

MICHAEL C. McCARTHY

Senior Air Quality Analyst



Educational Background

Ph.D., Chemistry, University of California at Berkeley

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Professional Experience

Dr. McCarthy joined the air quality measurements and data analysis division at STI in 2003. He is the author or co-author of 15 atmospheric science peer-reviewed journal articles on air toxics, particulate matter, isotopic compositions of greenhouse gases, and other topics. Dr. McCarthy has served as the lead analyst in projects such as U.S. Environmental Protection Agency's (EPA) national air toxics data analysis; a regional analysis of air toxics concentrations for the Southeast States Air Resources Managers (SESARM); and source apportionment of volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) in Edmonton and Athabasca, Alberta, Canada. Dr. McCarthy assisted in the study design of and data analysis for a near-roadway monitoring study focusing on mobile source air toxics at three schools for the Nevada Department of Transportation. He also assisted in smoke plume exposure work during southern California wildfires for the National Institute of Environmental Health.

Dr. McCarthy was the lead author for a strategic research plan for particulate matter for the Federal Highway Administration (FHWA), and has performed critical reviews and identified research needs for pavement rolling resistance and air quality behind noise barriers for the California Department of Transportation. In addition, Dr. McCarthy has led and been involved in network assessments for the EPA Photochemical Assessment Monitoring Stations (PAMS) network, the State of Wyoming, the San Joaquin Valley in California, and Edmonton. Dr. McCarthy has worked with the EPA to develop and write reports focusing on relationships among multiple air quality problems (e.g., ozone, particulate matter, and toxics), quality assurance, and optimizing the PAMS monitoring network.

Dr. McCarthy has managed projects that include examining air toxics concentrations near a pulp and paper mill for the Nez Perce tribe in Idaho; performing a monitoring network review for an Edmonton, Alberta, ozone management plan, and providing information on benzene trends for the EPA's annual report on the environment.

Dr. McCarthy's corporate responsibilities include assisting STI's Quality Assurance Officer with the development and implementation of corporate-wide quality control and assurance initiatives and serving as an internal scientific reviewer for technical project design, analysis, and reporting.

Before joining STI, Dr. McCarthy was a Research Assistant for Dr. Kristie Boering at the University of California at Berkeley, where he received his doctoral degree in Chemistry. During his research, Dr. McCarthy measured the stable isotopic compositions of CH₄, CO₂, and H₂ from stratospheric whole air samples to help constrain estimates of greenhouse gas emissions sources.

Memberships

Air & Waste Management Association

American Geophysical Union