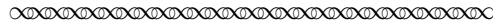


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## Education

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University of Washington, Chemistry	B.S. (2001)
University of Washington, Chemical Engineering	B.S. (2001)
California Institute of Technology, Chemical Engineering	M.S. (2004)
California Institute of Technology, Chemical Engineering	Ph.D. (2007)

## Appointments

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- 2009- Assistant Professor of Mechanical Engineering, University of Colorado, Boulder.
- 2007-2009 Earth Institute Postdoctoral Fellow, Columbia University, NASA GISS.
- 2007 Postdoctoral Scholar, California Institute of Technology.

## Fellowships and Awards

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- 2007 **Columbia University Earth Institute Postdoctoral Fellowship**
- 2007 **William and Sonya Davidow Graduate Fellow** *Awarded to top graduate student in Environmental Science at Caltech.*
- 2002-2003 **William H. Corcoran Memorial Fellowship for Chemical Engineering** *Provided funding for first year of graduate studies.*

## Recent Synergistic Activities

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- 2009 GEOS-Chem Adjoint Model Scientist and Working Group Chair. Co-chair adjoint modeling sessions at the GEOS-Chem Users' Meeting, Cambridge, MA.
- 2007 Attended 3-week workshop on Data Assimilation and Remote Sensing at University of Maryland College Park, MD. <http://www.weatherchaos.umd.edu/workshop/index.php>

## Publications

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- 2009 **Henze, D. K.**, J. H. Seinfeld, and D. T. Shindell, Inverse modeling and mapping U.S. air quality influences of inorganic PM<sub>2.5</sub> precursor emissions with the adjoint of GEOS-Chem, *Atmos. Chem. Phys.*, *in press*.
- 2009 Zhang, L., D. J. Jacob, M. Kopacz, **D. K. Henze**, and D. A. Jaffe, Intercontinental source attribution of ozone pollution at western U.S. sites using an adjoint method, *Geophys. Res. Lett.*, *36*, L11810, doi:10.1029/2009GL037950.
- 2009 Kopacz, M., D. Jacob, **D. K. Henze**, C. L. Heald, D. G. Streets, and Q. Zhang, A comparison of analytical and adjoint Bayesian inversion methods for constraining Asian sources of CO using satellite (MOPITT) measurements of CO columns, *J. Geophys. Res.*, *114*, D04305, doi:10.1029/2007JD009264.

- 2009 Pye, H. O. T., J. H. Seinfeld, H. Liao, S. Wu, L. J. Mickely, D. J. Jacob, and **D. K. Henze**, Effect of changes in climate and emissions on future sulfate-nitrate-ammonium aerosol levels in the United States, *J. Geophys. Res.*, *114*, D01205, doi:10.1029/2008JD010701.
- 2009 Eller, P., K. Singh, A. Sandu, K. Bowman, **D. K. Henze**, and M. Lee, Implementation and evaluation of an array of chemical solvers in a global chemical transport model, *Geosci. Mod. Devel.*, *2*, 185-207.
- 2008 Liang, M. C., **D. K. Henze**, M. Adamkovic, E. F. Chu, K. Boering, and Y. L. Yung, Synergistic study of hydrocarbon photochemistry in the laboratory and planetary atmospheres, *submitted*.
- 2008 Fu, T.-M., D. J. Jacob, F. Wittrock, J. P. Burrows, M. Vrekoussis, and **D. K. Henze**, Global budgets of atmospheric glyoxal and methylglyoxal, and implications for formation of secondary organic aerosols, *J. Geophys. Res.*, *113*, D15303, doi:10.1029/2007JD009505.
- 2008 **Henze, D. K.**, J. H. Seinfeld, N. G. Ng, J. H. Kroll, T.-M. Fu, D. J. Jacob, and C. L. Heald, Global modeling of secondary organic aerosol formation from aromatic hydrocarbons: High- vs low-yield pathways, *Atmos. Chem. Phys.*, *8*, 2405-2420.
- 2008 Heald, C. L., **D. K. Henze**, J. H. Seinfeld, L. W. Horowitz, J. Feddema, J.-F. Lamarque, A. Guenther, P. G. Hess, F. Vitt, A. H. Goldstein, and I. Fung, Predicted change in secondary organic aerosol concentrations in response to future climate, emissions, and land-use change, *J. Geophys. Res.*, *113*, D05211, doi:10.1029/2007JD009092.
- 2007 Zhang, Y., J.-P. Huang, **D. K. Henze**, and J. H. Seinfeld, The role of isoprene in secondary organic aerosol formation on a regional scale, *J. Geophys. Res.*, *112*, D20207, doi:10.1029/2007JD008675.
- 2007 **Henze, D. K.**, A. Hakami and J. H. Seinfeld, Development of the adjoint of GEOS-Chem, *Atmos. Chem. Phys.*, *7*, 2413-2433.
- 2007 Hakami, A., **D. K. Henze**, J. H. Seinfeld, K. Singh, A. Sandu, S. Kim, D. Byun, and Q. Li, The adjoint of CMAQ, *Environ. Sci. Technol.*, *41*(22), 7807-7818, doi:10.1021/es070944p.
- 2006 Liao, H., **D. K. Henze**, J. H. Seinfeld, W. Shiliang, and L. J. Mickley, Biogenic secondary organic aerosol over the United States: comparison of climatological simulations with observations, *J. Geophys. Res.*, *112*, D06201, doi:10.1029/2006JD007813.
- 2006 **Henze, D. K.**, and J. H. Seinfeld, Global secondary organic aerosol formation from isoprene oxidation, *Geophys. Res. Lett.*, *33*, L09812, doi:10.1029/2006GL025976.
- 2005 Sandu, A., W. Liao, G. R. Carmichael, **D. K. Henze**, and J. H. Seinfeld, Inverse modeling of aerosol dynamics using adjoints: Theoretical and numerical considerations, *Aerosol Sci. Tech.*, *39*, 677-694, doi:10.1080/02786820500182289.
- 2005 Hakami, A., **D. K. Henze**, J. H. Seinfeld, T. Chai, Y. Tang, G. R. Carmichael, and A. Sandu, Adjoint inverse modeling of black carbon during the Asian Pacific Regional Aerosol Characterization Experiment, *J. Geophys. Res.*, *110*, D14301, doi:10.1029/2004JD005671.
- 2004 **Henze, D. K.**, J. H. Seinfeld, W. Liao, A. Sandu, and G. R. Carmichael, Inverse modeling of aerosol dynamics: Condensational growth, *J. Geophys. Res.*, *109*, D14201, doi:10.1029/2004JD004593.
- 2004 Tantillo, D. J., R. Hoffmann, K. N. Houk, P. M. Warner, E. C. Brown, and **D. K. Henze**, Extended barbaralanes: Sigmatropic shiftamers or alpha-polyacenes? *J. Am. Chem. Soc.*, *126*, 13, 4256-4263.
- 2002 Brown, E. C., **D. K. Henze**, and W. T. Borden, Are 1,5-disubstituted semibullvalenes that have C-2v equilibrium geometries necessarily bishomoaromatic?, *J. Am. Chem. Soc.*, *124*, 50, 14977-14982.