

Journal Articles

- Finlayson-Pitts B.J., Anderson A., Lakey P.S.J., Wang W., Ezell M.J., Wang X., Wingen L.M., Perraud V., and Shiraiwa M. (2022) Oxidation of solid thin films of neonicotinoid pesticides by gas phase hydroxyl radicals. *Environmental Science: Atmospheres*, doi: 10.1039/D2EA00134A. Available at <http://dx.doi.org/10.1039/D2EA00134A>.
- Wu S., Lee H.J., Anderson A., Liu S., Kuwayama T., Seinfeld J.H., and Kleeman M.J. (2022) Direct measurements of ozone response to emissions perturbations in California. *Atmos. Chem. Phys.*, 22(7), 4929-4949, doi: 10.5194/acp-22-4929-2022. Available at <https://acp.copernicus.org/articles/22/4929/2022/>.
- Rohrbacher A., Ezell M.J., Perraud V., and Finlayson-Pitts B.J. (2021) Probing Matrix Effects on the Heterogeneous Photochemistry of Neonicotinoid Pesticides, Dinotefuran and Nitenpyram. *ACS Earth and Space Chemistry*, 5(5), 1196-1209, doi: 10.1021/acsearthspacechem.1c00059, 2021/05/20. Available at <https://doi.org/10.1021/acsearthspacechem.1c00059>.
- Wang W., Aregahegn K.Z., Andersen S.T., Ni A.Z., Rohrbacher A.F., Nielsen O.J., and Finlayson-Pitts B.J. (2019) Quantum Yields and N₂O Formation from Photolysis of Solid Films of Neonicotinoids. *Journal of Agricultural and Food Chemistry*, 67(6), 1638-1646, doi: 10.1021/acs.jafc.8b05417, 2019/02/13. Available at <https://doi.org/10.1021/acs.jafc.8b05417>.

White Papers

- Erdakos, G., Anderson, A., Afreh, I. and Sussman, E. (2023, *in preparation*) Ammonia concentrations, contributions from on-road mobile sources and off-road construction equipment sources, associated health risk, and impacts to air quality and climate change. White paper prepared for California Department of Transportation by Sonoma Technology, Petaluma, CA. (*in preparation*)
- Anderson A., Pavlovic N., and Vijayan A. (2022) New insights from methane emissions research. White paper prepared for Electric Power Research Institute (EPRI), Palo Alto, CA by Sonoma Technology, Petaluma, CA, STI-922062-7814, December 2.

Formal Reports and Technical Memos

- Marrero J.E., Wang N., and Anderson A. (2023) Data summary of 12 months of air quality measurements along the New River in Calexico, CA. Technical memorandum prepared for the Imperial County Air Pollution Control District, El Centro, CA, by Sonoma Technology, Petaluma, CA, STI-921031-7892, March.
- Schill S.R., and Anderson A.F. (2023) Chevron Richmond Q4 Report: October-December 2022. Quarterly report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922004-7869, February.
- Scarborough C.R., Schill S.R., and Anderson A.F. (2022) Chevron Richmond Q3 Report: July-September 2022. Quarterly report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922004-7816, November.

Anderson A., Vijayan A., Chan A., and Chinkin L. (2022) Sonoma Technology-NGK ozone study. Technical memorandum by Sonoma Technology, Petaluma, CA, STI-1922071-7826, November.

Marrero J.E., Wang N., and Anderson A. (2022) Data summary of six months of air quality measurements along the New River in Calexico, CA. Technical memorandum prepared for the Imperial County Air Pollution Control District, El Centro, CA, by Sonoma Technology, Petaluma, CA, STI-921031-7711, September.

Meeting Presentations, Webinars, and Conference Proceedings

Anderson, A., Pavlovic, N., McClure, C. (2023) *Satellite Data to Support Emission Control Strategies*. Presentation for NASA Health and Air Quality Applied Science Team (HAQAST) Meeting, St. Louis, MO, 19 Apr 2023.

Anderson, A., Coughlin, J., Marrero, J., and Vijayan A. (2022) New insights from methane emissions research. Presentation for Electric Power Research Institute (EPRI), Palo Alto, CA by Sonoma Technology, Petaluma, CA, 2 Feb 2023.

Rohrbacher, A., Kuwayama, T. "Using Satellite Data to Track How Wildfires are Changing Ozone Pollution Chemistry in California" Presentation to California Air Resources Board interdivisional forestry management group. 7 May 2021.

Rohrbacher, A., Finlayson-Pitts, B.J. "Matrix Effects in the Heterogeneous Photochemistry of Neonicotinoid Pesticides." Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere (ISKPPA) conference. Cal State Fullerton (Virtual). 19 Feb 2021.

Rohrbacher, A., Finlayson-Pitts, B.J. "Matrix Effects in the Heterogeneous Photochemistry of Neonicotinoid Pesticides." American Geophysical Union. San Francisco, CA (virtual). 07 Dec 2020. **Invited OSPA award winner talk.*

Rohrbacher, A., Finlayson-Pitts, B.J. "Atmospheric Fate of Neonicotinoid Pesticides as Pure Compounds and in Formulations." American Geophysical Union. San Francisco, CA. 11 Dec 2019. **Received Outstanding Student Presentation Award (OSPA)*

Rohrbacher, A., Finlayson-Pitts, B.J. "Comparison of Degradation of Neonicotinoids in Commercial Formulations and as Pure Reagents." AirUCI Internal Symposium. 9 May 2019.

Poster Presentations

Anderson, A., Finlayson-Pitts, B.J. "Heterogeneous OH reactions with thin films of neonicotinoid pesticides." Informal Gathering on Atmospheric Science and Photochemistry Conference. University of California Irvine. 15 June 2022.

Anderson, A., Finlayson-Pitts, B.J. "Heterogeneous OH reactions with thin films of neonicotinoid pesticides" American Chemical Society. San Diego, CA. 23 Apr 2022.

Rohrbacher, A., Kuwayama, T. "Ozone in fire-influenced California air samples using ground and satellite measurements" University of California Irvine Association of Graduate Students Symposium. 24 Apr 2021. **First place award*

Rohrbacher, A., Finlayson-Pitts, B.J. "Atmospheric Fate of Neonicotinoid Insecticides as Pure Compounds and in Formulations." Sino-European School on Atmospheric Chemistry, Shanghai, China. 10 Nov 2019.

Rohrbacher, A., Finlayson-Pitts, B.J. "Atmospheric Fate of Neonicotinoid Insecticides as Pure Compounds and in Formulations." American Chemical Society. San Diego, CA. 26 Aug 2019 and 28 Aug 2019.
**Selected for Sci-Mix*

Rohrbacher, A., Finlayson-Pitts, B.J. "Pesticides in the Environment: Comparison of Degradation of Neonicotinoids in Commercial Formulations and as Pure Reagents." Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere (ISKPPA) conference. California Institute of Technology, Pasadena, CA. 10 May 2019.

Rohrbacher, A., Finlayson-Pitts, B.J. "Pesticides in the Environment: Comparison of Degradation of Neonicotinoids in Commercial Formulations and as Pure Reagents." University of California Irvine Association of Graduate Students Symposium. 26 April 2019. **First place award*

Rohrbacher, A., Finlayson-Pitts, B.J. "Bee Declines and Human Health: Are Pesticides More Dangerous After Air Exposure?" Ridge to Reef poster symposium. University of California Irvine. 6 Dec 2018.

Education and Outreach Presentations

Rohrbacher, A., Finlayson-Pitts, B.J. "Fate of the World's Most Commonly Used Pesticide." Brews and Brains Events at Fireside Pub, Costa Mesa, CA. 2019.

Rohrbacher, A., Vander Wall, A., Finlayson-Pitts, B.J. "Chemistry, Climate Change, and Crud: Atmospheric Chemistry." Assembly for hundreds of University High School students, Irvine, CA. 20 Feb 2019.

Rohrbacher, A. "Chemistry: For a Safer Planet and Healthy World." Irvine School District Career Fair. Irvine, CA. 5 Dec 2018.

Thesis

Anderson, A. (2022) Emerging air quality concerns in California: Atmospheric fates of neonicotinoid pesticides and increasing wildfire influence on ozone attainment, Ph.D. Thesis, University of California Irvine. Available online at <https://escholarship.org/uc/item/86n5356n>

Patent

Willis, M.; Saunders, M.; Ramoutar, D.; Szymczyk, J.; Krenick, F.; Rohrbacher, A.* "Insecticidal Compositions and Methods Using the Same", US20130101687 A1, Apr 25, 2013. Available online at <https://patents.google.com/patent/GB2507210A/en>