

## Book Chapters

- Kumar A., Vijayan A., Varadarajan C., and Pathan S. (2011) Air Quality Modeling Case Studies. *Advances in Environmental Research*, Nova Science Publishers, Inc.
- Kumar A., Vijayan A., and Varadarajan C. (2010) Chapter 8: Air Quality Monitoring. *Advances in Environmental Research*, J.A. Daniels ed., Nova Science Publishers, Inc.
- Kumar A., Rao H., Vijayan A., and Varadarajan C. (2006) Pollution Prevention. *Encyclopedia of Chemical Processing*, S. Lee ed., Marcel Dekker Inc., New York, New York, 2231-2246, doi: 10.1081/E-ECHP-120006820., November.

## Journal Articles

- Chen Y., Gu P., Schulte N., Zhou X., Mara S., Croes B.E., Herner J.D., and Vijayan A. (2022) A new mobile monitoring approach to characterize community-scale air pollution patterns and identify local high pollution zones. *Atmospheric Environment*, 272, 118936, March 1. Available at <https://doi.org/10.1016/j.atmosenv.2022.118936>.
- Zhou X., Yoon S., Mara S., Falk M., Chen Y., Kuwayama T., Tran T., Cheadle L., Nyarady J., Croes B.E., Herner J.D., and Vijayan A. (2021) Mobile sampling of methane emissions from natural gas wells in California. *Atmospheric Environment*, 244. Available at <https://doi.org/10.1016/j.atmosenv.2020.117930>.
- Cui Y., Vijayan A., Falk M., Hsu Y.K., Yin D., Chen X., Zhao Z., Avise J., Chen Y., Verhulst K., Duren R.M., Yadav V., Miller C.E., Weiss R.F., Keeling R., Kim J., Iraci L.T., Tanaka T., Johnson M.S., Kort E.A., Bianco L., Fischer M.L., Stroud K., Herner J., and Croes B. (2019) A multi-platform inversion estimation of statewide and regional methane emissions in California during 2014–2016. *Environ. Sci. Technol.*, 53(16), 9636–9645, (doi: 10.1021/acs.est.9b01769), July. Available at <https://pubs.acs.org/doi/abs/10.1021/acs.est.9b01769>.
- Ham W., Vijayan A., Schulte N., and Herner J.D. (2017) Commuter exposure to PM<sub>2.5</sub>, BC, and UFP in six common transport microenvironments in Sacramento, California. *Atmospheric Environment*, 167, 335–345, doi: 10.1016/j.atmosenv.2017.08.024, October. Available at <https://doi.org/10.1016/j.atmosenv.2017.08.024>.
- Park S.S., Vijayan A., Mara S.L., and Herner J.D. (2016) Investigating the real-world emission characteristics of light-duty gasoline vehicles and their relationship to local socioeconomic conditions in three communities in Los Angeles, California. *J. Air Waste Manage.*, 66(10), 1031-1044, doi: 10.1080/10962247.2016.1197166, March 28. Available at <https://www.tandfonline.com/doi/full/10.1080/10962247.2016.1197166>.
- Ramanathan V., Sundar S., Harnish R., Sharma S., Seddon J., Croes B., Lloyd A., Tripathi S.N., Aggarwal A., Delaimy W.A., Bahadur R., Bandivadekar A., Beig G., Burney J., Davis S., Dutta A., Gandhi K.K., Guttikunda S., Iyer N., Joshi T.K., Kirchstetter T., Kubsh J., Ramanathan N., Rehman I.H., Vijayan A., Waugh M., and Yeh S. (2014) India California Air Pollution Mitigation Program: Knowledge to Action Agenda for the Transportation Sector.
- Vijayan A. and Kumar A. (2010) Experimental and statistical analyses to characterize in-vehicle fine particulate matter behavior inside public transit buses operating on B20-grade biodiesel fuel.

*Atmospheric Environment*, 44(34), 4209-4218, November. Available at <https://doi.org/10.1016/j.atmosenv.2010.07.012>.

- Kadiyala A., Kumar A., and Vijayan A. (2010) Study of occupant exposure of drivers and commuters with temporal variation of in-vehicle pollutant concentrations in public transport buses operating on alternative diesel fuels, *The Open Engineering Journal*, 3, 55-70.
- Vijayan A., Kumar A., and Abraham M. (2008) Experimental analysis of vehicle operation parameters affecting emission behavior of public transport buses operating on alternative diesel fuels. *Transportation Research Record - Part D*, 2058, 68-78.
- Nimse P., Vijayan A., Kumar A., and Varadarajan C. (2007) A review of green product databases. *Environmental Progress*, 26(2), 131-137, doi: 10.1002/ep.10210, June 14.
- Vijayan A., Varadarajan C., and Kumar A. (2006) Application of computer-aided tools for achieving environmental sustainability. *Environmental Progress*, 25(4), 279-290, December.
- Kumar A., Dixit S., Varadarajan C., Vijayan A., and Masuraha A. (2006) Evaluation of the AERMOD dispersion model as a function of atmospheric stability for an urban area. *Environmental Progress*, 25(2), 141-151, July.
- Raman N., Vijayan A., and Kumar A. (2006) Development of a pollution prevention tool for the assessment of hospital waste management systems. *Environmental Progress*, 25(2), 93-98, July.
- Kuruville A., Kumar A., Varadarajan C., and Vijayan A. (2005) Development of a spreadsheet to model releases from continuous volume sources. *Environmental Progress*, 24(4), 349-353, December.
- Vijayan A. and Kumar A. (2005) Development of a tool for analyzing the sustainability of residential buildings in Ohio. *Environmental Progress*, 24(3), 238-247, October.
- Vijayan A. and Kumar A. (2005) A review of tools to assess the sustainability in building construction. *Environmental Progress*, 24(2), 125-132, July.
- Pendse R., Kumar A., and Vijayan A. (2005) Development of a spreadsheet to determine natural ventilation cooling hours for a commercial hybrid HVAC system. *Environmental Progress*, 24(1), 16-23, April.
- Kumar A., Lindner J., Vijayan A., and Varadarajan C. (2004) Development of industrial ventilation course website. *Environmental Progress*, 23(2), 102-109, July.

## Meeting Presentations and Conference Proceedings

- Cui Y., Lee H.J., Kuwayama T., FitzGibbon M., Herner J.D., and Vijayan A. (2019) Top-down evaluation of statewide CH emissions in California using satellite data. Presentation given at the *American Geophysical Union Fall Meeting, San Francisco, CA, December*.
- Falk M., Zhou X., Chen Y., Mara S.L., Herner J.D., and Vijayan A. (2019) Study of methane emission at a California landfill using a multi-tiered measurement system. Presentation given at the *American Geophysical Union Fall Meeting, San Francisco, CA, December*.
- Zhou X., Yoon S., Mara S., Falk M., Kuwayama T., Croes B., Herner J.D., and Vijayan A. (2019) Mobile sampling of methane emissions from active natural gas well pads in California. Presentation given at the *American Geophysical Union Fall Meeting, San Francisco, CA, December*.

- Cui Y., Guo L., Hsu Y.K., Falk M., Stroud K., Herner J., and Vijayan A. (2019) Top-down N<sub>2</sub>O emission estimation in California using tower measurements and an inverse modeling technique. Presentation given at the *Meteorology and Climate - Modeling for Air Quality (MAC-MAQ) Conference, Davis, CA, September*.
- Cui Y., Hsu Y.K., Chen X., Falk M., Vona M., Amador F., Stroud K., Herner J., and Vijayan A. (2019) Evaluation of PBLH simulated by WRF using a new LiDAR network in California. Presentation given at the *Meteorology and Climate - Modeling for Air Quality (MAC-MAQ) Conference, Davis, CA, September*.
- Schulte N., Chen Y., Mara S., Kuwayama T., Ham W., Croes B., Herner J., and Vijayan A. (2019) Developing guidance to mitigate commuter exposure to traffic emitted pollutants. Presentation given at the *9th CRC Mobile Source Air Toxics Workshop, Sacramento, CA, February*.
- Chen Y., Schulte N., Lee H.J., Mara S., Croes B., Herner J., and Vijayan A. (2019) A multi-scale framework for community-level air quality analysis in California. Presentation given at the *Air Sensors International Conference, Oakland, CA, September*.
- Chen Y., Schulte N., Lee H.J., Mara S., Croes B., Herner J., and Vijayan A. (2019) A multi-scale framework for community-level air quality analysis in California. Presentation given at the *9th CRC Mobile Source Air Toxics Workshop, Sacramento, CA, February*.
- Schulte N., Chen Y., Mara S., Vijayan A., Herner J., and Croes B. (2018) Interpreting on-road concentration measurements. Presentation given at the *Air Sensors International Conference, Oakland, CA, September*.
- Cui Y., Falk M., Chen Y., Croes B., Herner J., and Vijayan A. (2017) Optimal estimation of methane emissions in California using a mesoscale inverse modeling technique and CARB's Statewide Greenhouse Gas Monitoring Network. Presentation given at the *Meteorology and Climate - Modeling for Air Quality Conference, Davis, CA, September*.
- Chen Y., Kozawa K.H., Mara S.L., Herner J.D., and Vijayan A. (2017) Heavy duty in-use truck emissions on California freeways. Presentation given at the *27th CRC Real World Emissions Workshop, Long Beach, CA, March*.
- Schulte N., Ham W., Kuwayama T., Chen Y., Mara S., Herner J., and Vijayan A. (2017) Experiments to determine the primary factors that contribute to exposure to traffic emissions during commutes. Presentation given at the *8th CRC Mobile Source Air Toxics Workshop, Sacramento, CA, February*.
- Croes B., Carrier J., Chen Y., Falk M., Franco G., Gallagher G., Huang A., Herner J., Kuwayama T., Motallebi N., and Vijayan A. (2016) Overview of California's research efforts to understand and reduce greenhouse gases emissions. Presentation given at the *American Geophysical Union 2016 Fall Meeting, San Francisco, CA, December*.
- Croes B., Chen Y., Duren R., Falk M., Franco G., Herner J., Kuwayama T., McCarthy R., Scheehle E., and Vijayan A. (2016) Overview of California's efforts to understand and reduce methane sources. Presentation given at the *American Geophysical Union 2016 Fall Meeting, San Francisco, CA, December*.
- Kuwayama T., Blake D.R., Gupta P., Herner J.D., and Vijayan A. (2016) Long-term trends of fluorinated gas emissions in Los Angeles, California. Presentation given at the *American Geophysical Union 2016 Fall Meeting, San Francisco, CA, December*.

- Kuwayama T., Mara S., Schulte N., Ham W., Klossing D., Hamamoto R., Kemena D., Vijayan A., and Herner J. (2016) Autonomous screening tool for ocean-going vessel fuel compliance. Presentation given at the *U.S.-China Green Ports and Vessels Workshop, Long Beach, CA, November.*
- Falk M., Chen Y., Kuwayama T., Vijayan A., Herner J., and Croes B. (2015) Overview of ARB's Greenhouse Gas Research Program. Presentation given at the *American Geophysical Union 2015 Fall Meeting, December.*
- Kuwayama T., Charrier-Klobas J.G., Hsu Y., Falk M., Pongetti T., and Vijayan A. (2015) Top-down evaluation of nitrous oxide emissions in Los Angeles basin. Presentation given at the *American Geophysical Union 2015 Fall Meeting, December.*
- Vijayan A. (2015) California Air Resources Board (ARB) Greenhouse Gas Research Program - overview of methane emission research. Presentation given at the *California Methane Symposium organized by EDF/Climate Resolve, March.*
- Vijayan A. (2014) Update to the board on the Air Resources Board's Greenhouse Gas Measurement Program and the Megacities Project. Presentation given to the *California Air Resources Board.*
- Park S.S., Ham W., and Vijayan A. (2012) Real world emission behavior of high emitting light duty gasoline vehicles based in three neighborhoods of Los Angeles, CA, paper #76. Presentation given at the *A&WMA Air Quality Measurement Methods and Technology Conference, Sacramento, CA, November.*
- Park S.S., Hsu Y.-K., and Vijayan A. (2013) Initial results from CARB's Methane Research Monitoring Network, paper #75. Presentation given at the *A&WMA Air Quality Measurement Methods and Technology Conference, Sacramento, CA, November.*
- Vijayan A., Pompa J., Partridge A., and Hower J. (2009) Energy and cost saving opportunities in the residential sector. Poster and paper presented at the *102nd A&WMA Annual Conference, Detroit, MI, June.*
- Vijayan A. and Kumar A. (2008) Multivariate statistical identification of factors affecting the emission behavior of public transport buses, paper A674. Poster and paper presented at the *101st A&WMA Annual Conference, Portland, OR, June.*
- Vijayan A. and Kumar A. (2008) Characterization of indoor air quality inside public transport buses using alternative diesel fuels. Poster and paper presented at the *TRB Annual Conference, Washington DC, January.*
- Vijayan A., Kumar A., and Abraham M. (2008) Experimental analysis of vehicle operation parameters affecting emission behavior of public transport buses operating on alternative diesel fuels. Poster and paper presented at the *TRB Annual Conference, Washington DC, January.*
- Garimella V. and Vijayan A. (2007) Determination and evaluation of emission rates from the city of Toledo garbage disposal trucks. Presentation given at the *100th Annual A&WMA Conference Student Poster Session, Pittsburgh, PA, June.*
- Vijayan A. (2007) Characterization of indoor air pollutant behavior inside public transport buses. Presentation given at the *100th Annual A&WMA Conference Student Poster Session, Pittsburgh, PA, June.*

- Vijayan A. (2007) Determination of emission characteristics of public transport bus fleets operating on alternative diesel fuels. Presentation given at the *100th Annual A&WMA Conference Student Poster Session, Pittsburgh, PA, June*.
- Vijayan A. and Kumar A. (2007) Characterization of sub-1.0  $\mu\text{m}$  particulate matter distribution inside public transport buses, paper #528. Poster and paper presented at the *100th A&WMA Annual Conference, Pittsburgh, PA, June*.
- Kumar A., Vijayan A., and Varadarajan C. (2006) Development of a statewide approach for pollution prevention assessments for small & medium size industries. Presentation given at the *23rd Annual ASEI National Convention, Cerritos, CA, September*.
- Vijayan A. and Varadarajan C. (2006) Development of a neural network code and its application for predicting particulate matter concentrations in Ohio. Presentation given at the *99th Annual A&WMA Conference Student Poster Session, New Orleans, LA, June*.
- Vijayan A. (2006) Trend analysis of indoor air quality for public transport buses. Presentation given at the *99th Annual A&WMA Conference Student Poster Session, New Orleans, LA, June*.
- Kumar A. and Vijayan A. (2006) Analysis of student learning during a distance learning course on air pollution engineering. Presentation given during the Issues and Challenges Facing Environmental Education and Outreach panel at the *99th Annual A&WMA Conference, New Orleans, LA, June*.
- Kumar A. and Vijayan A. (2006) Air pollution in Asia and globalization. *Environmental panel session at Oberlin College's Asian/Pacific American Conference entitled "Refocusing Our Lenses: Confronting Contemporary Issues of Globalization and Transnationalism", February*.
- Kumar A., Varadarajan C., Bhardwaj K., Masuraha A., and Vijayan A. (2006) Examination of application issues related to the air quality models for urban areas. *Plenary Lecture, International Interdisciplinary Conference on Sustainable Technologies for Environmental Protection, IN, January*.
- Kumar A., Dixit S., Varadarajan C., Vijayan A., and Masuraha A. (2005) Evaluation of the AERMOD dispersion model as a function of atmospheric stability for an urban area, paper #991. Presentation given at the *A&WMA Annual Conference, Minneapolis, MN, June 21-24*.
- Vijayan A. (2005) Tool for sustainability analysis of residential buildings in Ohio. Presentation given at the *98th Annual A&WMA Conference, Minneapolis, MN, June*.

## White Papers

- Marrero J.E., Pavlovic N., and Vijayan A. (2022) Site-wide monitoring technologies for methane emissions. White paper prepared for the Electric Power Research Institute (EPRI), Palo Alto, CA, by Sonoma Technology, Petaluma, CA, STI-7825, December 5.
- 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-7827, December 2.
- 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-7814, December 2.