

V. Faye McNeill



2007 - Assistant Professor

- Department of Chemical Engineering Columbia University

2005-2007 - Postdoctoral Research Associate

- Department of Atmospheric Sciences University of Washington

2005 - Ph.D., Chemical Engineering

2001 - M.S., Chemical Engineering Practice

- Massachusetts Institute of Technology

1999 - B.S., Chemical Engineering

- California Institute of Technology

- NSF CAREER Award, 2009-2014
- ACS Petroleum Research Fund Doctoral New Investigator, 2009-2011
- Columbia University Professional Schools Fellowship, 2008-2009
- Co-editor, [*Atmospheric Chemistry and Physics*](#), 2007-
- NASA Earth System Science Fellow, 2000-2003

Publications

"Secondary organic aerosol material formed by methylglyoxal in aqueous aerosol mimics. Part I: Surface tension depression and light-absorbing products" AN Schwier, EL Shapiro, N Sareen, VF McNeill. *Atmos. Chem. Phys. Discuss.*, 9, 15541-15565 (2009) [link to paper](#)

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"Light-absorbing secondary organic aerosol material formed by glyoxal in aqueous aerosol mimics" EL Shapiro, J Szprengiel, N Sareen, CN Jen, MR Giordano, VF McNeill. *Atmos. Chem. Phys.*, 9, 2289-2300 (2009) [link to paper](#)

"Ice in the environment: connections to atmospheric chemistry" VF McNeill, MG Hastings. *Environ. Res. Lett.*, 3, 045004, doi:10.1088/1748-9326/3/4/045004 (2008) [link to paper](#)

"Heterogeneous OH Oxidation of Palmitic Acid in Single Component and Internally Mixed Aerosol Particles: Vaporization and the Role of Particle Phase" VF McNeill, RLN Yatavelli, JA Thornton, CB Stipe, O Landgrebe. *Atmos. Chem. Phys.*, 8, 5465-5476 (2008) [link to paper](#)

"Assessing Known Pathways for HO₂ Loss in Aqueous Atmospheric Aerosols: Regional and Global Impacts on Tropospheric Oxidants." JA Thornton, L Jaeglé, VF McNeill. *J. Geophys. Res.- Atmos.*, 113, D05303 (2008)

"Influence of trans-Pacific pollution transport on acyl peroxy nitrate abundances and speciation at Mount Bachelor Observatory during INTEX-B," GM Wolfe, JA Thornton, VF McNeill, DA Jaffe, D Reidmiller, D Chand, J Smith, P Swartzendruber, F Flocke, and W Zheng. *Atmos. Chem. Phys.*, 7, 5309-5325 (2007) [link to paper](#)

"The Interaction of Hydrogen Chloride with Ice Surfaces: The Effects of Grain Size, Surface Roughness, and Surface Disorder," VF McNeill, T Loerting, FM Geiger, BL Trout, LT Molina, MJ Molina. *J. Phys. Chem. A*, 111, 6274-6284 (2007)

"The Oxidation of Oleate in Submicron Aqueous Salt Aerosols: Evidence of a Surface Process," VF McNeill, GM Wolfe, JA Thornton. *J. Phys. Chem. A*, 111, 1073-1083 (2007)

"The Effect of Varying Levels of Surfactant on the Reactive Uptake of N₂O₅ to Aqueous Submicron Aerosols," VF McNeill, J Patterson, GM Wolfe, JA Thornton. *Atmos. Chem. Phys.* 6, 1635-1644 (2006). [link to paper](#)

"Hydrogen Chloride-induced Surface Disorder on Ice," VF McNeill, T Loerting, FM Geiger, BL Trout, MJ Molina. *Proc. Natl. Acad. Sci. USA* 103 (25) 9422-9427 (2006). [link to paper](#)

“Process Dynamics and Control Experiment Performed Across the Atlantic,” A Selmer, M Goodson, M Kraft, S Sen, VF McNeill, BS Johnston, CK Colton. *Chem. Eng. Ed.*, Summer 2005, 232-237.

“Fast mixing condensation nucleus counter: Application to rapid scanning differential mobility analyzer measurements,” J Wang, VF McNeill, DR Collins, RC Flagan, *Aerosol Sci. Tech.* 36 (6). 678-689 (2002)