#### **Journal Articles**

- Schill S., McEwan R.S., Moffet R., Marrero J., MacDonald C., and Winegar E. (2022) Real-world application of open-path UV-DOAS, TDL, and FT-IR spectroscopy for air quality monitoring at industrial facilities. *Spectroscopy*, 37(S11), 18–22, (STI-7736), November 1. Available at https://www.spectroscopyonline.com/view/real-world-application-of-open-path-uv-doas-tdl-and-ft-ir-spectroscopy-for-air-quality-monitoring-at-industrial-facilities.
- Pasch A.N., MacDonald C.P., Gilliam R.C., Knoderer C.A., and Roberts P.T. (2011) Meteorological characteristics associated with PM<sub>2.5</sub> air pollution in Cleveland, Ohio, during the 2009-2010 Cleveland Multiple Air Pollutants Study. *Atmos. Environ.*, 45, 7026-7035 (STI-909032-3910). doi: 10.1016/j.atmosenv.2011.09.065. Available on the Internet at http://www.sciencedirect.com/science/article/pii/S1352231011010284.
- Scheffe R., Philbrick R., MacDonald C.P., Dye T.S., Gilroy M., and Carlton A. (2009) Observational needs for four-dimensional air quality characterization. *Air & Waste Manag. Assoc.'s EM*, October 2.
- Zhao C., Andrews A.E., Bianco L., Eluszkiewicz J., Hirsch A., MacDonald C., Nehrkorn T., and Fischer M.L. (2009) Atmospheric inverse estimates of methane emissions from Central California. *J. Geophys. Res.*, 114, D16302, doi:16310.11029/12008JD011671.
- MacDonald C.P., McCarthy M.C., Dye T.S., Wheeler N.J.M., Hafner H.R., and Roberts P.T. (2006) Transport and dispersion during wintertime particulate matter episodes in the San Joaquin Valley, California. *J. Air & Waste Manag. Assoc.*, 56, 961-976 (STI-902329-2660).
- MacDonald C.P., Roberts P.T., Main H.H., Dye T.S., Coe D.L., and Yarbrough J. (2001) The 1996 Paso del Norte Ozone Study: phenomena that influence the local ozone concentrations. *Sci. Total Environ*. (Special Issue: U.S.-Mexico Transboundary Air Pollution Studies), 276, Nos. 1-3, 93-110 (STI-1949).
- Hanna S.R., MacDonald C.P., Lilly M., Knoderer C.A., and Huang C.H. (2006) Analysis of three years of boundary layer observations over the Gulf of Mexico and its shores. *Estuarine, Coastal and Shelf Science*, 70, 541-550.
- Reissell A., MacDonald C., Roberts P., and Arey J. (2003) Characterization of biogenic volatile organic compounds and meteorology at Azusa during the SCOS97-NARSTO. *Atmos. Environ.*, 37 (Supplement 2), 181-196.

# **Meeting Presentations and Conference Proceedings**

- Schill S., Marrero J., Moffet R., McEwan S., and McDonald C. (2022) Complementary and emerging techniques for fenceline monitoring. Presentation given at the *Air Sensors International Conference, Pasadena, CA, May 13, 2022*, by Sonoma Technology, Petaluma, CA. STI-7623.
- Marrero J.E., Hafner H., and MacDonald C.P. (2022) Community-focused monitoring in California: building bridges between community members and industrial facilities. Presentation given at the *Air Sensors International Conference, May 12, 2022, Pasadena, CA 2022,* By Sonoma Technology, Petaluma, CA. STI-7628.
- Moffet R.C., Marrero J.E., McEwan R.S., MacDonald C., and Roberts P.T. (2022) Minimum detection limit calculations for open-path measurements. Presentation given at the *ASTM Workshop on Ambient Air Fenceline Monitoring, Seattle, WA, April 28*, by Sonoma Technology, Petaluma, CA. STI-7716.

- Winegar E., Macdonald C.P., and Schill S.R. (2022) Evolution and growth of industrial fenceline monitoring. Presentation given at the *4C Conference, Austin, TX, April 7*, by Sonoma Technology, Petaluma, CA. STI-7665.
- Winegar E., MacDonald C.P., and Schill S.R. (2022) Practical signal detection theory: combining rule-based and human factor-based data validation for fenceline data to ensure high trust and reliability. Presentation given at the *4C Conference, Austin, TX, April 7*, by Sonoma Technology, Petaluma, CA. STI-7664.
- Marrero J.E., Schill S.R., and MacDonald C.P. (2022) Lessons learned from two years of refinery fenceline monitoring in California. Presentation given at the *Air & Waste Management Association Measurements Conference, San Diego, CA, March 9,* by Sonoma Technology, Petaluma, CA. STI-7694.
- Winegar E. and MacDonald C.P. (2021) Innovative air quality solutions for industry. Presentation given at the *4C Conference, Austin, TX, August,* by Sonoma Technology, Petaluma, CA. STI-7556.
- Schill S.R. and MacDonald C.P. (2021) Complementary techniques for industrial fenceline monitoring. Presentation given at the *4C Health/Safety/Environmental Conference, Austin, TX, August 19,* by Sonoma Technology, Petaluma, CA. STI-7559.
- MacDonald C.P., Moffet R., Roberts P., Marrero J., and Gibbons R. (2020) Assessment of technology used for refinery air quality Fenceline Monitoring. Presentation given at the *A&WMA*'s *113th Annual Conference & Exhibition, League City, TX, June 29 July 2*, by Sonoma Technology, Petaluma, CA. STI-7216.
- Marrero J.E., Roberts P.T., Moffet R.C., and MacDonald C.P. (2020) What have we learned from the first year of refinery fenceline monitoring in California? Presentation given at the *A&WMA 113th Annual Conference & Exhibition, League City, TX, June 29 July 2*, by Sonoma Technology, Petaluma, CA. STI-7215.
- MacDonald C.P. (2020) Implementing refinery air quality fenceline monitoring programs. Presentation given at the A&WMA 113<sup>th</sup> Annual Conference & Exhibition, July 2, by Sonoma Technology, Petaluma, CA. STI-7213.
- Pavlovic N., McClure C., Brown S., Lurmann F., McDonald-Buller E., Kimura Y., and Wiedinmyer C. (2020)

  Performance assessment of fire inventory from the National Center for Atmospheric Research (FINN v2.2)

  wildfire emissions estimates using satellite aerosol observations. Presentation given at the *3rd International Smoke Symposium, April 21*, by Sonoma Technology, Petaluma, CA. STI-7233.
- McClure C., McCarthy M., and Brown S. (2020) Data validation overview. Training course presented to the Hong Kong Environmental Protection Department, Hong Kong, China, February 27, by Sonoma Technology, Inc., Petaluma, CA. STI-919060-7610.
- Zahn P., Chan A., and MacDonald C. (2018) Air quality forecasting for the Sacramento region. Presented to the Sacramento Metropolitan Air Quality Management District, April 24, by Sonoma Technology, Inc., Petaluma, CA. STI-916076-6910.
- Hafner H.R., Roberts P.T., and MacDonald C.P. (2018) Update on new California air monitoring regulations. Presented to the U.S. Environmental Protection Agency, Office of Air Quality Planning & Standards, Research Triangle Park, NC, February 8, by Sonoma Technology Inc., Petaluma, CA. STI-6890.
- MacDonald C.P., Roberts P.T., Hafner H.R., Zemek P., Gibbons R., and McEwan S. (2017) Assessment of technology needed to meet refinery fenceline air quality monitoring rules. Presentation given at the *2017 AWMA Measurements Conference, Long Beach, CA, November 7,* by Sonoma Technology, Inc., Petaluma, CA. STI-6752.

- MacDonald C.P., Smith K.M., and Dillon M.D. (2017) Considerations for effective upper-air meteorological networks. Extended abstract for the AWMA Air Quality Measurement Methods and Technology, Long Beach, CA, November 7-9. STI-6751.
- Stanton L., Brown S., Dye T., and MacDonald C. (2017) Sensor use for real-world applications. Poster presented at the SCAQMD Making Sense of Sensors Conference, Diamond Bar, CA, September 27-28. STI-6783.
- DeWinter J., Stanton L., Haderman M., Parajon G., Hafner H., and MacDonald C. (2017) Sensor solutions: data management and comprehensive services. Poster presented at the *SCAQMD Making Sense of Sensors Conference, Diamond Bar, CA, September 27-28*. STI-6784.
- MacDonald C.P., Roberts P., and Gibbons R. (2017) Meeting fenceline and community monitoring requirements: key elements and issues. Presented at the *AWMA West Coast Section Conference, Diamond Bar, CA, September 21.* STI-6796.
- Dye T., Stanton L., MacDonald C., Smith K., Roberts P., and Dillon M. (2017) Results and lessons learned from using low-cost PM sensors to detect ambient PM<sub>2.5</sub> and PM<sub>10</sub>. Presented at the *Primary Quality Assurance Organization (PQAO) meeting in Pomona, CA, January 24-26*, by Sonoma Technology, Inc., Petaluma, CA. STI-6644.
- MacDonald C.P., Kumar N., Zack J.W., van Dam C.P., Chen S., and Chen C.-Y. (2016) Integration of targeted real-time upper-air meteorological data into wind forecasts. Presented at the EPRI Artificial Neural Network Short-Term Load Forecaster Users' Group Meeting, Denver, CO, November 2-3. STI-6748.
- Dye T., Stanton L., MacDonald C., Smith K., Roberts P., Graham A., and Dillon M. (2016) Results and lessons learned from using low-cost PM sensors to detect ambient PM<sub>2.5</sub> and PM<sub>10</sub>. Presented at the *National Association of Clean Air Agencies, Minneapolis, MN, October 17*. STI-6593.
- Dye T., Stanton L., MacDonald C., Smith K., Roberts P., Graham A., Dillon M., and Chan A. (2016) Results and lessons learned from using low-cost PM sensors to detect ambient PM<sub>2.5</sub> and PM<sub>10</sub>. Presented at the *Better Air Quality Conference, Busan, South Korea, September 1*, by Sonoma Technology, Inc., Petaluma, CA. STI-6525.
- MacDonald C.P., Stanton L.G., and Dye T.S. (2016) Upper-air meteorological instruments: cost, installation, maintenance, and data use considerations. Presented at the *National Ambient Air Monitoring Conference, St. Louis, MO, August 8-11.* STI-6515.
- Dye T., Stanton L., MacDonald C., Smith K., Roberts P., Graham A., and Dillon M. (2016) Results and lessons learned from using low-cost PM sensors to detect ambient PM<sub>2.5</sub> and PM<sub>10</sub>. Presented at the *National Ambient Air Monitoring Conference, St. Louis, MO, August 8-11*. STI-6517.
- Zack J.W., Lefevre J., van Dam C.P., Chen S., Chen C., Shiu H., Kamisky R., MacDonald C.P., and Blatchford J. (2016) Impact of customized forecast system enhancements on wind ramp forecasts for Tehachapi Pass. Poster presented at the *American Wind Energy Association's Windpower Conference, New Orleans, LA, May 23-26.* STI-6492.
- Brown S., Pavlovic N., Graham A., McCarthy M., and MacDonald C. (2016) Sacramento ozone wildfire briefing. Presented to the Sacramento Metropolitan Air Quality Management District, Sacramento, CA, May 25. STI-916022-6521.
- Dye T., Graham A., MacDonald C., McCarthy M., and Roberts P. (2016) Low-cost air quality sensors: interesting projects and future challenges. Presented at the Southern California Environmental Health Sciences Center

- Seminar Series, Keck School of Medicine, University of Southern California, Los Angeles, CA, April 1, by Sonoma Technology, Inc., Petaluma, CA. STI-6483.
- Dumas J., Penfold B., Healy A., MacDonald C., and Dye T. (2016) eSIMS: Electronic Site Information Management System. Webinar, March 17, presented by Sonoma Technology, Inc., Petaluma, CA. STI-6473.
- Dye T. and MacDonald C. (2016) Data "sharing" (and all the parts to make that happen). Presented at the *American Meteorological Society Forum on Observing the Environment from the Ground Up, Washington, DC, March 8,* by Sonoma Technology, Inc., Petaluma, CA. STI-6466.
- Reid S., MacDonald C., Alrick D., Veneziano D., Koon L., Pryor D., Ginn D., Kresich D., and Tait T. (2016) Improving the communication of safety information for windblown dust events. Poster presented at the *2016 Transportation Research Board Annual Meeting, Washington, DC, January 11*, by Sonoma Technology, Inc., Petaluma, CA. STI-620000-6413.
- Reid S., MacDonald C., Alrick D., Veneziano D., Koon L., Pryor D., Ginn D., Kresich D., and Tait T. (2016) Improving the communication of safety information for windblown dust events. Paper presented at the *2016 Transportation Research Board Annual Meeting, Washington, DC, January 11*, by Sonoma Technology, Inc., Petaluma, CA. STI-620000-6319.
- MacDonald C.P. (2015) eSIMS: Electronic Site Information Management System. Presented at the *Primary Quality Assurance Organization Training Module 3: Air Monitoring Instrument Operation, Sacramento, CA, July 28.* STI-6326.
- Alrick D.M. and MacDonald C.P. (2015) Characterization of boundary-layer meteorology during DISCOVER-AQ. Presented at the *Texas Air Quality Research Program Workshop, Austin, TX, June 18,* by Sonoma Technology, Inc., Petaluma, CA. STI-914038-6300.
- Dye T., Russell A., MacDonald C., and Hafner H. (2015) What's happening with air sensing. Presented at WESTAR data validation training, Honolulu, HI, May 12, by Sonoma Technology, Inc., Petaluma, CA. STI-6234.
- Alrick D. and MacDonald C. (2015) 2014 ozone forecasting and outreach end-of-season report. Presented to the Air Districts of the Sacramento Region, Sacramento, CA, January 26, by Sonoma Technology, Inc., Petaluma, CA. STI-914071-6175.
- Alrick D.M. and MacDonald C.P. (2015) AQRP project update: characterization of boundary layer conditions during Discover-AQ. Presented to the Texas Commission on Environmental Quality and the University of Texas, Austin, TX, January 8, by Sonoma Technology, Inc., Petaluma, CA. STI-914038-6163.
- MacDonald C.P., Dye T.S., Gordon B.J., and Hafner H.R. (2014) Using data from small sensors to address air quality issues. Presented at the *California Air Pollution Control Officers Association (CAPCOA) My Air Quality Conference, Oakland and Diamond Bar, CA, November 19-21*, by Sonoma Technology, Inc., Petaluma, CA. STI-6122.
- MacDonald C.P. (2014) Instruments for PAMS upper-air meteorological measurements. Presented at the *National Ambient Air Monitoring Conference, Atlanta, GA, August 11-14.* STI-5972.
- MacDonald C.P., Dye T.S., Roberts P.T., McCarthy M.C., DeWinter J.L., Vaughn D.L., Henshaw G., Nester S., Minor H.A., and Rutter A.P. (2014) Addressing ozone regulatory issues using small sensor technology. Poster presented at the *U.S. EPA Air Sensors 2014 Workshop, Research Triangle Park, NC, June 9-10.* STI-5989.

- Dye T., Russell A., MacDonald C., and Gordon B. (2014) State of air sensor technology. Presented to the Electric Power Research Institute, Palo Alto, CA, May 9, by Sonoma Technology, Inc., Petaluma, CA. STI-914007-5938.
- Craig K.J., Alrick D.M., Du Y., Erdakos G.B., MacDonald C.P., Gross T., and Watson D. (2014) Use of photochemical grid modeling to quantify ozone impacts from fires in support of exceptional event demonstrations. Presented at the *2014 Midwest and Central States Air Quality Workshop, St. Louis, MO, April 23*, by Sonoma Technology, Inc., Petaluma, CA. STI-5704.
- Alrick D. and MacDonald C. (2014) 2013 ozone forecasting and outreach end-of-season report. Presented to the Air Districts of the Sacramento Region, Davis, CA, March 17, by Sonoma Technology, Inc., Petaluma, CA. STI-913002-5931.
- Dye T., Raffuse S., Hafner H., and MacDonald C. (2014) Biomass burning's effect on air quality. Presented to EPRI, San Francisco, CA, February 26, by Sonoma Technology, Inc., Petaluma, CA. STI-5915.
- MacDonald C.P., Roberts P.T., McCarthy M.C., Rutter A.P., Dye T.S., Vaughn D.L., Minor H.A., Smith K.M., Henshaw G., Nester S., Morrow D., Winegar E., and Sweet J. (2013) Measuring spatial variability in ozone concentrations using a small-sensor network. Presented at the *A&WMA Air Quality Measurement Methods and Technology Conference, Sacramento, California, November 19–20*, by Sonoma Technology, Inc.; Aeroqual Ltd.; Providence Engineering and Environmental Group, LLC; and the San Joaquin Valley Unified Air Pollution Control District. STI-5750.
- Craig K.J., Alrick D.M., Du Y., Erdakos G.B., MacDonald C.P., Gross T., and Watson D. (2013) Use of photochemical grid modeling to quantify ozone impacts from fires in support of exceptional event demonstrations. Presented at the *12th Annual CMAS Conference, Chapel Hill, NC, October 28-30*, by Sonoma Technology, Inc., Petaluma, CA. STI-5704.
- MacDonald C.P., Dye T.S., Rutter A.P., Robinson D., and Raleigh C. (2013) The "WaterQualityNow" real-time reporting system. Presented to the Water Division, U.S. EPA Region 9, San Francisco, CA, September 9, by Sonoma Technology, Inc., Petaluma, CA. STI-5753.
- MacDonald C., Vaughn D., Roberts P., Dye T., Rutter A., Minor H., McCarthy M., Smith K., Nester S., Morrow D., Winegar E., and Sweet J. (2013) San Joaquin Valley ozone saturation study: study update. U.S. Environmental Protection Agency, Region 9, San Francisco, CA, September 9, Sonoma Technology, Inc., Petaluma, CA. STI-913040-5754.
- Hafner H., Reid S., and MacDonald C. (2013) Available analytical approaches for estimating fire impacts on ozone formation: part 1. Presented at the *WESTAR Wildfire and Ozone Exceptional Events Workshop, Sacramento, CA, March 6*, by Sonoma Technology, Inc., Petaluma, CA (STI-910417-5607).
- MacDonald C.P. and Pasch A.N. (2013) Evaluation of the Sacramento Valley Air Basin smoke management plan no-burn rules for agricultural burning. Presented to the Sacramento Valley Technical Advisory Committee, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-912011-5596, February 13.
- Zahn P., Miller D.S., and MacDonald C.P. (2013) 2012 ozone forecasting and outreach end-of-season report. Prepared for the Air Districts of the Sacramento Region by Sonoma Technology, Inc., Petaluma, CA (STI-911003-5577).
- Craig K.J., MacDonald C.P., Wheeler N.J., Healy A.N., Zahn P.H., Gross T., and Watson D. (2012) A prescribed burn decision support system for the Kansas Flint Hills region. Poster presented at the *11th Annual CMAS Conference*, Chapel Hill, NC, October 15-17 (STI-5484).

- Alrick D.M., Miller D.S., and MacDonald C.P. (2012) Imperial Valley ozone climatology. Presented to the Imperial Valley Air Pollution Control District, El Centro, CA, and the California Air Resources Board, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-912026-5468, September 19.
- MacDonald C.P., Dye T.S., and Wheeler N. (2012) AirNow and the BlueSky Gateway. Presented to the Northern California Air Districts by Sonoma Technology, Inc., Petaluma, CA, STI-5428, July 24.
- MacDonald C.P., Roberts P.T., Ray A.E., Knoderer C.A., Huang C., Lai R., Herkhof D., Fairall C.W., Bariteau L., and Gibson W.J. (2012) Meteorological and wave measurements for improving meteorological and air quality modeling: project summary. Presented to the U.S. Department of the Interior, Bureau of Ocean Energy Management, New Orleans, LA, by Sonoma Technology, Inc., Petaluma, CA; the Cooperative Institute for Research in Environmental Science, University of Colorado, Boulder, CO; National Oceanic and Atmospheric Administration, Earth System Research Laboratory, Boulder, CO; and the Coastal Studies Institute, Louisiana State University, Baton Rouge, LA, STI-908059-5417, July 11.
- MacDonald C.P., Zahn P.H., Lurmann F.W., and Ray A.E. (2012) Effectiveness of regulatory PM<sub>2.5</sub> monitors for episodic wood burning bans. Poster presented at the *National Air Quality Conference Ambient Air Monitoring, Denver, CO, May 14-17*, by Sonoma Technology, Inc., Petaluma, CA (STI-4356).
- Miller D., Gordon B., LaGuardia N., MacDonald C., and Chan A. (2012) São Paulo, Brazil, ozone tool. Webinar presented to Companhia de Tecnologia de Saneamento Ambiental, São Paulo, Brazil, August, by Sonoma Technology, Inc., Petaluma, CA (STI-910303-5395).
- Alrick D.M., Miller D.S., and MacDonald C.P. (2012) Dayton ozone forecasting tools. Presented to the Regional Air Pollution Control Agency, Dayton, OH, March 22, by Sonoma Technology, Inc., Petaluma, CA (STI-911056-5333).
- MacDonald C.P., Roberts P.T., Ray A.E., Knoderer C.A., Huang C., Lai R., Herkhof D., Gibson B., Fairall C., Bariteau L., and Underwood K. (2012) Meteorological and wave measurements for improving meteorological and air quality modeling. Presented at the *American Meteorological Society's 92nd Annual Meeting, New Orleans, LA, January 24*, by Sonoma Technology, Inc., Petaluma, CA (STI-4193).
- MacDonald C.P., Roberts P.T., Ray A.E., Knoderer C.A., Huang C., Gibson B., Fairall C.W., and Bariteau L. (2011) Meteorological and wave measurements for improving meteorological and air quality modeling. Presented at the *American Geophysical Union Fall Meeting, San Francisco, CA, December 9*, by Sonoma Technology, Inc., Petaluma, CA (STI-4188).
- McDonald C., Miller D., and Dye T. (2011) Environmental monitoring data software. Presented on October 19 by Sonoma Technology, Inc., Petaluma, CA. STI-911501-4249.
- MacDonald C.P. (2011) Overview: meteorological and wave measurements for improving meteorological and air quality modeling. Webinar presented to the Bureau of Ocean Energy Management, Regulation and Enforcement, July 28, by Sonoma Technology, Inc., Petaluma, CA (STI-908059-4173).
- MacDonald C.P., Miller D.S., Dye T.S., Craig K.J., and Alrick D.M. (2011) Adjusting numerical model data in real time: AQMOS. Presented at the *2011 National Air Quality Conferences, San Diego, CA, March 7-10*, Sonoma Technology, Inc., Petaluma, CA. (STI-4096).
- Alrick D.M., MacDonald C.P., Tollstrup B., and Lam J. (2011) Techniques for evaluating wildfire smoke impact on ozone for possible exceptional events. Presented at the *National Air Quality Conferences, San Diego, California, March 7–10*, by Sonoma Technology, Inc., Petaluma, CA, and the Sacramento Metropolitan Air Quality Management District, Sacramento, CA (STI-4069).

- MacDonald C.P., Pasch A.N., Gilliam R., Knoderer C.A., Roberts P.T., and Norris G. (2011) Use of a radar wind profiler and sodar to characterize PM<sub>2.5</sub> air pollution in Cleveland, Ohio. Presented at the *National Air Quality Conferences, San Diego, California, March 7–10*, by Sonoma Technology, Inc., Petaluma, CA, and the U.S. Environmental Protection Agency, Research Triangle Park, NC (STI-4070).
- Jackson S.A., Zahn P.H., MacDonald C.P., Pasch A.N., Chan A.C., Dye T.S., and White J.E. (2011) Techniques for improving air quality maps with data fusion. Presented at the *American Meteorological Society Annual Meeting*, 13th Conference on Atmospheric Chemistry, Seattle, WA, January 26. STI-3936.
- Miller D.S., Chan A.C., and MacDonald C.P. (2011) 2010 Ozone forecasting and outreach end of season report. Presented to the Air Districts of the Sacramento Region Air Pollution Control Officers meeting, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909004-4058, January 26.
- Wheeler N., Hafner H., Roberts P., Craig K., MacDonald C., Gray E., and Reid S. (2011) Design recommendations for the three-state pilot study. Presented at the *Federal Leadership Forum, Denver, CO, January 19*, by Sonoma Technology, Inc., Petaluma, CA (STI-910208-4079).
- MacDonald C.P. (2011) Meteorological and wave measurements for improving meteorological and air quality modeling: project update. Presented to the Bureau of Ocean Energy Management, Regulation, and Enforcement, January 5, by Sonoma Technology, Inc., Petaluma, CA. (STI-908059-4027).
- Miller D., MacDonald C., Dye T., Craig K., and Alrick D. (2010) AQMOS: air quality model output statistics from CMAQ model forecasts. Poster presented at the *9th Annual CMAS Conference, Chapel Hill, NC, October 11-13*, by Sonoma Technology, Inc., Petaluma, CA (STI-3897).
- MacDonald C., Ray A., and Roberts P. (2010) Caltrans roadside meteorological measurements: summary of findings and recommendations. Presented to the California Department of Transportation, San Bernardino, CA, July 12, by Sonoma Technology, Inc., Petaluma, CA, STI-909039-3921.
- Dye T.S., Miller D.S., MacDonald C.P., Craig K.J., and Alrick D.M. (2010) Adjusting numerical model data in real time: AQMOS. Presented at the *A&WMA International Specialty Conference, Xi'an, Shaanxi Province, China, May 10-14*, by Sonoma Technology, Inc., Petaluma, CA (STI-3865).
- MacDonald C.P. and Dye T.S. (2010) CRADA activities Winter 2010. Presented to Vaisala, Boulder, CO, April 21, (STI-3853).
- MacDonald C.P., Craig K.J., DeWinter J.L., Pasch A.N., Tollstrup B., and Kennard A. (2010) Benefits of forecast-based residential wood burning bans on air pollution. Presented at the *National Air Quality Conferences, Raleigh, NC, March 15-18* (STI-3807).
- MacDonald C.P., Miller D.S., Dye T.S., Craig K.J., and Alrick D.M. (2010) Adjusting numerical model data in real time: AQMOS. Presented at the *National Air Quality Conferences, Raleigh, NC, March 15-18* (STI-3805).
- Craig K., Wheeler N., Raffuse S., Sullivan D., Reid S., MacDonald C., Larkin S., Solomon R., and Strand T. (2010) Experimental air quality predictions from the BlueSky Gateway. Presented at the *National Air Quality Conferences, Raleigh, NC, March 15-18*, by Sonoma Technology, Inc., Petaluma, CA, and the USDA Forest Service, Pacific Northwest Research Station, Seattle, WA (STI-3803).
- Alrick D.M., Knoderer C., and MacDonald C. (2010) MOS accuracy in Sacramento air pollution forecasting.

  Presented to the Sacramento Metropolitan Air Quality Management District by Sonoma Technology, Inc.,
  Petaluma, CA, STI-909004-3826, March.

- Dye T.S., MacDonald C.P., Craig K.J., and Alrick D.M. (2010) Adjusting numerical model data in real time: AQMOS. Presented at the *American Meteorological Society Annual Meeting, 12th Conference on Atmospheric Chemistry, Atlanta, GA, January 21*, by Sonoma Technology, Inc., Petaluma, CA (STI-3667).
- MacDonald C.P., Shell N.M., and Alrick D.M. (2010) 2009 Ozone forecasting and outreach end-of-season report. Presentation made to the Air Districts of the Sacramento Region Air Pollution Control Officers Meeting, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909004-3793, January.
- Miller D.S., MacDonald C.P., Pasch A.N., and Zahn P.H. (2009) Fundamentals of air quality forecasting: PM<sub>2.5</sub> focus. Presented at the *National Air Quality Conference Forecaster's Training, Dallas, TX, March 2*, by Sonoma Technology, Inc., Petaluma, CA (STI-905501-3580).
- MacDonald C.P. and Roberts P.T. (2009) Meteorological and wave measurements for improving meteorological and air quality modeling (GM-08-04), project kick-off meeting. Presented to the U.S. Minerals Management Service and Scientific Review Board by Sonoma Technology, Inc., Petaluma, CA, STI-908059-3540, January.
- Knoderer C.A., MacDonald C.P., Zahn P.H., and Gilroy M. (2008) Remote sensing meteorological instrumentation to support photochemical assessment monitoring stations (PAMS). Presented at the *Air & Waste Management Association Symposium on Air Quality Measurement Methods and Technology, Chapel Hill, NC, November*, by Sonoma Technology, Inc., Petaluma, CA (STI-3416).
- Miller D.S., MacDonald C.P., and Bratek S.A. (2008) Imperial Valley ozone forecasting end of 2008 season report. Presented to the Imperial County Air Pollution Control District and California Air Resources Board, Sacramento, CA, October 30, by Sonoma Technology, Inc., Petaluma, CA (STI-907061-3483).
- MacDonald C.P., Knoderer C.A., Bratek S.A., and Miller D.S. (2008) Sacramento winter PM<sub>2.5</sub> forecasting evaluation. Presented to the Sacramento Metropolitan Air Quality Management District, Sacramento, CA, September 29, by Sonoma Technology, Inc. (STI-906064-3449).
- Zahn P.H. and MacDonald C.P. (2008) AIRNow Mapper: EPA's new air quality mapping system. Presented at the *National Air Quality Conferences, Portland, OR, April 7* (STI-905413-3299).
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## **Thesis**

MacDonald C.P. (1998) Effects of synoptic and mesoscale weather on air pollution in Central California. Master's thesis, University of California, Davis.