

CURRICULUM VITAE

ARMIN SOROOSHIAN

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CHRONOLOGY OF EDUCATION

California Institute of Technology	Chemical Engineering	Ph.D. 2008
California Institute of Technology	Chemical Engineering	M.S. 2005
Univ. of Arizona (Summa Cum Laude, Honors)	Chemical Engineering	B.S. 2003

CHRONOLOGY OF EMPLOYMENT

Professor, University Distinguished Scholar, da Vinci Fellow, Department of Chemical and Environmental Engineering (Courtesy Appointments in Hydrology and Atmospheric Sciences, College of Optical Sciences, College of Public Health), University of Arizona (2018-present)

Associate Professor and University Distinguished Scholar, Department of Chemical and Environmental Engineering (Courtesy Appointments in Hydrology and Atmospheric Sciences, and the College of Public Health), University of Arizona (2015-2018)

Assistant Professor, Department of Chemical and Environmental Engineering (Courtesy Appointments in Atmospheric Sciences and Public Health), University of Arizona (2009-2015)

Postdoctoral Scholar, Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University and National Oceanic and Atmospheric Administration (2008–2009)

Undergraduate Researcher, Department of Chemical and Environmental Engineering, University of Arizona (1999-2003)

Internship, Intel Corporation. Santa Clara, CA (Summer 2003)

Internship, Intel Corporation. Chandler, AZ (Summer 2002)

Internship, Hitachi Chemical Corporation. Ibaraki, Japan (Summer 2001)

HONORS

- AGU Research Spotlight: Mardi et al., J. Geophys. Res. (2019)
- Academic Champion (University of Arizona Provost's Office, 2018)
- da Vinci Circle Fellowship (University of Arizona, College of Engineering, 2018)
- Editors' Citation for Excellence in Refereeing for *Journal of Geophysical Research-Atmospheres* (2017)
- Spirit of Inquiry Alumnus Award and Honor's College Commencement Keynote Speaker (University of Arizona, Honor's College, 2017)
- Spirit of ASEMS Award (University of Arizona, Arizona's Science, Engineering, and Math Scholars (ASEMS) program, 2017)
- Faculty Fellows Program (University of Arizona, 2016-present)
- Distinguished Scholar Award (University of Arizona, 2016)
- Editors' Citation for Excellence in Refereeing for *Journal of Geophysical Research-Atmospheres* (2016)
- Invitee and speaker: National Academy of Science's Symposium on Climate Change (Nice, France; 2015)
- Five Star Faculty Award Finalist (1 of 5) awarded by the University of Arizona Honors College (2014-2015)

- Award for Excellence at the Student Interface (2010-2011, 2012-2013, 2014-2015, 2015-2016, 2016-2017, 2017-2018; Dept. of Chemical and Environmental Engineering)
- Co-Organizer and Speaker: 2015 US-Iran Symposium on Climate Change: Impacts and Mitigation, National Academy of Sciences, Beckman Center, Irvine California (March 2015)
- NASA Group Achievement Award for SEAC⁴RS Mission (2015)
- 2014 NASA Earth and Space Science Fellowship (Student: Taylor Shingler)
- Invitee: National Academy of Science's Symposium on Sustainable, Resilient Cities (Irvine, CA; 2014)
- Invitee: 2013 National Academy of Engineering Frontiers of Engineering Education Symposium (Irvine, CA; 2013)
- Invitee: National Academy of Science's US-Iran Symposium on Air Pollution in Megacities (Irvine, CA; 2013)
- Recognition for Reviewing Excellence for *Atmospheric Environment* (2012-2013)
- Editors' Citation for Excellence in Refereeing for *Journal of Geophysical Research-Atmospheres* (2012)
- College of Engineering Education Faculty Fellow (2012-2014)
- Invitee and Co-Chair: National Academy of Engineering's 2012 U.S. Frontiers of Engineering Symposium (Warren, Michigan; 2012)
- Invitee: National Academy of Engineering's 2011 U.S. Frontiers of Engineering Symposium (Mountain View, California; 2011)
- Admitted to and attended the 2011 ASEE National Effective Teaching Institute (Vancouver, Canada)
- AGU Research Spotlight: Sorooshian et al., *J. Geophys. Res.* (2010)
- Office of Naval Research Young Investigator Program Award (2010)
- Invitee to 8th Annual NCAR Early Career Scientist Assembly (ECSA) Junior Faculty Forum (2010)
- ACCESS invitee (Atmospheric Chemistry Colloquium for Emerging Senior Scientists; 2009)
- Outstanding Poster Presentation (Boulder Laboratories Postdoctoral Poster Symposium, 2009)
- Cooperative Institute for Research in the Atmosphere (CIRA) Postdoctoral Fellowship (2008-2009, Colorado State University)
- American Meteorological Society Public Policy Colloquium Fellow (2008)
- Outstanding Achievement in Doctoral Education Award and the Golestani Family Award – (Association of Professors and Scholars of Iranian Heritage, 2008)
- Cornelius J. Pings Graduate Fellowship (Betty and Gordon Moore Foundation, 2003-2007, California Institute of Technology)
- Outstanding Senior - Department of Chemical & Environmental Engineering (U. of Arizona, 2003)
- Outstanding Senior - College of Engineering and Mines (U. of Arizona, 2003)
- Second place – American Institute for Chemical Engineers (AIChE) National Conference Student Poster Contest (Indianapolis, Indiana), 2002
- Air & Waste Management Association Best Student Paper Award (Phoenix, Arizona), 2001
- Second place – American Institute for Chemical Engineers (AIChE) National Conference Student Poster Contest (Reno, Nevada), 2001

FIELD EXPERIMENT PARTICIPATION

- (PI) ACTIVATE: Aerosol Cloud meTeorology Interactions oVer the western ATlantic Experiment (2019-2023; \$30M NASA Earth Venture-Class Suborbital mission)
- CAMP²EX: Cloud and Aerosol Monsoonal Processes-Philippines Experiment, Philippines (2019)
- (PI) MACAWS: Marine Aerosol Cloud and Wildfire Study, Monterey, CA (2018)
- (PI) FASE: Fog and Stratocumulus Evolution Experiment, Monterey, CA (2016)
- (PI) BOAS: Biological Ocean Atmospheric Study, Monterey, CA (2015)
- SEAC⁴RS: Studies of Emissions and Atmospheric Composition, Clouds and Climate Coupling by Regional Surveys (2013)
- (PI) NICE: Nucleation in California Experiment (2013)
- DC-3: Deep Convective Clouds and Chemistry Experiment, United States (2012)
- (PI) E-PEACE: Eastern Pacific Emitted Aerosol Cloud Experiment, Monterey, CA (2011)
- CalNex: California Nexus, Los Angeles, CA (2010)
- PACO: Pasadena Aerosol Characterization Observatory, Pasadena, CA (2009)
- MASE II: Marine Stratus/Stratocumulus Experiment, Monterey, CA (Flight scientist) (2007)
- GoMACCS/TexAQS: Gulf of Mexico Atmospheric Composition and Climate Study/Texas Air Quality Study, Houston, TX (Flight scientist) (2006)
- SOAR: Study of Organic Aerosols at Riverside, Pasadena/Riverside, CA (2005)
- MASE I: Marine Stratus/Stratocumulus Experiment, Monterey, CA (2005)
- ICARTT: International Consortium for Atmospheric Research on Transport and Transformation, Cleveland, OH (2004)

REVIEWER ROLES

NASA (4 panels), EPA (2 panels), NSF (1 panel; 15 proposals), Department of Homeland Security (1 proposal), American Chemical Society Petroleum Research Fund (1 proposal), German Research Foundation (1 proposal), Qatar National Research Fund (3 proposals), European Research Council (1 proposal), Canadian Space Agency (2 proposals), Netherlands Organisation for Scientific Research (1 proposal), City University of New York internal grant competition (1 proposal), Book Chapters (2), Textbook (1), > 100 Articles for Various Peer-Review Journals including: *Nature Geoscience*, *Nature Communications*, *Reviews of Geophysics*, *Chemical Reviews*, *Aerosol Science and Technology*, *Environmental Science and Technology*, *Geophysical Research Letters*, *Journal of Geophysical Research*, *Atmospheric Chemistry and Physics*, *Physical Chemistry Chemical Physics*, *Atmospheric Environment*, *Journal of Advances in Modeling Earth Systems*, *Journal of Atmospheric and Oceanic Technology*, *Atmospheric Measurement Techniques*, *Atmospheric Research*, *Journal of Environmental Quality*, *Environmental Science and Pollution Research*, *Journal of Applied Meteorology and Climatology*, *Entropy*, *Environmental Science: Processes & Impacts*, *Geomatics*, *Natural Hazards and Risk*, *Climatic Change*, *Air Quality*, *Atmosphere & Health*, *International Journal of Climatology*, *Scientia Iranica*, *Ecotoxicology and Environmental Safety*, *Atmospheric Pollution Research*, *Scientific Reports*, *Climate Dynamics*, *Theoretical and Applied Climatology*, *Environmental Pollution*, *Sustainable Cities and Society*

SERVICE POSITIONS HELD

- Editorial Board: Atmosphere
- Editorial Board: Geomatics, Natural Hazards and Risk
- Co-Editor: Atmospheric Chemistry and Physics
- Board of Directors (2017-present), Division Board Member (2011-present); AIChE Environmental Division
- Science Advisory Group for NASA's Aerosols and Cloud-Convection Precipitation (A-CCP) Study

REFEREED JOURNAL PUBLICATIONS

(PI's Graduate Student = ⁺; PI's Undergraduate Student = ⁺⁺)

114. Ma, L. et al. (2019), Size-resolved Characteristics of Water-Soluble Particulate Elements in a Coastal Area: Source Identification, Influence of Wildfires, and Diurnal Variability, *Atmospheric Environment*, <https://doi.org/10.1016/j.atmosenv.2019.02.045>.
113. Alam et al., Temporal Characteristics of Aerosol Optical Properties over the Glacier Region of Northern Pakistan, *Journal of Atmospheric and Solar-Terrestrial Physics*
112. Soltani et al. (2019), Potentially toxic elements (PTEs) and polycyclic aromatic hydrocarbons (PAHs) in fish and prawn in the Persian Gulf, Iran. *Ecotoxicology and Environmental Safety*, in press.
111. Baghani, A. B., et al. (2019), A Case Study of BTEX Characteristics and Health Effects by Major Point Sources of Pollution during Winter in Iran. *Environmental Pollution*, 247, 607-617, <https://doi.org/10.1016/j.envpol.2019.01.070>.
110. Karimi, N., Namdari, S., Sorooshian, A., Bilal, M., and Heidary, P. (2019). Evaluation and modification of SARA high-resolution AOD retrieval algorithm during high dust loading conditions over bright desert surfaces. *Atmosph. Pollut. Res.*, <https://doi.org/10.1016/j.apr.2019.01.008>.
109. Golkhorshidi, F., Sorooshian, A., Jafari, A. J., Baghani, A. N., Kermani, M., Kalantary, R. R., Ashournejad, Q., and Delikhoon, M. (2019), On the nature and health impacts of BTEX in a populated middle eastern city: Tehran, Iran. *Atmosph. Pollut. Res.*, <https://doi.org/10.1016/j.apr.2018.12.020>.
108. Ervens, B., Sorooshian, A., ⁺Aldhaif, A.M., Shingler, T., Crosbie, E., Ziemba, L., Campuzano-Jost, P., Jimenez, J.L., and Wisthaler, A. (2018), Is there an aerosol signature of chemical cloud processing? *Atmos Chem Phys* 18, 16099-16119.
107. ⁺Braun, R. A., ⁺Dadashazar, H., ⁺MacDonald, A. B., Crosbie, E., Jonsson, H. H., Woods, R. K., Flagan, R. C., Seinfeld, J. H., and Sorooshian, A. (2018). Cloud Adiabaticity and its relationship to marine stratocumulus characteristics over the Northeast Pacific Ocean. *J. Geophys. Res. Atmos.*, 123. <https://doi.org/10.1029/2018JD029287>
- *106. ⁺Mardi, A. H., ⁺Dadashazar, H., ⁺MacDonald, A. B., ⁺Braun, R. A., Crosbie, E., Xian, P., Thorsen, T. J., Coggon, M. M., Fenn, M. A., Ferrare, R. A., Hair, J. W., Woods, R. K., Jonsson, H. H., Flagan, R. C., Seinfeld, J. H., and Sorooshian, A. (2018), Biomass Burning Plumes in the Vicinity of the California Coast: Airborne Characterization of Physicochemical Properties, Heating Rates, and Spatiotemporal Features, *J. Geophys. Res.-Atmos.*, 123. <https://doi.org/10.1029/2018JD029134>.

**American Geophysical Union Research Spotlight Article*

105. ⁺Dadashazar, H., ⁺Ma, L., and Sorooshian, A. (2019), Sources of pollution and interrelationships between aerosol and precipitation chemistry at a central California site, *Sci. Total Environ.*, 651, 1776-1787, <https://doi.org/10.1016/j.scitotenv.2018.10.086>.
104. Dehghani, M., Sorooshian, A., Ghorbani, M., Fazlzadeh, M., Miri, M., Badiiee, P., Parvizi, A., Ansari, M., Baghani, A., and Delikhoon, M. (2018), Seasonal variation of culturable bioaerosols in a wastewater treatment plant, *Aerosol Air Qual. Res.*, doi: 10.4209/aaqr.2017.11.0466
103. Crosbie, E., Brown, M. D., Shook, M., Ziemba, L., Moore, R. H., Shingler, T., Winstead, E., Thornhill, K. L., Robinson, C., ⁺MacDonald, A. B., ⁺Dadashazar, H., Sorooshian, A., Beyersdorf, A., Eugene, A., Collett Jr., J., Straub, D., and Anderson, B. (2018), Development and characterization of a high-efficiency, aircraft-based axial cyclone cloud water collector, *Atmos. Meas. Tech.*, 11, 5025-5048, <https://doi.org/10.5194/amt-11-5025-2018>.
102. Dehghani, M., Sorooshian, A., Nazmara, S., Baghani, N., and Delikhoon, M. (2018), Concentration and type of bioaerosols before and after conventional disinfection and sterilization procedures inside hospital operating rooms, *Ecotoxicology and Environmental Safety*, 164, 277-282, <https://doi.org/10.1016/j.ecoenv.2018.08.034>.
101. Brune, W. H., Ren, X., Zhang, L., Mao, J., Miller, D. O., Anderson, B. E., Blake, D. R., Cohen, R. C., Diskin, G. S., Hall, S. R., Hanisco, T. F., Huey, L. G., Nault, B. A., Peischl, J., Pollack, I., Ryerson, T. B., ⁺Shingler, T., Sorooshian, A., Ullmann, K., Wisthaler, A., and Wooldridge, P. J. (2018), Atmospheric oxidation in the presence of clouds during the Deep Convective Clouds and Chemistry (DC3) Study, *Atmos. Chem. Phys.*, <https://doi.org/10.5194/acp-2018-120>.
100. Naimabadi, A., Shirmardi, M., Maleki, H., Teymouri, P., Goudarzi, G., Shahsavani, A., Sorooshian, A., Babaei, A.A., Mehrabi, N., Baneshi, M.M., Zarei, M.R., Lababpou, A., and Ghoskhal, M.G., 2018. On the chemical nature of precipitation in a populated Middle Eastern Region (Ahvaz, Iran) with diverse sources. *Ecotox. Environ. Safe.*, 163, 558-566.
99. Delikhoon, M., Fazlzadeh, M., Sorooshian, A., Baghani, A. N., Golaki, M., Ashournejad, Q., and Barkhordari, A. (2018), Characteristics and health effects of formaldehyde and acetaldehyde in an urban area in Iran, *Environmental Pollution*, 242, 938-951.
98. Keshavarzi, B., Abbasi, S., Moore, F., Mehravar, S., Sorooshian, A., Soltani, N., and Najmeddin, A. (2018), Contamination level, source identification and risk assessment of potentially toxic elements (PTEs) and polycyclic aromatic hydrocarbons (PAHs) in street dust of an important commercial center in Iran, *Environmental Management*, <https://doi.org/10.1007/s00267-018-1079-5>.
97. ⁺Aldhaif, A. M., ⁺Stahl, C., ⁺Braun, R.A., ⁺Moghaddam, M.A., Shingler, T., Crosbie, E., Sawamura, P., ⁺Dadashazar, H., Ziemba, L., Jimenez, J.L., Campuzano-Jost, P., and Sorooshian, A. (2018), Characterization of the real part of dry aerosol refractive index over North America from the surface to 12 km, *J. Geophys. Res.-Atmos.*, 123, 8283-8300.
96. Farsani, M. H., Shirmardi, M., Alavi, N., Maleki, H., Sorooshian, A., Babaei, A., Asgharnia, H., Marzouni, M. B., and Goudarzi, G., (2018), Evaluation of the relationship between PM₁₀ concentrations and heavy metals during normal and dusty days in Ahvaz, Iran, *Aeolian Research*, 33, 12-22, <https://doi.org/10.1016/j.aeolia.2018.04.001>.
95. Zeb, B., Alam, K., Sorooshian, A., Blaschke, T., Ahmad, I., and Shahid, I. (2018), On the morphology and composition of particulate matter in an urban environment. *Aerosol Air Qual. Res.*, doi:10.4209/aaqr.2017.09.0340.

94. Alam, K., Khan, R., Sorooshian, A., Blaschke, T., Bibi, S., and Bibi, H. (2018), Analysis of aerosol optical properties due to a haze episode in the Himalayan foothills: Implications for climate forcing. *Aerosol Air Qual. Res.*, doi:10.4209/aaqr.2017.06.0222.
93. Weiss-Penzias, P., Sorooshian, A., Coale, K., Heim, W., Crosbie, E., ⁺Dadashazar, H., ⁺MacDonald, A. B., ⁺Wang, Z., and Jonsson, H. (2018), Aircraft measurements of total mercury and monomethyl mercury in summertime marine stratus cloudwater from Coastal California. USA, *Environ. Sci. Technol.*, 52 (5), 2527-2537, doi:10.1021/acs.est.7b05395.
92. ⁺Mardi, A.H., ⁺Khaghani, A., ⁺MacDonald, A.B., Nguyen, P., Karimi, N., Heidary, P., Karimi, N., Saemian, P., Sehatkashani, S., Tajrishy, M., and Sorooshian, A. (2018). The Lake Urmia environmental disaster in Iran: A look at aerosol pollution. *Sci. Total Environ.*, 633, 42-49, <https://doi.org/10.1016/j.scitotenv.2018.03.148>.
91. ⁺MacDonald, A. B., ⁺Dadashazar, H., Chuang, P. Y., Crosbie, E., Wang, H., ⁺Wang, Z., Jonsson, H. H., Flagan, R. C., Seinfeld, J. H., and Sorooshian A. (2018), Characteristic vertical profiles of cloud water composition in marine stratocumulus clouds and relationships with precipitation. *J. Geophys. Res.*, 123, <https://doi.org/10.1002/2017JD027900>.
90. Dehghani, M., Fazlzadeh, M., Sorooshian, A., Tabatabaee, H.R., Miri, M., Baghani, A.N., Delikhoon, M., Mahvi, A.H., and Rashidi, M., 2018. Characteristics and health effects of BTEX in a hot spot for urban pollution. *Ecotoxicol. Environ. Saf.*, 155, 133-143, <https://doi.org/10.1016/j.ecoenv.2018.02.065>.
89. Keshavarzi, B., Hassanaghahi, M., Moore, F., Mehr, M., Soltanian, S., Lahijanzadeh, A., and Sorooshian, A. (2018), Heavy metal contamination and health risk assessment in three commercial fish species in the Persian Gulf, *Mar. Pollut. Bull.*, 129, 245-252, <https://doi.org/10.1016/j.marpolbul.2018.02.032>.
88. Sorooshian, A., A. B. MacDonald, H. Dadashazar, K. H. Bates, M. M. Coggon, J. S. Craven, E. Crosbie, S. P. Hersey, N. Hodas, J. J. Lin, A. Negrón Marty, L. C. Maudlin, A. R. Metcalf, S. M. Murphy, L. T. Padró, G. Prabhakar, T. A. Rissman, T. Shingler, V. Varutbangkul, Z. Wang, R. K. Woods, P. Y. Chuang, A. Nenes, H. H. Jonsson, R. C. Flagan, and J. H. Seinfeld (2018). A multi-year data set on aerosol-cloud-precipitation-meteorology interactions for marine stratocumulus clouds. *Sci. Data*, 5:180026, doi:10.1038/sdata.2018.26.
87. ⁺Dadashazar, H., ⁺Braun, R. A., ⁺Crosbie, E., Chuang, P. Y., Woods, R. K., Jonsson, H. H., and Sorooshian, A. (2018), Aerosol Characteristics in the Entrainment Interface Layer In Relation to the Marine Boundary Layer and Free Troposphere, *Atmos. Chem. Phys.*, 18, 1495-1506, <https://doi.org/10.5194/acp-18-1495-2018>.
86. Iftikhar, M., Alam, K., Sorooshian, A., Adil Ali Syed, W., Bibi, S., and Bibi, H. (2018), Contrasting Aerosol Optical and Radiative Properties Between Dust and Urban Haze Episodes in Megacities of Pakistan, *Atmos. Environ.*, 173, 157-172.
85. Namdari, S., Karimi, K., Sorooshian, A., Mohammadi, G., and Sehatkashani, S. (2018), Impacts of climate and synoptic fluctuations on dust storm activity over the Middle East, *Atmos. Environ.*, 173, 265-276.
84. Abbasi, S., Keshavarzi, B., Moore, F., Delshab, H., Soltani, N., and Sorooshian, A. (2017), Investigation of microrubbers, microplastics and heavy metals in street dust: A study in Bushehr city, Iran, *Environ. Earth Sci.*, 76, 798. <https://doi.org/10.1007/s12665-017-7137-0>.
83. Mora, M., ⁺Braun, R. A., ⁺Shingler, T., and Sorooshian, A. (2017), Analysis of Remotely-Sensed and Surface Data of Aerosols and Meteorology for the Mexico Megalopolis Area Between 2003-2015, *J. Geophys. Res.*, 122, doi:10.1002/2017JD026739.

82. ⁺⁺Schlosser, J. S., ⁺Braun, R. A., ⁺⁺Bradley, T., ⁺Dadashazar, H., ⁺MacDonald, A. B., ⁺Aldhaif, A. M., Aghdam, M. A., ⁺Mardi, A. H., Xian, P., and Sorooshian, A. (2017), Analysis of Aerosol Composition Data for Western United States Wildfires Between 2005-2015: Dust Emissions, Chloride Depletion, and Most Enhanced Aerosol Constituents, *J. Geophys. Res.*, *122*, doi:10.1002/2017JD026547.
81. ⁺Braun, R. A., ⁺Dadashazar, H., ⁺MacDonald, A. B., ⁺Aldhaif, A. M., ⁺Maudlin, L. C., ⁺Crosbie, E., Aghdam, M. A., ⁺Mardi, A. H., and Sorooshian, A. (2017), Impact of wildfire emissions on chloride and bromide depletion in marine aerosol particles, *Environ. Sci. Technol.*, *51*(16), 9013-9021, doi:10.1021/acs.est.7b02039.
80. Soltani, N., Keshavarzi, B., Moore, F., Sorooshian, A., and Ahmadi, M. R. (2017), Distribution of Potentially Toxic Elements (PTEs) in Tailings, Soils, and Plants around Gol-E-Gohar Iron Mine, a Case Study in Iran, *Environ. Sci. Pollut. Res.*, *24*, 18798-18816, doi:10.1007/s11356-017-9342-5.
79. Sorooshian, A., ⁺Shingler, T., ⁺Crosbie, E., Barth, M. C., Homeyer, C. R., Campuzano-Jost, P., Day, D. A., Jimenez, J. L., Thornhill, K. L., Ziemba, L. D., Blake, D. R., and Fried, A., (2017), Contrasting aerosol refractive index and hygroscopicity in the inflow and outflow of deep convective storms: Analysis of airborne data from DC3, *J. Geophys. Res.*, *122*, 4565–4577, doi:10.1002/2017JD026638.
78. ⁺Dadashazar, D., ⁺Wang, Z., Crosbie, E., Brunke, M., Zeng, X., Jonsson, H., Woods, R. K., Flagan, R. C., Seinfeld, J. H., and Sorooshian, A. (2017), Relationships between giant sea salt particles and clouds inferred from aircraft physicochemical data, *J. Geophys. Res.*, *122*, 3421–3434, doi:10.1002/2016JD026019.
77. Soltani, N., Keshavarzi, B., Sorooshian, A., Moore, F., Dunster, C., Dominguez, A. O., Kelly, F. J., Dhakal, P., Ahmadi, M. R., and Asadi, S. (2017), Oxidative potential (OP) and mineralogy of iron ore particulate matter at the Gol-E-Gohar Mining and Industrial Facility (Iran), *Environ. Geochem. Health*, doi:10.1007/s10653-017-9926-5.
76. Perring, A. E., Markovic, M. Z., Fahey, D. W., Jimenez, J. L., Campuzano-Jost, P., Palm, B. D., Wisthaler, A., Mikoviny T., Diskin, G., Sachse G., Ziemba, L., Anderson, B., ⁺Shingler, T., ⁺Crosbie, E., Sorooshian, A., Yokelson, R., and Gao, R. S. (2016), In-situ measurements of water uptake by black carbon - containing aerosol in wildfire plumes, *J. Geophys. Res.*, *121*, doi:10.1002/2016JD025688.
75. ⁺Shingler, T., A. Sorooshian, A. Ortega, ⁺E. Crosbie, A. Wonaschuetz, A. E. Perring, A. Beyersdorf, L. Ziemba, J. L. Jimenez, P. Campuzano-Jost, T. Mikoviny, A. Wisthaler, and L. M. Russell (2016), Ambient observations of hygroscopic growth factor and $f(\text{RH})$ below 1: Case studies from surface and airborne measurements, *J. Geophys. Res.*, *121*, doi: 10.1002/2016JD025471.
74. ⁺Youn, J. -S., J. Csavina, K. P. Rine, ⁺T. Shingler, M. P. Taylor, A. E. Saez, E. A. Betterton, and A. Sorooshian (2016), Hygroscopic properties and respiratory system deposition behavior of particulate matter emitted by mining and smelting operations, *Environ. Sci. Technol.*, *50*, 11706-11713, doi: 10.1021/acs.est.6b03621.
73. ⁺Wang, Z., M. M. Ramirez, ⁺H. Dadashazar, ⁺A. B. MacDonald, ⁺E. Crosbie, K. H. Bates, M. M. Coggon, J. S. Craven, P. Lynch, J. R. Campbell, M. A. Aghdam, R. K. Woods, H. Jonsson, R. C. Flagan, J. H. Seinfeld, and A. Sorooshian (2016), Contrasting cloud composition between coupled and decoupled marine boundary layer clouds, *J. Geophys. Res.*, *121*, doi:10.1002/2016JD025695.

72. Jung, E., B. A. Albrecht, A. Sorooshian, P. Zuidema, and H. H. Jonsson (2016), Precipitation susceptibility in marine stratocumulus and shallow cumulus from airborne measurements, *Atmos. Chem. Phys.*, *16*, 11395-11413, doi:10.5194/acp-16-11395-2016.
71. Maleki, H., A. Sorooshian, G. Goudarzi, A. H. Nikfal, M. M. Baneshi (2016), Temporal profile of PM₁₀ and associated health effects in one of the most polluted cities of the world (Ahvaz, Iran) between 2009 and 2014, *Aeolian Res.*, *22*, 135-140.
70. Soleimani, Z., G. Goudarzi, A. Sorooshian, M. B. Marzouni, and H. Maleki (2016), Impact of middle eastern dust storms on indoor and outdoor composition of bioaerosol, *Atmos. Environ.*, *138*, 135-143, <http://dx.doi.org/10.1016/j.atmosenv.2016.05.023>.
69. ⁺Shingler, T., ⁺E. Crosbie, A. Ortega, M. Shiraiwa, A. Zuend, A. Beyersdorf, L. Ziemba, B. Anderson, L. Thornhill, A. E. Perring, J. P. Schwarz, P. Campazano-Jost, D. A. Day, J. L. Jimenez, J. W. Hair, T. Mikoviny, A. Wisthaler, and A. Sorooshian (2016). Airborne Characterization of sub-saturated aerosol hygroscopicity and dry refractive index from the surface to 6.5 km during the SEAC⁴RS campaign, *J. Geophys. Res.*, *121*, doi:10.1002/2015JD024498.
68. Sanchez, K. J., L. M. Russell, R. L. Modini, A. A. Frossard, L. Ahlm, C. E. Corrigan, G. C. Roberts, L. N. Hawkins, J. C. Schroder, A. K. Bertram, R. Zhao, A. K. Y. Lee, J. J. Lin, A. Nenes, ⁺Z. Wang, ⁺A. Wonaschütz, A. Sorooshian, K. J. Noone, H. Jonsson, D. Toom, A. M. Macdonald, W. R. Leaitch, and J. H. Seinfeld (2016). Meteorological and aerosol effects on marine cloud microphysical properties, *J. Geophys. Res.*, *121*, doi:10.1002/2015JD024595.
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BOOKS

1. *Atmospheric Composition Observations*, edited by A. Sorooshian, pp. 322, MDPI. 2016.

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