PUBLICATIONS

(*Denote corresponding/senior author by Zhang. #Denote Zhang's graduate students. Denote highly cited paper (1%). Denote hot paper (0.1%). Over 18,000 citations and *h*-index = 72 from Web of Science; ResearchID: A-2942-2011)

(229) Behlen, J.C., C.H. Lau, Y. Li#, P. Dhagat, J.A. Stanley, A. Rodrigues-Hoffman, M.C. Golding, **R. Zhang**, N.M. Johnson, Gestational Exposure to Ultrafine Particles Reveals Sex- and Dose-Specific Changes in Offspring Birth Outcomes, Placental Morphology, and Gene Networks, *Toxicol. Sci*., https://doi.org/10.1093/toxsci/kfab118 (2021).

(228)* Lin, L.#, Y. Wang, B. Pan#, J. Hu#, S. Guo, M. L. Zamora#, P. Tian, Q. Su, Y. Ji, J. Zhao#, M. Gomez-Hernandez#, M. Hu, **R. Zhang,** Formation, radiative forcing, and climatic effects of severe regional haze, *Atmos. Chem. Phys.,* https://doi.org/10.5194/acp-2021-799 (2021).

(227)* **Zhang, R**., N.M. Johnson, Y. Li#, Establishing the exposure-outcome relation between airborne particulate matter and children's health, *Thorax* **76**, doi.org/10.1136/thoraxjnl-2021- 217017 (2021).

(226) Johnson, N.M., A. Rodrigues-Hoffmann, J. C. Behlen, C. Lau, D. Pendleton, N. Harvey, R. Shore, Y. Li#, J. Chen, Y. Tian, and **R. Zhang**, Air pollution and children's health—a review of adverse effects associated with prenatal exposure from fine to ultrafine particulate matter, *Environ. Health Prev. Med*. **26**, 72, doi.org/10.1186/s12199-021-00995-5 (2021).

(225) Zhang, J., C. Minsu, Y. Ji, **R. Zhang**, R.Q. Zhang, Q. Ying, Assessing the Uncertainties in Ozone and SOA Predictions due to Different Branching Ratios of the Cresol Pathway in the Toluene-OH Oxidation Mechanism, *ACS Earth Space Chem*. **5**, 1958-1970, doi.org/10.1021/acsearthspacechem.1c00092 (2021).

(224)* Li, Y. #, J. Zhao#, Y. Wang, J.H. Seinfeld, and **R. Zhang**, Multi-generation production of secondary organic aerosol from toluene photooxidation, *Environ. Sci. Technol*. **55**, 8592–8603, doi/10.1021/acs.est.1c02026 (2021).

(223)* Li, Y. #, Y. Ji, J. Zhao#, Y. Wang, Q. Shi, J. Peng, Y. Wang, C. Wang, F. Zhang, Y. Wang, J.H. Seinfeld, and **R. Zhang**, Unexpected oligomerization of small α-dicarbonyls for secondary organic aerosol and brown carbon formation, *Environ. Sci. Technol*. **55**, 4430–4439, doi: org/10.1021/acs.est.0c08066 (2021).

(222) Liu, J., F. Zhang, W. Xu, Y. Sun, L. Chen, S. Li, J. Ren, B. Hu, H. Wu, and **R. Zhang**, Hygroscopicity of organic aerosols linked to formation mechanisms, *Geophy. Res. Lett.* **48**, doi.org/10.1029/2020GL091683 (2021).

(221)* Peng, J., M. Hu, D. Shang, Z. Wu, Z. Du, T. Tan, Y. Wang, F. Zhang, **R. Zhang**, Explosive secondary aerosol formation during severe haze in the North China Plain, *Environ. Sci. Technol*. **55**, 55, 4, 2189-2207, DOI: 10.1021/acs.est.0c07204 (2021).

(220) Ma, F., H. Xie, M. Li, S. Wang, **R. Zhang**, and J. Chen, Autoxidation Mechanism for Atmospheric Oxidation of Tertiary Amines: Implications for Secondary Organic Aerosol Formation, *Chemosphere* **273**, 129207, doi.org/10.1016/j.chemosphere.2020.129207 (2021).

(219)* Pan, B.#, Y. Wang, T. Logan, J.S. Hsieh, J.H. Jiang, Y. Li#, and **R. Zhang**, Determinant Role of Aerosols From Industrial Sources in Hurricane Harvey's Catastrophe, *Geophy. Res. Lett.* **47**, e2020GL090014, doi.org/10.1029/2020GL090014 (2020).

(218)* Li, Y.[#], **R. Zhang**, J. Zhao[#], and M.J. Molina, Understanding transmission and intervention for the COVID-19 pandemic in the United States, *Sci. Total Environ*. **748**, 141560, doi.org/10.1016/j.scitotenv.2020.141560 (2020).

(217)* **Zhang, R.**, Y. Li[#], A.L. Zhang, Y. Wang, and M.J. Molina, Identifying airborne transmission as the dominant route for the spread of COVID-19, *Proc. Natl. Acad. Sci. USA* **117**, 14857-14863, doi.org/10.1073/pnas.2009637117 (2020).

(216)* Ji, Y., Q. Shi, Y. Li[#], T. An, J. Zheng, J. Peng, Y. Gao, J. Chen, G. Li, Y. Wang, F. Zhang, A.L. Zhang, J. Zhao[#], M. J. Molina, and **R. Zhang**, Carbenium ion-mediated oligomerization of methylglyoxal for secondary organic aerosol formation, *Proc. Natl. Acad. Sci. USA* **117**, 13294-13299, doi.org/10.1073/pnas.1912235117 (2020).

(215)* Zhang, F., Y. Wang, J. Peng , L. Chen, Y. Sun, L. Duan, X. Ge, Y. Li[#], J. Zhao[#], C. Liu, X. Zhang, G. Zhang, Y. Pan, Y. Wang, A.L. Zhang, Y. Ji, G. Wang, M. Hu , M.J. Molina, and **R. Zhang**, An unexpected catalyst dominates formation and radiative forcing of regional haze, *Proc. Natl. Acad. Sci. USA* **117**, 3960-3966, doi/10.1073/pnas.1919343117 (2020).

(214)* Guo, S., M. Hu, J. Peng, Z. Wu, M.L. Zamora, D. Shang, Z. Du, J. Zheng, X. Fang, R. Tang , Y. Wu, L. Zeng, S. Shuai, W. Zhang, Y. Wang, Y. Ji, Y. Li[#], A.L. Zhang, W. Wang, F. Zhang, J. Zhao[#], X. Gong, C. Wang, M.J. Molina, and **R. Zhang**, Remarkable nucleation and growth of ultrafine particles from vehicular exhaust, *Proc. Natl. Acad. Sci. USA* **117**, 3427–3432, doi/10.1073/pnas.1916366117 (2020).

(213)* Zamora, M.L.[#], J. Peng, M. Hu, S. Guo, W. Marrero-Ortiz[#], D. Shang, J. Zheng, Z. Du, Z. Wu, and **R. Zhang**, Wintertime aerosol properties in Beijing, *Atmos. Chem. Phys.* **19**, 14329-14338 (2019).

(212) Wang, Y., Z. Li, **R. Zhang**, X. Jin, W. Xu, X. Fan, H. Wu, F. Zhang, Y. Sun, Q. Wang, M. Cribb, D. Hu, Distinct Ultrafine- and Accumulation-Mode Particle Properties in Clean and Polluted Urban Environments, *Geophys. Res. Lett*. **46**, 10918-10925, https://doi.org/10.1029/2019GL084047 (2019).

(211)* Brooks, S.D., T.D. Jickells, P.S. Liss, D.C.O. Thornton, and **R. Zhang**, Biogeochemical Coupling between Ocean and Atmosphere—A Tribute to the Lifetime Contribution of Robert A. Duce, *J. Atmos. Sci.* **76**, 3289- 3298, https://doi.org/10.1175/JAS-D-18-0305.1 (2019).

(210) Zhang, F., J. Ren, T. Fan, L. Chen, W. Xu, Y. Sun, **R. Zhang**, J. Liu, S. Jiang, X. Jin, H. Wu, S. Li, M. C. Cribb, Z. Li, Significantly Enhanced Aerosol CCN Activity and Number Concentrations by Nucleation-Initiated Haze Events: A Case Study in Urban Beijing, *J. Geophys. Res. Atmos.* **124**, https://doi.org/10.1029/2019JD031457 (2019).

(209) Hu, J.[#], D. Rosenfeld, A. Ryzhkov, D. Zrnic, E. Williams, P.F. Zhang, J.C. Snyder, **R. Zhang**, R. Weitz, Polarimetric Radar Convective Cell Tracking Reveals Large Sensitivity of Cloud Precipitation and Electrification Properties to CCN, *J. Geophys. Res. Atmos.* **124**, 12194-12205, https://doi.org/10.1029/2019JD030857 (2019).

(208) Lee, S.-H., H. Gordon, H. Yu, K. Lehtipalo, R. Haley, Y. Li[#], and **R. Zhang**, New Particle Formation in the Atmosphere: From Molecular Clusters to Global Climate, *J. Geophys. Res. Atmos.* **124**, 7098-7146, doi.org: 10.1029/2018JD029356 (2019).

(207)* Lin[#], Y., Y. Ji, Y. Li[#], J. Secrest[#], W. Xu[#], F. Xu, Y. Wang, T. An, and **R. Zhang**, Interaction between Succinic Acid and Sulfuric Acid-Base Clusters, *Atmos. Chem. Phys*. **18**, 8003-8019, doi.org/10.5194/acp-19-1-2019 (2019).

(206) Hu, J.[#], D. Rosenfeld, D. Zrnic, E. Williams, P. Zhang, J. C. Snyder, A. Ryzhkov, E. Hashimshoni, **R. Zhang**, R. Weitz, Tracking and characterization of convective cells through their maturation into stratiform storm elements using polarimetric radar and lightning detection, *Atmos. Res*. **226**, 192–207, doi.org: 10.1016/j.atmosres.2019.04.015 (2019).

(205)* Wu, G., J. Brown, M.L. Zamora[#], A. Miller, M. C. Satterfield, C.J. Meininger, C.B. Steinhauser, G.A. Johnson, R.C. Burghardt, F.W. Bazer, Y. Li[#], N.M. Johnson, M.J. Molina, and **R. Zhang**, Adverse organogenesis and predisposed long-term metabolic syndrome from prenatal exposure to fine particulate matter, *Proc. Natl. Acad. Sci. USA* **116**, 11590–11595, doi/10.1073/pnas.1902925116 (2019).

(204) An, Z., R.-J. Huang, **R. Zhang**, X. Tie, G. Li, J. Cao, W. Zhou, Z. Shi, Y. Han, Z. Gu, and Y. Ji, Severe haze in Northern China: A synergy of anthropogenic emissions and atmospheric processes, *Proc. Natl. Acad. Sci. USA* **116**, 8657–8666, doi/10.1073/pnas.1900125116 (2019).

(203) Rychlik, K., J. R. Secrest[#], C. Lauc, J. Pulczinski, M. L. Zamora[#], J. Leal, R. Langleya, L. Myatt, M. Raju, R. C.-A. Chang, Y. Li[#], M.C. Golding, A. Rodrigues-Hoffmann, M.J. Molina, **R. Zhang**, and N.M. Johnson, In utero ultrafine particulate matter exposure causes offspring pulmonary immunosuppression, *Proc. Natl. Acad. Sci. USA* **116**, 3443–3448, doi/10.1073/pnas.1816103116 (2019).

(202)* Marrero-Ortiz[#], W., M. Hu, Z. Du, Y. Ji, Y. Wang[#], S. Guo, Y. Lin[#], M. Gomez-Hermandez[#], J. Peng, Y. Li[#], J. Secrest[#], M.L. Zamora[#], Y. Wang, T. An, and **R. Zhang**, Formation and Optical Properties of Brown Carbon from Small α-Dicarbonyls and Amines, *Environ. Sci. Technol*. **53(1)**, 117-126, DOI: 10.1021/acs.est.8b03995 (2019).

(201) Wang[#], Y., P.-L. Ma, J. Peng, **R. Zhang**, J. H. Jiang, R. C. Easter, Y. L. Yung, Constraining Aging Processes of Black Carbon in the Community Atmospheric Model Using Environmental Chamber Measurements, *J. Adv. Model. Earth Sy.* **10**, doi.org/10.1029/2018MS001387 (2018).

(200)* Ji, Y., J. Zheng, D. Qin, Y. Li[#], Y. Gao, M. Yao, X. Chena, G. Li, T. An, and **R. Zhang**, OH-initiated oxidation of acetylacetone: Implications for ozone and secondary organic aerosol formation, *Environ. Sci. Technol*. **52**, 11169-11177, doi: 10.1021/acs.est.8b03972 (2018).

(199)* Pan[#], B., Y. Wang[#], J. Hu[#], Y. Lin[#], J.-S. Hsieh, T. Logan, X. Feng, J.H. Jiang, Y.L. Yung, **R. Zhang**, Impacts of Saharan Dust on Atlantic Regional Climate and Implications for Tropical Cyclones, *J. Climate* **31**, 7621- 7644, doi: 10.1175/JCLI-D-16-0776.1 (2018).

(198)* Wang, G., F. Zhang, J. Peng, L. Duan, Y. Ji, W. Marrero-Ortiz[#], J. Wang, J. Li, C. Wu, C. Cao, Y. Wang[#], J. Zheng, J. Secrest[#], Y. Li[#], Y. Wang[#], H. Li, N. Li, and **R. Zhang**, Particle acidity and sulfate production during severe haze events in China cannot be reliably inferred by assuming a mixture of inorganic salts, *Atmos. Chem. Phys*. **18**, 10123–10132, doi: 10.5194/acp-18-10123-2018 (2018).

(197) Tian, P., L. Zhang, J. Ma, K. Tang, L. Xu, Y. Wang[#], X. Cao, J. Liang, Y. Ji, J.H. Jiang, Y. L. Yung, and **R. Zhang**, Radiative absorption enhancement of dust mixed with anthropogenic pollution over East Asia, *Atmos. Chem. Phys*. **18**, 7815–7825, doi: 10.5194/acp-18-7815-2018 (2018).

(196) Wang[#], Y., J. M. Vogel[#], Y. Lin[#], B. Pan[#], J. Hu[#], Y. Liu, X. Dong, J. Jiang, Y. Yung, and **R. Zhang**, Aerosol Microphysical and Radiative Effects on Continental Cloud Ensembles, *Adv. Atmos. Sci.* **35**, 234–247, doi: 10.1007/s00376-017-7091-5 (2018).

(195) Zhang, F., J. Ren, J. Peng, Y. Wang, D. Collins, **R. Zhang**, Y. Sun, X. Yang, and Z. Li, Uncertainty in predicting CCN activity of aged and primary aerosols, *J. Geophys. Res. Atmos.* **122**, 11,723-11,736, doi: 10.1002/2017JD027058 (2017).

(194)* Ji, Y., Y. Li[#], T. An, and **R. Zhang**, The dominant phenolic pathway for atmospheric toluene oxidation, *Proc. Natl. Acad. Sci. USA* **114**, E7858–E7859, doi/10.1073/pnas.1713835114 (2017).

(193)* Peng, J., M. Hu, S. Guo, Z. Du, D. Shang, J. Zheng, J. Zheng, L. Zeng, M. Shao, Y. Wu, D. Collins, and **R. Zhang**, Ageing and hygroscopicity variation of black carbon particles in Beijing measured by a quasi-atmospheric aerosol evolution study (QUALITY) chamber, *Atmos. Chem. Phys*. **17**, 10333–10348, doi:10.5194/acp-17-10333-2017 (2017).

(192) Zhu, Y., C. Yan, **R. Zhang**, Z. Wang, M. Zheng, H. Gao, Y. Gao, and X. Yao, Simultaneous measurements of new particle formation in 1-second time resolution at a street site and a rooftop site, *Atmos. Chem. Phys*. **17** 9469–9484, doi:10.5194/acp-17-9469-2017 (2017).

(191)* Ji, Y., J. Zhao[#], H. Terazono, K. Misawa, N. P. Levitt[#], Y. Li[#], Y. Lin[#], J. Peng, Y. Wang[#], L. Duan, B. Pan[#], F. Zhang, X. Feng, T. An, W. Marrero-Ortiz[#], J. Secrest[#], A.L. Zhang, K. Shibuya, M. J. Molina, and **R. Zhang**, Reassessing the atmospheric oxidation mechanism of toluene, *Proc. Natl. Acad. Sci. USA* **114**, 8169–8174, DOI:10.1073/pnas.1705463114 (2017).

(190)* Tian, P., X. Cao, L. Zhang, N. Sun, L. Sun, T. Logan, J. Shi, Y. Wang, Y. Ji, Y. Lin[#], Z. Huang, T. Zhou, Y. Shi, and **R. Zhang**, Aerosol vertical distribution and optical properties over China from long-term satellite and ground-based remote sensing, *Atmos. Chem. Phys*. **17**, 2509–2523, DOI:10.5194/acp-17-2509-2017 (2017).

(189)* Wang, G., **R. Zhang**, M.E. Gomez[#], L. Yang, M.L. Zamora[#], M. Hu, Y. Lin[#], J. Peng, S. Guo, J. Meng, J. Li, C. Cheng, T. Hu, Y. Ren, Y. Wang, J. Gao, J. Cao, Z. An, W. Zhou, G. Li, J. Wang, P. Tian, W. Marrero-Ortiz[#], J. Secrest[#], Z. Du, J. Zheng, D. Shang, L. Zeng, M. Shao, W. Wang, Y. Huang, Y. Wang, Y. Zhu, Y. Li[#], J. Hu[#], B. Pan[#], L. Cai, Y. Cheng, Y. Ji, F. Zhang, D. Rosenfeld, P.S. Liss, R.A. Duce, C.E. Kolb, M.J. Molina, Persistent sulfate formation from London Fog to Chinese Haze, *Proc. Natl. Acad. Sci. USA* **113**, 13630–13635, DOI: 10.1073/pnas.1616540113 (2016).

(188)* **Zhang, R**., J. Peng, Y. Wang[#], and M. Hu, Rate and timescale of black carbon aging regulate direct radiative forcing, *Proc. Natl. Acad. Sci. USA* **113**, E5094–E5095, DOI: 10.1073/pnas.1610241113 (2016).

(187)* Guo, S., M. Hu, Y. Lin[#], M. Gomez-Hernandez[#], M.L. Zamora[#], J. Peng, D.R. Collins, and **R. Zhang**, OH-Initiated oxidation of m-xylene on black carbon aging, *Environ. Sci. Technol*. **50**, 8605−8612, DOI: 10.1021/acs.est.6b01272 (2016).

(186)* Lin[#], Y., Y. Wang[#], B. Pan[#], J. Hu[#], Y. Liu, and **R. Zhang**, Distinct impacts of aerosols on an evolving continental cloud complex during the RACORO field campaign, *J. Atmos. Sci.* **73**, 3681-3700, DOI: 10.1175/JAS-D-15-0361.s1 (2016).

(185)* Peng, J., M. Hu, S. Guo , Z. Du, J. Zheng, D. Shang, M.L. Zamora[#], L. Zeng, M. Shao, Y. Wu, J. Zheng, Y. Wang, C.R. Glen, D.R. Collins, M.J. Molina, and **R. Zhang**, Markedly enhanced absorption and direct radiative forcing of black carbon under polluted urban environments, *Proc. Natl. Acad. Sci. USA* **113**, 4266–4271, DOI: 10.1073/pnas.1602310113 (2016).

(184)* Gomez-Hernandez[#], M., M., M. McKeown[#], J. Secrest[#], W. Marrero-Ortiz[#], A. Lavi, Y. Rudich, D.R. Collins, **R. Zhang**, Hygroscopic Characteristics of Alkylaminium

Carboxylate Aerosols, *Environ. Sci. Technol*. **50**, 2292−2300, DOI: 10.1021/acs.est.5b04691 (2016).

(183) Bernard, F., M. Cazaunau, B. Grosselin, B. Zhou, J. Zheng, P. Liang, Y. Zhang, X. Ye, V. Daële, Y. Mu, **R. Zhang**, J. Chen, and A. Mellouki, Measurements of nitrous acid (HONO) in urban area of Shanghai, China, *Environ. Sci. Pollut. Res*. **23**, 5818–5829, DOI: 10.1007/s11356-015-5797-4 (2016).

(182) Wu, G., Z. Li, C. Fu, X. Zhang, R. Zhang, **R. Zhang**, T. Zhou, J. Li, J. Li, D. Zhou, L. Wu, L. Zhou, B. He, and R. Huang, Advances in studying interactions between aerosols and monsoon in China, *Sci. China: Earth Sci*. **59**, 1–16, doi: 10.1007/s11430-015-5198-z (2016).

(181) He, C., K.-N. Liou, Y. Takano, **R. Zhang**, M. L. Zamora[#], P. Yang, Q. Li, and L. R. Leung, Variation of the radiative properties during black carbon aging: theoretical and experimental intercomparison, *Atmos. Chem. Phys.* **15**, 11967–11980 (2015).

(180)* **Zhang, R.,** G. Wang, S. Guo, M.L. Zamora[#], Q. Ying, Y. Lin[#], W. Wang, M. Hu, and Y. Wang, Formation of urban fine particulate matter, *Chem. Rev.* **115**, 3803-3855, DOI: 10.1021/acs.chemrev.5b00067 (2015).

(179) Lavi, A., E. Segre, M. Gomez-Hernandez[#], **R. Zhang**, Y. Rudich, On the volatility of atmospherically relevant alkylaminium carboxylate Salts, *J. Phys. Chem*. **118**, 4336-4346, doi:10.1021/jp2014-07320v (2015).

(178)* Gomez[#], M. E., Y. Lin[#], S. Guo, and **R. Zhang**, Heterogeneous chemistry of glyoxal on acidic solutions – An oligomerization pathway for secondary organic aerosol formation, *J. Phys. Chem*. **118**, 4457-4463, doi:10.1021/jp509916r (2015).

(177)* **Zhang, R**., S. Guo, M.L. Zamora[#], and M. Hu, Insufficient evidence for the contribution of regional transport to severe haze formation in Beijing, *Proc. Natl. Acad. Sci. USA* **112**, E2741, doi:10.1073/pnas.1503855112 (2015).

(176)* **Zhang, R**., S. Guo, M.L. Zamora[#], and M. Hu, Tightening nonfossil emissions alone is inefficient for $PM_{2.5}$ mitigation in China, *Proc. Natl. Acad. Sci. USA* **112**, E1403, doi:10.1073/pnas.1424185112 (2015).

(175) Wang, Z.B., M. Hu, X.Y. Pei, **R. Zhang**, P. Paasonen, J. Zheng, D.L. Yue, Z.J. Wu, M. Boy, A. Wiedensohler, Connection of organics to atmospheric new particle formation and growth at an urban site of Beijing, *Atmos. Environ*. **103**, 7-17, doi: 10.1016/j.atmosenv.2014.11.069 (2015).

(174)* Guo, S., M. Hu, Misti L. Zamora[#], J. Peng, D. Shang, J. Zheng, Z. Du, Z. Wu, M. Shao, L. Zeng, M.J. Molina, **R. Zhang**, Elucidating severe urban haze formation in China, *Proc. Natl. Acad. Sci. USA* **111**, 17373–17378, doi:10.1073/pnas.1419604111 (2014).

(173)* Xu[#], W., M. Gomez-Hernandez[#], S. Guo, J. Secrest[#], W. Marrero-Ortiz[#], A.L. Zhang, **R. Zhang**, Acid-catalyzed reactions of epoxides for atmospheric nanoparticle growth, *J. Am. Chem. Soc.* **136**, 15477−15480, DOI: 10.1021/ja508989a (2014).

(172)* Xu[#], W., S. Guo, M. Gomez-Hernandez[#], M. Levy[#], J. Secrest[#], W. Marrero-Ortiz[#], A.L. Zhang, D.R. Collins, and **R. Zhang**, Cloud forming potential of oligomers relevant to secondary organic aerosols, *Geophys. Res. Lett*. **41**, 6538–6545, doi:10.1029/2014GL061040 (2014).

(171)* Wang, X., J. Chen, T. Cheng, **R. Zhang**, X. Wang, Particle number concentration, size distribution and chemical composition during haze and photochemical smog episodes in Shanghai, *J. Environ. Sci*. **26**, 1894–1902 (2014).

(170)* Levy[#], M., **R. Zhang**, J. Zheng, A.L. Zhang, W. Xu[#], M. Gomez-Hernandez[#], Y. Wang[#], E. Olaguer, Measurements of nitrous acid (HONO) using ion drift - chemical ionization mass spectrometry during the 2009 SHARP field campaign, *Atmos. Environ*. **94**, 231-240 (2014).

(169)* Qiu[#], C., A. Khalizov, B. Hogan, E. Petersen, and **R. Zhang**, High Sensitivity of Diesel Soot Morphological and Optical Properties to Combustion Temperature in a Shock Tube, *Environ. Sci. Technol*. **47**, 6444–6452, doi:10.1021/es405589d (2014).

(168) Pinto, J.P., J. Dibb, B.H. Lee, B. Rappenglück, E.C. Wood, M. Levy[#], **R. Zhang**, B. Lefer, X.-R. Ren, J. Stutz, C. Tsai, L. Ackermann, J. Golovko, S.C. Herndon, M. Oakes, Q.-Y. Meng, J.W. Munger, M. Zahniser, J. Zheng, Intercomparison of Field Measurements of Nitrous Acid (HONO) during the SHARP Campaign, *J. Geophys. Res*. **118**, 5583- 5601 (2014)**.**

(167)* Wang[#], Y., M. Wang, **R. Zhang**, S. Ghan, Y. Lin[#], J. Hu[#], B. Pan[#], M. Levy[#], J. Jiang, M.J. Molina, Assessing the Impacts of Anthropogenic Aerosols on Pacific Storm Track Using A Multi-Scale Global Climate Model, *Proc. Natl. Acad. Sci. USA* **111**, 6894–6899, doi:10.1073/pnas.1403364111 (2014).

(166) Olaguer, E.P., C.E. Kolb, B. Lefer, B. Rappenglück, **R. Zhang**, and J. P. Pinto, Overview of the SHARP campaign: motivation, design, and major outcomes, *J. Geophys. Res*. **118**, 2597-2610, doi:10.1029/2013JD019730 (2014).

(165)* Wang[#], Y., K.-H. Lee[#], Y. Lin[#], M. Levy[#], and **R. Zhang**, Distinct effects of anthropogenic aerosols on tropical cyclones, *Nature Clim. Change* **4**, 368–373, doi:10.1038/nclimate2144 (2014).

(164) Takahama, S., L. M. Russell, C. A. Shores, L. C. Marr, J. Zheng, M. Levy[#], **R. Zhang**, E. Castillo, J. G. Rodriguez-Ventura, P.J.E. Quintana, R. Subramanian, M. Zavalaa and L. T. Molina, Diesel vehicle and urban burning contributions to black carbon concentrations and size distributions in Tijuana, Mexico, during the Cal-Mex 2010 campaign, *Atmos. Environ*. **88**, 341-352, doi:10.1016/j.atmosenv.2013.09.057 (2014).

(163)* Levy[#], M., **R. Zhang**, J. Zheng, H. Tan, Y. Wang[#], L.T. Molina, S. Takahama, L.M. Russell, G. Li[#], Measurements of submicron aerosols at the California–Mexico border during the Cal–Mex 2010 field campaign, *Atmos. Environ*. **88**, 308–319 doi:10.1016/j.atmosenv.2013.08.062 (2014).

(162)* Wang[#], Y., **R. Zhang**, R. Saravanan, Asian pollution climatically modulates mid-latitude cyclones following hierarchical modeling and observational analysis, *Nature Commun*. **4**, 3098, doi:10.1038/ncomms4098 (2014).

(161)* Wang[#], Y., A. Khalizov, M. Levy, and **R. Zhang**, Light absorbing aerosols and their atmospheric impacts, *Atmos. Environ*. **81**, 713-715, doi:10.1016/j.atmosenv.2013.09.034 (2013).

(160)* Ma, Y., S. D. Brooks, G. Vidaurre, A. F. Khalizov, L. Wang, and **R. Zhang**, Rapid modification of cloud-nucleating ability of aerosols by biogenic emissions, *Geophys. Res. Lett*. **40**, 6293–6297, doi:10.1029/2013GL057895 (2013).

(159)* Levy[#], M., **R. Zhang**, A. Khalizov, J. Zheng, D. Collins, C. Glen, Y. Wang[#], X. Y. Yu, W. Luke, J. Jayne, and E. Olaguer, Measurements of submicron aerosols in Houston, Texas during the 2009 SHARP field campaign, *J. Geophys. Res*. **118**, 10,518–10,534, doi:10.1029/2013JD50785 (2013).

(158) Guo, S., M. Hu, Q. Guo, X. Zhang, J. J. Schauer, **R. Zhang**, Quantitative evaluation of emissions controls on primary and secondary organic aerosol sources during Beijing 2008 Olympics, *Atmos. Chem. Phys*. **13**, 8303–8314, doi:10.5194/acp-13-8303-2013 (2013).

(157) Wang, Z. B., M. Hu, D. Mogensen, D. L. Yue, J. Zheng, **R. Zhang**, Y. Liu, B. Yuan, X. Li, M. Shao, L. Zhou, Z. J. Wu, A. Wiedensohler, and M. Boy, The simulations of sulfuric acid concentration and new particle formation in an urban atmosphere in China, *Atmos. Chem. Phys*. **13**, 11157-11167, doi:10.5194/acp-13-11157-2013 (2013).

(156)* Xu[#], W., and **R. Zhang**, A theoretical study of hydrated molecular clusters of amines and dicarboxylic acids, *J. Chem. Phys*. **139**, 064312, doi: 10.1063/1.4817497 (2013).

(155)* Wang[#], Y., J. Fan, **R. Zhang**, L. R. Leung, C. Franklin, Improving bulk microphysics parameterizations in simulations of aerosol effects, *J. Geophys. Res*. **118**, 5361–5379, doi:10.1029/2012JD018992 (2013).

(154) Tie, X., F. Geng, A. Guenther, J. Cao, J. Greenberg, **R. Zhang**, E. Apel, G. Li, A. Weinheimer, J. Chen, and C. Cai, Megacity impacts on regional ozone formation: observations and WRF-Chem modeling for the MIRAGE-Shanghai field campaign, *Atmos. Chem. Phys*. **13**, 5655-5669 (2013).

(153) Wang, Z. B., M. Hu, D. L. Yue, L. Y. He, X. F. Huang, Q. Yang, J. Zheng, **R. Zhang**, and Y. H. Zhang, New particle formation in the presence of a strong biomass burning episode at a downwind rural site in PRD, China, *Tellus B* **65**, 19965, http://dx.doi.org/10.3402/tellusb.v65i0.19965 (2013).

(152)* Clegg, S.L., C. Qiu[#], and **R. Zhang**, The deliquescence behaviour, solubilities, and densities of aqueous solutions of five methyl- and ethyl-aminium sulphate salts, *Atmos. Environ*. **73**, 1-14 (2013).

(151)* Khalizov, A. F., Y. Lin[#], C. Qiu[#], S. Guo, D. Collins, and **R. Zhang**, The role of OH-initiated oxidation of isoprene in aging of combustion soot, *Environ. Sci. Technol*. **47**, DOI: 10.1021/es3045339, 2254−2263 (2013).

(150)* Qiu[#], C., and **R. Zhang**, Multiphase chemistry of atmospheric amines, *Phys. Chem. Chem. Phys*. **15**, DOI: 10.1039/C3CP43446J, 5738-5752 (2013).

(149)* Zheng, J., J.P. Garzón, M.E. Huertas, R. Zhang, M. Levy[#], Y. Ma, J.I. Huertas, R.T. Jardón, L.G. Ruíz, H. Tan, and L.T. Molina, Volatile organic compounds in Tijuana during the Cal-Mex 2010 campaign: Measurements and source apportionment, *Atmos. Environ*. **70**, DOI: 10.1016/j.atmosenv.2012.11.030, 521-531 (2013).

(148)* Zheng, J., **R. Zhang**, J.P. Garzón, M.E. Huertas, M. Levy[#], Y. Ma, R. Torres-Jardón, L. G. Ruiz-Suárez, L. Russell, S. Takahama, H. Tan, G. Li[#], and L. T. Molina, Measurements of formaldehyde at the U.S. – Mexico border during the Cal-Mex 2010 Air Quality Study, *Atmos. Environ*. **70**, DOI: 10.1016/j.atmosenv.2012.09.041, 513-520 (2013).

(147) Takahama, S., A. Johnson, J. Guzman Morales, L.M. Russell, R. Duran, G. Rodriguez, J. Zheng, **R. Zhang**, D. Toom-Sauntry, W.R. Leaitch, Submicron organic aerosol in Tijuana, Mexico, from local and Southern California sources during the CalMex campaign, *Atmos. Environ*. **70**, DOI: 10.1016/j.atmosenv.2012.07.057, 500-512 (2013)

(146) Guo, S., M. Hu, Q. Guo, X. Zhang, M. Zheng, J. Zheng, C.C. Chang, J.J. Schauer, and **R. Zhang**, Primary Sources and Secondary Formation of Organic Aerosols in Beijing, China, *Environ. Sci. Technol*. **46**, 9846–9853 (2012).

(145)* Qiu[#], C., A. Khalizov, and R. Zhang, Soot aging from OH-initiated oxidation of toluene, *Environ. Sci. Technol*. **46**, 9464−9472 (2012).

(144)* Lal[#], V., A.K. Khalizov, Y. Lin[#], M. Galvan, B. Connell, **R. Zhang**, Heterogeneous reactions of epoxides in acidic media, *J. Phys. Chem*., **116** 6078-6090 (2012).

(143)* Xu[#], W., and R. Zhang, Theoretical investigation of interaction of dicarboxylic acids with common aerosol nucleation precursors, *J. Phys. Chem*. **116**, 4539-4550, doi: 10.1021/jp301964u (2012).

(142)* Khalizov, A. F., B. Hogan, C. Qiu[#], E. L. Petersen, and **R. Zhang**, Characterization of soot aerosol produced from combustion of propane in a shock tube, *Aerosol Sci. Technol*. **46**, 925–936 (2012).

(141)* Qiu[#], C., and **R. Zhang**, Physiochemical properties of alkylaminium sulfates: Hygroscopicity, thermostability, and density, *Environ. Sci. Technol*. **46**, 4474-4480 (2012).

(140)* **Zhang, R.**, A.F. Khalizov, L. Wang, M. Hu, W. Xu[#], Nucleation and growth of nanoparticles in the atmosphere, *Chem. Rev.* **112**, 1957-2011, DOI: 10.1021/cr2001756 (2012).

(139) Wang, Z.B., M. Hu, D.L. Yue[#], J. Zheng, **R. Zhang**, A. Wiedensohler, Z.J. Wu, T. Nieminen, and M. Boy, Evaluation on the role of sulfuric acid in the mechanisms of new particle formation for Beijing case, *Atmos. Chem. Phys*. **11**, 12663–12671 (2011).

(138) He, L.-Y., X.-F. Huang, L. Xue, M. Hu, Y. Lin, J. Zheng, **R. Zhang**, and Y.-H. Zhang, Submicron aerosol analysis and organic source apportionment in an urban atmosphere in Pearl River Delta of China using high-resolution aerosol mass spectrometry, *J. Geophys. Res*. **116**, D12304, doi:10.1029/2010JD014566 (2011).

(137)* Wang[#], Y., Q. Wan, W. Meng, F. Liao, H. Tan, and **R. Zhang**, Long-term impacts of aerosols on precipitation and lightning over the Pearl River Delta megacity area in China, *Atmos. Chem. Phys*. **11**, 12421–12436 (2011).

(136) Zhang, H., D. Hu, J. Chen, X. Ye, S. Wang, J. M. Hao, L. Wang, R. Zhang, and Z. An, Particle size distribution and polycyclic aromatic hydrocarbons emissions from agricultural crop residue burning, *Environ. Sci. Technol.* **45**, 5477–5482 (2011).

(135) Yue, D.L., M. Hu, **R. Zhang**, Z.J. Wu, H. Sue, Z.B. Wang, J.F. Peng, L.Y. He, X.F. Huang, Y.G. Gong, A. Wiedensohler, Potential contribution of new particle formation to cloud condensation nuclei in Beijing, *Atmos. Environ*. **45**, 6070-6077 (2011).

(134)* Wang, L., W. Xu[#], A.F. Khalizov, J. Zheng, Q. Qiu[#], and **R. Zhang**, Laboratory investigation on the role of organics in atmospheric nanoparticle growth, *J. Phys. Chem*. **115**, 8940–8947 (2011).

(133)* Zheng, J., M. Hu, R. Zhang, D. Yue, Z. Wang, S. Guo, X. Li, B. Bohn, M. Shao, L. He, X. Huang, A. Wiedensohler, and T. Zhu, Measurements of gaseous H_2SO_4 by AP-ID-CIMS during CAREBeijing 2008 Campaign, *Atmos. Chem. Phys.* **11**, 7755–7765 (2011).

(132)* Qiu[#], Q., L. Wang, V. Lal[#], A.F. Khalizov, and **R. Zhang**, Heterogeneous chemistry of Alkylamines on Ammonium Sulfate and Ammonium Bisulfate, *Environ. Sci. Technol.* **45**, 4748–4755 (2011).

(131) Li, L., J. Chen, H. Chen, X. Yang, Y. Tang, **R. Zhang**, Monitoring optical properties of aerosols with cavity ring-down spectroscopy, *J. of Aerosol Sci*. **42**, 277–284 (2011).

(130) Zaveri, R.A., P.B. Voss, C.M. Berkowitz, E. Fortner[#], **R. Zhang**, R.J. Valente, D. Holcomb, T.A. Hartley, and L. Baran, Overnight transport and chemical processing of photochemically aged Houston urban and petrochemical industrial plumes, *J. Geophys. Res*. **115**, doi:10.1029/2009JD013495, D23303 (2010).

(129) Du, H., L. Kong, T. Cheng, J. Chen, X. Yang, R. Zhang, Z. Han, Z. Yan, Y. Ma, Insights into ammonium particle-to-gas conversion: Non-sulfate ammonium coupling with nitrate and chloride, *Aerosol Air Qual. Res.* **10**, 589–595 (2010).

(128)* Wang, L., and **Zhang, R**., Atmospheric science for environmental scientists, *Bull. Amer. Meteor. Soc*. **91**, 1419-1420 (2010).

(127)* Zheng, J. A.F. Khalizov, L. Wang, and R. Zhang, Atmospheric pressure-ion drift chemical ionization mass spectrometry for detection of trace gas species, *Anal. Chem*. **82**, 7302–7308 (2010).

(126)* Khalizov, A.F., M. Cruz-Quinones[#], and **R. Zhang**, Heterogeneous reaction of NO_2 on fresh and coated soot surfaces, *J. Phys. Chem.* **114**, 7516–7524 (2010).

(125)* **Zhang, R**., Getting to the critical nucleus of aerosol formation, *Science* **328**, doi:10.1126/science.1189732, 1366-1367 (2010).

(124) Yue, D., M. Hu, **R. Zhang**, Z.B. Wang[#], J. Zheng, Z.J. Wu, A. Wiedensohler, L.Y. He, X.F. Huang, and T. Zhu, The roles of sulfuric acid in new particle formation and growth in the mega-city of Beijing, *Atmos. Chem. Phys.* **10**, 4953–4960 (2010).

(123) Aiken, A. C., B. de Foy, C. Wiedinmyer, P. F. DeCarlo, I. M. Ulbrich, M. N. Wehrli, S. Szidat, A. S. H. Prevot, J. Noda, L. Wacker, R. Volkamer, E. Fortner[#], J. Wang, A. Laskin, V. Shutthanandan, J. Zheng, **R. Zhang**, G. Paredes-Miranda, W. P. Arnott, L. T. Molina, G. Sosa, X. Querol, and J. L. Jimenez, Mexico City aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) – Part 2: Analysis of the biomass burning contribution and the modern carbon fraction, *Atmos. Chem. Phys.* **10**, 5315–5341 (2010).

(122) Apel, E. C., L. K. Emmons, T. Karl, F. Flocke, A. J. Hills, S. Madronich, J. Lee-Taylor, A. Fried, P. Weibring, J. Walega, D. Richter, X. Tie, L. Mauldin, T. Campos, B. Sive, L. Kleinman, S. Springston, R. Zaveri, J. Ortega, P. Voss, D. Blake, A. Baker, C. Warneke, D. Welsh-Bon, J. de Gouw, J. Zheng, **R. Zhang**, J. Rudolph, W. Junkermann, and D. D. Riemer, Chemical evolution of volatile organic compounds in the outflow of the Mexico City Metropolitan area, *Atmos. Chem. Phys*. **10**, 2353–2376 (2010).

(121) Song, J., W. Lei[#], N. Bei, M. Zavala, B. de Foy, R. Volkamer, B. Cardenas, J. Zheng, **R. Zhang**, and L. T. Molina, Ozone response to emission changes: a modeling study during the MCMA-2006/MILAGRO campaign, *Atmos. Chem. Phys.* **10**, 3827–3846 (2010).

(120)* Wang, L., V. Lal[#], A.F. Khalizov, and **R. Zhang**, Heterogeneous chemistry of alkylamines with sulfuric acid: Implications for atmospheric formation of alkylaminium sulfates, *Environ. Sci. Technol.* **44**, doi:10.1021/es9036868, 2461–2465 (2010).

(119)* Wang, L., A.F. Khalizov, J. Zheng, W. Xu[#], V. Lal[#], Y. Ma, and **R. Zhang**, Atmospheric nanoparticles formed from heterogeneous reactions of organics, *Nature Geosci.* **3**, doi:10.1038/ngeo778, 238-242 (2010).

(118) Ye, X., T. Chen, D. Hu, X. Yang, J. Chen, **R. Zhang**, A.F. Khalizov, and L. Wang, A multifunctional HTDMA system with a robust temperature control, *Adv. Atmos. Sci*. **26**, 1235-1240 (2009).

(117)* **Zhang, R**., L. Wang, A. F. Khalizov, J. Zhao[#], J. Zheng, R. L. McGraw, and L. T. Molina, Formation of nanoparticles of blue haze enhanced by anthropogenic pollution, *Proc. Natl. Acad. Sci. USA*, **106**, doi:10.1073/pnas.0910125106, 17650-17654 (2009).

(116) Zhang, Y., M. K. Dubey, S. C. Olsen, J. Zheng, and **R. Zhang**, Comparisons of WRF/Chem simulations in Mexico City with ground-based RAMA measurements during the 2006-MILAGRO, *Atmos. Chem. Phys.* **9**, 3777-3798 (2009).

(115) Wang, M., T. Zhu, J. Zheng, **R. Zhang**, S.Q. Zhang, X.X. Xie, Y.Q. Han, and Y. Li, Use of a mobile laboratory to evaluate changes in on-road air pollutants during the Beijing 2008 summer Olympics, *Atmos. Chem. Phys.* **9**, 8247–8263 (2009).

(114)* Xue[#], H., A. F. Khalizov, L. Wang, J. Zheng, and **R. Zhang**, Effects of dicarboxylic acid coating on the optical properties of soot, *Phys. Chem. Chem. Phys*. **11**, 7865-7875, DOI:10.1039/b700001a (2009).

(113)* Li[#], G., Y. Wang[#], K.-H. Lee[#], Y. Diao, and **R. Zhang**, The impacts of aerosols on development and precipitation of a mesoscale squall line, *J. Geophys. Res*. **114**, D17205, doi:10.1029/2008JD011581R (2009).

(112) Dusanter, S., D. Vimal, P. S. Stevens, R. Volkamer, L. T. Molina, A. Baker, S. Meinardi, D. R. Blake, P. Sheehy, A. Merten, **R. Zhang**, J. Zheng, E. C. Fortner[#], W. Junkermann, M. K. Dubey, T. Rahn, W. E. Eichinger, P. Lewandowski, J. Prueger, and H. Holder, Measurements of OH and HO_2 concentrations during the MCMA-2006 field campaign – Part 2: Model comparison and radical budget, *Atmos. Chem. Phys.* **9**, 6655-6675 (2009).

(111) Aiken, A. C., D. Salcedo, M. J. Cubison, J. A. Huffman, P. F. DeCarlo, I. M. Ulbrich, K. S. Docherty, D. Sueper, J. R. Kimmel, D. R. Worsnop, A. Trimborn, M. Northway, E. A. Stone, J. J. Schauer, R. Volkamer, E. Fortner[#], B. de Foy, J. Wang, A. Laskin, V. Shutthanandan, J. Zheng, **R. Zhang**, J. Gaffney, N. A. Marley, G. Paredes-Miranda, W. P. Arnott, L. T. Molina, G. Sosa, and J. L. Jimenez, Mexico City aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) – Part 1: Fine particle composition and organic source apportionment, *Atmos. Chem. Phys.* **9**, 6633–6653 (2009).

(110)* Xue[#], H., A F. Khalizov, **R. Zhang**, Effects of coating of dicarboxylic acids on the mass-mobility relationship of soot particles, *Environ. Sci. Technol*. **43**, 2787–2792 (2009).

(109) Pagels, J., P.H. McMurry, A.F. Khalizov, and **R. Zhang**, Processing of soot by controlled sulphuric acid and water condensation—Mass and mobility relationship, *Aerosol Sci. Tech*. **43**, 629–640 (2009).

(108)* Khalizov, A. F., **R. Zhang**, D. Zhang[#], H. Xue[#], J. Pagels, and P.H. McMurry, Formation of highly hygroscopic aerosols upon internal mixing of airborne soot particles with sulfuric acid vapor, *J. Geophys. Res*. **114**, D05208, doi:10.1029/2008JD010595 (2009).

(107)* Khalizov, A. F., H. Xue[#], and **R. Zhang**, Enhanced light absorption and scattering by carbon soot aerosols internally mixed with sulfuric acid, *J. Phys. Chem*. **113**, 1066–1074 (2009).

(106)* Zhao[#], J., A.F. Khalizov, **R. Zhang**, and R. McGraw, Hydrogen bonding interaction of molecular complexes and clusters of aerosol nucleation precursors, *J. Phys. Chem*. **113**, 680–689, doi: 10.1021/jp806693r (2009).

(105)* Fortner[#], E.C., Zheng, J., **R. Zhang**, Berk Knighton, W., Volkamer, R. M., Sheehy, P., Molina, L., and André, M., Measurements of volatile organic compounds using proton transfer reaction mass spectrometry during the MCMA - 2006 campaign, *Atmos. Chem. Phys*. **9**, 467–481 (2009).

(104) Zhang, H., X. Ye, T. Cheng, J. Chen, X. Yang, L. Wang, and **R. Zhang**, A laboratory study of agricultural crop residue combustion in China: Emission factors and emission inventory, *Atmos. Environ*. **42**, 8432-8441 (2008).

(103)* Li[#], G., Y. Wang[#], K.-H. Lee[#], Y. Diao, and **R. Zhang**, Increased winter precipitation over the North Pacific from 1984-1994 to 1995-2005 inferred from the global precipitation climatology project, *Geophys. Res. Lett*. **35**, L13821, doi: 10.1029/2008GL034668 (2008).

(102)* **Zhang, R.**, A.F. Khalizov, J. Pagels, D. Zhang[#], H. Xue[#], and P.H. McMurry, Variability in morphology, hygroscopic and optical properties of soot aerosols during internal mixing in the atmosphere, *Proc. Natl. Acad. Sci. USA* **105**, 10291–10296 (2008).

(101)* Zheng, J., **R. Zhang**, E. C. Fortner[#], R. M. Volkamer, L. Molina, A. C. Aiken, J. L. Jimenez, K. Gaeggeler, J. Dommen, S. Dusanter, P.S. Stevens, X. Tie, Measurements of HNO_3 and N_2O_5 using ion drift - chemical ionization mass spectrometry during the MCMA - 2006 campaign, *Atmos. Chem. Phys*. **8**, 6823–6838 (2008).

(100)* Fan[#], J., and **R. Zhang**, Density functional theory study on OH-initiated atmospheric oxidation of m-xylene, *J. Phys. Chem*. *A* **112**, 4314-4323 (2008).

(99)* Li[#], G., Y. Wang[#], and **R. Zhang**, Implementation of a two-moment bulk microphysics scheme to the WRF model to investigate aerosol-cloud interaction, *J. Geophys. Res*. **113**, D15211, doi:10.1029/2007JD009361 (2008).

(98)* Fan[#], F., **R. Zhang**, W.-K. Tao, and K. Mohr, Effects of aerosol optical properties on deep convective clouds and radiative forcing, *J. Geophys. Res*. **113**, D08209, doi:10.1029/2007JD009257 (2008).

(97) Heald, C. L., A. H. Goldstein, J. D. Allan, A. C. Aiken, E. Apel, E. L. Atlas, A. K. Baker, T. S. Bates, A. J. Beyersdorf, D. R. Blake, T. Campos, H. Coe, J. D. Crounse, P. F. DeCarlo, J. A. de Gouw, E. J. Dunlea, F. M. Flocke, A. Fried, P. Goldan, R. J. Griffin, S. C. Herndon, J. S. Holloway, R. Holzinger, J. L. Jimenez, W. Junkermann, W. C. Kuster, A. C. Lewis, S. Meinardi, D. B. Millet, T. Onasch, A. Polidori, P. K. Quinn, D. D. Riemer, J. M. Roberts, D. Salcedo, B. Sive, A. L. Swanson, R. Talbot, C. Warneke, R. J. Weber, P. Weibring, P. O. Wennberg, A. E. Wittig, **R. Zhang**, J. Zheng, and W. Zheng, Total observed organic carbon (TOOC): A synthesis of North American observations, *Atmos. Chem. Phys*. **8**, 2007-2025 (2008).

(96) Yuan, T., Z. Li, **R. Zhang**, and J. Fan[#], Increase of cloud droplet size with aerosol optical depth: An observation and modeling study, *J. Geophys. Res*. **113**, D04201, doi:10.1029/2007JD008632 (2008).

(95)* Zhao[#], J., and **R. Zhang**, A theoretical investigation of nitrooxyalkyl peroxy radicals from NO_3-initiated oxidation of isoprene, *Atmos. Environ*. **42**, 5849–5858 (2008).

(94)* Zhao[#], J., and **R. Zhang**, Theoretical investigation of atmospheric oxidation of biogenic hydrocarbons: A critical review, *Adv. Quantum Chem.* **55**, 177-213 (2008).

(93) McGraw, R., and **R. Zhang**, Multivariate analysis of homogeneous nucleation rate measurements: I. Nucleation in the p-toluic acid/sulfuric acid/water system, *J. Chem. Phys.* **128**, 064508, DOI:10.1063/1.2830030 (2008).

(92) Chen, H., L. Kong, J. Chen, **R. Zhang**, and L. Wang, Heterogeneous uptake of carbonyl sulfide on hematite and hematite-NaCl mixtures, *Environ. Sci. Technol*. **41**, 6484-6490 (2007).

(91)* Levitt[#], N. P., **R. Zhang**, H. Xue, and J. Chen, Heterogeneous chemistry of organic acids on soot surfaces, *J. Phys. Chem*. *A* **111**, 4804-4814 (2007).

(90)* Fan[#], J., **R. Zhang**, G. Li, and W.-K. Tao, Effects of aerosols and relative humidity on cumulus clouds, *J. Geophys. Res*. **112**, D14204, doi:10.1029/2006JD008136 (2007).

(89)* **Zhang, R.**, G. Li[#], J. Fan[#], D.L. Wu, and M. J. Molina, Intensification of Pacific storm track linked to Asian pollution, *Proc. Natl. Acad. Sci. USA* **104**, 5295-5299 (2007).

(88)* Li[#], G., **R. Zhang**, J. Fan[#], X. Tie, Impacts of biogenic emissions on photochemical ozone production in Houston, Texas, *J. Geophys. Res*. **112**, D10309, doi:10.1029/2006JD007924 (2007).

(87) Tie, X., S. Madronich, G. Li[#], Z. Ying, **R. Zhang**, A. Garcia, J. Lee-Taylor, and Y. Liu, Characterizations of chemical oxidants in Mexico City: A regional chemical dynamical model (WRF-Chem) study, *Atmos. Environ*. **41**, 1989–2008 (2007).

(86)* Fan[#], J., **R. Zhang**, G. Li[#], W.-K. Tao, and X. Li, Simulations of cumulus clouds using a spectral microphysics cloud resolving model, *J. Geophys. Res*. **112**, D04201, doi:10.1029/2006JD007688 (2007).

(85) Zhang, F., N. Bei, J. Neilsen-Gammon, G. Li[#], **R. Zhang**, A. Stuart, and A. Aksoy, Impacts of meteorological uncertainties on ozone pollution predictability estimated through meteorological and photochemical ensemble forecasts, *J. Geophys. Res*. **112**, D04304, doi:10.1029/2006JD007429 (2007).

(84)* Suh[#], I., J. Zhao[#], and **R. Zhang**, Unimolecular ring-cleavage of aromatic bicyclic alkoxy radicals, *Chem. Phys. Lett.* **432,** 313–320 (2006).

(83)* Zhao[#], J., N. P. Levitt[#], **R. Zhang**, and J. Chen, Heterogeneous reactions of methylglyoxal in acidic media: Implications for secondary organic aerosol formation, *Environ. Sci. Technol*. **40**, 7682-7687 (2006).

(82)* Levitt[#], N. P., J. Zhao[#], and **R. Zhang**, Heterogeneous chemistry of butanol and decanol with sulfuric acid: Implications for secondary organic aerosol formation, *J. Phys. Chem*. *A* **110**, 13215-13220 (2006).

(81) Zhao, C., X. Tie, G. Brasseur, K.J. Noone, T. Nakajima, Q. Zhang, **R. Zhang**, M. Huang, Y. Duan, G. Li[#], and Y. Ishizaka1, Aircraft measurements of cloud droplet spectral dispersion and implications for indirect aerosol radiative forcing, *Geophys. Res. Lett*. **33**, L16809, doi: 10.1029/2006GL026653 (2006).

(80)* Fan, J.[#], **R. Zhang**, D. Collins, and G. Li[#], Contribution of secondary condensable organics to new particle formation: A case study in Houston, Texas, *Geophys. Res. Lett*. **33**, L15802, doi:10.1029/2006GL026295 (2006).

(79)* Fan[#], J., and **R. Zhang**, Atmospheric Oxidation mechanism of p-xylene: A density functional theory study, *J. Phys. Chem*. *A* **110**, 7728-7737 (2006).

(78) Greenwald, E., J. Park, K. Anderson, H. Kim, B. J. E. Reich, S. Miller, **R. Zhang**, and S.W. North, The OH initiated oxidation of 1,3-butadiene in the presence of O_2 and NO: A novel approach using a photolytic precursor to induce isomeric selectivity, *J. Phys. Chem*. **109**, 7915-7922 (2005).

(77)* Zhao[#], J., **R. Zhang**, K. Misawa, and K. Shibuya, Experimental product study of the OH-initiated oxidation of m-xylene, *J. Photoch. Photobio. A* **176**, 199-207 (2005).

(76)* Fan[#], J., J. Zhao[#], and **R. Zhang**, Theoretical study of OH addition to α- and β-pinenes, *Chem. Phys. Lett.* **411**, 1-7 (2005).

(75)* Li[#], G., **R. Zhang**, J. Fan[#], and X. Tie, Impacts of black carbon aerosol on photolysis and ozone, *J. Geophys. Res*. **110**, D23206, doi:10.1029/2005JD005898 (2005).

(74)* Zhang[#], D., and **R. Zhang**, Laboratory investigation of heterogeneous interaction of sulfuric acid with soot, *Environ. Sci. Technol.* **39**, 5722-5727 (2005).

(73)* Fan[#], J., **R. Zhang**, G. Li[#], J. Nielsen-Gammon, and Z. Li, Simulations of fine particulate matter ($PM_{2.5}$) in Houston, Texas, *J. Geophys. Res*. **110**, No. D16203, 10.1029/2005JD005805 (2005).

(72)* Zhao[#], J., N. P. Levitt[#], and **R. Zhang**, Heterogeneous chemistry of octanal and 2, 4-hexadienal with sulfuric acid, *Geophys. Res. Lett*. **32**, L09802, doi:10.1029/2004GL022200 (2005).

(71)* Zhang[#], D., and **R. Zhang**, Ozonolysis mechanisms of α- and β-pienes: Kinetics and mechanism, *J. Chem. Phys.* **122**, 114308 (1-12), doi.org/10.1063/1.1862616 (2005).

(70) Tie, X., S. Madronich, S. Walters, D. Edwards, P. Ginoux, N. Mahowald, R. Zhang, C. Lou, and G. Brasseur, Assessment of global impact of aerosols on tropospheric oxidants, *J. Geophys. Res*. **110**, D03204, doi:10.1029/2004JD005359 (2005).

(69)* Fan[#], J., and **R. Zhang**, Atmospheric oxidation mechanism of isoprene, *Environ. Chem*. **1**, 140-149 (2004).

(68) Park, J., C. G. Jongsma, **R. Zhang**, and S. W. North, OH/OD initiated oxidation of isoprene in the presence of O_2 and NO, *J. Phys. Chem. A* **108**, 10688-10697 (2004).

(67)* Fortner[#], E.C., J. Zhao[#], and **R. Zhang**, Development of ion drift-chemical ionization mass spectrometry, *Anal. Chem*. **76**, 5436-5440 (2004).

(66)* Lei[#], W., **R. Zhang**, X. Tie, and P. Hess, Chemical characterization of ozone formation in the Houston-Galveston area, *J. Geophys. Res*. **109**, D12301, doi:10.1029/2003JD004219 (2004).

(65)* **Zhang, R.**, I. Suh[#], J. Zhao[#], D. Zhang[#], E.C. Fortner[#], X. Tie, L.T. Molina, and M.J. Molina, Atmospheric new particle formation enhanced by organic acids, *Science* **304**, 1487-1490, doi:10.1126/science.1095139 (2004).

(64)* **Zhang, R.**, W. Lei[#], X. Tie, P. Hess, Industrial emissions cause extreme diurnal urban ozone variability, *Proc. Natl. Acad. Sci. USA* **101**, 6346-6350 (2004).

(63)* Zhao[#], J., and **R. Zhang**, Proton transfer reaction rate constants between hydronium ion (H_3O^+) and volatile organic compounds (VOCs), *Atmos. Environ*. **38**, 2177-2185 (2004).

(62)* Zhao[#], J., **R. Zhang**, E.C. Fortner[#], and S.W. North, Quantification of hydroxycarbonyls from OH-isoprene reactions, *J. Am. Chem. Soc*. **126**, 2686-2687 (2004).

(61)* Zhang[#], D., **R. Zhang**, and S.W. North, Experimental study of NO reaction with hydroxyalkyl peroxy radicals from OH-initiated reaction of isoprene, *J. Phys. Chem*. **107**, 11013-11019 (2003).

(60)* Suh[#], I., **R. Zhang**, L.T. Molina, and M.J. Molina, Oxidation mechanism of aromatic peroxy and bicyclic radicals from OH-toluene reactions, *J. Am. Chem. Soc*. **125**, 12655-12665 (2003).

(59) Park, J., C.G. Jongsma, **R. Zhang**, and S.W. North, Cyclization reactions in isoprene derived β-hydroxy radicals: Implications for the atmospheric oxidation mechanism, *Phys. Chem. Chem. Phys*. **5**, 3638-3642 (2003).

(58) Tie, X., S. Madronich, S. Walters, **R. Zhang**, P. Rasch, and W. Collins, Effect of clouds on photolysis and oxidants in the troposphere, *J. Geophys. Res*. **108**, 4642, doi:10.1029/2003JD003659 (2003).

(57) Park, J., J.C. Stephens, **R. Zhang**, and S.W. North, Theoretical study of the alkoxy radicals derived from isoprene: Pressure and temperature dependent decomposition rates, *J. Phys. Chem*. **107**, 6408-6414 (2003).

(56)* **Zhang, R.**, X. Tie, and D.W. Bond[#], Impacts of anthropogenic and natural NO_x sources over the U.S. on tropospheric chemistry, *Proc. Natl. Acad. Sci. USA*, **100**, 1505-1509 (2003).

(55)* Zhao[#], J., **R. Zhang**, S.W. North, Oxidation mechanism of δ-hydroxyisoprene alkoxy radicals: hydrogen abstraction versus 1,5 H-shift, *Chem. Phys. Lett*. **369**, 204-213 (2003).

(54)* Zhang[#], D., **R. Zhang**, and D.T. Allen, C-C bond fission pathways of chloroalkenyl alkoxy radicals, *J. Chem. Phys.* **118**, 1794-1801 (2003).

(53)* Suh[#], I., D. Zhang[#], **R. Zhang**, L.T. Molina, and M.J. Molina, Theoretical study of OH addition to toluene, *Chem. Phys. Lett.* **364**, 454-462 (2002).

(52)* Zhang[#], D., **R. Zhang**, J. Park[#], and S.W. North, Hydroxyperoxy nitrites and nitrates from OH initiated reactions of isoprene, *J. Am. Chem. Soc*. **124**, 9600-9605 (2002).

(51)* Lei[#], W., **R. Zhang**, L.T. Molina, and M.J. Molina, Theoretical study of chloroalkenylperoxy radicals, *J. Phys. Chem*. **106**, 6415-6420 (2002).

(50)* Zhang[#], D., and **R. Zhang**, Unimolecular decomposition of nitrooxyalkyl radicals from NO_3-isoprene reaction, *J. Chem. Phys*. **116**, 9721-9728 (2002).

(49)* Lei[#], W., D. Zhang[#], **R. Zhang**, L. T. Molina, and M. J. Molina, Rate constants and isomeric branching of the Cl-isoprene reaction, *Chem. Phys. Lett.* **357**, 45-50 (2002).

(48)* Zhang[#], D., W. Lei[#], and **R. Zhang**, Mechanism of OH formation from ozonolysis of isoprene: Kinetics and product yields, *Chem. Phys. Lett.* **358**, 171-179 (2002).

(47)* Zhang[#], D., and **R. Zhang**, Mechanism of OH formation from ozonolysis of isoprene: A quantum-chemical study, *J. Am. Chem. Soc.* **124**, 2692-2703 (2002).

(46) Tie, X., **R. Zhang**, G. Brasseur, W. Lei[#], Global NO_x production by lightning, *J. Atmos. Chem.* **43**, 61-74 (2002).

(45)* Bond[#], D.W., S. Steiger, **R. Zhang**, X. Tie, and R.E. Orville, The importance of NO_x production by lightning in the tropics, *Atmos. Environ*. **36**, 1509-1519 (2002).

(44)* Bond[#], D.W., **R. Zhang**, X. Tie, G. Brasseur, G. Huffines[#], R.E. Orville, and D.J. Boccippio, NO_x production by lightning over the continental United States, *J. Geophys. Res.* **106**, 27701-27709 (2001).

(43)* Zhang[#], D., **R. Zhang**, C. Church, and S.W. North, Experimental study of hydroxylalkyl peroxy radicals from OH-initiated reactions of isoprene, *Chem. Phys. Lett.* **343**, 49-54 (2001).

(42)* Suh[#], I., W. Lei[#], and **R. Zhang**, Experimental and theoretical studies of isoprene reaction with NO_3, *J. Phys. Chem.* **105**, 6471-6478 (2001).

(41) Orville, R.E., G. Huffines, J. Nielsen-Gammon, **R. Zhang**, B. Ely, S. Steiger, S. Philips, S. Allen, and W. Read, Enhancement of cloud-to-ground lightning over Houston, Texas, *Geophys. Res. Lett.* **28**, 2597-2600 (2001).

(40)* Lei[#], W., and **R. Zhang**, Theoretical study of hydroxy-isoprene alkoxy radicals and their decomposition pathways, *J. Phys. Chem.* **105**, 3808-3815 (2001).

(39) Tie, X., **R. Zhang**, G. Brasseur, L. Emmons, and W. Lei[#], Effects of lightning on reactive nitrogen and nitrogen reservoir species, *J. Geophys. Res.* **106**, 3167-3178 (2001).

(38)* Lei[#], W., **R. Zhang**, W.S. McGivern[#], A. Derecskei-Kovacs, and S.W. North, Theoretical study of OH-O_2-isoprene peroxy radicals, *J. Phys. Chem.* **105**, 471- 477 (2001).

(37)* **Zhang, R.**, and W. Lei[#], Reactions of O_2 with OH-isoprene adduct isomers: Exothermicity, product ions, and rate constants, *J. Chem. Phys.* **113**, 8574-8579 (2000).

(36)* Lei[#], W., A. Derecskei-Kovacs, and **R. Zhang**, Ab initio study of OH addition reaction to isoprene, *J. Chem. Phys.* **113**, 5354-5360 (2000).

(35)* **Zhang, R.**, I. Suh[#], W. Lei[#], A.D. Clinkenbeard, and S.W. North, Kinetic studies of OH-initiated reactions of isoprene, *J. Geophys. Res*. **105**, 24627-24635 (2000).

(34)* Nesbitt[#], S.W., **R. Zhang**, and R.E. Orville, Seasonal and global NO_x production by lightning estimated from the Optical Transient Detector (OTD), *Tellus B* **52**, 1206-1215 (2000).

(33)* Lei[#], W., **R. Zhang**, W. S. McGivern, A. Derecskei-Kovacs, and S. W. North, Theoretical study of isomeric branching in the isoprene-OH reaction: Implications to final product yields in isoprene oxidation, *Chem. Phys. Lett.* **326**, 109-114 (2000).

(32)* **Zhang, R.**, N.T. Sanger[#], R.E. Orville, X. Tie, W. Randel, and E.R. Williams, Enhanced NO_x by lightning in the upper troposphere and lower stratosphere inferred from the UARS global measurements, *Geophys. Res. Lett.* **27**, 685-688 (2000).

(31)* Lei[#], W., and **R. Zhang**, Chlorine atom addition reaction to isoprene: A theoretical study, *J. Chem. Phys.* **113**, 153-157 (2000).

(30)* Suh[#], I., and **R. Zhang**, Kinetic studies of the reactions of isoprene initiated by Cl atom, *J. Phys. Chem.* **104**, 6590-6596 (2000).

(29) McGivern, S., I. Suh[#], A.D. Clinkenbeard, **R. Zhang**, S.W. North, Experimental and computational study of the OH-isoprene reaction: Isomeric branching and low-pressure behavior, *J. Phys. Chem.* **104**, 6609-6616 (2000).

(28)* **Zhang, R.**, W. Lei[#], L.T. Molina, and M.J. Molina, Ion transmission and ion/molecule separation using an electrostatic ion guide in chemical ionization mass spectrometry, *Int. J. of Mass Spectrom.* **194**, 41-48 (2000).

(27) Molina, M.J., **R. Zhang**, K. Broekhuizen, W. Lei[#], R. Navarro, and L.T. Molina, Experimental study of intermediates from OH-initiated reactions of toluene, *J. Am. Chem. Soc.* **121**, 10,225-10226 (1999).

(26) Leu, M.T., and **R. Zhang**, Solubility of $CH_3C(O)O_2NO_2$ and HO_2NO_2 in water and aqueous H_2SO_4, *Geophys. Res. Lett.* **26**, 1129-1132 (1999).

(25) Lee, S.H., D.C. Leard, **R. Zhang**, L.T. Molina, and M.J. Molina, The HCl + $ClONO_2$ reaction rate on various water ice surfaces, *Chem. Phys. Lett*. **315**, 7-11 (1999).

(24)* **Zhang, R.**, L.T. Molina, and M.J. Molina, Development of an electrostatic ion guide in chemical ionization mass spectrometry, *Rev. Sci. Instrum*. **68**, 4002-4003 (1998).

(23) Molina, M.J., L.T. Molina, **R. Zhang**, R. Meads, and D. Spencer, Heterogeneous reaction of $ClONO_2$ with HCl on aluminum oxide, *Geophys. Res. Lett.* **24**, 1619-1622 (1997).

(22)* **Zhang, R.**, and M.T. Leu, Heterogeneous interaction of peroxyacetyl nitrate (PAN) with liquid sulfuric acid, *J. Geophys. Res.* **102**, 8837-8843 (1997).

(21)* **Zhang, R.**, M.T. Leu, and L.F. Keyser, Heterogeneous chemistry of HO_2NO_2 on liquid sulfuric acid, *J. Phys. Chem.* **101**, 3324-3330 (1997).

(20) Williams, E.R., and **R. Zhang**, The density of rime in laboratory simulations of thunderstorm microphysics and electrification, *J. Geophys. Res.* **101**, 29715-29719 (1996).

(19)* **Zhang, R.**, M.T. Leu, and M.J. Molina, Formation of polar stratospheric clouds on preactivated background aerosols, *Geophys. Res. Lett.* **23**, 1669-1672 (1996).

(18)* **Zhang, R.**, M.T. Leu, and L.F. Keyser, Heterogeneous chemistry of HONO on liquid sulfuric acid: A new mechanism of chlorine activation on stratospheric sulfate aerosols, *J. Phys. Chem.* **100**, 339-345 (1996).

(17) Williams, E.R., and **R. Zhang**, Editorial, *J. Geophys. Res.* **101**, 29601-29601 (1996).

(16)* **Zhang, R.**, M.T. Leu, and L.F. Keyser, Sulfuric acid monohydrate: Formation and chemical reactivity in the stratosphere, *J. Geophys. Res.* **100**, 18845-18854 (1995).

(15)* **Zhang, R.**, M.T. Leu, and L.F. Keyser, Hydrolysis of N_2O_5 and $ClONO_2$ on the $H_2SO_4/HNO_3/H_2O$ ternary solutions under stratospheric conditions, *Geophys. Res. Lett.* **22**, 1493-1496 (1995).

(14) Wooldridge, P.J., **R. Zhang**, and M.J. Molina, Thermodynamics and phase equilibria of H_2SO_4, HNO_3, and HCl hydrates and composition of polar stratospheric clouds, *J. Geophys. Res.* **100**, 1389-1396 (1995).

(13) Williams, E.R., **R. Zhang**, and D. Boccippio, The microphysical growth state of ice particles and the large scale electric structure of electrified clouds, *J. Geophys. Res.* **99**, 10787-10792 (1994).

(12)* **Zhang, R.**, M.T. Leu, and L.F. Keyser, Heterogeneous reactions involving $ClONO_2$, HCl, and HOCl on liquid sulfuric acid surfaces, *J. Phys. Chem.* **98**, 13563-13574 (1994).

(11)* **Zhang, R.**, J.T. Jayne, and M.J. Molina, Heterogeneous reactions of $ClONO_2$ and HCl on sulfuric acid tetrahydrate: Implications for the stratosphere, *J. Phys. Chem.* **98**, 867-874 (1994).

(10) Demoz, B., **R. Zhang**, and R.L. Pitter, An analysis of Sierra Nevada winter orographic storms: Ground-based ice crystal observations, *J. Appl. Meteor.* **32**, 1826-1836 (1993).

(9) Williams, E.R., and **R. Zhang**, Comments on 'The effect of liquid water on thunderstorm charging', *J. Geophys. Res.* **98**, 10819-10821 (1993).

(8) Molina, M.J., **R. Zhang**, P.J. Wooldridge, J.E. Kim, J.R. McMahon, H.Y. Chang, and K.D. Beyer, Physical chemistry of the $H_2SO_4/HNO_3/H_2O$ system: Implications for the formation of polar stratospheric clouds, *Science* (Research Article) **261**, 1418-1423 (1993).

(7)* **Zhang, R.**, P.J. Wooldridge, J.P.D. Abbatt, and M.J. Molina, Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: Implications for the stratosphere, *J. Phys. Chem.* **97**, 7351-7358 (1993).

(6)* **Zhang, R.**, P.J. Wooldridge, and M.J. Molina, Vapor pressure measurements for the $H_2SO_4/HNO_3/H_2O$ and $H_2SO_4/HCl/H_2O$ systems: Incorporation of stratospheric acids into background sulfate aerosols, *J. Phys. Chem.* **97**, 8541-8548 (1993).

(5) Abbatt, J.P.D., K.D. Beyer, A.F. Fucaloro, J.R. McMahon, P.J. Wooldridge, **R. Zhang**, and M.J. Molina, Interaction of HCl vapor with water-ice: Implications for the stratosphere, *J. Geophys. Res.* **97**, 15819-15826 (1992).

(4) Pitter, R.L., and **R. Zhang**, Numerical simulation of the scavenging rates of ice crystals of various microphysical characteristics, *Adv. Atmos. Sci.* **8**, 175-200 (1991).

(3) Williams, E.R., **R. Zhang**, and J. Rydock, Mixed phase microphysics and cloud electrification, *J. Atmos. Sci.* **48**, 2195-2203 (1991).

(2)* **Zhang, R.**, and R.L. Pitter, A numerical simulation of the aerosol scavenging rate by simple ice crystals, *J. Geophys. Res.* **96**, 22491-22500 (1991).

(1) Mitchell, D.L., **R. Zhang**, and R.L. Pitter, The mass-dimensional relations for ice crystals and the influence of riming on the snowfall rate, *J. Appl. Meteor.* **29**, 153-163 (1990).

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