# Publications in peer-reviewed journals


**97. Rocha, A.S.; Morales, B.; El Mashad, H.M.; Pan, Y.; Zhao, Y.; Mitloehner, F.M. Effect of Eminex® on Greenhouse Gas and Ammonia Emissions from Dairy Slurry and Lagoon Wastewater. Sustainability16, 5778. https://doi.org/10.3390/su16135778. 2024**

**96. Mohit Singh, Yutaka Kondo, Sho Ohata, Tatsuhiro Mori, Naga Oshima, Antti Hyvärinen, John Backman, Eija Asmi, Henri Servomaa, Franz Martin Schnaiter, Elisabeth Andrews, Sangeeta Sharma, Kostas Eleftheriadis, Stergios Vratolis, Yongjing Zhao, Makoto Koike, Nobuhiro Moteki & P. R. Sinha, Mass absorption cross section of black carbon for Aethalometer in the Arctic, Aerosol Science and Technology, DOI: 10.1080/02786826.2024.2316173, 2024**

**95. Tao, Y., VandenBoer, T. C., Veres, P. R., Warneke, C., de Gouw, J. A., Weber, R. J., Markovic, M.Z., Zhao, Y., Baker, K.R., Kelly, J.T., Murphy, J.G., Young, C.J. and Roberts, J.M., Hydrogen chloride (HCl) at ground sites during CalNex 2010 and insight into its thermodynamic properties, Journal of Geophysical Research: Atmospheres, 127, e2021JD036062. https://doi.org/10.1029/2021JD036062, 2022**

**94. J.S. Teeter, S.J. Werth, S.L. Gruber, J.C. Kube, J.A. Hagenmaier, J.B. Allen, C.T. Herr, M.S. Brown, D. Boler, A.C. Dilger, Y. Zhao, Y. Pan, and F.M. Mitloehner, Effects of feeding lubabegron on gas emissions, growth performance, and carcass characteristics of beef cattle housed in small-pen environmentally monitored enclosures during the last 3 mo of the finishing period, Journal of Animal Science, Vol. 99, No. 12, 1–17, doi.org/10.1093/jas/skab338, 2021**

**93. Ohata, S., Mori, T., Kondo, Y., Sharma, S., Hyvärinen, A., Andrews, E., Tunved, P., Asmi, E., Backman, J., Servomaa, H., Veber, D., Eleftheriadis, K., Vratolis, S., Krejci, R., Zieger, P., Koike, M., Kanaya, Y., Yoshida, A., Moteki, N., Zhao, Y., Tobo, Y., Matsushita, J., and Oshima, N.: Estimates of mass absorption cross sections of black carbon for filter-based absorption photometers in the Arctic, Atmos. Meas. Tech., 14, 6723–6748, https://doi.org/10.5194/amt-14-6723-2021, 2021**

**92. Yongjing Zhao, Anthony S. Wexler, Frank Hase, Yuee Pan, Frank M. Mitloehner, Carbon Monoxide Emissions from Corn Silage, *Journal of Environmental Protection*, 2021, 12 (7), 438-453, ido:10.4236/jep.2021.127027**

**91. Elizabeth G Ross, Jase J Ball, Samantha J Werth, Sebastian E Mejia-Turcios, Yongjing Zhao, Yuee Pan, Patrick C Taube, Todd R Meinert, Nicholas K Van Engen, and F M Mitloehner, Effect of ractopamine hydrochloride on environmental gas emissions, growth performance, and carcass characteristics in feedlot steers, J. Animal Science 2021, 99(5), 1-10, doi:10.1093/jas/skab143.**

**90. Elizabeth G. Ross, Carlyn B. Peterson, Yongjing Zhao , Yuee Pan, and Frank M. Mitloehner, Manure Flushing versus Scraping in Dairy Freestall Lanes Reduces Gaseous Emissions, Sustainability 2021, 13, 5363, doi:10.3390/su13105363**

**89. Angelica V. Carrazco, Carlyn B. Peterson, Yongjing Zhao, Yuee Pan, John J. McGlone, Edward J. DePeters and Frank M. Mitloehner, The Impact of Essential**

**Oil Feed Supplementation on Enteric Gas Emissions and Production Parameters from Dairy Cattle, Sustainability 2020, 12, 10347; doi:10.3390/su122410347.**

**88. Elizabeth G. Ross, Carlyn B. Peterson, Angelica V. Carrazco, Samantha J. Werth, Yongjing Zhao, Yuee Pan, Edward J. DePeters, James G. Fadel, Marcello E. Chiodini, Lorenzo Poggianella and Frank M. Mitloehner, Effect of SOP "STAR COW" on Enteric Gaseous Emissions and Dairy Cattle Performance, Sustainability 2020, 12, 10250; doi:10.3390/su122410250.**

**87. Petra Pokorná, Cecilia Leoni, Jaroslav Schwarz, Jakub Ondráček, Lucie Ondráčková, Petr Vodička, Naděžda Zíková, Pavel Moravec, Jan Bendl, Miroslav Klán, Jan Hovorka, Yongjing Zhao, Steven S. Cliff, Vladimír Ždímal, Philip K. Hopke, Spatial-temporal variability of aerosol sources based on chemical composition and particle number size distributions in an urban settlement influenced by metallurgical industry, Environmental Science and Pollution Research 27, 38631-38643, 2020; doi.org/10.1007/s11356-020-09694-0**

**86. T. Mori, Y. Kondo, S. Ohata, Y. Zhao, P. R. Sinha, N. Oshima, H. Matsui, N. Moteki, and M. Koike, Seasonal Variation of Wet Deposition of Black Carbon in Arctic Alaska, Journal of Geophysical Research: Atmospheres, 125, 1-24, 2020, doi.org/10.1029/2019JD032240**

**85. Carlyn B. Peterson, Hamed M. El Mashad, Yongjing Zhao, Yuee Pan, and Frank M. Mitloehner, Effects of SOP Lagoon Additive on Gaseous Emissions from Stored Liquid Dairy Manure, Sustainability, 12, 1393, 2020; doi:10.3390/su12041393**

**84. Miguel Ricardo A. Hilario, Melliza T. Cruz, Maria Obiminda L. Cambaliza, Jeffrey S. Reid, Peng Xian, James B. Simpas, Nofel D. Lagrosas, Sherdon Niño Y. Uy, Steve Cliff, and Yongjing Zhao, Investigating size-segregated sources of elemental composition of particulate matter in the South China Sea during the 2011 Vasco cruise, Atmos. Chem. Phys., 20, 1255–1276, 2020, doi: 10.5194/acp-20-1255-2020**

**83. Asher, E. C., Christensen, J. N., Post, A., Perry, K., Cliff, S. S., Zhao, Y., Trousdell, J., and Faloona, I., The transport of Asian dust and combustion aerosols and associated ozone to North America as observed from a mountain top monitoring site in the California Coast Range. Journal of Geophysical Research: Atmospheres, 123, 5667-5680, doi: 10.1029/2017JD028075, 2018**

**82. Cecilia Leoni, Petra Pokorná, Jan Hovorka, Mauro Masiol, Jan Topinka, Yongjing Zhao, Kamil Křůmal, Steven Cliff, Pavel Mikuška, Philip K. Hopke, Source apportionment of aerosol particles at a European air pollution hot spot using particle number size distributions and chemical composition, Environmental Pollution, 234, 145-154, doi: 10.1016/j.envpol.2017.10.097, 2018.**

**81. P.R. Sinha, Y. Kondo, M. Koike, J. A. Ogren, A. Jefferson, T. E. Barrett, R. J. Sheesley, S. Ohata, N. Moteki, H. Coe, D. Liu, M. Irwin, P. Tunved,P. K. Quinn, and Y. Zhao, Evaluation of ground-based black carbon measurements by filter-based photometers at two Arctic sites, J. Geophys. Res. Atmos., 122, 3544-3572, doi:10.1002/2016JD025843, 2017**

**80. Jeffrey S. Reid, Nofel D. Lagrosas, Haflidi H. Jonsson, Elizabeth A. Reid, Samuel A. Atwood, Thomas J. Boyd, Virendra P. Ghate, Peng Xian, Derek J. Posselt, James B. Simpas, Sherdon N. Uy, Kimo Zaiger, Donald R. Blake, Anthony Bucholtz, James R. Campbell, Boon Ning Chew, Steven S. Cliff, Brent N. Holben, Robert E.**

**Holz, Edward J. Hyer, Sonia M. Kreidenweis, Arunas P. Kuciauskas, Simone Lolli1, Min Oo, Kevin D. Perry, Santo V. Salinas, Walter R. Sessions, Alexander Smirnov, Annette L. Walker, Qing Wang, Liya Yu, Jianglong Zhang, and Yongjing Zhao, Aerosol meteorology of Maritime Continent for the 2012 7SEAS southwest monsoon intensive study –Part 2: Philippine receptor observations of fine-scale aerosol behavior, Atmos. Chem. Phys., 16, 14057–14078, doi:10.5194/acp-16-14057-2016, 2016**

**79. Yongjing Zhao, Anthony S. Wexler, Frank Hase, Yuee Pan, Frank M. Mitloehner, Detecting Nitrous Oxide in Complex Mixtures Using FTIR Spectroscopy: Silage Gas, *Journal of Environmental Protection, 7,* 1719-1729, 10.4236/jep.2016.712139, 2016**

**78. Melissa A. Venecek, Yongjing Zhao, Jose Mojica, Charles E. McDade, Peter G. Green, Michael J. Kleeman, Anthony S. Wexler, Characterization of the 8-stage Rotating Drum Impactor under low concentration conditions, *Journal of Aerosol Science 100,* 140–154, 10.1016/j.jaerosci.2016.07.007, 2016**

**77. Wasim Javed, Anthony S. Wexler, Ghulam Murtaza1, Muhammad Mazhar Iqbal, Yongjing Zhao, Tayyaba Naz, Chemical Characterization and Source Apportionment of Atmospheric Particles Across Multiple Sampling Locations in Faisalabad, Pakistan, *Clean Soil Air Water 44,* 739-908, DOI: 10.1002/clen.201500225, 2016**

**76. Kathleen C. Kaku, Jeffrey S. Reid, Elizabeth A. Reid, Kristy Ross-Langerman, Stuart Piketh, Steven Cliff, Abdulla Al Mandoos, Stephen Broccardo, Yongjing Zhao, Jianglong Zhang, Kevin D. Perry, Investigation of the relative fine and coarse mode aerosol loadings and properties in the Southern Arabian Gulf region, *Atmospheric Research 169,* 171–182, doi: 10.1016/j.atmosres.2015.09.029, 2016**

**75. K.J. Bein, Y. Zhao, and A.S. Wexler, Retrospective source attribution for source-oriented sampling, Atmospheric Environment, 119, 228-239, doi:10.1016/j.atmosenv.2015.08.051, 2015**

**74. Laurel E Plummer, Christopher M Carosino, Keith J Bein, Yongjing Zhao, Neil Willits, Suzette M Smiley-Jewell, Anthony S Wexler, Kent E. Pinkerton, Pulmonary inflammatory effects of source-oriented particulate matter from California's San Joaquin Valley, Atmospheric Environment, 119, 174-181, DOI: 10.1016/j.atmosenv.2015.08.043, 2015**

**73. Christopher M Carosino, Keith J Bein, Laurel E Plummer, Alejandro Castaneda, Yongjing Zhao, Anthony S Wexler and Kent E Pinkerton, "Allergic Airway Inflammation is Differentially Exacerbated by Daytime and Nighttime Ultrafine and Submicron Fine Ambient Particles: Heme Oxygenase-1 as an Indicator of PM-Mediated Allergic Inflammation", Journal of Toxicology and Environmental Health, Part A: 78:4, 254-266, DOI:10.1080/15287394.2014.959627, 2015**

**72. Yongjing Zhao, Steven S. Cliff, Anthony S. Wexler, Wasim Javed, Yuee Pan, Kevin Perry, and Frank Mitloehner, Measurements of Size- and Time-resolved Elemental Concentrations at a California Dairy Farm, Atmospheric *Environment, 94,* 773-781, doi: 10.1016/j.atmosenv.2014.06.011, 2014**

**71. K. R. Stackhouse-Lawson, M. S. Calvo, S. E. Place, T. L. Armitage, Y. Pan, Y. Zhao, and F. M. Mitloehner, Growth promoting technologies reduce greenhouse gas, alcohol,**

**and ammonia emissions from feedlot cattle, *Journal of Animal Science 91*, 5438-5447, doi:10.2527/jas2011-4885, 2013.**

**70. Na Li, Philip K. Hopke, Pramod Kumar, Steven S. Cliff, Yongjing Zhao, and Carmeliza Navasca, Source apportionment of time and size resolved ambient particulate matter, *Chemometrics and Intelligent Laboratory Systems, 129*, 15–20, DOI:10.1016/j.chemolab.2013.04.010, 2013.**

**69. Xuan Wang, Yuxuan Wang, Jiming Hao, Yutaka Kondo, Martin Irwin, J. William Munge, Yongjing Zhao, Top-down estimate of China's black carbon emissions using surface observations: sensitivity to observation representativeness and transport model error, *Journal of Geophysical Research – Atmospheres,* 118, 5781–5795, doi:10.1002/jgrd.50397, 2013.**

**68. P. L. Hayes, A. M. Ortega, M. J. Cubison, K. D. Froyd, Y. Zhao, S. S. Cliff, W. W. Hu, D. W. Toohey, J. H. Flynn, B. L. Lefer, N. Grossberg, S. Alvarez, B. Rappenglück, J. W. Taylor, J. D. Allan, J. S. Holloway, J. B. Gilman, W. C. Kuster, J. A. de Gouw, P. Massoli, X. Zhang, J. Liu, R. J. Weber, A. L. Corrigan, L. M. Russell, G. Isaacman, D. R. Worton, N. M. Kreisberg, S. V. Hering, A. H. Goldstein, R. Thalman, E. M. Waxman, R. Volkamer, Y. H. Lin, J. D. Surratt, T. E. Kleindienst, J. H. Offenberg, S. Dusanter, S. Griffith, P. S. Stevens, J. Brioude, W. M. Angevine, J. L. Jimenez, Organic Aerosol Composition and Sources in Pasadena, california during the 2010 CalNex Campaign, *Journal of Geophysical Research – Atmospheres, 118*, 9233–9257, doi:10.1002/jgrd.50530, 2013.**

**67. Samuel A. Atwood, Jeffrey S. Reid, Sonia M. Kreidenweis, Steven Cliff, Yongjing Zhao, Neng-Huei Lin, Si-Chee Tsay, Yu-Chi Chu, and Douglas L. Westphal, Size Resolved Measurements of Springtime Aerosol Particles over the Northern South China Sea for use in Source Identification, *Atmospheric Environment, 78*, 134-143 Doi: 10.1016/j.atmosenv.2012.11.024, 2013.**

**66. Stephen Fuller, Yongjing Zhao, Steven Cliff, Anthony Wexler, Markus Kalberer, Direct surface analysis of time-resolved aerosol impactor samples with ultra-high resolution mass spectrometry, *Analytical Chemistry, 84 (22)*, 9858–9864, DOI: 10.1021/ac3020615, 2012**

**65. Lokesh Sahu, Yutaka Kondo , Nobuhiro Moteki , Nobuyuki Takegawa , Yongjing Zhao , Michael Cubison , Jose-Luis Jimenez , Stephanie Vay , Glenn Diskin , Armin Wisthaler , Tomas Mikoviny , L. Gregory Huey , Andrew J. Weinheimer , David Knapp, Emission characteristics of black carbon in anthropogenic and biomass burning plumes over California during ARCTAS-CARB 2008, *Journal of Geophysical Research – Atmospheres, 117*, D16, doi:10.1029/2011JD017401, 2012.**

**64. Yongjing Zhao, Yuee Pan, Jerry Rutherford, and Frank M. Mitloehner, Estimation of the Interference in Multi-Gas Measurements Using Infrared Photoacoustic Analyzers, *Atmosphere, 3*, 246-265; doi:10.3390/atmos3020246, 2012.**

**63. W. W. Hu, M. Hu , Z. Q. Deng, R. Xiao, Y. Kondo, N. Takegawa, Y. J. Zhao, S. Guo, Y. H. Zhang, The characteristics and origins of carbonaceous aerosol at a rural site of PRD in summer of 2006, *Atmos. Chem. Phys., 12*, 1811-1822, doi:10.5194/acp-12-1811-2012, 2012.**

**62. Richard A. VanCuren, Thomas Cahill, John Burkhart, David Barnes, Yongjing Zhao, Kevin Perry, Steven Cliff, and Joe McConnell, Aerosols and their sources at Summit**

**Greenland-First results of continuous size- and time-resolved sampling, Atmospheric Environment, 52, 82-97, dio:10.1016/j.atmosenv.2011.10.047, 2012.**

**61. Sara E. Place, Yuee Pan, Yongjing Zhao, and Frank M. Mitloehner, Construction and Operation of a Head Chamber System for Measuring Eructated Greenhouse Gas and Volatile Organic Compound Emissions from Cattle, *Animals, 1,* 433-446; doi:10.3390/ani1040433, 2011**

**60. H. Matsui, Y. Kondo, N. Moteki, N. Takegawa, L. K. Sahu, M. Koike, Y. Zhao, H. E. Fuelberg, W. R. Sessions, G. Diskin, B. E. Anderson, D. R. Blake, A. Wisthaler, M. J. Cubison, and J. L. Jimenez, Accumulation mode aerosol number concentrations in the Arctic during the ARCTAS aircraft campaign: Long-range transport of polluted and clean air from Asia, *Journal of Geophysical Research-Atmosphere, 116,* D20217, doi:10.1029/2011JD016189, 2011.**

**59. R. Xiao, N. Takegawa, Y. Kondo, Y. Miyazaki, T. Miyakawa, M. Hu, M. Shao, L. Zeng, K. Lu, Z. Deng, Y. Zhao, Y. Zhang, Characterization and Source Apportionment of Submicron Aerosol with Aerosol Mass Spectrometer during the PRIDE-PRD 2006 campaign, *Atmospheric Chemistry and Physics*, 11, 6911-6929, doi:10.5194/acp-11-6911-2011, 2011.**

**58. K. L. Cooprider, F. M. Mitloehner, T. R. Famula, E. Kebreab, Y. Zhao, and A. L. Van Eenennaam, Feedlot efficiency implications on greenhouse gas emissions and sustainability, *Journal of Animal Science, 89(8),* 2643-2656, doi:10.2527/jas.2010-3539, 2011.**

**57. H. M. El-Mashad, R. Zhang, T. Rumsey, S. Hafner, F. Montes, C. Alan Rotz, V. Arteaga, Y. Zhao, F. M. Mitloehner, A Mass Transfer Model of Ethanol Emission from Thin Layers of Corn Silage, *Trans. ASABE 53*(6), 1903-1909, 2011.**

**56. Y. Kondo, H. Matsui, N. Moteki, L. Sahu, N. Takegawa, Y. Zhao, M. J. Cubison, J. L. Jimenez, S. Vay, G. S. Diskin, B. Anderson, A. Wisthaler, T. Mikoviny, H. E. Fuelberg, D. R. Blake, G. Huey, A. J. Weinheimer, D. J. Knapp, and H. Brune, Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008, *Journal of Geophysical Research-Atmosphere, 116,* D08204, doi:10.1029/2010JD015152, 2011.**

**55. Kimberly R. Stackhouse, Yuee Pan, Yongjing Zhao, and Frank M. Mitloehner, Greenhouse Gas and Volatile Organic Compound Emissions from Feedlot Steers and Calves, *Journal of Environmental Quality, 40,* 899–906, doi:10.2134/jeq2010.0354, 2011.**

**54. H. Matsui, Y. Kondo, N. Moteki, N. Takegawa, L. K. Sahu, Y. Zhao, H. E. Fuelberg, W. R. Sessions, G. Diskin, D. R. Blake, A. Wisthaler, and M. Koike, Seasonal variation of the transport of black carbon aerosol from the Asian continent to the Arctic during the ARCTAS aircraft campaign, *Journal of Geophysical Research-Atmosphere, 116,* D05202, doi:10.1029/2010JD015067, 2011.**

**53. Heejung Jung, Chuautemoc Arellanes, Yongjing Zhao, Suzanne Paulson, Cort Anastasio and Anthony Wexler, Impact of the Versatile Aerosol Concentration Enrichment System (VACES) on Gas Phase Species, *Aerosol Science and Technology, 44,* 12, 1113-1121, DOI: 10.1080/02786826.2010.512028, 2010.**

**52. S. A. Burgos , N. M. Marcillac-Embertson , Y. Zhao, F. M. Mitloehner, and E. J. DePeters, J. G. Fadel, Prediction of Ammonia Emission from Dairy Cattle Manure**

**Based on Milk Urea Nitrogen: Relation of Milk Urea Nitrogen to Ammonia Emissions, *Journal of Dairy Science, 93,* 2377-2386, doi: 10.3168/jds.2009-2415, 2010.**

**51. D. Koch, M. Schulz, S. Kinne, C. McNaughton, J. R. Spackman, Y. Balkanski, S. Bauer, T. Berntsen, T. C. Bond, O. Boucher, M. Chin, A. Clarke, N. De Luca, F. Dentener, T. Diehl, O. Dubovik, R. Easter, D. W. Fahey, J. Feichter, D. Fillmore, S. Freitag, S. Ghan, P. Ginoux, S. Gong, L. Horowitz, T. Iversen, A. Kirkevag, Z. Klimont, Y. Kondo, M. Krol, X. Liu, R. Miller, V. Montanaro, N. Moteki, G. Myhre, J. E. Penner, J. Perlwitz, G. Pitari, S. Reddy, L. Sahu, H. Sakamoto, G. Schuster, J. P. Schwarz, Ø. Seland, P. Stier, N. Takegawa, T. Takemura, C. Textor, J. A. van Aardenne, and Y. Zhao, Evaluation of black carbon estimations in global aerosol models, *Atmospheric Chemistry and Physics, 9,* 9001–9026, 2009.**

**50. R.L. Verma, L.K. Sahu, Y. Kondo, N. Takegawa, S. Han, Jin Sang Jung, Y.J. Kim, Shaojia Fan, N. Sugimoto, M.H. Shammaa, Y.H. Zhang, Y. Zhao, Temporal variation of elemental carbon in Guangzhou, China, in summer 2006, *Atmospheric Chemistry and Physics, 10,* 6471-6485, 2010.**

**49. K.J. Bein, Y. Zhao, A.S. Wexler, Conditional sampling for source-oriented toxicological studies using a single particle mass spectrometer. *Environmental Science & Technology, 43(24),* 9445–9452, DOI: 10.1021/es901966a, 2009.**

**48. Nicolas Bukowiecki, Peter Lienemann, Matthias Hill, Renato Figi, Agnes Richard, Markus Furger, Karen Rickers, Gerald Falkenberg, Yongjing Zhao, Steven S. Cliff, Urs Baltensperger and Robert Gehrig, Real-world emission factors for antimony and other brake wear related trace elements: Size-segregated values for light and heavy duty vehicles, *Environmental Science and Technology, 43,* 8072-8078, doi: 10.1021/es9006096, 2009.**

**47. S. Han, Y. Kondo, N. Oshima, N. Takegawa, Y. Miyazaki, M. Hu, P. Lin, Z. Deng, Y. Zhao, N. Sugimoto, and Y. Wu, temporal variations of elemental carbon in Beijing, *Journal of Geophysical Research-Atmosphere, 114,* D23202, doi:10.1029/2009JD012027, 2009.**

**46. R. Xiao, N. Takegawa, Y. Kondo, Y. Miyazaki, T. Miyakawa, M. Hu, M. Shao, L.M. Zeng, A. Hofzumahaus, N. Sugimoto, Y. Zhao, Y.H. Zhang, Formation of submicron sulfate and organic aerosols in the outflow from the urban region of the Pearl River Delta in China, *Atmospheric Environment, 43,* 3754-3763 DOI:10.1016/j.atmosenv.2009.04.028, 2009.**

**45. Y. Miyazaki, Y. Kondo, M. Shiraiwa, N. Takegawa, T. Miyakawa, S. Han, K. Kita, M. Hu, Z. Q. Deng, Y. Zhao, N.Sugimoto, D. R. Blake, and R. J. Weber, Chemical characterization of water-soluble organic carbon aerosols at a rural site in the Pearl River Delta, China, in the summer of 2006, *Journal of Geophysical Research-Atmosphere, 114,* D14208, doi:10.1209/2009JD011736, 2009.**

**44. N. Takegawa, T. Miyakawa, M. Kuwata, Y. Kondo, Y. Zhao, S. Han, K. Kita, Y. Miyazaki, Z. Deng, R. Xiao, M. Hu, D. van Pinxteren, H. Herrmann, A. Hofzumahaus, F. Holland, A. Wahner, D. R. Blake, N. Sugimoto, and T. Zhu, Variability of submicron aerosol observed at a rural site in Beijing in the summer of 2006, *Journal of Geophysical Research-Atmosphere, 114,* D00G05, doi:10.1029/2008JD010857, 2009.**

**43. Lin Peng, Min. Hu, Z. Deng, J. Slanina, S. Han, Y. Kondo, N. Takegawa, Y. Miyazaki,**

**Y. Zhao, and N. Sugimoto, Seasonal and diurnal variations of organic carbon in PM2.5 in Beijing and the estimation of secondary organic carbon, *Journal of Geophysical Research-Atmosphere, 114,* D00G11, doi:10.1029/2008JD010902, 2009.**

**42. N. Takegawa, T. Miyakawa, M. Watanabe, Y. Kondo, Y. Miyazaki, S. Han, Y. Zhao, D. van Pinxteren, E. Bruggemann, T. Gnauk, H. Herrmann, R. Xiao, Z. Deng, M. Hu, T. Zhu, and Y. Zhang, Performance of an Aerodyne Aerosol Mass Spectrometer (AMS) during Intensive Campaigns in China in the summer of 2006, *Aerosol Science and Technology, 43,* 189-204, DOI: 10.1080/02786820802582251, 2009.**

**41. Hu Min, Deng Zhi-qiang, Wang Yi, LIN Peng, ZENG Li-min, Yutaka Kondo, and ZHAO Yong-Jing, Comparison of EC/OC in $PM_{10}$ between Filter Sampling Off-line Analysis and In-situ On-line Measurement, *Environmental Science (in Chinese), 29(12),* 1-7, 2008.**

**40. Bein, K.J., Zhao, Y.J., Johnston, M.V., Pekney, N.J., Davidson, C.I., Evans, G.J., and A.S. Wexler, Extratropical waves drive impact frequency and regional air quality dynamics, *Journal of Geophysical Research - Atmospheres, 113,* D23213, doi:10.1029/2008JD010169, 2008.**

**39. Bein, K.J., Zhao, Y.J., Johnston, M.V., and A.S. Wexler , Interactions between boreal wildfire and urban emissions, *Journal of Geophysical Research - Atmospheres, 113,* D07304, doi:10.1029/2007JD008910, 2008.**

**38. Huawei Sun, Steven L. Trabue, Kenwood Scoggin, Wendi A. Jackson, Yuee Pan, Yongjing Zhao, Irina L. Malkina, Jacek A. Koziel, and Frank M. Mitloehner, Alcohol, Volatile Fatty Acid, Phenol, and Methane Emissions from Dairy Cows and Fresh Manure, *Journal of Environmental Quality*, 37, 615-622, doi:10.2134/jeq2007.0357, 2008.**

**37. Huawei Sun, Yuee Pan, Yongjing Zhao, Wendi A. Jackson, Lisa M. Nuckles, Irina L. Malkina, Veronica E. Arteaga, and Frank M. Mitloehner, Effects of Sodium Bisulfate on Alcohol, Amine, and Ammonia Emissions from Dairy Slurry, *Journal of Environmental Quality*, 37, 608-614, doi:10.2134/jeq2006.0446, 2008.**

**36. E.von Borell, A. Ozpinar, K.M. Eslinger, A.L. Schnitz, Y. Zhao, and F.M. Mitloehner, Acute and prolonged effects of ammonia on haematological variables, stress responses, performance, and behaviour of nursery pigs, *J. of Swine Health and Production*, 15(13), 137, 2007.**

**35. Bein, K.J., Zhao, Y.J., Johnston, M.V., and A.S. Wexler, Identification of sources of atmospheric PM at the Pittsburgh Supersite. Part III: Source characterization, Atmospheric Environment, 41(19), 3974-3992, dio:10.1016/j.atmosenv.2007.01.039, 2007.**

**34. Bein, K.J., Y. Zhao, N.J. Pekney, C.I. Davidson, M.V. Johnston, A.S. Wexler. Identification of Sources of Atmospheric PM at the Pittsburgh Supersite. Part II: Quantitative Comparisons of Single Particle, Particle Number, and Particle Mass Measurements. *Atmos. Environ.* 40, Supp. 2, 424-444, dio:10.1016/j.atmosenv.2006.01.064, 2006.**

**33. M. Koike, N. B. Jones, P. I. Palmer, H. Matsui, Y. Zhao, Y. Kondo, Y. Matsumi, and H. Tanimoto, Seasonal Variation of Carbon Monoxide in Northern Japan: FTIR Measurements and Source-labeled Model Calculations, *J. Geophys. Res.*, 111, D15306, doi:10.1029/2005JD006643, 2006.**

**32. Jian Wen, Yongjing Zhao, and Anthony S. Wexler, Marine particle nucleation: Observation at Bodega Bay, California, *J. Geophys. Res.*, 111, D08207, dio:10.1029/2005JD006210, 2006.**

**31. Michael E. Webber, Tyson MacDonald, Michael B. Pushkarsky, C. Kumar N. Patel, Yongjing Zhao, Nichole Marcillac, and Frank M. Mitloehner, Agricultural ammonia sensor using diode lasers and photoacoustic spectroscopy, *Measurement Science and Technology, 16*,1-7, doi:10.1088/0957-0233/16/8/002, 2005.**

**30. Y. Zhao, K. J. Bein, A.S. Wexler, C. Misra, P.M. Fine, and C. Sioutas, Field evaluation of the VACES particle concentrator coupled to the RSMS-3 single particle mass spectrometer, *J. Geophys. Res., 110*, D07S02, doi:10.1029/2004JD004644, 2005.**

**29. Keith J. Bein, Yongjing Zhao, Anthony S. Wexler, Murray V. Johnston, speciation of size-resolved individual ultrafine particles in Pittsburgh, Pennsylvania, *J. Geophys. Res., 110,* D07S05, doi:10.1029/2004JD004708, 2005.**

**28. L. N. Yurganov, T. Blumenstock, E. I. Grechko, F. Hase, E. J. Hyer, E. S. Kasischke, M. Koike, Y. Kondo, I. Kramer, F.-Y. Leung, E. Mahieu, J. Mellqvist, J. Notholt, P. C. Novelli, C. P. Rinsland, H.-E. Scheel, A. Schulz, A. Strandberg, R. Sussmann, H. Tanimoto, V. Velazco, R. Zander, and Y. Zhao. A Quantitative Assessment of the 1998 Carbon Monoxide Emission Anomaly in the Northern Hemisphere Based on Total Column and Surface Concentration Measurements, *J. Geophys. Res., 109*(D15), 15305, doi: 10.1029/2004JD004559, 2004**

**27. Li, Q., D. J. Jacob, R. Yantosca, C. Heald, H. Singh, M. Koike, Y. Zhao, G. W. Sachse, and D. Streets, A global three-dimensional model analysis of the atmospheric budgets of HCN and $CH_3CN$: constraints from aircraft and ground measurements, *J. Geophys. Res., 108*(D21), 8827, doi:10.1029/2002JD003075, 2003.**

**26. Singh, H. B.; Salas, L.; Herlth, D.; Kolyer, R.; Czech, E.; Viezee, W.; Li, Q.; Jacob, D. J.; Blake, D.; Sachse, G.; Harward, C. N.; Fuelberg, H.; Kiley, C. M.; Zhao, Y.; Kondo, Y., In situ measurements of HCN and $CH_3CN$ over the Pacific Ocean: Sources, sinks, and budgets, *J. Geophys. Res., 108*(D20), 8795, doi:10.1029/2002JD003006, 2003.**

**25. Y. Kondo, M. Koike, K. Kita, H. Iketa, N. Takekawa, I. Bey, D.J. Jacob, S. Kawakami, D. Blake, S.C. Liu, M. Ko, H. Irie, Y. Miyazaki, Y. Higashi, B. Liley, N. Nishi, Y. Zhao, and T. Ogawa, Effects of biomass burning, lightning, and convection on $O_3$, CO, and NOy over the tropical Pacific and Australia in August-October, *J. Geophys. Res., 107*, 8402, doi:10.1029/2001JD000820, 2002 [printed *108*(D3), 2003].**

**24. M. Koike, Y. Kondo, D. Akutagawa, K. Kita, N. Nishi, S.C. Liu, D. Blake, S. Kawakami, N. Takegawa, M. Ko, Y. Zhao, and T. Ogawa, Reactive nitrogen over the tropical Western Pacific: Influence from lightening and biomass burning, *J. Geophys. Res., 107*, 8403, doi:10.1029/2001JD000823, 2002 [printed *108*(D3), 2003].**

**23. Y. Zhao, K. Strong, Y. Kondo, M. Koike, Y. Matsumi, H. Irie, C.P. Rinsland, N.B. Jones, K. Suzuki, H. Nakajima, H. Nakane, and I. Murata, Spectroscopic measurements of tropospheric CO, $C_2H_6$, $C_2H_2$, and HCN in northern Japan, *J. Geophys. Res., 107*(D18), 4343, doi:10.1029/2001JD000748, 2002.**

**22. Y. Zhao, Y. Kondo, F.J. Murcray, X. Liu, M. Koike, H. Irie, K. Strong, K. Suzuki, M Sera, and Y. Ikegami, Seasonal variations of HCN over northern Japan measured by**

**ground-based infrared solar spectroscopy, *Geophys. Res. Lett., 27*, 2085-2088, doi:10.1029/1999GL011218, 2000.**

**21. T.M. Miller, J.O. Ballenthin, R.F. Meads, D.E. Hunton, W.F. Thorn, A.A. Viggiano, Y. Kondo, M. Koike, and Y. Zhao, Chemical ionization mass spectrometer technique for the measurement for HNO3 in air trafic corridors in the upper troposphere during the SONEX campaign, *J. Geophys. Res., 105*, 3701-3707, doi:10.1029/1999JD900443, 2000.**

**20. M. Koike, Y. Kondo, H. Ikeda, G.L. Gregory, B.E. Anderson, G.W. Sachse, D. Blake, S.C. Liu, H.B. Singh, A. Thompson, K. Kita, Y. Zhao, T. Sugita, R.E. Shetter, and N. Toriyama, Impact of aircraft emission on reactive nitrogen over the North Atlantic flight corridor region, *J. Geophys. Res., 105*, 3665-3677, doi:10.1029/1999JD901013, 2000.**

**19. Q. Li, D.J. Jacob, I. Bey, R.M. Yantosca, Y. Zhao, Y. kondo, and J. Notholt, Atmospheric hydrogen cyanide (HCN): Biomass burning source, ocean sink ?, *Geophys. Res. Lett.*, 27, 357-360, doi:10.1029/1999GL010935, 2000.**

**18. B.E. Anderson, W.R. Cofer, J. Craford, G.L. Gregory, S.A. Vay, K.E. Brunke, Y. Kondo, M. Koike, H. Schlager, S.L. Baughcum, E. Jensen, Y. Zhao, and K. Kita, An assessment of aircraft as a source of particles to the upper troposphere, *Geophys. Res. Lett., 26*, 3069-3072, 1999.**

**17. Y. Kondo, M. Koike, H. Ikeda, B.E. Anderson, K.E. Brunke, Y. Zhao, K. Kita, T. Sugita, H.B. Singh, S.C. Liu, A. Thompson, G.L. Gregory, R. Shetter, G. Sachse, S.A. Vay, E.V. Browell, and M.J. Mahoney, Impact of aircraft emission on NOx in the lowermost stratosphere at northern midlatitudes, *Geophys. Res. Lett., 26*, 3065-3068, 1999.**

**16. N.S. Pougatchev, N.B. Jones, B.J. Connor, C.P. Rinsland, E. Becker, M.T. Coffey, V.S. Connors, P. Demoulin, A.V. Dzhola, H. Fast, E.I. Grechko, J.W. Hannigan, M. Koike, Y. Kondo, E. Mahieu, W.G. Mankin, R.L. Mittermeier, J. Notholt, H.G. Reichle Jr., B. Sen, L.P. Steele, G.C. Toon, L.N. Yurganov, R. Zander, and Y. Zhao, Ground-based infrared solar spectroscopic measurements of carbon monoxide during 1994 Measurement of Air Pollution from Space flights, *J. Geophys. Res., 103, 19317*-19325, 1998.**

**15. Y. Zhao, Y. Kondo, X. Liu, M. Koike, H. Nakajima, I. Murata, F.J. Murcray, and K. Suzuki, Spectroscopic measurements of carbon monoxide at 34.5°N and 43.5°N in Japan, *Proceedings of 18th International Ozone Symposium*, L'aquila, Italy, September 12-21, 1996, 643-646, 1998.**

**14. H. Nakajima, X. Liu, I. Murata, Y. Kondo, F.J. Murcray, M. Koike, Y. Zhao, and H. Nakane, Retrieval of height profiles of stratospheric ozone from ground-based infrared solar spectra at Rikubetsu, Japan, *Proceedings of 18th International Ozone Symposium*, L'aquila, Italy, September 12-21, 1996, 955-958, 1998.**

**13. Yongjing Zhao and Yutaka Kondo, Low ozone in the winters of 1992/93 and 1994/95 observed in Japan, *Proceedings of 18th International Ozone Symposium*, L'aquila, Italy, September 12-21, 1996, 93-96, 1998.**

12. H. Nakajima, X. Liu, I. Murata, Y. Kondo, F.J. Murcray, M. Koike, Y. Zhao, and H. Nakane, Retrieval of vertical profiles of ozone from high resolution infrared solar spectra at Rikubetsu, Japan, *J. Geophys. Res., 102,* 29981-29990, 1997.

11. Y. Kondo, S. Kawakami, M. Koike, D.W. Fahey, H. Nakajima, Y. Zhao, N. Toriyama, M. Kanada, G.W. Sachse, and G.L. Grogory, Performance of an aircraft instrument for the measurement of $NO_y$, *J. Geophys. Res., 102,* 28663-28671, 1997.

10. Y. Zhao, Y. Kondo, F.J. Murcray, X. Liu, M. Koike, K. Kita, H. Nakajima, I. Murata, and K. Suzuki, Carbon monoxide column abundances and tropospheric concentrations retrieved from high resolution ground-based infrared solar spectra at 43.5°N over Japan, *J. Geophys. Res., 102,* 23403-23411, 1997.

9. I. Murata, Y. Kondo, H. Nakajima, M. Koike, Y. Zhao, W. A. Matthews, and K. Suzuki, Accuracy of total ozone columns observed with infrared solar spectroscopy, *Geophys. Res. Lett., 24,* 77-80, 1997.

8. Yongjing Zhao and Yutaka Kondo, Wintertime stratospheric ozone changes over Japan since 1991, *Geophys. Res. Lett., 23,* 1969-1972, 1996.

7. Zhao Yongjing, Kong Qixin, Wang Gengchen, Y. Kondo, and K. Suzuki, The relationship between ozone variation in the stratosphere over Antarctic Syowa station and trihydrate condensation temperature, *Quarterly J. Appl. Meteorology, Vol.7,* No.1, 1996.

6. Y. Kondo, Y. Zhao, O. Uchino, T. Nagai, T. Fujimoto, T. Itabe, K. Mizutani, and T. Shibata, Stratospheric ozone changes at 43°N and 36°N over Japan between 1991 and 1994, *Geophys. Res. Lett., 22,* 3223-3226, 1995.

5. Zhao Yongjing, Yan Fuchun, Gao Xiyan, and Chen Jiahua, Photo-acoustic spectroscopic measurement of NO concentration in diesel engine exhaust gas, *Transactions of CSICE, Vol.10,* No.4, 1992.

4. Zhao Yongjing, The CW dye laser with two uses, *Applied Laser Technology, Vol.6,* No.2, 1986.

3. Zhang Zhilin, Zhao Yongjing, and Yuan Lubing, Preparation and study of porphyrin type photosensitizers (V)--The determination of laser fluorescence spectra and singlet oxygen quantum yields for hematoporphyrin and its derivative, *Journal of Dalian University of Technology, Vol.25,* No.4, 1986.

2. Zhao Yongjing, Zhang Zhilin, Xu Gengwu, and Lin Junxiu, Emission spectra of $a^1\Delta_g$ $(\upsilon=1) \rightarrow X^3\Sigma_g^-$ $(\upsilon=0)$ transition of singlet molecular oxygen $^1O_2$ produced by hematoporphyrin (HP) in solutions, *Acta Optica Sinica, Vol.5,* No.10, 1985.

1. Yuan Lubing, Zhao Guoling, Zhang Zhilin, Ding Jianhua, Zhao Yongjing, and Lin Junxiu, Preparation and study of porphyrin type photosensitizers (II)—The preparation and laser determination of Porphyrin C, *Journal of Dalian University of Technology, Vol.23,* No.4, 1984.

# Reports, Books, and Chapters

1. **Examination of Dust and Air-Borne Sediment Control Demonstration Projects, Tahoe Research Program Manager, USDA Forest Service, 2010**
2. **Process-Based Farm Emission Model for Estimating Volatile Organic Compound Emissions from California Dairies, California Air Resources Board, 2010**
3. **Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality, AIRPORT COOPERATIVE RESEARCH PROGRAM ACRP Report 71, TRANSPORTATION RESEARCH BOARD, The National Academies Press, WASHINGTON, D.C., ISSN 1935-9802 and ISBN 978-0-309-25818-0, DOI: 10.17226/22757, 2012**
4. **Evaluating Emission Control Technology at the Fiscalini Farms Anaerobic Digester System, RESEARCH TO DEVELOP BEST AVAILABLE CONTROL ECHNOLOGY FOR COMBINED HEAT AND POWER UNITS OPERATED ON DAIRY - DERIVED BIOGAS, Energy Research and Development Division, California Energy Commission, 2015**
5. **Quantification of the Emission Reduction Benefits of Mitigation Strategies for airy Silage, California Air Resources Board, 2016**