

Pierre Herckes

Curriculum Vitae

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Professor
School of Molecular Sciences
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Education

Louis Pasteur University, Strasbourg, France
Ph.D. Physical Chemistry, 1999
Diplôme d'études approfondies (DEA) in Physical Chemistry, 1996
European Higher Institute of Chemistry (now ECPM), Strasbourg, France
Diplôme d'ingénieur, 1996

Honors and Awards

US National Science Foundation young investigator award (NSF-CAREER)
European Union Erasmus Fellowship

Appointments

Associate Director for Academic Affairs (2019//20),
Associate Director for Undergraduate Programs (2020/21)
Professor (2016-), Associate Professor (2010 – 2016) , Assistant Professor (2004 – 2010)
School of Molecular Sciences (formerly Dept of Chemistry and Biochemistry)
Arizona State University, USA
Affiliate Professor (8/2016 – present)
School of Earth and Space Exploration, Arizona State University, USA
Visiting Professor (Fall 2011)
Department of Atmospheric Science, University of Sao Paulo, Brazil
Senior Sustainability Scientist (2010-present)
Global Institute of Sustainability, Arizona State University, USA
Research Associate, Research Scientist II, III (2001 - 2004)
Postdoctoral Scientist (1999 - 2001)
Department of Atmospheric Science, Colorado State University, USA
Doctoral Research (1996 - 1999)
Atmos. Chemistry Group, CNRS Centre de Géochimie de la Surface, Strasbourg, France
Masters Research (1996) (Research for *ingénieur* and *DEA* degree):
University of Dortmund, Germany, & Strasbourg University, France

Publications

Peer reviewed journal articles (H-index: 43 (Google Scholar), 36 (Scopus))

m-index = 1.8 (h/scientific age)

Published (underlined - Herckes group member at Arizona State University; *denotes corresponding author)

122. S. Donovan, A.J. Atkinson, N. Fischer, A.E. Taylor, J. Kieffer, J.P. Croue, P. Westerhoff and **P. Herckes**^{*}, Nuclear Magnetic Resonance Enables Understanding of PolyDiallyldimethyl Ammonium Chloride Composition and N-Nitrosodimethylamine Formation During Chloramination, published
- 121 Y. Mancilla, G. Medina, L. T. González, **P. Herckes**, M. P. Fraser and A. Mendoza^{*}, Title: Determination and similarity analysis of PM_{2.5} emission source profiles based on organic markers for Monterrey, Mexico, *Atmosphere*, **12**, 554, 2021.
120. W.L. Knight, M.P. Fraser and **P. Herckes**^{*}, Impact of Misting Systems on Local Particulate Matter (PM) Levels. *Aerosol Air Qual. Res.* <https://doi.org/10.4209/aaqr.200431>
119. J. Miech, **P. Herckes** and M.P. Fraser^{*}, Effect of COVID-19 Travel Restrictions on Phoenix Air Quality after Accounting for Boundary Layer Variations, *Atmospheric Environment X*, **10**, 100105, 2021.
118. X. Long, Y. Lo, Z. Zhang, C. Zhang, C. Zhang, Y. Bi, C. Zhou, B.E. Rittmann, T. D. Waite, **P. Herckes** and P. Westerhoff^{*}, The nature and oxidative reactivity of urban magnetic nanoparticle dust: new insights into potential neurotoxic effects. *Environmental Science and Technology*, **54**, 10599–10609, 2020.
117. Z. Zhao, Z. Zhang, M. Lanzarini-Lopes, S. Sinha, H. Rho, **P. Herckes** and P. Westerhoff^{*}, Germicidal Ultraviolet Light Does Not Damage or Impede Performance of N95 Masks Upon Multiple Uses. *Environmental Science and Technology Letters*, **7**, 600-605, 2020.
116. A. J. Atkinson, N. Fischer, S. Donovan, J. Bartlett, O. Alrehaili, S. Sinha, S. Kommineni, **P. Herckes** and P. Westerhoff^{*}, Purification and removal of the low molecular weight fraction of PolyDADMAC reduces N-nitrosodimethylamine formation during water treatment, *Environmental Science: Water Research & Technology*, **6**, 2492-2498, 2020.
115. D. C. Napolitano, H. Hartnett and **P. Herckes**^{*}, A novel method for carbonate quantification in atmospheric particulate matter, *Atmosphere*, **11**, 661, 2020.
114. A. R. Marcotte, A. D. Anbar, B. J. Majestic^{*} and **P. Herckes**, Mineral dust and iron solubility: effects of composition, particle size, and surface area. *Atmosphere*, **11**, 533, 2020.
113. T. Nosaka^{*}, R. Lankone, P. Westerhoff and **P. Herckes**, Flame retardant performance of carbonaceous nanomaterials on polyester fabric, *Polymer Testing*, **86**, 106497, 2020.
112. M. Pandorf, L. Pourzahedi, L. Gilbertson, G.V. Lowry, **P. Herckes** and P. Westerhoff^{*}, Graphite nanoparticle addition to fertilizers reduces nitrate leaching in growth of lettuce (*Lactuca sativa*). *Environmental Science: Nano*, **7**, 127-138, 2020.
111. K. R. Bilsback, J. Dahlke, K.M. Fedak, N. Good, A. Hecobian, **P. Herckes**, C. L'Orange, J. Mehaffy, A. Sullivan, J. Tryner, L. Van Zyl, E.S. Walker, Y. Zhou, J.R. Pearce, A. Wilson, J.L. Peel and J. Volckens^{*}. A Laboratory Assessment of 120 Air Pollutant Emissions from Biomass and Fossil-Fuel Cookstoves, *Environmental Science & Technology*, **53**, 7114-7125, 2019.
110. J. Kidd, Y. Bi, D. Hannigan, **P. Herckes** and P. Westerhoff^{*}, Yttrium Residues in MWCNT Enable Assessment of MWCNT Removal during Wastewater Treatment, *Nanomaterials*, **9**, 670, 2019.

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108. D. An*, Y. Chen, B. Gu, P. Westerhoff, D. Hanigan, **P. Herckes**, N. Fischer, S. Donovan, J. Croue and A. Atkinson. Lower Molecular Weight Fractions of PolyDADMAC Coagulants Disproportionately Contribute to N-nitrosodimethylamine Formation during Water Treatment. *Water Research*, **150**, 466-472, 2019.
107. A. K. Venkatesan*, B.T. Rodríguez, A. R. Marcotte, X. Bi, J. Schoepf, **P. Herckes** and P. Westerhoff, Using single-particle ICP-MS for monitoring metal-containing particles in tap water. *Environmental Science: Water Research & Technology*, **4**, 1923-1932, 2018.
106. P. Westerhoff*, A. Atkinson, J. Fortner, M.S. Wong, J. Zimmerman, J. Gardea-Torresdey, J. Ranville and **P. Herckes**, Low risk posed by engineered and incidental nanoparticles in drinking water, *Nature Nanotechnology*, **13**, 661-669, 2018.
105. T. Nosaka, R. Lankone, Y. Bi, H. Fairbrother, P. Westerhoff and **P. Herckes***, Quantification of Carbon Nanotubes in CNT-Polymer Composites, *Analytical Methods*, **10**, 1032-1037, 2018,
104. A.K. Venkatesan*, W. Gan, H. Ashani, **P Herckes** and P. Westerhoff, Size exclusion chromatography with online ICP-MS enables molecular weight fractionation of dissolved phosphorus species in water samples. *Water Research*, **133**, Pages 264-271, 2018.
103. A. J. Boris, D.C. Napolitano, **P. Herckes**, A.L. Clements and J.L. Collett Jr*, Fogs and Air Quality on the Southern California Coast, *Aerosol and Air Quality Research*, **18**, 224–239, 2018.
102. A. K. Venkatesan*, R. B. Reed, S. Lee, X. Bi, D. Hanigan, Y. Yang, J. F. Ranville, **P. Herckes**, P. K. Westerhoff, Detection and Sizing of Ti-containing Nanoparticles in Recreational Waters Using Single Particle ICP-MS, *Bulletin of Environmental Contamination and Toxicology*, **100**, 120-126, 2018.
101. H. O’Neal Tugaoen*, **P. Herckes**, K. Hristovski and P. Westerhoff, Ultraviolet Wavelengths Influence Kinetics and Selectivity for N-Gases during TiO₂ Photocatalytic Reduction of Nitrate, *Applied Catalysis B: Environmental*, **220**, 597–606, 2018.
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99. A. L. Clements, M. P. Fraser*, N. Upadhyay, **P. Herckes**, M. Sundblom, J. Lantz and P. A. Solomon, Source Identification of Coarse Particles in the Desert Southwest, USA using Positive Matrix Factorization, *Atmospheric Pollution Research*, **8**, 873–884, 2017.
98. J. Eagar, B. Ervens and **P. Herckes***. Impact of Partitioning and Oxidative Processing of PAH in Fogs and Clouds on Atmospheric Lifetimes of PAH, *Atmospheric Environment*, **160**, 132-141, 2017.
97. Y. Yang, R. Reed, J. Schoepf, K. Hristovski, **P. Herckes** and P. Westerhoff, Prospecting nanomaterials in aqueous environments by cloud-point extraction coupled with transmission electron microscopy, *The Science of the Total Environment*, **584-585**, 515-522, 2017.
96. J.J. Schoepf, Y. Bi, J. Kidd, **P. Herckes**, K. Hristovski and P. Westerhoff*, Detection and Dissolution of Needle-like Hydroxyapatite Nanomaterials in Infant Formula, *NanoImpact*, **5**, 22-28, 2017.
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- 90 R.B. Reed, T. Zaikova, A. Barber, M. Simonich, R. Lankone, M. Marco, K. Hristovski, **P. Herckes**, L. Passantino, D.H. Fairbrother, R. Tanguay, J.F. Ranville, J.E. Hutchison and P.K. Westerhoff*, Potential Environmental Impacts and Antimicrobial Efficacy of Silver- and Nanosilver- Containing Textiles, *Environmental Science and Technology*, **50**, 4018–4026, 2016.
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- 85 P.Westerhoff*, S. Lee, Y. Yang, G.W. Gordon, K. Hristovski, R. U. Halden, and **P. Herckes**, Characterization, Recovery Opportunities, and Valuation of Metals in Municipal Sludges from U.S. Wastewater Treatment Plants Nationwide. *Environmental Science & Technology* **49**, 9479-9488, 2015.
- 84 D. Speed, P. Westerhoff*, R. Sierra-Alvarez, R. Draper, P. Pantano, S. Aravamudhan, K.L. Chen, K. Hristovski, **P. Herckes**, X. Bi, Y. Yang, C. Zeng, L. Otero-Gonzalez, C. Mikoryak, B.A. Wilson, K. Kosaraju, M. Tarannum, S. Crawford, P. Yi, X Liu, S.V. Babu, M. Moinpour, J. Ranville, M. Montano, C. Corredor, J. Posner, and F. Shadman, Physical, Chemical, and In Vitro Toxicological Characterization of Nanoparticles in Chemical Mechanical Planarization Suspensions Used in the Semiconductor Industry: Towards Environmental Health and Safety Assessments, *Environmental Science: nano*, **2**, 227-244, 2015.
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- 82 B.T. Cartledge, A.R. Marcotte, **P. Herckes**, A. D. Anbar and B.J. Majestic, The Impact of Particle Size, Relative Humidity, and Sulfur Dioxide on Iron Solubility in Simulated Atmospheric Marine Aerosols, *Environmental Science & Technology*, **49**, 7179-7187, 2015.
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- 80 D. Hanigan*, J. Zhang, **P. Herckes**, E. Zhu, S. Krasner and P. Westerhoff. Contribution and Removal of Watershed and Cationic Polymer N-nitrosodimethylamine Precursors. *Journal of the American Water Works Association*, **107**, E152-E163, 2015.

- 79 N. Upadhyay, A. L. Clements, M.P. Fraser, M. Sundblom, P. Solomon and **P. Herckes**^{*}, Size-Differentiated Chemical Composition of Re-Suspended Soil Dust from the Desert Southwest United States, *AAQR*, **2**, 387-398, 2015.
- 78 Y. Mancilla, **P. Herckes**, M. Fraser and A. Mendoza^{*}, Secondary Organic Aerosol Contributions to PM_{2.5} in Monterrey, Mexico: Temporal and Seasonal Variation. *Atmospheric Research*, **153**, 348-359, 2015.
- 77 **P. Herckes**^{*}, W. Eugster, I. Gultepe, G. Katata and O. Klemm, Preface to the special issue on the 6th conference of fog, fog collection and dew, *Atmospheric Research*, **151**, 1, 2015.
- 76 **P. Herckes**^{*}, A. Marcotte, Y. Wang and J.L. Collett, Jr. Fog Composition in the Central Valley of California Over Three Decades, *Atmospheric Research*, **151**, 20-30, 2015.
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- 72 X. Bi, S. Lee, J.F. Ranville, P. Sattigeri, A. Spanias, **P. Herckes** and P. Westerhoff^{*}, Quantitative resolution of nanoparticle sizes using single particle inductively coupled plasma mass spectrometry with the K-means clustering algorithm, *Journal of Analytical Atomic Spectrometry*, **29**, 1630 – 1639, 2014.
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- 71 C. Gonzalez-Maddux, A. Marcotte, N. Upadhyay, **P. Herckes**, Y. Williams, G. Haxel and M. Robinson^{*}, Elemental Composition of PM_{2.5} in Windblown Dust in Shiprock, New Mexico, a Rural Community Influenced by Industrial Sources, *Atmospheric Pollution Research*, **5**, 511-519, 2014.
- 70 Y. Yang^{*}, K. Doudrick, X. Bi, K. Hristovski, **P. Herckes**, P. Westerhoff and R. Kaegi. Characterization of Food-Grade Titanium Dioxide: Presence of Nano-Sized Particles, *Environmental Science and Technology*, **48**, 6391-6400, 2014.
- 69 A. L. Clements, M.P. Fraser^{*}, N. Upadhyay, **P. Herckes**, M. Sundblom, J. Lantz and P. Solomon, Chemical Characterization of Coarse Particulate Matter in the Desert Southwest – Pinal County Arizona, USA, *Atmospheric Pollution Research*, **5**, 52-61, 2014.
- 68 F. Sharif^{*}, P. Westerhoff and **P. Herckes**, Impact of Hydraulic and Carbon Loading Rates of Constructed Wetlands on Contaminants of Emerging Concern (CECs) Removal, *Environmental Pollution*, **185**, 107–115, 2014.
- 67 J. Brito^{*}, L. V. Rizzo, **P. Herckes**, P. C. Vasconcellos, S. E. S. Caumo, A. Fornaro, R. Y. Ynoue, P. Artaxo, and M. F. Andrade, Physical–chemical characterisation of the particulate matter inside two road tunnels in the São Paulo Metropolitan Area, *Atmospheric Chemistry and Physics*, **13**, 12199-12213, 2013.
- 66 K. Doudrick^{*}, N. Corson, G. Oberdörster, A. Eder, **P. Herckes**, R. Halden and P. Westerhoff, Extraction of carbon nanotubes from complex organic matrices with application to rat lung tissue, *ACS Nano*, **7**, 8849-8856, 2013.
- 65 C. Mead^{*}, **P. Herckes**, B.J. Majestic and A. D. Anbar, Source apportionment of aerosol iron in the marine environment using iron isotope analysis, *Geophysical Research Letters*, **40**, 5722-5727, 2013.
- 64 **P. Herckes**^{*}, K.T. Valsaraj and J.L. Collett, Jr., A review of observations on organic matter in fogs and clouds: origin, processing and fate, *Atmospheric Research*, **132–133**, 434–449, 2013.

- 63 A. L. Clements, M.P. Fraser*, N. Upadhyay, **P. Herckes**, M. Sundblom, J. Lantz and P. Solomon, Summertime Characterization of Fine and Coarse Particulate Matter in the Desert Southwest, *Journal of the Air and Waste Management Association*, **63**, 764 – 772, 2013.
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- 60 Y. Marusenko*, J. Shipp, G. A. Hamilton, J.L.L. Morgan, M. Keebaugh, H. Hill, A. Dutta, X. Zhuo, N. Upadhyay, J. Hutchings, **P. Herckes**, A. Anbar, E. Shock and H.E. Hartnett, Bioavailability of Nanoparticulate Hematite to *Arabidopsis thaliana*, *Environmental Pollution*, **174**, 150-156, 2013.
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2019

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- 29 J.M. Fulton^{*}, **P. Herckes** and M.P. Fraser, Microbial pigments and membrane lipids as indicators of soil crust inputs to atmospheric dust. *Geological Society of America, Annual meeting*, Denver CO. September 25-28, 2016 (contributed oral presentation)
- 30 B. Oyama, M. F. Andrade, R. Holzinger, T. Röckmann, **P. Herckes**, H. A. J. Meijer and U. Dusek^{*}, Contribution of biofuel and fossil fuel carbonaceous aerosol in Sao Paulo city. *22nd European Aerosol Conference*, Tours, France. September 3-9, 2016. (contributed oral presentation)
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- 32 T. Nosaka^{*}, P. Westerhoff and **P. Herckes**, Quantification of carbonaceous nanomaterials in complex matrices, *American Chemical Society 251th Spring meeting*. San Diego, CA. March 13-17, 2016. (contributed oral presentation)
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- 35 J.M. Kidd^{*}, D. Hanigan, K. Hristovski, R. Reed, **P. Herckes**, and P. Westerhoff, Comparison of the material properties of eight unique nanoparticles using nano-metrological functional assays. Fourth Annual Conference, Sustainable Nanotechnology Organization, Portland, OR, November 8-10, 2015. (contributed poster presentation)
- 36 A. Mulchandani, K. Hristovski, **P. Herckes** and P., Westerhoff, Characterization, Valuation and Recovery Opportunities of Metals in Municipal Sludges from U.S. Wastewater Treatment Plants. *Sustainable Nanotechnology Organization Conference*, Portland, OR, November 7-10, 2015. (contributed poster presentation)
- 37 D. Napolitano and **P. Herckes**, Seasonal Variations in the Carbonaceous Composition of Size-Resolved Particles Collected in Tempe, Arizona. *American Association for Aerosol Research 34th Annual Conference*, Minneapolis, MN, October 12-16, 2015. (contributed poster presentation)
- 38 D. Napolitano^{*} and **P. Herckes**, Seasonal Variations in the Carbonaceous Composition of Size-Resolved Particles Collected in Tempe, Arizona. 11th International Conference on Carbonaceous Particles in the Atmosphere, Berkeley, CA, August 10-13, 2015. (contributed poster presentation)
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- 40 Y. Yang*, J. Faust, J. Schoepf, K. Hristovski, R.L. Tanguay, D. G. Capco, **P. Herckes**, P.K. Westerhoff, Prospecting Silicon Dioxide in Foods: Occurrence, Characterization, and Toxicity. *249th ACS National Meeting & Exposition*, Denver, CO, March 22-26, 2015. (contributed oral presentation)
- 41 B.T. Cartledge*, A.R. Marcotte, A. Anbar, **P. Herckes** and Brian J. Majestic. The effects of particle size, relative humidity, and sulfur dioxide on iron solubility in atmospheric particulate matter. *249th ACS National Meeting & Exposition*, Denver, CO, March 22-26, 2015. (contributed poster presentation)
- 42 B.S. Oyama*, H. Holzinger, **P. Herckes**, U. Dulse, T. Röckmann and M.F. Andrade, Fatores de emissão para a cidade de São Paulo: um estudo do material particulado orgânico, *INterdisciplinary CLimate INvestigation cEnter (Incline)*, São Paulo, Brazil, March 9-10, 2015. (contributed poster presentation)
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- 44 A.R. Marcotte*, J. Eagar, D. Napolitano and **P. Herckes**. Chemical characterization of time resolved haboob samples from Tempe, AZ. *17th Annual All Scientists Meeting of the Central Arizona-Phoenix Long-Term Ecological Research Project (CAP LTER)* Scottsdale, AZ, January 16, 2015. (contributed poster presentation)
- 45 C.J. Rose*, P. Westerhoff and **P. Herckes**. Chloroform formation from swimming pool disinfection: A significant source of atmospheric chloroform in Phoenix? *17th Annual All Scientists Meeting of the Central Arizona-Phoenix Long-Term Ecological Research Project (CAP LTER)* Scottsdale, AZ, January 16, 2015. (contributed poster presentation)
- 46 A.R. Marcotte*, N. Upadhyay, Y. Wang, and **P. Herckes**. Trace Metal Concentrations in Fog and Aerosol Samples Collected from Davis, Fresno and Bakersfield, CA: 2010–2013. *95th Annual Meeting, American Meteorological Society*, Phoenix, AZ, January 4-8, 2015. (solicited oral presentation) **First place student presentation award.**
- 47 J.D. Eagar*, **P. Herckes** and B. Ervens. A Model of the Oxidation of Polycyclic Aromatic Compounds in Cloud and Fog Droplets. *95th Annual Meeting, American Meteorological Society*, Phoenix, AZ, January 4-8, 2015. (contributed poster presentation)
- 48 D. Napolitano* and **P. Herckes**. A Study of the Aqueous Phase Processing of Organic Aerosols through Carbon Stable Isotope Analysis. *95th Annual Meeting, American Meteorological Society*, Phoenix, AZ, January 4-8, 2015. (contributed poster presentation)
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- 51 A.R. Marcotte*, J. Eager, D. Napolitano and **P. Herckes**, Chemical Characterization of Time Resolved Haboob Samples from Phoenix, AZ. *AAAR annual meeting 2014*, Orlando, FL, October 20-24, 2014. (contributed oral presentation)
- 52 D. Napolitano* and **P. Herckes**, A Study of the Aqueous Phase Processing of Organic Aerosols through Compound Specific Stable Isotope Analysis. *AAAR annual meeting 2014*, Orlando, FL, October 20-24, 2014. (contributed poster presentation)

- 53 J. Zhang^{*}, D. Hannigan, P. Westerhoff and **P. Herckes** Optical properties of water soluble organic carbon (WSOC) in atmospheric aerosols and fog waters. *AAAR annual meeting 2014*, Orlando, FL, October 20-24, 2014. (contributed poster presentation)
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- 57 D. Hanigan^{*}, **P. Herckes**, S.W. Krasner and P. Westerhoff. Contribution and Sources of NDMA in Drinking Water. *AZ Water Annual Conference*, Glendale, AZ, May 7-9, 2014. (contributed poster presentation) **Best Poster Award**
- 58 A. Marcotte^{*}, J. Eagar, and **P. Herckes**. Trace Metals and Inorganic Species in Time Resolved Haboob Samples from ASU Tempe Campus. *16th Annual All Scientists Meeting of the Central Arizona-Phoenix Long-Term Ecological Research Project (CAP LTER)* Scottsdale, AZ, January 17, 2014. (contributed poster presentation)
- 59 J. Eagar^{*}, D. Napolitano, A. Marcotte, A. Anderson, J. Sipe, B. Rodriguez and **P. Herckes**. A Study of Organic Compounds in Haboob Particulate Matter. *16th Annual All Scientists Meeting of the Central Arizona-Phoenix Long-Term Ecological Research Project (CAP LTER)* Scottsdale, AZ, January 17, 2014. (contributed poster presentation)
- 60 C.J. Rose^{*}, P. Westerhoff and **P. Herckes**, Chloroform from swimming pools, a significant source of atmospheric chloroform in Phoenix? *All Scientists Meeting of the Central Arizona-Phoenix Long-Term Ecological Research Project (CAP LTER)* Scottsdale, AZ, January 17, 2014. (contributed poster presentation)
- 61 A. Marcotte^{*}, J. Eagar, and **P. Herckes**. Metal and trace element composition of time resolved haboob samples collected from ASU Tempe Campus. *46th Annual Society of Western Analytical Professors Meeting*, Tempe, AZ, January 11, 2014. (contributed oral presentation)

2013

- 62 A.R. Marcotte^{*}, N. Upadhyay, Y. Wang and **P. Herckes**, Fog and Cloud Processing of Metals and Trace Elements, *AGU fall meeting 2013*, San Francisco, CA, December 9-13, 2013. (contributed poster presentation)
- 63 D. Hanigan^{*}, S. Krasner, **P. Herckes**, and P. Westerhoff, Removal of polymer-derived N-nitrosamine precursors by activated carbon, *AWWA Water Quality and Technology Conference*, Long Beach, CA, November 3-7, 2013. (contributed poster presentation)
- 64 H. Kim^{*}, X. Ge, J. Xu, Y. Sun, Y. Wang, **P. Herckes** and Q. Zhang, Characterization of chemical composition of fog water and interstitial aerosol in the Central Valley of California: Influence of aqueous chemistry, *AAAR annual meeting 2013*, Portland, OR, September 30 – October 4, 2013. (contributed poster presentation)
- 65 A.R. Marcotte^{*}, B.J. Majestic, A.D. Anbar and **P. Herckes**. The Effect of Particle Size on Iron Solubility in Atmospheric Aerosols, *AAAR annual meeting 2013*, Portland, OR, September 30 – October 4, 2013. (contributed poster presentation)
- 66 J. Eagar^{*}, **P. Herckes** and B. Ervens, Photooxidation of Polycyclic Aromatic Hydrocarbons in Clouds and Fog – Laboratory and Model Studies, *AAAR annual meeting 2013*, Portland, OR, September 30 – October 4, 2013. (contributed poster presentation)
- 67 B. Cartledge^{*}, B. Majestic, A. Marcotte, **P. Herckes** and A. Anbar, The Effects of Particle Size,

- Relative Humidity, and Sulfur Dioxide on Iron Solubility in Atmospheric Particulate Matter, *AAAR annual meeting 2013*, Portland, OR, September 30 – October 4, 2013. (contributed poster presentation)
- 68 S. Frey*, **P. Herckes** and M. Fraser, The Impact of Energy Efficiency Retrofits on Indoor PM Levels. *AAAR annual meeting 2013*, Portland, OR, September 30 – October 4, 2013. (contributed oral presentation)
- 69 J. Eagar* and **P. Herckes**, The photooxidation of PAHs in clouds and fog, a laboratory study, International Symposium on Polycyclic Aromatic Compounds, Corvallis, OR, USA, September 8-12, 2013. (contributed poster presentation)
- 70 Y. Wang, J. Zhang, **P. Herckes***, M. Karl and C. Dye, Fog composition at three sites in Norway, *6th International Conference on fog, fog collection and dew*, Yokohama, Japan, May 19-24, 2013. (solicited poster presentation)
- 71 M. Wimmer, D.-W. Kang, R. Krajmalnik-Brown and **P. Herckes***, Microorganisms in fog and their impact on fog chemistry, *6th International Conference on fog, fog collection and dew*, Yokohama, Japan, May 19-24, 2013. (solicited poster presentation)
- 72 **P. Herckes***, J.W. Hutchings, A. Marcotte, Y. Wang, K.F. Moore, K. Hoag, and J.L. Collett, Jr., Fog composition in the Central Valley of California, changes over the last 20-30 years? *6th International Conference on fog, fog collection and dew*, Yokohama, Japan, May 19-24, 2013. (solicited oral presentation)
- 73 F.L.T. Concalves*, **P. Herckes**, P.C. Vasconcellos, H. Bauer, V.K. Censon, S.G. Avila and J.L. Collett, Jr., Advection and radiation fog comparison at Sao Paulo highway sites, *6th International Conference on fog, fog collection and dew*, Yokohama, Japan, May 19-24, 2013. (solicited oral presentation)
- 74 S.E. Frey*, H. Destailats, **P. Herckes** and M.P. Fraser, Indoor aldehyde analysis within apartments retrofitted for energy efficiency. *245th ACS National Meeting and Exposition*, New Orleans, LA, USA, April 7-11, 2013. (contributed poster presentation)
- 75 F.S. Ehrenhauser*, A.A. Heath, T.P. Liyana-Arachchi, M.J. Wornat, F.R. Hung, **P. Herckes** and K.T. Valsaraj, Chemistry at the interface: Chemical transformations at the air-water interface. *245th ACS National Meeting and Exposition*, New Orleans, LA, USA, April 7-11, 2013. (contributed poster presentation)

2012

- 76 C. Mead*, **P. Herckes**, B.J. Majestic and A. D. Anbar, Quantifying Anthropogenic Fe in Marine Aerosols Using Fe Stable Isotope Analysis, *AGU fall meeting 2012*, San Francisco, CA, December 3-7, 2012. (contributed poster presentation)
- 77 K. Pohl*, R. Lohmann, M. Cantwell and **P. Herckes**, Black carbon concentrations across the tropical Atlantic boundary layer using three methods, *AGU fall meeting 2012*, San Francisco, CA, December 3-7, 2012. (contributed poster presentation)
- 78 A. R. Marcotte*, B. J. Majestic, A. D. Anbar and **P. Herckes**, The Effect of Particle Size on Iron Solubility in Atmospheric Aerosols, *AGU fall meeting 2012*, San Francisco, CA, December 3-7, 2012. (contributed poster presentation)
- 79 D. Straub*, R. Sokoloff, D. Ressler and **P. Herckes**, Measurements of dew and fog chemical composition at a rural site, *AGU fall meeting 2012*, San Francisco, CA, December 3-7, 2012. (contributed poster presentation)
- 80 A. R. Marcotte*, B. J. Majestic, A. D. Anbar and **P. Herckes**, The Effect of Particle Size on Iron Solubility in Atmospheric Aerosols, *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed poster presentation)
- 81 A.L. Clements*, M.P. Fraser, **P. Herckes**, K. Walch and P.A. Solomon, Coarse Particles in the Desert Southwest: Final Results and Policy Implications, *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed oral presentation)
- 82 S. Frey*, M. Fraser and P. Herckes, The Impact of Energy Efficiency Retrofits on Indoor PM

- Levels. *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed oral presentation)
- 83 A.L. Clements*, M.P. Fraser, N. Upadhyay, **P. Herckes** and P.A. Solomon Characterization of Re-suspended Soil Dust Samples from Sources Common in the Desert Southwest United States, *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed poster presentation)
- 84 J. Eagar, F.S. Ehrenhauser, Y. Wang, J. W. Hutchings, A. Marcotte, O. Delhomme, R. R Kommalapati, M. J. Wornat, K. T Valsaraj and **P. Herckes***, Fog Processing of Particulate Molecular Marker Species, *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed oral presentation)
- 85 M. F. Andrade, A. Fornaro, B. Oyama, R. Ynoue, and **P. Herckes***, Characterization of Carbonaceous Particle Emissions by Mobile Sources in Sao Paulo (Brazil), *AAAR annual meeting 2012*, Minneapolis, MN, October 8-12, 2012. (contributed poster presentation)
- 86 P. Westerhoff*, K. Doudrick and **P. Herckes**, Detection of carbon nanotubes in environmental and biological matrices using programmed thermal analysis, *ACS Annual Conference 2012*, Philadelphia, PA, August 19-23, 2012. (contributed oral presentation)
- 87 P. Westerhoff*, J. Ranville, **P. Herckes**, R. Halden, K. Doudrick and S. Lee, Analytical techniques for measurement of carbonaceous nanomaterials in diverse media, *ACS Annual Conference 2012*, Philadelphia, PA, August 19-23, 2012. (contributed oral presentation)
- 88 F.S. Ehrenhauser*, K. Khadapkar, Y. Wang, J.W. Hutchings, A. Marcotte, O. Delhomme, R.R. Kommalapati, **P. Herckes**, M.J. Wornat and K.T. Valsaraj, PAH and OPAC processing during a fog event, *243rd ACS National Meeting & Exposition*, San Diego, CA, March 25- 29, 2012. (contributed poster presentation)

2011

- 89 A.K.Y. Lee*, **P. Herckes**, J. Liggio, R. Leitch, AM Macdonald and J. Abbatt, Aqueous oxidation of aerosol and cloud water samples at Whistler, BC: Secondary organic aerosol formation via oxidative cloud processing, *AGU fall meeting 2011*, San Francisco, CA, December 5-9, 2011. (contributed poster presentation)
- 90 **P. Herckes***, B. Ervens, Y. Wang, J. Eagar, R. Leitch, A.M. Macdonald, S. Sjostedt and J. Abbatt, Cloud water measurements of glyoxal and methylglyoxal during the Whistler Aerosol and Cloud Study (WACS), *AGU fall meeting 2011*, San Francisco, CA, December 5-9, 2011. (contributed poster presentation)
- 91 P. Westerhoff*, A. Weir, **P. Herckes**, L. Fabricius and N. von Götzt, Titanium dioxide nanoparticles in food and personal care products, *Engineered Nanomaterials Grand Opportunity Consortium Meeting*, Durham, NC, December 8-9, 2011. (contributed oral presentation)
- 92 Y. Wang*, J. Wang, P. Westerhoff and **P. Herckes**, Investigation of Cloud Processing of Atmospheric Organic Matter using Size Exclusion Chromatography *AAAR annual meeting 2011*, Orlando, FL, October 3-7, 2011. (contributed poster presentation) **Student poster prize**
- 93 A.L. Clements, M.P. Fraser, **P. Herckes**, M. Sundblom, J. Lantz and P.A. Solomon Source Attribution of Fine and Coarse Particulate Matter in Pinal County, Arizona, *AAAR annual meeting 2011*, Orlando, FL, October 3-7, 2011. (contributed poster presentation)
- 94 A.K.Y. Lee*, **P. Herckes**, J. Liggio, W. R. Leitch, A. M. Macdonald and J. P. D. Abbatt, Characterization of Aerosol and Cloud Water Samples Using Aerosol Mass Spectrometry at Whistler, BC in the WACS 2010 Campaign *AAAR annual meeting 2011*, Orlando, FL, October 3-7, 2011. (contributed poster presentation)
- 95 D. Straub*, **P. Herckes**, Y. Wang and J. Hutchings, The composition of radiation fog in the Eastern United States. *AAAR annual meeting 2011*, Orlando, FL, October 3-7, 2011. (contributed poster presentation)
- 96 K. Khadapkar, F.S. Ehrenhauser, Y. Wang, J.W. Hutchings, A. Marcotte, O. Delhomme, M.J. Wornat, **P. Herckes** and K.T. Valsaraj*, PAH and oxy-PAH processing during a fog event, *23rd International Symposium on Polycyclic Aromatic Compounds*, Münster, Germany, September 4-8,

2011. (contributed poster presentation)

- 97 K. Doudrick*, **P. Herckes** and P. Westerhoff, P. Quantification of Carbon Nanotubes using Programmed Thermal Analysis (PTA). *Gordon Research Conference: Environmental Nanotechnology*, Waterville Valley, NH, May 29-June 3, 2011. (contributed poster presentation)

2010

- 98 J. W. Hutchings, B. Ervens and **P. Herckes***, Secondary organic aerosol formation through cloud processing of aromatic VOCs, *AGU annual meeting 2010*, San Francisco, December 13-17, 2010. (contributed poster presentation)
- 99 P. Westerhoff*, T. Benn, B. Pycke, T. Chao, K. Doudrick, R. Halden and **P. Herckes**, Characterization of fullerols and fullerenes in complex matrices, SETAC North America 31st Annual Meeting, Portland, Oregon, November. 7-10, 2010. (contributed oral presentation)
- 100 A.L. Clements*, M.P. Fraser, N. Upadhyay, **P. Herckes**, M. Sundblom, J. Lantz and P.A. Solomon Temporal Trends, Spatial Trends, and Source Attribution of Fine and Coarse Particulate Matter in Pinal County, Arizona, *AAAR annual meeting 2010*, Portland, Oregon, October 25-29, 2010. (contributed poster presentation)
- 101 **P. Herckes***, J.W. Hutchings, Y. Wang, H. Hill, J. Wang and P.W. Westerhoff, Processing of carbonaceous material by fogs, *AAAR annual meeting 2010*, Portland, OR, October 25-29, 2010. (contributed oral presentation)
- 102 Y. Wang*, K. Khadapkar, F.S. Ehrenhauser, J.W. Hutchings, M.J. Wornat, K.T. Valsaraj and **P. Herckes**, Fog processing of polycyclic aromatic hydrocarbons (PAH), *AAAR annual meeting 2010*, Portland, OR, October 25-29, 2010. (contributed poster presentation)
- 103 **P. Herckes***, J.W. Hutchings, Y. Wang, H. Hill, J. Wang, and P.W. Westerhoff, Processing of carbonaceous material by fogs, *5th International Conference on Fog, Fog Collection and Dew*, Münster, Germany, 25 – 30 July 2010. (contributed poster presentation)
- 104 **P. Herckes*** and J.W. Hutchings, Secondary organic aerosol formation through fog processing of VOCs, *5th International Conference on Fog, Fog Collection and Dew*, Münster, Germany, 25 – 30 July 2010. (contributed poster presentation)
- 105 Y. Wang*, K. Khadapkar, F.S. Ehrenhauser, J.W. Hutchings, M.J. Wornat, K.T. Valsaraj, and **P. Herckes***, Fog processing of polycyclic aromatic hydrocarbons (PAH), *5th International Conference on Fog, Fog Collection and Dew*, Münster, Germany, 25 – 30 July 2010. (solicited oral presentation)
- 106 D. Straub, J. Hutchings, and **P. Herckes***, Observations of radiation fog chemistry in the Eastern United States, *5th International Conference on Fog, Fog Collection and Dew*, Münster, Germany, 25 – 30 July 2010. (contributed poster presentation)
- 107 J. W. Hutchings, B. Ervens and **P. Herckes***, N-nitrosodimethylamine (NDMA): a potent carcinogen in clouds and fogs. *AAAR Specialty Conference Air Pollution and Health*, San Diego, CA, March 22-26, 2010. (contributed poster presentation)
- 108 A.L. Clements*, Y. Jia, M.P. Fraser, **P. Herckes**, M. Sundblom, J. Lantz, C. Brown and P.A. Solomon, Ambient PM Levels and Characterization of Pollutant Sources Impacting the Desert Southwest. *AAAR Specialty Conference Air Pollution and Health*, San Diego, CA, March 22-26, 2010. (contributed poster presentation)

2009

- 109 J.W. Hutchings and **P. Herckes***, Formation of Secondary Organic Aerosol through Cloud Processing of Anthropogenic VOCs, *AGU annual meeting 2009*, San Francisco, CA, December 14-18, 2009. (contributed poster presentation)
- 110 D. Straub*, J.W. Hutchings, A.L. Clements and **P. Herckes**, Fog chemistry in central Pennsylvania, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed poster presentation)
- 111 J.W. Hutchings* and **P. Herckes**, N-Nitrosodimethylamine (NDMA): a potent carcinogen in

- clouds and fogs, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed poster presentation)
- 112 J.W. Hutchings* and **P. Herckes**, Formation of Secondary Organic Aerosol through Cloud Processing of Anthropogenic VOCs, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed poster presentation)
- 113 H. Hill*, R. Lohmann and **P. Herckes**, Characterization of Carbonaceous Aerosol over the Atlantic Ocean, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed poster presentation)
- 114 Q. Sun*, N. Upadhyay, J.O. Allen, P. Westerhoff and **P. Herckes**, Aerosol Particle Emissions from Wastewater Treatment Aeration Basins, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed poster presentation)
- 115 A. L. Clements*, Y. Jia, M. P. Fraser, **P. Herckes**, M. Sundblom, J. Lantz, C. Brown and P. A. Solomon, Chemical Analysis for Source Attribution of Fine and Coarse Particulate Matter in Pinal County, AZ, *AAAR annual meeting 2009*, Minneapolis, MN, October 26-30, 2009. (contributed oral presentation)
- 116 N. Upadhyay* and **P. Herckes**, Effects of Buffer Concentrations on the Solubility and Redox-Speciation of Iron in Particulate Matter, *AAAR annual meeting 2009*, MN, Minnesota, October 26-30, 2009. (contributed poster presentation)
- 117 M.S. Robinson*, **P. Herckes** and L. Portz, PAH concentrations in PM-2.5 generated during prescribed burns of the Coconino and Apache-Sitgreaves National Forests, *237th ACS National Meeting*, Salt Lake City, UT, March 22-26, 2009. (contributed poster presentation)
- 118 J.A. Castillo*, S.J. Staton, **P. Herckes**, T. Taylor, and M.A. Hayes, Bioaerosol Characterization in Various Indoor Environments via High Performance Liquid Chromatography (HPLC), *60th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy*, Chicago, IL, March 8-13, 2009. (contributed poster presentation)
- 119 Y. Marusenko*, **P. Herckes** and S. J. Hall, The Fate of Combustion-Derived Carbon Deposition in Urban Soil, *Central Arizona – Phoenix Long-Term Ecological Research (CAP LTER) Eleventh Annual Poster Symposium*, Tempe, AZ, January 15, 2009. (contributed poster presentation)
- 120 J.W. Hutchings* and **P. Herckes**, Formation of Secondary Organic Aerosol through Cloud Processing of Anthropogenic VOCs, *11th Conference on Atmospheric Chemistry, AMS 89th Annual Meeting*, Phoenix, AZ, January 11-15, 2009. (contributed poster presentation) (**4th prize poster competition**)

2008

- 121 N. Upadhyay*, Q. Sun, J.O. Allen, **P. Herckes**, A. Mendoza and A.Y. Vanoye, Investigation of High Particulate Matter Episodes in the Nogales Border Region, *SCERP Technical Conference 2008*, Tempe, AZ, December 5-6, 2008. (invited oral presentation)
- 122 J.W. Hutchings* and **P. Herckes**, Formation of secondary organic aerosol through cloud processing of anthropogenic VOCs, *AAAR annual meeting 2008*, Orlando, FL, October 20 - 24, 2008. (contributed poster presentation)
- 123 B.J. Majestic*, A.D. Anbar and **P. Herckes**, Using Natural Isotope Variations of Iron and Copper to Determine the Source of Automobile Emissions, *AAAR annual meeting 2008*, Orlando, FL, October 20 - 24, 2008. (contributed poster presentation)
- 124 B.J. Majestic*, A.D. Anbar and **P. Herckes**, Source Apportionment of Particulate Matter Using the Natural Variation of Trace Metal Isotopes, *AAAR annual meeting 2008*, Orlando, FL, October 20 - 24, 2008. (contributed poster presentation)
- 125 N. Upadhyay*, **P. Herckes**, Iron Speciation in Particulate Matter, *AAAR annual meeting 2008*, Orlando, FL, October 20 - 24, 2008. (contributed poster presentation)
- 126 **P. Herckes***, Z. Chen, T. Benn and P. Westerhoff, Detection and quantification of fullerenes in environmental samples, *42nd ACS – Western Regional Meeting*, Las Vegas, NV, September 23-

27, 2008. (invited oral presentation)

- 127 J.L. Collett*, Jr, L. Mazzoleni, X. Shen, **P. Herckes**, T. Lee, S. Raja and K.T. Valsaraj, Carbonaceous aerosol processing by clouds and fogs, *International Conference on Clouds and Precipitation*, Cancun, Mexico, July 7-11, 2008. (contributed oral presentation)
- 128 Z. Chen, M. Masles, J. Hutchings, P. Westerhoff and **P. Herckes***, Characterization of pharmaceuticals in hospital waste effluents, *NSF-Arizona Water Quality Center meeting*, Tucson, AZ, May 12-13, 2008. (invited oral presentation)
- 129 J.L. Collett*, L. Mazzoleni, **P. Herckes**, F. Schwandner, K. Beem, S. Raja, Y. Liu, Y. Sun and Q. Zhang, Organic nitrogen in clouds and precipitation, *EGU General Assembly 2008*, Vienna, Austria, April 13-18, 2008. (contributed oral presentation)

2007

- 130 J. Hutchings*, **P. Herckes**, G. McMeeking, S. Kreidenweis, J.L. Collett, Jr., W.M. Hao, C. Wold, and W.C. Malm, Investigation of biomass combustion aerosol by H-NMR spectroscopy, *AAAR annual meeting*, Reno, NV. September 24-28, 2007. (contributed poster presentation)
- 131 **P. Herckes***, Z. Chen, P. Westerhoff, Characterization of carbonaceous particle emissions by waste water treatment plants *AAAR annual meeting*, Reno, NV. September 24-28, 2007. (contributed poster presentation)
- 132 **P. Herckes***, J. Cox, K. Knight, N. Upadhyay, P. Prapaipong, R. Lohmann, L. Nizzetto, Characterization Of Particulate Matter Along A North/ South Transect of the Atlantic Ocean, *AAAR annual meeting*, Reno, NV. September 24-28, 2007. (contributed poster presentation)
- 133 J. Hutchings*, J. Triplett, H. McIlwraith, **P. Herckes**, M. Robinson, The chemical composition of intercepted clouds in northern Arizona during North American monsoon season, *AAAR annual meeting*, Reno, NV. September 24-28, 2007. (contributed oral presentation)
- 134 J.L. Collett, Jr. *, L. Rinehart-Mazzoleni, **P. Herckes**, X. Shen, T. Lee, A.P. Sullivan, S. Raja, R. R. Kommalapati and K.T. Valsaraj, Carbonaceous aerosol processing by clouds and fogs, *American Chemical Society, 234th National Meeting & Exposition*, Boston, MA, August 19-23, 2007. (contributed oral presentation)
- 135 J.L. Collett, Jr. *, **P. Herckes**, L. Rinehart, A. Sullivan and X. Shen, New insights into the organic composition of clouds and fogs, *4th International Conference on Fog, Fog Collection and Dew*, City of La Serena, Chile, July 22-27, 2007. (contributed oral presentation)
- 136 J.L. Collett, Jr. *, A.P. Sullivan, G. Engling, C. Gorin, **P. Herckes**, L. Rinehart-Mazzoleni, A. Holden, S.M. Kreidenweis, W. Malm, W.M. Hao, The contribution of biomass combustion to ambient particulate organic carbon, *Regional Haze Science Meeting*, Timonium, MD, July 10-11, 2007. (contributed oral presentation)
- 137 M. Robinson*, X. Nelson and **P. Herckes**, Polycyclic aromatic hydrocarbon concentrations in wood smoke from prescribed fires of the Southwest, *American Chemical Society, 233rd National Meeting & Exposition*, Chicago, IL March 25-29, 2007. (contributed poster presentation)

2006

- 138 **P. Herckes***, J. Cox, R. Lohmann and L. Nizzetto Characterization Of Carbonaceous Particles Along A North-South Transect Of The Atlantic Ocean, *AGU Fall Meeting*, San Francisco, CA, December 11-15, 2006. (contributed poster presentation)
- 139 M. Robinson, M. Quarterman, L. Zack, C. Brindley and **P. Herckes***, Characterization of Particulate Matter (PM_{2.5}) Emissions During Prescribed Fires of the Coconino National Forest, *AGU Fall Meeting*, San Francisco, CA, December 11-15, 2006. (contributed poster presentation)
- 140 J.L. Collett*, A. Bator, H. Chang, B. Demoz, **P. Herckes**, K. Hoag, T. Lee, K. F. Moore, S. Raja, X. Rao, J. Reilly, L. Rinehart, D. Sherman, D. Straub, G. Xu, S. Youngster, X. Yu, K. Valsaraj and R. Ravikrishna The chemical composition of fogs and clouds in the United States, *AGU Fall Meeting*, San Francisco, CA, December 11-15, 2006. (contributed oral presentation)

- 141 X. Nelson*, M. Robinson, K. Raso, M. Aday, T. Carel and **P. Herckes**, Characterization of Fine Particulate Matter Emitted During Prescribed Fires of the Coconino National Forest, *Annual Biomedical Research Conference for Minority Students (ABRCMS)*, Anaheim, CA, November 8-11, 2006. (contributed poster presentation)
- 142 N. Upadhyay*, P. Praipong and **P. Herckes**, Optimization of microwave assisted digestion protocols for the determination of trace metals in ambient particulate matter by ICP/MS *The 19th Rocky Mountain Regional Meeting of the ACS*, Tucson, AZ, October 14-18, 2006. (contributed poster presentation)
- 143 J. Hutchings*, M. Robinson, H. McIlwraith and **P. Herckes**, Cloud water chemistry in northern Arizona, *The 19th Rocky Mountain Regional Meeting of the ACS*, Tucson, AZ, October 14-18, 2006. (contributed poster presentation)
- 144 H. McIlwraith* and **P. Herckes**, Stability of particulate wood smoke marker species towards cloud processing, *7th International Aerosol Conference and AAAR annual meeting*, St. Paul, MN, September 10-15, 2006. (contributed poster presentation)
- 145 O. Delhomme*, **P. Herckes** and M. Millet, Determination of oxygenated polycyclic aromatic hydrocarbons by liquid chromatography - tandem mass spectrometry in aerosol samples, *34th International Symposium on Environmental Analytical Chemistry, ISEAC 34*, Hamburg, Germany, June 4-8, 2006. (contributed poster presentation)
- 146 O. Delhomme*, **P. Herckes**, M. Millet and P. Mirabel, Post-column derivatization of nitro-polycyclic aromatic hydrocarbons to amino-polycyclic aromatic hydrocarbons for their analysis by HPLC fluorescence, Application to atmospheric aerosols, *34th International Symposium on Environmental Analytical Chemistry, ISEAC 34*, Hamburg, Germany, June 4-8, 2006. (contributed poster presentation)

2005

- 147 C. A. Gorin*, J.L. Collett Jr, **P. Herckes**, Wood Smoke Contribution to Ambient Aerosol in Fresno During Winter 2003-2004, *AGU Fall Meeting*, San Francisco, CA, December 5-9, 2005. (contributed poster presentation)
- 148 J.L. Collett Jr*, S. Youngster, T. Lee, H. Chang, **P. Herckes**, Processing of Atmospheric Organic Matter by California Radiation Fogs *AGU Fall Meeting*, San Francisco, CA, December 5-9, 2005. (contributed oral presentation)
- 149 H. McIlwraith, J. S. Cox, **P. Herckes**, Stability of particulate wood smoke markers species towards cloud processing, *AAAR Annual Conference*, Austin, TX, October 17-21, 2005. (contributed poster presentation)
- 150 J.L. Collett*, S. Youngster, T.L. Lee, **P. Herckes**, Processing of organic pollutants by fogs and *AAAR Annual Conference*, Austin, TX, October 17-21, 2005. (contributed oral presentation)
- 151 J.L. Collett, Jr., C. Gorin*, **P. Herckes**, Impact of wood smoke on winter aerosol concentrations in Fresno CA: spatial and temporal distribution *AAAR 2005 PM Supersites and related studies special conference*, Atlanta, GA, February 7-11, 2005. (contributed poster presentation)
- 152 G. Engling*, C.M. Carrico, **P. Herckes**, S.M. Kreidenweis, J.L. Collett, D.E. Day, W.C. Malm, R. Babbitt, E. Lincoln, Y. Inuma, H. Herrmann Determination of Levoglucosan in biomass combustion aerosol by HPLC-PAD, *AAAR 2005 PM Supersites and related studies special conference*, Atlanta, GA, February 7-11, 2005. (contributed poster presentation)
- 153 J.L. Collett*, T. Lee, H. Chang and **P. Herckes**, Pollution Processing by radiation fogs during the California Regional PM10/PM2.5 Air Quality study (CRPAQS), *AAAR 2005 PM Supersites and related studies special conference*, Atlanta, GA, February 7-11, 2005. (contributed oral presentation)
- 154 **P. Herckes***, S. Youngster, T. Lee and J.L. Collett Fog processing of atmospheric particulate matter. *AAAR 2005 PM Supersites and related studies special conference*, Atlanta, GA, February 7-11, 2005. (contributed oral presentation)

2004

- 155 J.L. Collett, Jr*, **P. Herckes**, T., Lee, H. Chang, S., Youngster and J. Reilly. Pollution Processing by California Radiation Fogs, *AGU Fall Meeting*, San Francisco, CA, December 13-17, 2004. (contributed oral presentation)
- 156 J.L. Collett, Jr. *, **P. Herckes**, T. Lee, H. Chang and S. Youngster. The Organic Composition of California Fogs and Clouds. *Third International Conference on Fog, Fog Collection and Dew*, Cape Town, South Africa, October 11-15, 2004. (contributed oral presentation)
- 157 T. Lee, **P. Herckes**, S. Youngster and J.L. Collett*. Scavenging and deposition of aerosol particles by California radiation fogs. *Third International Conference on Fog, Fog Collection and Dew*, Cape Town, South Africa, October 11-15, 2004. (contributed oral presentation)
- 158 J.L. Collett, Jr. *, G. Engling, **P. Herckes**, C. Garcia and C. Henry, New technique for the measurement of wood smoke marker compounds, *Symposium on Air Quality Measurement Methods and Technology—2004*, Research Triangle Park, NC, April 19-22, 2004. (contributed oral presentation)
- 159 G. Engling*, **P. Herckes**, S. Kreidenweis, J.L. Collett, Organic Aerosol Composition in Yosemite National Park—Results from The 2002 Yosemite Special Study, *An international state of the science workshop on organic speciation*, Las Vegas, NV, April 5-7, 2004. (contributed poster presentation)
- 160 H. Chang*, **P. Herckes**, J.L. Collett, Jr. A Critical Evaluation of Anion Exchange Chromatography for the Separation of Water Soluble Organic Carbon, *An international state of the science workshop on organic speciation*, Las Vegas, NV, April 5-7, 2004. (contributed poster presentation)
- 161 **P. Herckes***, T. Lee, H. Chang, J. Carrillo, S. Youngster and J.L. Collett, Jr., Speciation of Organic Matter in Fog Droplets: How Far are We from Mass Closure? *An international state of the science workshop on organic speciation*, Las Vegas, NV, April 5-7, 2004. (contributed poster presentation)

2003

- 162 C.M. Carrico*, S. Kreidenweis, J.L. Collett, G. McMeeking, T. Lee, J. Carrillo, **P. Herckes** and G. Engling, Physical, Chemical, and Optical Properties of Smoke-Impacted Aerosols in Yosemite National Park, *AGU Fall Meeting*, San Francisco, CA, December 8-12, 2003. (contributed poster presentation)
- 163 J.L. Collett* and **P. Herckes**, Field Observations of the Processing of Organic Aerosol Particles and Trace Gases by Fogs and Clouds, *AGU Fall Meeting*, San Francisco, CA, December 8-12, 2003. (contributed poster presentation)
- 164 **P. Herckes***, T. Lee, L. Trenary, G. Kang, and J.L. Collett, Jr., Fog Processing of atmospheric organic compounds during the California Regional PM10/PM2.5 Air Quality Study (CRPAQS), *Annual Meeting of the American Association for Aerosol Research*, Anaheim, CA, October 20-24, 2003. (contributed oral presentation)
- 165 J.L. Collett, Jr*, T. Lee, H. Chang and **P. Herckes**, Overview of fog studies during the California Regional PM10/PM2.5 Air Quality Study (CRPAQS), *Annual Meeting of the American Association for Aerosol Research*, Anaheim, CA, October 20-24, 2003. (contributed poster presentation)
- 166 H. Chang*, **P. Herckes**, T. Lee, and J.L. Collett, Jr., Aerosol processing and removal by fogs: observations in radiation fogs during the CRPAQS study, *Annual Meeting of the American Association for Aerosol Research*, Anaheim, CA, October 20-24, 2003. (contributed poster presentation)
- 167 **P. Herckes***, G. Engling, J. Heath, C.M. Carrico, T. Lee, J.L. Collett, S.M. Kreidenweis, D. Day, W. Malm and G. Bench. Chemical characterization of organic aerosol during the 2002 Yosemite aerosol and visibility study, *Annual Meeting of the American Association for Aerosol Research*, Anaheim, CA, October 20-24, 2003. (contributed poster presentation)
- 168 T. Lee*, C. Carrico, J. Heath, **P. Herckes**, G. Engling, S.M. Kreidenweis, J.L. Collett, D. Day and W. Malm, Continuous measurement of aerosol ionic composition during the Yosemite National Park Special Study in 2002, *Annual Meeting of the Air and Waste Management Association*, San Diego, CA, June 22-26, 2003. (contributed poster presentation)

- 169 J. Carrillo*, T. Lee, C. Carrico, J. Collett, S. Kreidenweis, **P. Herckes**, G. Engling, D. Day, W. Malm and G. Bench, PM_{2.5} Aerosol Properties During the Summer 2002 Yosemite Visibility Study, *Annual Meeting of the Air and Waste Management Association*, San Diego, CA, June 22-26, 2003. (contributed poster presentation)

2002

- 170 B. Ervens*, G. Feingold, **P. Herckes**, J.L. Collett, S.M. Kreidenweis, Uptake of organic acids by water droplets, *AGU Fall Meeting*, San Francisco, CA, December 6-10, 2002. (contributed oral presentation)
- 171 C. M. Carrico*, D. Day, J. Heath, T. Lee, **P. Herckes**, G. Engling, S.M. Kreidenweis, J.L. Collett, G. Bench, W. Malm, Regional Haze from Forest Fires and San Joaquin Valley Pollution: Aerosol Properties at Yosemite National Park, *AGU Fall Meeting*, San Francisco, CA, December 6-10, 2002. (contributed poster presentation)
- 172 G. Engling*, **P. Herckes** and J.L. Collett, Levoglucosan detection using a biosensor, *AWMA Symposium on Air Quality Measurement Methods and Technology*, San Francisco, CA, November 13-15, 2002. (contributed oral presentation)
- 173 J.L. Collett*, T. Lee, J. Heath, C. Carrico, **P. Herckes**, G. Engling, G. McMeeking, S. Kreidenweis, D. Day, W. Malm, G. Bench and T. Cahill, Semi-continuous Measurements of Aerosol Chemical Composition During the Summer 2002 Yosemite National Park Special Study, *AWMA Symposium on Air Quality Measurement Methods and Technology*, November 13-15, 2002. (contributed oral presentation)
- 174 **P. Herckes***, L. Trenary, T. Lee and J.L. Collett, Organic matter in fog drops: How far are we from mass closure? *Annual Meeting of the American Association for Aerosol Research*, Charlotte, NC, October 7-11, 2002. (contributed poster presentation)
- 175 G. Engling*, **P. Herckes** and J.L. Collett, Amperometric detection of Levoglucosan with a biosensor, *Annual Meeting of the American Association for Aerosol Research*, Charlotte, NC, October 7-11, 2002. (contributed poster presentation)

2001

- 176 **P. Herckes***, L. Trenary, T. Lee, G.U. Kang, M. P. Hannigan and J.L. Collett, Jr. Fog processing of atmospheric organic compounds. *AAAR 2001*, Portland, OR, October 15-19, 2001. (contributed poster presentation)
- 177 **P. Herckes***, S. Brown, T. Lee, M.P. Hannigan, S.M. Kreidenweis and J.L. Collett, Jr. Molecular composition of organic aerosol sampled at Big Bend National Park, Texas, during the 1999 Big Bend Regional Aerosol and Visibility Observational (BRAVO) study. *AAAR 2001*, Portland, OR, October 15-19, 2001. (contributed poster presentation)
- 178 **P. Herckes**, S. Brown*, T. Lee, M.P. Hannigan, S.M. Kreidenweis and J.L. Collett, Jr. Molecular composition of organic aerosol sampled at Big Bend National Park, TEXAS during the 1999 Big Bend Regional Aerosol and Visibility Observational (BRAVO) study. *Regional Haze and Global Radiation Balance – Aerosol Measurements and Models: Closure, Reconciliation and Evaluation*, Bend, OR, October 2-5, 2001. (contributed oral presentation)
- 179 **P. Herckes***, Ph. Mirabel and H. Wortham, Fogwater studies in the Vosges Mountains (France) *Second International Conference on Fog and Fog Collection*, St. John's, Newfoundland, Canada, July 15-20, 2001. (contributed poster presentation)
- 180 **P. Herckes***, M. Millet, Ph. Mirabel and H. Wortham. Fogwater Composition in Strasbourg (France) from 1990 to 1999 – A change in Urban Air Quality? *Second International Conference on Fog and Fog Collection*, St. John's, Newfoundland, Canada, July 15-20, 2001. (contributed poster presentation)
- 181 **P. Herckes***, L. Trenary, M.P. Hannigan, T. Lee and J.L. Collett, Jr. Cloud and Fog Processing of Atmospheric Organic Compounds *Second International Conference on Fog and Fog Collection*, St. John's, Newfoundland, Canada, July 15-20, 2001. (contributed oral presentation)

- 182 J.L. Collett, Jr. *, K.F. Moore, J.E. Reilly, A. Bator, K.J. Hoag, D.E. Sherman, **P. Herckes**, T. Lee, M.P. Hannigan, H. Chang and L. Trenary, Aerosol Processing by clouds and fogs. *221st ACS National Meeting*, San Diego, CA, April 1-5, 2001. (contributed oral presentation)
- 183 J.L. Collett, Jr. *, **P. Herckes**, L. Heglin and M.P. Hannigan. Cloud and fog processing of atmospheric organic compounds. *AMS 81th Annual Meeting*, Albuquerque, NM, January 14-19, 2001. (contributed oral presentation)

2000

- 184 J.L. Collett, Jr. *, **P. Herckes**, L. Trenary, T. Lee, M.P. Hannigan, D.E. Sherman, K.F. Moore, and J. Reilly. Fog and cloud processing of atmospheric organic compounds. *AGU Fall Meeting*, San Francisco, CA, December 15-19, 2000. (contributed oral presentation)
- 185 **P. Herckes***, M.P. Hannigan, D.E. Sherman, S.M. Kreidenweis and J.L. Collett, Jr, Molecular composition of organic aerosol sampled at the Big Bend National Park (U.S.A.) during the 1999 Big Bend Regional Aerosol and Visibility Observational study (BRAVO), *7th International Conference on Carbonaceous Particles in the Atmosphere*, San Juan, Puerto Rico, November 26-29, 2000. (contributed poster presentation)
- 186 **P. Herckes***, T. Lee, J.E. Reilly, M.P. Hannigan, D.E. Sherman, S.M. Kreidenweis and J.L. Collett, Chemical characteristics of aerosol sampled at the Big Bend National Park (U.S.A.) during the 1999 Big Bend Regional Aerosol and Visibility Observational study (BRAVO), *Visibility 2000*, Vienna, Austria, September 11-15, 2000. (contributed poster presentation)

1999

- 187 **P. Herckes***, H. Wortham, R. Wendling and Ph Mirabel, Cloudwater studies at an high elevation site in the Vosges Mountains (France), *Sixth Scientific Conference of the International Global Atmospheric Chemistry Project*, Bologna, Italy, September 13-17, 1999. (contributed poster presentation)
- 188 **P. Herckes***, Ph. Nobelis, M. Millet, Ph. Mirabel and H. Wortham, Fog and rainwater ionic composition in Strasbourg (France) from 1990 to 1998 - A change in urban air quality? *Sixth Scientific Conference of the International Global Atmospheric Chemistry Project*, Bologna, Italy, September 13-17, 1999. (contributed poster presentation)

1998

- 189 **P. Herckes***, M. Millet, H. Wortham and Ph. Mirabel, Fogwater composition at 3 different sites, *First International Conference on Fog and Fog Collection*, Vancouver, Canada, July 19-24, 1998. (contributed oral presentation)

Invited Lectures

- 17 - **“Environmental Analytics of Nanomaterials”** Seminar, Department of Chemistry, Louisiana State University, Baton Rouge, LA, January 22, 2019.
- 16 - **“Clouds and Fogs in the Earth System”** Department colloquium, School of Earth and Space Exploration, Arizona State University, August 23, 2017.
- 15 - **“Behind the faucet: What impacts your drinking water quality”**, Dean’s lecture, CLAS, Arizona State University, Tempe, AZ February 7, 2017.
- 14 - **“Cloud Chemistry – A Chemist’s view on clouds”**, departmental seminar, Department of Chemistry and Biochemistry, Florida International University, Miami, FL, October 3, 2014.
- 13 - **“Air Pollution Studies in Arizona”**, departmental seminar, Department of Atmospheric Science, University of Sao Paulo, Sao Paulo, Brazil, November 23, 2011.
- 12 - **“Cloud Chemistry – A Chemist’s view on clouds”**, departmental seminar, Department of Atmospheric Science, University of Sao Paulo, Sao Paulo, Brazil, November 4, 2011.
- 11 - **“Cloud Chemistry – A Chemist’s view on clouds”**, seminar, Department of Chemistry and Biochemistry, University of Denver, Denver, CO, February 2, 2010.
- 10 - **“Nanomaterials in the water? Brakedust in the air? - Analytical approaches to environmental challenges”**, seminar, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE, September 21, 2009.
- 9 - **“Cloud and fog processing of carbonaceous material”**, departmental seminar, Department of Chemical Engineering, Louisiana State University, Baton Rouge, LA, September 19, 2008.
- 8 - **“Cloud Chemistry”**, departmental seminar, Department of Chemistry and Biochemistry Southern Illinois University, Carbondale, IL, March 28, 2008.
- 7 - **“Pollution processing by fogs and clouds”**, weekly seminar series, Department of Civil and Environmental Engineering, Arizona State University, Tempe, AZ, November 13, 2007.
- 6 - **“A Chemist’s view on clouds”**, departmental seminar, Department of Chemistry and Biochemistry, Northern Arizona University, Flagstaff, AZ, April 13, 2007.
- 5 - **“Pollution processing by fogs and clouds”**, departmental seminar, Department of Atmospheric Science University of Arizona, Tucson, AZ, March 1st, 2007.
- 4 - **“La chimie des nuages: du brouillard au climat”**, public lecture, conference series featuring Luxembourg researchers abroad, Luxembourg, March 15, 2004.
- 3 - **“Pollution processing by fogs and clouds”**, departmental seminar, Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, February 26, 2004.
- 2 - **“Cloud and Fog Processing of Atmospheric Pollutants”**, institute seminar, Institute of Astronomy and Geophysics, University of Sao Paulo (Brazil), Sao Paulo, Brazil, August 8, 2003.
- 1 - **“Cloud and Fog Processing of Atmospheric Organic Compounds”**, departmental seminar, Department of Chemistry, UC Riverside, Riverside, CA, January 27, 2003.

Patents

- 1 US 8,821,703
M.A. Hayes, T.J. Taylor, K. Booksh, N. Woodbury and **P. Herckes**, *System and method for automated bioparticle recognition*, issued Sept 2, 2014

Teaching and Mentoring (at ASU)

Nominated for the Zebulon Pearce distinguished teaching award (ASU, CLAS, 2013)

Undergraduate courses

CHM 302 – Environmental Chemistry (3credits)	F.05, F.06, F.07, F.10, F.12, F.13, F.15, F.16, F.18, F.20, F.21
CHM 303 – Environmental Chemistry Lab (2credits)	Sp.21
CHM 325 – Analytical Chemistry (3cr.)	Su. 07, Su. 08, Su. 09
CHM 326 – Analytical Chemistry Lab (1cr./1-2 sections)	Su. 07, Su. 08, Su. 09
CHM 327 – Instrumental Analysis (3cr.)	Sp.05*, Sp.07, Sp.08*, Sp.10, Sp.11, Sp.12, Sp.13, Sp.15, Sp.17, Sp.18, Sp. 19
CHM 328 – Instrumental Analysis Lab (1cr./3sections) (* - team teaching)	Sp. 05*, Sp. 08*, Sp. 20

Graduate courses

CHM 598 – Environmental Analytical Chemistry (3cr.)**	Sp. 06, F. 14
CHM 598 – Chemistry of Atmospheres (3cr.) (GLG598)** (** - new course)	F. 09, Sp. 14, Sp. 16, F.17, F.19

Graduate seminars

CHM 501 – Current topics in Environmental Chemistry	F06*, Sp.07*, F.07*, F. 08*, Sp. 11*, Sp. 12, Sp.14, F.15, Sp. 19
CHM 501 – Current topics in Analytical Chemistry	F.10, Sp.13, F. 21

Undergraduate research activities (Manager and Instructor of Record)

CHM 392, BCH 392 – Intro to Research Techniques	Sp.16 – Sp.18.
CHM 492, BCH 492 – Honors Directed Study	Sp.16 – Sp.18
CHM 493, BCH 493 – Honors Thesis	Sp.16 – Sp.18

Undergraduate students mentored in research activities (36)

Kristina Husman	spring 2005 – fall 2005	<i>left for</i> Medical school
James V Jones	summer 2005 – spring 2006	Aerotech Environmental
Minae Tanaka	summer 2005 - spring 2006	Fuji Film
Nicholas Kunda	summer 2005 – fall 2007	Medical school
Candace Coen	fall 2005 – spring 2006	Dental school
Kandis Knight	fall 2006 – spring 2008	ADEQ, then graduate school
Laura Schultz (co w/Anbar)	summer 2007- fall 2007	Paypal
Claire Lunden	summer 2007 - spring 2008	Intel
Rachel Bender (co w/Anbar)	summer 2008 – spring 2009	ASU
Christopher Shaw	fall 2008-spring 2009	University of Manchester
Mary Graham	summer 2009 – fall 2009	unknown
Richard T. Villa	fall 2009	unknown
Julia Lam	fall 2009	unknown
Michael Wimmer	summer 2010-spring 2011	Graduate School ASU (Chem.)
Lauren Knoell	fall 2010-fall 2011	Stryker Endoscopy
Amanda Wilson	spring 2011- spring 2012 (Honors)	Graduate School Rice (Chemistry)
Kirk Reed	spring 2012 – fall 2012	Paragon Vision Sciences
Kevin Shaffer	spring 2012 – spring 2013	APS Bio Group
Blanca Rodriguez	spring 2013- spring 2015	Graduate School UCI (Chemistry)

Katarine Silva	summer 2014 - fall 2014	Brazil (to finish degree)
Nelson Luciano Da Silva Nieto	summer 2015	Brazil (to finish degree)
Joana Sipe	summer 2013-spring 2016	Graduate School Duke (Env.Eng.)
Clare McClernon	spring 2015- spring 2016	applying to Med School
Kaitlyn Mandigo	spring 2015-spring 2016	chemistry teacher Basis Scottsdale
Vera Cheche	fall 2015- spring 2016	Graduate School ASU (Bioninfo)
Joseph Nuremberg	spring 2016-fall 2016	unknown
Jesse Molar	fall 2017- spring 2018	Versum Materials
Noah Hilliker	fall 2017- spring 2018	ALS Global
Elizabeth Breden	fall 2017- spring 2018	unknown
Anna Paxson	spring 2018-summer 2018	unknown
Marcus Thompson	spring 2018-fall 2018	finish degree at ASU
James Stewart	summer 2018-spring 2019	graduate school CU Boulder
Bridger Johnson	spring 2019 - fall 2019	unknown
Cierra Nunez	summer 2019-spring 2020	unknown
Billy Knight	summer 2018-spring 2020	ASU mass spec facility worker
Maddie Alzamora	fall 2018-spring 2021	graduate school Georgiatech

Graduate Student and Postdoctoral mentoring

Member of the graduate faculty at ASU for the following PhD degrees (current):

<i>Chemistry</i>	<i>Biochemistry</i>	<i>Environmental Engineering</i>
<i>Environmental Life Sciences</i>	<i>Geological Science</i>	

Postdoctoral (P) and visiting associates (VA)

Olivier Delhomme (VA)	3/2005 – 10/2005	now assistant professor Strasbourg Univ. (F)
Jenny Cox (P)	7/2005 – 4/2006	lab manager University of Guelph (Can)
Xiufen Long (P)	3/2006 – 10/2007	scientific editor China
Zhuo Chen (co w/Westerhoff) (P)	5/2006 – 8/2007	research associate Imperial College (UK)
Brian Majestic (co w/Anbar) (P)	10/2007 – 8/2009	assistant professor University of Denver
James Hutchings (P)	5/2010 – 9/2010	scientist Virginia Dept. of Forensics
Nabin Uphadyay (P)	5/2010 – 12/2010	scientist Conoco Phillips, Qatar
Olivier Delhomme (VA)	6/2010 – 9/2010	assistant professor Strasbourg Univ. (F)
Raphael Scholze (VA)	8/2010 – 2/2011	University of Mainz (D)
Yasmany Mancilla (VA)	7/2012 – 10/2012	adjunct faculty ITESM Monterrey (Mex)
Gerardo Medina Gaitan (VA)	2/2015 – 3/2015	ITESM (Mex)
Edith Neulen (VA)	9/2016 – 2/2017	University of Mainz (D)

Graduate students mentored (10 Ph.D and 6 M.S. graduated, 6 Ph.D. current)

(students in chemistry if not marked otherwise)

Quinye Sun	<i>Ph.D. Chem.E. (09)</i>	Scientist AZ Dept. Environmental Quality
James Hutchings	<i>Ph.D. (2010)</i>	Scientist Virginia Dept. of Forensics
Nabin Uphadyay	<i>Ph.D. (2010)</i>	Environmental Scientist Conoco Phillips, Qatar
Heide McIlwraith	<i>M.N.S. (2010)</i>	Lecturer ASU Polytechnic campus
John Benedet	<i>M.S. (2010)</i>	Instructor ASU/MCC
Hansina Hill	<i>M.S. (2011)</i>	Lab. Manager Evergreen College
Sarah Frey	<i>Ph.D. (2014)</i>	Environmental Scientist US EPA
Youliang Wang	<i>Ph.D. (2014)</i>	Business Owner/Art Dealer
Christy Long	<i>M.S. (2014)</i>	Chemist Environ International

Aurelie Marcotte	<i>Ph.D. (2015)</i>	Analytical Chemist Waters Inc.
Jinwei Zhang	<i>Ph.D. (2016)</i>	Analytical Chemist Xenobiotic Laboratories Inc.
Jershon Eagar	<i>Ph.D. (2016)</i>	Instructor BASIS Phoenix and SMCC
Takayuki Nosaka	<i>Ph.D. MatEng ('18)</i>	Chemist NPA coatings Inc.
Denise Napolitano	<i>Ph.D. (2018)</i>	Entrepreneur and financial analyst Intel
Alyssa Sherri	<i>M.S. (2019)</i>	ASU law school
Samantha Donovan	<i>Ph.D. student</i>	entered fall 2015
Zhaobo Zhao	<i>Ph.D. student</i>	entered fall 2018
Jesse Molar	<i>Ph.D. student</i>	entered fall 2019
Kanchana Chandrakanthan	<i>Ph.D. student</i>	entered fall 2019
Jason Miech	<i>Ph.D. student</i>	entered fall 2019
Thuong Cao	<i>Ph.D. student</i>	entered fall 2019

Graduate students (Applied Project Adviser)

Jessica Sipe *MS Chem Eng. 2019*

Graduate students (Committee Member, defended: 27 PhD, 9 MS)

Soame Banerji	<i>(Chemistry, K. Booksh advisor)</i>	PhD defended June 06
Matt Petkus	<i>(Chemistry, M. Hayes)</i>	PhD defended Dec. 06
Corey Tyree	<i>(Chemical Engineering, J. Allen)</i>	PhD defended Apr. 07
Brijesh Nair	<i>(Environmental Engineering, P. Fox)</i>	PhD defended Apr. 07
Shayla Banerji	<i>(Chemistry, M. Hayes)</i>	PhD defended July 07
Olivier Delhomme	<i>(University of Strasbourg, France)</i>	PhD defended Apr. 08
Yuling Jia	<i>(Rice University, M. Fraser)</i>	PhD defended Sept.09
Troy Benn	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Nov. 09
Michelle Meghan	<i>(Chemistry, M. Hayes)</i>	PhD defended Apr. 10
Yevgeniy Marushenko	<i>(Life Sciences, S. Hall)</i>	MS defended Apr. 10
Jun Wang	<i>(Environmental Eng. P. Westerhoff)</i>	MS defended June 10
Xiaoding Zhuo	<i>(Chemistry, E. Shock)</i>	PhD defended Aug. 10
Alex Weir	<i>(Environmental Eng. P. Westerhoff)</i>	MS defended July 11
Josemar Castillo	<i>(Chemistry, M. Hayes)</i>	PhD defended July 11
Andrea Clements	<i>(Rice University, M. Fraser)</i>	PhD defended Aug. 12
Fariya Sharif	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Aug. 13
George Hamilton	<i>(Chemistry, H. Hartnett)</i>	PhD defended Oct. 13
Yasmany Mancilla	<i>(Chem. E. ITESM Monterrey, Mexico)</i>	PhD defended Dec. 13
Chris Mead	<i>(Geology, A. Anbar)</i>	PhD defended Apr. 14
Dinesh Medpelli	<i>(Chemistry, D. Seo)</i>	PhD defended Feb. 15
Margaret Bowman	<i>(Chemistry, H. Hartnett)</i>	MS defended Apr. 15
Natalia Hoogestijn	<i>(Environmental Eng. P. Westerhoff)</i>	MS defended Apr.15
Zhicheng Yu	<i>(Environmental Eng. P. Westerhoff)</i>	MS defended Apr. 15
Chen Xinming	<i>(Chemistry, A. Anbar)</i>	MS defended Apr. 15
Paul Jones	<i>(Chemistry, M. Hayes)</i>	PhD defended Apr. 15
David Hannigan	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Aug. 15
Daniel Mieritz	<i>(Chemistry, D. Seo)</i>	PhD defended Sep. 16
Jared Schoepf	<i>(Chemical Eng. P. Westerhoff)</i>	PhD defended Jun. 17
Parker Castleberry	<i>(Chemistry, A. Anbar)</i>	MS defended Jun. 17
Kirtland Robinson	<i>(Chemistry, E. Shock)</i>	PhD defended Nov. 17
Grayson Boyer	<i>(Chemistry, E. Shock)</i>	PhD defended Apr. 18
Xiangyu Bi	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Apr. 18
Natalia Hoogestijn	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Apr. 18

Naushita Sharma	<i>(Environmental Eng. P. Westerhoff)</i>	MS defended Nov. 18
Claire Crowther	<i>(Chemistry, M. Hayes)</i>	PhD defended Nov. 18
Shannon Hilton	<i>(Chemistry, M. Hayes)</i>	PhD defended Apr. 19
Zijian Du	<i>(Electrical Eng, N.J. Tao)</i>	PhD defended July 19
Anjali Mulchandani	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended Dec 19
Naushita Sharma	<i>(Environmental Eng. P. Westerhoff)</i>	PhD defended June 21
Xiangxing Long	<i>(Environmental Eng. P. Westerhoff)</i>	

Graduate students (Oral Examination Committee Member (M) or Chair (C))

Ugur Demirok (M); Michael Keebaugh (M); Stacy Kenyon (M); Timothy Lamb (C); Rawiwan Laocharoensuk (M); Shelly Seerly (C); Ramesh Sharma (C); Sarah Staton (C); Yun Xiang (M); Kristopher Fecteau (C). Adam Monroe (M); Christiana Bockisch (C); Austin Echelmeier(C); Yameng Liu (C), Subhadeep Dutta (C), Shulin Bu (M)

Grants/Contracts

Current

54-“Impact of EV adoption on Phoenix air quality”

SRP-Salt River Project, September 1st 2021 – August 31st 2022, \$20,000
(M. Fraser (50%), PI, P. Herckes (50%) co-PI)

53-“Crowdsourced Heat and Indoor Air study”

ASU-Maricopa - Healthy Urban Environments Center, June 1st 2021 – August 31st 2022, \$50,000
(P. Herckes PI 100%)

52-“Improved Understanding of Thermal Destruction Technologies for Materials Laden with Per- and Polyfluoroalkyl Substances”

DOD-SERDP through subcontract from Notre Dame University, May 1st 2021 – January 31st 2024, \$785,000 (to ASU)
(at ASU: P. Westerhoff (25%), PI, P. Herckes (15%), T. Boyer (15%), H. Gu (15%), K. Hristovski (15%) and P. Dahlen (15%) all co-PI)

51-“Photocatalytic abatement of N₂O and NO_x in semiconductor exhaust streams”

SRC-Semiconductor Research Corporation, January 1st 2021- December 31st 2023, \$248,999
(P. Herckes (40%) PI, P. Westerhoff (30%), M. Fraser (30%), Co-PIs)

50-“Understanding the relationship between ozone and nitrogen dioxide concentrations in Maricopa County”

Maricopa County Air Quality Department, September 15 2020 – October 31st 2021, \$148,000
(M. Fraser (50%), PI, P. Herckes (50%) Co-PI)

49-“RAPID: Disinfection and Reuse of Health-Care Worker Facial Masks to Prevent Infection coronavirus disease”

NSF, May 1st 2020-April 30th 2022, \$150,000
(P. Westerhoff (50%), PI, P. Herckes (50%) Co-PI)

48-“Photocatalysts on Solar Panels for NO_x Control”

ASU-Maricopa - Healthy Urban Environments Center, May 1st 2019 – August 31st 2021, \$58,000
(P. Herckes PI 100%)

47-“Characterization of airborne nanoparticulate matter in semiconductor manufacturing environments”

SRC-Semiconductor Research Corporation, January 1st 2019- December 31st 2021, \$240,000
(P. Herckes (40%) PI, P. Westerhoff (30%), Y. Bi (30%), Co-PIs)

46- “LTER: CAP IV - Investigating urban ecology and sustainability through the lens of Urban Ecological Infrastructure”

NSF, December 1st 2018-November 30th 2022, \$4,507,998

(D. Childers PI, numerous Co-PIs. P. Herckes (1%) internal Co-PI, external senior personnel)

completed

45- “LTER-CAPIV: Design with Nature: a research framework for exploring urban ecology and sustainability”

NSF, December 1st 2016 – November 30th 2019; \$2,254,000

(D. Childers PI, numerous Co-PIs. P. Herckes (1%) internal Co-PI, external senior personnel)

44- “Understanding the Source and Fate of Polymer-Derived Nitrosamine Precursors”

Water Research Foundation, January 1st 2016- February 1st 2019, \$350,000.

(P. Westerhoff (60%), PI, P. Herckes (40%) Co-PI)

43 - “NCCLCs: Material Life Cycle of Nanomaterials (LCNano)”

EPA, December 1st 2013 – August 31st 2019, \$5,000,000

(P. Westerhoff PI (45%); P. Herckes (20%), T. Seager (20%), I. Bennett (5%), J. Wetmore(5%), K. Hristovski (5%). Co- PIs (ASU))

42 – “Nanoprospecting: An Approach Towards Environmental Monitoring Of Engineered Nanomaterials“

NSF, September 1st 2013 – August 31st 2017, \$306,000

(P. Westerhoff (60%), PI, P. Herckes (20%) and K. Hristovski (20%) Co-PIs)

41- “Identification and Quantification of Nanomaterials in/on Fruits and Vegetables”

Friends of the Earth, May 2nd 2014- November 16 2016, \$17,500.

(P. Westerhoff (80%), PI, P. Herckes (20%) Co-PI)

40- “Proposal to Test Carbobyk-9810 to Determine Sludge Sorption and Subsequent Receiving Stream Concentration”,

BYK USA Inc. July 1st 2015- May 15 2016, \$25,000.

(P. Westerhoff (60%), PI, P. Herckes (20%) Co-PI)

39- “Influence of haboobs on Phoenix air quality and resulting deposition enhancement of metals, ions and trace organics”

SRP- Salt River Project, October 1st 2014- April 30th 2016, \$25,000.

(P. Herckes PI, 100%)

38 - “Relative Importance And Contribution Of Anthropogenic And Natural Sources Of Nitrosamine Precursors “

Water Research Foundation, December 1st 2013 – December 31st 2015, \$300,000

(P. Westerhoff PI (70%); P. Herckes Co- PI (30%))

37- *confidential*

Intel Corporation, December 1st 2014- May 31st 2015, \$30,000.

(P. Herckes PI, 100%)

36 – “Detection Of Engineered Nanomaterials At Semi-Conductor Facilities And in Consumer Products“

Semiconductor Research Corporation, January 1st 2012 – December 31st 2014, \$334,297

(P. Westerhoff PI (60%); P. Herckes Co- PI(40%))

35 - “Controlling The Formation Of Nitrosamines During Water Treatment“

Water Research Foundation, January 1st 2012 – December 31st 2014, \$115,000

(P. Westerhoff PI (80%); P. Herckes Co- PI (20%))

34 - "Identification and Quantification of Nanomaterials in on Fruits and Vegetables "

Friends of the Earth, May 2nd 2014 – August 1st 2014, \$12,500

(*P. Westerhoff PI (60%); P. Herckes (20%) and D. Capco (20%), Co- PIs*)

33 - "Chemical Characterization Of Carbonaceous Aerosol In Monterrey (Mexico)"

ITESM Monterrey, September 1st 2012- August 31st 2014, \$25,999

(*P. Herckes PI (50%); M. Fraser Co-PI(50%)*)

32 - "CAREER Cloud and fog processing of organic matter"

NSF - National Science Foundation, September 1st 2009 – August 31st 2014, \$561,491

(*P. Herckes PI, 100%*)

31 - "Titanium Dioxide Nanomaterials In Public Water Bodies - Reactions With Simulated Bodily Fluids And Chlorine-Based Oxidants "

NIST, September 1st 2013 – April 20th 2014, \$15,000

(*P. Westerhoff PI (67%); P. Herckes Co- PI (33%)*).

30 - "Collaborative Research: Atmospheric processing of iron - Does particle size influence solubility?"

NSF - National Science Foundation, May 1st 2010 – April 30th 2014, \$228,770

(*P. Herckes PI (50%); A. Anbar, Co-PI (50%)*)

29 - "Evolution of Organic Matter during cloud events at Whistler during WACS 2010"

Environment Canada, April 1st 2013 – March 31st 2014, \$40,000

(*P. Herckes PI, 100%*)

28 - "Collaborative Research: Source apportionment of iron in the marine atmosphere - application of stable iron isotopic measurements"

NSF - National Science Foundation, October 1st 2010 – December 31st 2013, \$225,202

(*A. Anbar PI (50%); P. Herckes Co-PI(50%)*)

27 - "Sustainable development of critical earth materials"

Science Foundation Arizona, October 1st 2009 - September 30th 2013, \$98,526 (ASU part)

(*P. Herckes, ASU-PI (34%); A. Anbar(33%), M. Fraser(33%), Co-PIs*)

26 - "Constructed Wetlands for Treatment of Organic and Nanomaterial Pollutants"

Water Research Foundation, August 15th 2010 - August 15th 2013, \$ 127,825

(*P. Westerhoff PI (75%), P. Herckes Co-PI(25%)*)

25 - "Fog Sampling And Characterization In The Mongstad Area (Norway)"

Norwegian Institute for Air Research (NILU), October 1st 2012- February 28, 2013, \$30,000

(*P. Herckes PI, 100%*)

24 - "Studies on the processing of organic compounds by clouds during WACS 2010"

Environment Canada, January 1st 2012 – March 31st 2013, \$75,000

(*P. Herckes PI, 100%*)

23 - "Organic chemical processing by a fog cloud : field and laboratory studies"

NSF - National Science Foundation, July 1st 2009 – June 30th 2012, \$147,817 (ASU part)

(*P. Herckes PI, 100% on ASU part*)

22 - "Atmospheric Aqueous Phase Chemistry: Formation And Photolysis Of Nitrosamines And Nitramines"

SINTEF, October 1st 2011-March 31st 2012, \$98,480

(*P. Herckes PI (100%)*)

21 - "Detection Of Engineered Nanomaterials In Drinking Water, Food, Commercial Products And

Biological Samples”

NIH-NIEHS - National Institutes of Health, September 1st 2009 – August 31st 2011, \$1,497,531
(*P. Westerhoff (38%), PI, R. Halden (28%), P. Herckes (28%), K. Hristovski (6%) Co-PIs*)

20 - “Trace Metal Analysis for the South Phoenix Air Pollution Study”

Arizona Department of Environmental Quality, June 1st 2009 - March 30th 2010, \$20,000
(*P. Herckes PI (100%)*)

19 - “Regional Water Quality Monitoring and Evaluation for the Metropolitan-Phoenix Area Water Supply”

City of Phoenix, July 1st 2007- June 30th 2010, \$155,250
(*P. Westerhoff, PI (60%), R. Halden (20%), P. Herckes (20%), Co-PIs*)

18 – “Chemical characterization of ambient coarse particulate matter in rural areas of Arizona impacted by significant population growth”

EPA, July 1st 2008 - June 30th 2013, \$262,000
(*M.P. Fraser, PI (50%); P. Herckes Co-PI (50%)*)

17 - “Aerosol particles formed during wastewater aeration and their contribution to organic species in the Environment”

Science Foundation Arizona Competitive Advantage Awards, \$106,131, July 1st 2008- June 30, 2009
(*P. Herckes, PI (34%); J.O. Allen (33%), P. Westerhoff (33%), Co-PIs*)

16- “Monitoring of Trace-Level Pharmaceuticals and Personal Care Products in Salt River Project Waters (Year 2)”

Salt River Project, \$45,879, July 1st 2008- June 30, 2009
(*P. Westerhoff, PI (50%); P. Herckes Co-PI (50%)*)

15- “Mass Dependent Isotope Fractionation Of Bioessential And Toxic Metals: A New Perspective On The Environmental Chemistry Of Metals”

Dreyfus Foundation, October 2005 to September 2007, \$120,000 (start delayed to October 2007)
(*A. Anbar, PI (40%); P Herckes (20%), E. Shock (20%), H. Hartnett (20%) Co-PIs*)

14- “Regional Water Quality Monitoring Project”

Central Arizona Project, through the ASU Water Quality Center, February 2nd 2007- December 31 2008
\$30,000
(*P. Westerhoff, PI (70%); M. Sommerfeld (15%), P. Herckes (15)% Co-PIs*)

13- “Monitoring Of Trace-Level Pharmaceuticals in Salt River Project Waters”

SRP- Salt River Project, July 1, 2007- June 30, 2008; \$39,750
(*P. Westerhoff, PI (70%); P. Herckes, Co-PI (30%)*)

12- “Determination of caffeine at Trace Levels in ground water”

HDR Engineering through Water Quality Center at ASU, October 2007 to September 2008, \$7,000
(*P. Herckes PI (100%)*)

11- “Characterization of pharmaceuticals in hospital waste effluents”

NSF- Water Quality Center at ASU, January 2007 – Mai 2008, \$15,000
(*P. Herckes, PI (60%); P. Westerhoff, Co-PI (40%)*)

10- “Characterization of high Particulate Matter events in Nogales (AZ)”

EPA Southwest Center for Environmental Research and Policy (SCERP), June 2006-December 2007,
\$67,000
(*P. Herckes, PI (50%); J.O. Allen (50%), A. Mendoza (ITESM) (0%)Co-PIs*)

9- “Identification of Particulate Matter Sources in the Nogales Border Region Using Electron Microscopy and Organic Tracer Compounds”

Arizona Department of Environmental Quality, October 2005-September 2007, \$200,000
(*J.O. Allen, PI (34%); J.R. Anderson (33%) and P. Herckes (33%) Co-PIs*)

8- “Occupational carcinogenic exposures in Native American firefighters”

NIH Native American Cancer Research Partnership, Pilot Project Proposal; June 2006-Mai 2007,
\$100,000 (M. Robinson (NAU); J. Burgess (Arizona Cancer Center) Co-PIs)
(*P. Herckes, PI (100%) on subcontract from NAU*)

7- “Contribution of Wastewater To DBP Formation - Photolysis Of Nitrosamines”

Malcolm Pirnie Inc., September 2006-December 2006, \$10,020.
(*P. Westerhoff, PI (70%); P. Herckes Co-PI (30%)*).

6- “Volatile Organic Compound Measurements in Phoenix”

Sonoma Technologies, Mai 1st 2007 – October 2007, \$15,417
(*P. Herckes, PI (100%)*)

5- “Aerosol collection on estrogens in enclosed activated sludge systems”

NSF Water Quality Center at Arizona State University; January 2006-December 2006, \$5,000 (*P. Herckes, PI (100%)*)

4- “Laboratory Studies on the Aqueous Phase Reactivity of Molecular Markers”,

National Science Foundation, February 2004 - August 2006.
Original grant: ATM0342181: \$149,969 to Colorado State University (Collett Co-PI)
Grant transfer to Arizona State University as ATM0530718, \$115,393 P. Herckes sole PI

Prior to ASU (no formal credit allocations)

3- “Investigation of the organic composition of fogs and clouds”

National Science Foundation, \$608,224, September 2002 – August 2007).
(*J.L. Collett, PI, P. Herckes Co-PI*)

2- “Examination of the influence of California Regional Particulate Air Quality Study (CRPAQS) fog episodes on aerosol formation and removal”

California Air Resources Board, \$56,901, May 2002 – August 2003.
(*J.L. Collett PI, P. Herckes Co-PI*)

1- Luxembourg Ministry of Research, Grant for Ph.D. Research, \$36,000, January 1996-December 1999.

Professional Service and Responsibilities

Associate Editor *Atmospheric Measurement Techniques* (2012- present)
(Impact Factor 3.33; published by European Geophysical Union)

Editorial Board Member *Toxics* (2019-) and Section Editor In Chief (2020-)
(Impact Factor 4.15; published by MDPI)

Editorial Board Member *International Journal of Environmental Analytical Chemistry* (2017-)
(Impact Factor 1.41; published by Taylor and Francis)

Editorial Board Member *Environmental Monitoring and Assessment* (2019-)
(Impact Factor 1.81; published by Springer)

Academic Editor PeerJ (2017-2019)

- Managing Guest Editor *Atmospheric Research* (2013-2015)
Special issue, International Conference on Fog, Fog Collection and Dew
- 9th International Conference of Fog, Fog Collection, and Dew (Fort Collins, USA 2023)
Member of the Organizing Committee
- 7th International Conference on Fog, Fog Collection and Dew (Wroclaw, Poland, 2016)
Member of the Scientific Committee
- 6th International Conference on Fog, Fog Collection and Dew (Yokohama, Japan, 2013)
Member of the Scientific Committee
Session chair
Guest Editor for the conference Special Issue in Atmospheric Research.
- 5th International Conference on Fog, Fog Collection and Dew (Muenster, Germany, 2010)
Session chair
- American Association for Aerosol Research
Session chair and Technical Program Committee at annual meetings (multiple times)
Student Liaison Committee 2009-2011
- American Meteorological Association - 17th Conference on Atmospheric Chemistry,
Session Organizer & Session Chair, 2015
- Western Alliance to Expand Student Opportunities
Undergraduate research mentor (~15K in funding for 5 minority students)
Proposal Reviewer
Poster Judge
- Reviewer for manuscripts (67 in 2020, Publons top reviewers across fields Sept 2019)
- | | |
|---|--|
| <i>ACS Earth and Space Science</i> | <i>Aerosol and Air Quality Research</i> |
| <i>Aerosol Science and Technology</i> | <i>Analytical and Bioanalytical Chemistry</i> |
| <i>Analytical Chemistry</i> | <i>Analytical Methods</i> |
| <i>Applied Science (Mdpi)</i> | <i>Asian Journal of Atmospheric Environment</i> |
| <i>Atmospheric Environment</i> | <i>Atmospheric Chemistry and Physics</i> |
| <i>Atmospheric Measurement Techniques</i> | <i>Atmospheric Pollution Research</i> |
| <i>Atmospheric Research</i> | <i>Atmosphere</i> |
| <i>Chemical Engineering Journal</i> | <i>Chemical Research in Toxicology</i> |
| <i>Chemosphere</i> | <i>CLEAN</i> |
| <i>Environments</i> | <i>Environmental Chemistry and Toxicology</i> |
| <i>Environmental Engineering Science</i> | <i>Environment International</i> |
| <i>Environmental Monitoring and Assessment</i> | <i>Environmental Nanotechnology, Monit. & Manag.</i> |
| <i>Environmental Pollution</i> | <i>Environmental Science: nano</i> |
| <i>Environmental Science: Processes and Impacts</i> | <i>Environmental Science and Technology</i> |
| <i>Environmental Science and Pollution Research</i> | <i>Environmental Science and Technology Letters</i> |
| <i>Fresenius Environmental Bulletin</i> | <i>Geochimica Cosmochimica Acta</i> |
| <i>Hardware X</i> | <i>Int. J. of Environmental Analytical Chemistry</i> |
| <i>Int. J. of Env. Res. & Public Health</i> | <i>J. of the Air and Waste Management Association</i> |
| <i>Journal of Chromatographic Science</i> | <i>Journal of Chromatography</i> |
| <i>Journal of Environmental Monitoring</i> | <i>Journal of Environmental Science</i> |
| <i>Journal of Geophysical Research</i> | <i>Journal of Hazardous Materials</i> |
| <i>Journal of Hydrology</i> | <i>Journal of Nanoparticle Research</i> |
| <i>Journal of Photochemistry and Photobiology</i> | <i>Journal of Separation Science</i> |
| <i>J. Taiwan Institute of Chemical Engineers</i> | <i>Materials</i> |

<i>Methods X</i>	<i>Microchemical Journal</i>
<i>Molecules</i>	<i>Nanomaterials</i>
<i>Nature Communications</i>	<i>Proceedings National Academy of Sciences</i>
<i>PLOS One</i>	<i>Recycling</i>
<i>RSC Advances</i>	<i>Sustainability</i>
<i>Tellus B</i>	<i>Theoretical and Applied Climatology</i>
<i>The Science of the Total Environment</i>	<i>Water</i>
<i>Water Air and Soil Pollution</i>	<i>Water Research</i>

Reviewer and/or panel member for proposals submitted to

<i>Department of Energy (USA)</i>	<i>SBIR program</i>
<i>EPA- Environmental Protection Agency (USA)</i>	<i>various air quality related panels</i>
<i>NSF- National Science Foundation (USA)</i>	<i>Graduate Research Fellowships,</i>
	<i>Arctic Programs,</i>
	<i>Atmospheric Chemistry,</i>
	<i>Environmental Chemistry,</i>
	<i>Major Research Instrumentation</i>
<i>European Commission Framework Program (Europe)</i>	<i>Nanotechnology, Horizon 2020</i>
	<i>Climate, Marie Curie program</i>
	<i>panels</i>
<i>NASA- National Aeronautics and Space Administration (USA)</i>	<i>Astrobiology, MUREP</i>
<i>Research Corporation (USA)</i>	
<i>Natural Sciences and Engineering Research Council of Canada (Canada)</i>	
<i>Petro-Canada Young Innovator Awards Program (Canada)</i>	
<i>Canada Research Chairs (Canada)</i>	
<i>Research Promotion Foundation of Cyprus (Cyprus)</i>	
<i>Swiss National Science Foundation (Switzerland)</i>	
<i>French National Research Agency –ANR (France)</i>	
<i>German Research Foundation - DFG (Germany)</i>	
<i>Ministère de la recherche (Luxembourg)</i>	
<i>Research Grants Council (RGC) (Hong Kong)</i>	
<i>Fulbright Scholar Discipline Peer Review Committee (USA)</i>	
<i>Israeli Ministry of Science, Technology and Space (Israel)</i>	
<i>Vienna Science and Technology Fund (Austria)</i>	
<i>National Defense Science and Engineering Graduate NDSEG fellowships (USA)</i>	
<i>Technology Agency of the Czech Republic (Czech Republic)</i>	
<i>Romanian Agency for Higher Education, Research, Development and Innovation Funding (Romania)</i>	
<i>Kuwait Foundation for the Advancement of Sciences (Kuwait)</i>	

Reviewer of Chemistry textbooks for *W.H. Freeman* and *Oxford University Press*.

Author and co-author of reports to various air pollution agencies including

Arizona Department of Environmental Quality (USA)

Pinal County Air Quality Department (USA)

Environmental Protection Agency (USA)

California Air Resource Board (USA)

National Park Service (USA)

Administration of the Environment (Luxembourg)

City Council of Strasbourg (France)

Professional Societies

American Association for Aerosol Research (AAAR), member

American Geophysical Union, member

European Geophysical Union, member

Institut Grand-Ducal (Luxembourg), corresponding member

Public profiles and Researcher IDs (not necessarily complete/updated)

Google Scholar: https://scholar.google.com/citations?user=6_3vHHEAAAAJ&hl=en

Orcid: <https://orcid.org/0000-0002-0205-3187>

Researcher-ID : <http://www.researcherid.com/rid/E-6824-2011>

Publons: <https://publons.com/author/1269585/pierre-herckes#profile>

University Service

Arizona State University, School of Molecular Sciences

2004 - 2005	Shop Oversight Committee
2005 - 2016	Graduate Admission Committee
2007 - 2009	Strategic Planning Committee: Chemistry of Sustainability
2011 - 2013	Budget and Personnel Committee (elected)
2014	Budget and Personnel Committee (appointed)
2016 - 2018	Committee on Undergraduate Student Research, Mentoring and Advising (Chair)
2016 - 2018	Honors College Programs Liaison
2018 - 2019	Ad Hoc Committee on Undergraduate Curricular Reform
2018	Budget and Personnel Committee (appointed)
2019-2020	Committee on Undergraduate Programs and Awards
2019-2021	Associate Director
2021-	Graduate Admission Committee

Arizona State University, Fulton Schools of Engineering

Faculty Search Committee: Air Toxics positions

Arizona State University, Barrett Honors College

2005-	Barrett's Disciplinary Faculty
2016-2018	Faculty Honors Adviser (FHA)

Arizona State University, university wide

2016-2018	Leadership Academy, member TEAM LA "Planetworks"
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Interviews, press and news coverage of research

- 2009 - Chemical Heritage Foundation: Interview on environmentally benign dry cleaning (podcast)
- 2010 - *Cloud Chemistry* research featured in US News and World Report
<http://www.usnews.com/science/articles/2012/09/19/chemistry-and-clouds>
- 2015 - Article in ES&T Letters (#83) on the discovery that methadone is a significant contributor to NDMA formation in drinking water, picked up by PBS News and LC/GC Magazine.
- 2015 - Article in ES&T (#85) on *metals in waste water and their recycling potential*, picked up by numerous news outlets in the US and abroad including Science Magazine online, Gizmodo, Le Monde (France), Der Spiegel (Germany), etc

Interviews by P. Herckes:

- [Money Magazine/Time](#) - Magazine Interview
- [Takepart.com](#) – Magazine Interview
- “Science & vie” – Interview with French Science Magazine
(*Science & View July 2015 issue, “Nos égouts sont des mines d’or” p.108-113*)
- [RTL](#) – Radio Interview with Luxembourg National Radio Station (RTL)
- 2016 – Article in ES: nano (#84) featured in press release from U of A for highly downloaded RSC paper
https://www.eurekalert.org/pub_releases/2016-02/uoac-nsw021916.php
picked up by media including R&D Magazine as no safety threat from industrial nanoparticles
<http://www.rdmag.com/news/2016/02/study-finds-no-safety-threat-brief-exposure-industrial-nanoparticles>
- 2016 – Article in ES&T (#90) on *nanosilver in clothing* came with press release by the American Chemical Society, picked up by various online media including:
<https://www.sciencedaily.com/releases/2016/03/160330122634.htm>
- 2016/7- Multiple media reports on research done for Friends of the Earth, which released their report in 2016, our manuscript published in 2017 (#96) detailing findings on nano hydroxyapatite in baby Formula.
FoE report and release:
<http://www.foe.org/projects/food-and-technology/nanotechnology/baby-formula>
also USnews, parents.com and many others.
- 2017 **Haboobs and Valley Fever.**
[ABC 15 Arizona TV Interview](#)
- 2020 Work on mask efficiency for Covid (# 114) featured in local news and press-releases.
- 2021 **Poor Air Quality New Year’s day**
[Fox 10 Arizona](#) – TV Interview
- 2021 **Double Masking for Covid-19 protection**
[Las Vegas Review Journal](#) – Newspaper Interview
[ASUnow](#) – press release
[NPR-KJZZ](#) -Radio Interview