**Dr. Munkhbayar Baasandorj (Munkh)**

Research Assistant Professor

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**Education**

Ph.D., Environmental Science, School of Public and Environmental Affairs, Indiana University, specializing in atmospheric chemistry, 2003 – 2008

M.S., Environmental Science, Indiana University, Bloomington, IN, 2001 - 2003

B.S., Physics, Dokuz Eylul University, Izmir, Turkey, 1996 - 2000

**Professional Experience**

**Research Professor, 2016 – now**

University of Utah, Department of Atmospheric Sciences

**Environmental Scientist,** 2015 – 2017

Utah Division of Air Quality, Salt Lake City, Utah

**Consultant,** September – December 2014

Washington University in St. Louis, Department of Energy, Environmental, & Chemical Engineering, St. Louis, MO

**Postdoctoral Research Associate**, August 2012 –August 2014

University of Minnesota, Department of Soil, Water and Climate, St. Paul, MN

**Research Scientist**, February 2008 – June 2012

National Oceanic and Atmospheric Administration (NOAA), Chemical Sciences Division, Boulder, CO

**Associate Researcher**, June 2002 – January 2008

Indiana University, Bloomington, IN

**Field Campaigns**

* St. Louis Air Quality Regional Study (SLAQRS), St. Louis, MO 2013
* (PI) Salt Lake Valley Wintertime PM2.5 Study 2015
* (PI) West Valley High Time Resolution Air Toxics Campaign in Salt Lake City, UT 2015 – 2017
* (co-PI) Utah Winter Fine Particulate Study 2017 in UT

**Selected Publications**

**Baasandorj, M.**, S.W. Hoch, R. Bares, J.C. Lin, S.S. Brown, D.B. Millet, R. Martin, K. Kelly, K.J. Zarzana, C.D. Whiteman, W.P. Dubé, G. Tonneson, I.C. Jaramillo, and J. Sohl (2017), “[Coupling between chemical and meteorological processes under persistent cold-air pool conditions: Evolution of wintertime PM2.5 pollution events and N2O5 observations in Utah’s Salt Lake Valley](https://atmoschem.umn.edu/sites/atmoschem.umn.edu/files/baasandorj_2017.pdf)”, *Environ. Sci. Technol.*, doi:10.1021/acs.est.6b06603, 51, 2017

Zhu, L., D.J. Jacob, F.N. Keutsch, L.J. Mickley, R. Scheffe, M. Strum, G. González Abad, K. Chance, K. Yang, B. Rappenglück, D.B. Millet, **M. Baasandorj**, L. Jaeglé, and V. Shah, “[Formaldehyde (HCHO) as a Hazardous Air Pollutant: Mapping surface concentrations from satellite and inferring cancer risks in the United States](https://atmoschem.umn.edu/sites/atmoschem.umn.edu/files/zhu_2017.pdf)”, Env. Sci. Technol., 51, 2017

Millet, D.B., **M. Baasandorj**, L. Hu, D. Mitroo, J. Turner, and B.J. Williams, “Nighttime chemistry and morning isoprene drive daytime ozone downwind of a major deciduous forest”, *Environmental Science & Technology,* **50**, 4335 -4342, 2016

Millet, D.B., **M. Baasandorj**, D.K. Farmer, J.A. Thornton, K. Baumann, P. Brophy, S. Chaliyakunnel, J.A. de Gouw, M. Graus, L. Hu, A. Koss, B.H. Lee, F.D. Lopez-Hilfiker, J.A. Neuman, F. Paulot, J. Peischl, I.B. Pollack, T.B. Ryerson, C. Warneke, B.J. Williams, and J. Xu (2015), “A large and ubiquitous source of atmospheric formic acid”, *Atmos. Chem. Phys*., **15**, 6283-6304, 2015

**Baasandorj, M.**; Millet,, D.B.; Hu, L.; Mitroo, D.; Williams, B.J., “Measuring acetic and formic acid by proton transfer reaction-mass spectrometry: sensitivity, humidity dependence, and quantifying interferences”, *Atmospheric Measurement Techniques*, **8**, 1303–1321, 2015

**Baasandorj, M.;** Fleming, E.L.; Jackman, C.H.; Burkholder, J.B., “O(1D) Kinetics Study of Key Ozone Depleting Substances and Greenhouse Gases” *Journal of Physical Chemistry*, A, **117** (12), 2434-2445, 2013

**Baasandorj, M.**; Ravishankara, A.R.; Burkholder, J.B., “Atmospheric Chemistry of (*Z*)-CF3CH=CHCF3: OH Radical Reaction Rate Coefficient and Global Warming Potential” *Journal of Physical Chemistry*, A, **115** (38), 10539-10549, 2011

**Baasandorj, M.**; Feierabend, K.J.; Burkholder, J.B., “Rate coefficients and ClO Radical Yields in the Reaction of O(1D) with CClF2CCl2F, CCl3CF3, CClF2CClF2, and CCl2FCF3

” *International Journal of Chemical Kinetics*, **43** (8), 393-401, 2011

**Baasandorj, M.**; Papanastasiou, D.K.; Talukdar, R.K.; Hasson, A.S.; Burkholder, J.B., “(CH3)3COOH (t-Butyl Hydroperoxide): OH Reaction Rate Coefficients between 206 and 375 K and the OH Photolysis Quantum Yield at 248 nm. “ *Physical Chemistry Chemical Physics*, **12**, 12101-12111, 2010

**Baasandorj, M.**; Knight, G.; Papadimitriou, V.C.; Talukdar, R.K.; Ravishankara, A.R.; Burkholder, J.B., “Rate Coefficients for the Gas-Phase Reaction of the Hydroxyl Radical with CH2 = CHF and CH2 = CF2”, *Journal of Physical Chemistry*, *A,* **114** (13), 4619-4633, 2010

Roberts, J.M.; Veres, P.; Warneke, C.; Neuman, J.A.; Washenfelder, R.A.; Brown, S.S.; **Baasandorj**, **M.**;Burkholder, J.B.; Burling, I.R.; Johnson, T.J.; Yokelson, R.J. and Gouw, J. de, “Measurement of HONO, HNCO, and Other Inorganic Acids by Negative-ion Proton-Transfer Chemical-Ionization Mass Spectrometry (NI-PT-CIMS): Application to Biomass Burning Emissions.” *Atmospheric Measurement Techniques*, **3**, 981-990, 2010

**Baasandorj, M.** and Stevens, P.S.,”Experimental and theoretical studies of the kinetics of the reactions of OH and OD with 2-methyl-3-buten-2-ol between 300 and 415 K at low pressure”, *Journal of Physical Chemistry*, *A,* **111** (4), 640 -649, 2007

Lee, W.; **Baasandorj, M.**;Stevens, P.S.; and Hites, R.A., “Monitoring OH-Initiated Oxidation Kinetics of Isoprene and Its Products Using Online Mass Spectrometry”, *Environmental Science & Technology,* **39** (4), 1030 -1036, 2005