Journal Articles

Coughlin J.G., Tasoglou A., Silva L.P., Haile K., Silva L., Hamilton S., Thoma E., Fuoco M., Katz R., and Liangou A. (in preparation) Stationary and mobile ambient air monitoring comparison of a PTR-TOF-MS-MS against four other volatile organic compound instruments in fenceline communities.

Coughlin, J.G., Clark, C.M., Pardo, L., Sabo, R.D., Ash, J. (in preparation) Multi-decadal carbon stock trends due to national air pollution policies in the United States.

Coughlin J.G., Elliott E.M., Rose L.A., Pekney N.J., and Reeder M. (2020) Quantifying atmospheric reactive nitrogen concentrations, dry deposition, and isotope dynamics surrounding a Marcellus Shale well pad. *Atmospheric Environment*, 223(117196). Available at https://www.sciencedirect.com/science/article/abs/pii/S1352231019308350.

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White Papers

Coughlin J.G., Pavlovic N.R., and Vijayan A. (2022) Satellite Remote Sensing of Methane. White paper prepared for Electric Power Research Institute (EPRI), Palo Alto, CA by Sonoma Technology, Petaluma, CA, STI-922062-7827, December 2.

Meeting Presentations, Webinars, and Conference Proceedings

Coughlin J., Chang S.Y., Pavlovic N.R., Huang J., Craig K.J., Scarborough C., and Driscoll C.T. (2023) Spatially varying nitrogen critical loads and the influences of mediating factors. Presentation given at the *NADP Spring Meeting, Madison, WI, May 1-5,* by Sonoma Technology, Petaluma, CA. STI-7898.

Chang S.Y., Coughlin J.G., Huang J., Craig K.J., Herrick J., Driscoll C.T., and Pavlovic N.R. (2022) Empirical critical levels of ozone for U.S. tree species and their uncertainties using machine learning. Poster presented at the *American Geophysical Union (AGU) Fall Meeting, Chicago, IL, December 12-16,* by Sonoma Technology, Petaluma, CA. STI-7771.

Chang S.Y., Pavlovic N.R., Coughlin J., Huang J., Craig K.J., Scarborough C., Horn K., Driscoll C.T., and Herrick J. (2022) Empirical critical levels of ozone for U.S. tree species and their uncertainties with machine learning. Presentation given at the *National Atmospheric Deposition Program 2022 Science Symposium, Knoxville, TN, November 17,* by Sonoma Technology, Petaluma, CA, the Freedom Consulting Group, Columbia, MD, and the Syracuse University Department of Civil and Environmental Engineering, Syracuse, NY. STI-7769.

Pavlovic N.R., Coughlin J.G., Chang S., Huang J., Craig K.J., Scarborough C., Horn K., and Driscoll C.T. (2022) Mapping variability of nitrogen critical loads using machine learning. Poster presented at the *2022 National Atmospheric Deposition Program Conference, Knoxville, TN, November 14-18,* by Sonoma Technology, Petaluma, CA, the Freedom Consulting Group, Columbia, MD, and the Syracuse University Department of Civil and Environmental Engineering, Syracuse, NY. STI-7770.

Liangou, A., Tasoglou, A., Coughlin, J.G., Silva, L.P., Haile, K., Acosta, R. (2022) A Comparison of a PTR-ToF-MS Against Four Other VOC Measurement Methods Using Standardized Techniques During Fence-line Monitoring in Four States. Poster given at *2022 American Geophysical Union Conference, November 2022*.

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Clark, C.M., Bell, M., Coughlin, J.G., Pardo, L., Lynch, J., Dalton, R., McDonnell, T., Miller, J., Pavlovic, N. (2022) Current and future uses of MMF TDep data for biodiversity assessments. Webinar given to *2022 World Meteorological Organization – Global Atmosphere Watch Measurement-Model Fusion Symposium, August 2022*.

Tasoglou, A., Coughlin, J.G., Silva, L.P., Haile, K., Acosta, R. (2022) A comparison of a PTR-ToF-MS against four other VOC measurement methods using standardized techniques during fence-line monitoring in four states. Presentation given at *2022 National Ambient Air Monitoring Conference, August 2022*.

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Coughlin, J.G., (2021) Lead (Pb) emissions source targeting techniques for ambient air quality investigations. Webinar presented to the *US Environmental Protection Agency Lead (Pb) National Workgroup, August 2021*.

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Coughlin, J.G., Clark, C.M., Sabo, R.D., Ash, J., James, J., Smith, T.J., Pardo, L. (2019) Determining adequate levels of nitrogen and sulfur deposition to prevent harmful tree species level decreases. Poster given at *National Atmospheric Deposition Program 2019 Meeting, November 2019*.

Pardo, L.H., Horn, K.J., Clark, C.M., Thomas, R.Q., Sabo, R.D., Ash, J., Bell, M.D., Coughlin, J.G., James, J. (2018) Assessing risk to forest ecosystems from nitrogen and sulfur deposition across the continental US. Presentation given at *2018 National Atmospheric Deposition Program Conference, November 2018*.

Coughlin, J.G., Fuoco, M., Hamilton, S. (2017) The Geospatial Monitoring of Air Pollutants (GMAP) and its role in addressing critical knowledge gaps in air quality and source emissions. Poster given at *National Atmospheric Deposition Program 2017 Meeting, November 2017*.

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Coughlin, J.G., Pompeani, D.P., Hillman, A.L., Abbott, M.B. (2014) An 850-year record of human and environmental change near the Mississippian-era city of Moundville (Alabama) from lake sediment geochemistry. Poster given at *Geological Society of America's 49th Northeastern Annual Meeting, March 2014*.

Formal Reports

Marrero J.E., Schill S.R., Scarborough C., and Coughlin J. (2022) Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation) rule 1180 fenceline monitoring Q3 report: July 2022–September 2022. Quarterly report prepared for Tesoro Refining & Marketing Company LLC, Martinez, CA by Sonoma Technology, Petaluma, CA, STI-922018-7817, November 21.

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