanic Sciences (AOS) Program, Princeton University 05-Present

Peer-reviewed Publications

Ming, Y., and L.M. Russell, 2001a: Predicted Hygroscopic Growth of Sea Salt Aerosol. *Journal of Geophysical Research -Atmosphere*, 106, 28259-28274.

Prenni, A.J., P.J. DeMott, S.M. Kreidenweis, D.E. Sherman, L.M. Russell and **Y. Ming**, 2001b: The Effect of Low Molecular Weight Dicarboxylic Acids on Cloud Formation, *Journal of Physical Chemistry A*, 105, 11240-11248.

Ming, Y., and L.M. Russell, 2002a: Thermodynamic Equilibrium of Aqueous Solutions of Organic-Electrolyte Mixtures in Aerosol Particles. *AIChE Journal*, 48, 1331.

Russell, L.M., and **Y. Ming**, 2002b: Deliquescence of Small Particles, *Journal of Chemical Physics*, 116, 311-321.

Ming, Y., and L.M. Russell, 2004a: Organic Aerosol Effects on Fog Droplet Spectra, *Journal of Geophysical Research –Atmosphere*, 109, 10.1029/2003JD004427.

Ming, Y., G. Lai, C. Tong, R.W. Wood, and D.J. Doren, 2004b: Free Energy Perturbation Study of Water Dimer Dissociation Kinetics, *Journal of Chemical Physics*, 121, 773-777.

Ming, Y., L.M. Russell, and D.F. Bradford, 2005a: Health and Climate Policy Impacts on Sulfur Emission Control, *Review of Geophysics*, 43, doi:10.1029/2004RG000167.

Ming, Y., V. Ramaswamy, P.A. Ginoux and L.W. Horowitz, 2005b: Geophysical Fluid Dynamics Laboratory General Circulation Model Investigation of the Indirect Radiative Effects of Anthropogenic Sulfate Aerosol, *Journal of Geophysical Research - Atmosphere*, 110, doi:10.1029/2005JD006161.

Ming, Y., V. Ramaswamy, P.A. Ginoux and L.W. Horowitz, 2005c: Direct Radiative Forcing of Anthropogenic Organic Aerosols, *Journal of Geophysical Research - Atmosphere*, 110, doi:10.1029/2004JD005573.

Ming, Y., V. Ramaswamy, L.J. Donner, and V.T.J. Phillips, 2006: A New Parameterization of Cloud Droplet Activation Applicable to General Circulation Models, *Journal of the Atmospheric Sciences*, 63, 1348-1356.

Ming, Y., V. Ramaswamy, L.J. Donner, V.T.J. Phillips, S.A. Klein, P.A. Ginoux, and L.W. Horowitz, 2007: Modeling the Interactions between Aerosols and Liquid Water Clouds with a Self-consistent Cloud Scheme in a General Circulation Model, *Journal of the Atmospheric Sciences*, 64, 1189-1209.

Lee, S. S., L. J. Donner, V. T. J. Phillips, and **Y. Ming**, 2008a: Examination of aerosol effects on precipitation in deep convective clouds during the 1997 ARM summer experiment. *Quarterly Journal of the Royal Meteorological Society*, 134, 1201-1220.

Lee, S. S., L. J. Donner, V. T. J. Phillips, and **Y. Ming**, 2008b: The dependence of aerosol effects on clouds and precipitation on cloud-system organization, shear and stability. *Journal of Geophysical Research*, 113, D16202, doi:10.1029/2007JD009224.

Ming, Y., and V. Ramaswamy, 2008c: Nonlinear Climate and Hydrological Responses to Aerosol Effects. *Journal of Climate*, in press.

Lee, S. S., L. J. Donner, V. T. J. Phillips, and **Y. Ming**, 2008d: Cloud and Aerosol Effects on Radiation in Deep Convective Clouds: Comparison with Warm Stratiform Clouds. *Atmospheric Chemistry and Physics Discussion*, in review.

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Magi, B. I., P. A. Ginoux, V. Ramaswamy, and **Y. Ming**, 2008e: Evaluation of Tropical and Extratropical Southern Hemisphere African Aerosol Properties Simulated by a Climate Model. *Journal of Geophysical Research – Atmosphere*, in review .

Ming, Y., and coauthors, 2008f: Transport of European Air Pollution Affects Arctic Climate. *Nature*, in review.

Assessment Report

Contributing author, *Climate Projections Based on Emissions Scenarios for Long-Lived and Short-Lived Radiatively Active Gases and Aerosols*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. H. Levy II, D. T. Shindell, A. Gilliland, M. D. Schwarzkopf, L. W. Horowitz, (eds.). Department of Commerce, NOAA's National Climatic Data Center, Washington, D.C., USA.