ATHANASIOS NENES

Contact information
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Professional Preparation

Diploma	Chemical Engineering	1993	National Technical University of Athens, Greece
M.S.	Atmospheric Chemistry	1997	University of Miami
Ph.D.	Chemical Engineering	2003	California Institute of Technology

Appointments/Affiliations

2018-present	Professor of Atmospheric Processes, Ecole Polytechnique Fédérale de Lausanne, Switzerland
2008-present	Affiliated Scientist, Foundation for Research and Technology, Greece
2018-present	Adjunct Professor, Georgia Institute of Technology, USA
2015-2020	Affiliated Scientist, National Observatory of Athens, Greece
2015-2016	Visiting Professor, California Institute of Technology; University of Athens, Greece; National Technical University of Athens, Greece
2011-2018	Professor, Georgia Institute of Technology, USA
2008-2011	Associate Professor, Georgia Institute of Technology, USA
2002-2008	Assistant Professor, Georgia Institute of Technology, USA

Areas of research interests

- Air Quality and Health Impacts of Airborne Pollutants
- Biogeochemical Cycling of Trace Nutrients
- Aerosol-Cloud-Climate Interactions
- Modeling of Aerosols and Clouds
- Aerosol and Cloud Instrumentation
- Development of advanced sensitivity and data mining tools for air quality and climate models.

Honors/Recognitions

Web of Science Highly Cited Researcher, 2020; American Geophysical Union Fellow, 2020; ISI US EPA Scientific and Technological Achievement Award Honorable Mention, 2019; Group Achievement Award, NASA, 2019; European Research Council, Consolidator Grant, 2016; Johnson Faculty Fellow, Georgia Institute of Technology (GIT), 2016; Faces of Inclusive Excellence, GIT, 2015; Cullen-Peck Fellow, GIT, 2014; Dreyfus Foundation Postdoctoral Mentor in Environmental Chemistry, 2014; Vaughan Lectureship in Chemical Engineering, California Institute of Technology, 2014; Atmospheric Sciences Section Ascent Award, American Geophysical Union, 2012; Outstanding Faculty Research Author, GIT, 2012; Kenneth T. Whitby Award, American Association for Aerosol Research, 2011; Georgia Power Faculty Scholar, GIT, 2011; Group Achievement Award, NASA, 2009, 2010; Dean's Distinguished Lecture, College of Engineering, Columbia University, 2010; Henry G. Houghton Award, American Meteorological Society, 2009; Sigma Xi Young Faculty Award, GIT, 2007; Sheldon K Friedlander Award, American Association for Aerosol Research, 2005; Blanchard-Milliken Young Faculty Fellowship, GIT, 2004; NASA New Investigator Program Award, 2004; National Science Foundation CAREER Award, 2004; ACCESS Colloquium Participation, 2003; Dean's Prize, Rosenstiel School of Marine and Atmospheric Sciences, 1998; Best Diploma Thesis Award in Chemical Engineering, Chamber of Engineers (Greece), 1996.

Committees - Service

2019-pres.	President of Atmospheric Sciences Section, European Geophysical Union.
2019-pres.	Swiss National Science Foundation, Ambizione Grants panel member.
2018-pres.	Science Board, Greek Institute for Research and Development
2020	ERC Consolidator Grant Panel Member
2020-2021	Swiss Academy of Sciences, Geosciences Research Infrastructure Roadmap, Atmospheric Sciences co-Chair.
2017-2020	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) – Working Group 38 (Atmospheric input of chemicals to the ocean)

2020	European Research Council - Consolidator Grants Panel member (PE10)
2018-2019	Deputy President of Atmospheric Sciences Section, European Geophysical Union.
2014-2016	National Research Council, Committee on the Future of Atmospheric Chemistry Research, National Academy of Sciences
2012-2016	Secretary of Aerosols & Clouds, Atmospheric Sciences, American Geophysical Union.
2018-2021	PANhellenic infrastructure for Atmospheric Composition and climatE change (PANACEA) Scientific Advisory Board
2014-2018	ETH BACCHUS Scientific Advisory Board
2006-2011	Pacific Northwest National Lab Aerosol-Climate Initiative External Advisory Board
2007-2011	DOE Atmospheric Radiation Measurement Climate Research Facility Science Board
2013-2016	Research Institute Evaluator, General Secretariat for Research and Technology, Greece
2013-pres.	Committee on Nucleation and Atmospheric Aerosols, Member.
2014-2017	Board of Directors, American Association for Aerosol Research
2004-2019	Editor, Atmospheric Chemistry and Physics
2014	Conference Chair, American Association for Aerosol Research Annual Conference
2011	Conference Chair, International Aerosol Modeling Algorithms (IAMA) Conference
2013	Conference co-Chair, International Aerosol Modeling Algorithms (IAMA) Conference
2011-2015	Conference Organization Committee, American Association for Aerosol Research
2009	Student Liason Chair, American Association for Aerosol Research
2009	Tutorial Chair, American Association for Aerosol Research
2010	Education Outreach Chair, American Association for Aerosol Research
2006-2009	Student Liason Committee, American Association for Aerosol Research
2007-2010	Education Outreach Committee, American Association for Aerosol Research

Books/Book chapters/Reports:

National Academies of Sciences, Engineering, and Medicine (2016) *The Future of Atmospheric Chemistry Research: Remembering Yesterday, Understanding Today, Anticipating Tomorrow*. Washington, DC: The National Academies Press. DOI: 10.17226/235730

Nenes, A., Murray, B., Bougiatioti, A. (2014) Mineral Dust and Its Microphysical Interactions with Clouds, In Knippertz, P., and Stuut, J.B., *Mineral Dust: A Key Player in the Earth System*, pp. 287-325, Springer, ISBN 978-94-017-8977-6

Kanakidou, M., Myriokefalitakis, S., Papadimitriou, V.C., Nenes, A. (2020), Aerosol impacts on atmospheric chemistry and composition of deposition, In Dulac, F., and Sauvage, S., *Atmospheric Chemistry and its Impacts in the Mediterranean Region*, Springer

Eugster, W., Baumgartner, L.P., Bachmann, O., Baltensperger, U., Dèzes, P., Dubois, N., Foubert, A., Heitzler, M., Henggeler, K., Hetényi, G., Hurni, L., Müntener, O., Nenes, A., Reymond, C., Röösli, C, Rothacher, M, Schaub, M., Steinbacher, M., Vogel, H. and RoTaGeo, team (2021). Geosciences Roadmap for Research Infrastructures 2025–2028 by the Swiss Geosciences Community. Swiss Academy of Sciences (SCNAT), 10.5281/zenodo.4588881

Refereed Publications – Published/In press (Google Scholar citations: 26465, *h*-index: 88)

1. Vasilakos, P., Pye, H.O.T., Hu, Y., Russell, A., and Nenes, A. (2021) Determining the fate and formation of IEPOX-derived SOA in CMAQ, *Atmosphere*, in press
2. Georgakaki, P., Bougiatioti, A., Wieder, J. Mignani, C. Ramelli, F., Kanji, Z.A., Henneberger, J., Hervo, M., Berne, A., Lohmann, U. and Nenes, A. (2021) On the drivers of droplet variability in Alpine mixed-phase clouds, *Atmos.Chem.Phys.*, in press
3. Baker, A., Kanakidou, M., Nenes, A., Croot, P.L., Ito, A., Duce, R.A., Gao, Y., Guieu, C., Jickells, T.D., Mahowald, N.M., Middag, R., Myriokefalitakis, S., Sarin, M.M., Shelley, R., Perron, M. and Turner, D.R. (2021) Changing atmospheric acidity as a modulator of ocean biogeochemistry, *Sci.Adv.*, in press
4. Paglione, M., Decesari, S., Rinaldi, M., Tarozzi, L., Manarini, F., Gilardoni, S., Facchini, M.C., Fuzzi, S., Bacco, D., Trentini, A., Pandis, S.N., Nenes, A. (2021) Historical changes in seasonal aerosol acidity in the Po Valley (Italy) as inferred from fog water and aerosol measurements, *Env.Sci.Tech*, doi: 10.1021/acs.est.1c00651

5. Vignon, E., Alexander, S. P., DeMott, P. J., Sotiropoulou, G., Gerber, F., Hill., T.C.J., Marchand, R., Nenes, A. and Berne, A. (2021) Challenging and Improving the Simulation of Mid-Level Mixed-Phase Clouds Over the High-Latitude Southern Ocean, *JGR*, https://doi.org/10.1029/2020JD033490.
6. Nenes, A., Pandis, S.N., Kanakidou, M., Russell, A., Song, S., Vasilakos, P., Weber, R.J. (2021) Aerosol acidity and liquid water content regulate the dry deposition of inorganic reactive nitrogen, *Atmos.Chem.Phys.*, 21, 6023–6033, https://doi.org/10.5194/acp-21-6023-2021
7. Harris, T.C., Vuilleumier, L., Backes, C., Nenes, A., Vernez, D. (2021) Satellite-Based Personal UV Dose Estimation, *Atmosphere*, 12, 268, https://doi.org/10.3390/atmos12020268
8. Chen, Y., Shen, H., Kaiser, J., Hu, Y., Capps, S.L., Zhao, S., Hakami, A., Shih, J.-S., Pavur, G.K., Turner, M.D., Henze, D.K., Resler, J., Nenes, A., Napelenok, S.L., Bash, J.O., Fahey, K.M., Carmichael, G.R., Chai, T., Clarisse, K., Coheur, P.F., Van Damme, M., and A.G. Russell (2021) High-resolution Hybrid Inversion of IASI Ammonia Columns to Constrain U.S. Ammonia Emissions Using the CMAQ Adjoint Model, *Atmos.Chem.Phys.*, 21, 2067–2082, https://doi.org/10.5194/acp-21-2067-2021
9. Redemann, J., R. Wood, P. Zuidema, S. J. Doherty, B. Luna, S. E. LeBlanc, M. S. Diamond, Y. Shinozuka, I. Y. Chang, R. Ueyama, L. Pfister, J.-M. Ryoo, A. N. Dobracki, A. M. da Silva, K. M. Longo, M. S. Kacenelenbogen, C. J. Flynn, K. Pistone, N. M. Knox, S. J. Piketh, J. M. Haywood, Formenti, M. Mallet, P. Stier, A. S. Ackerman, S. E. Bauer, A. M. Fridlind, G. R. Carmichael, P. E. Saide, G. A. Ferrada, S. G. Howell, S. Freitag, B. Cairns, B. Holben, K. D. Knobelspiesse, S. Tanelli, T. S. L'Ecuyer, A. M. Dzambo, O. O. Sy, G. M. McFarquhar, M. R. Poellot, S. Gupta, J. R. O'Brien, A. Nenes, M. Kacarab, J. P. S. Wong, J. D. Small-Griswold, K. L. Thornhill, D. Noone, J. R. Podolske, K. S. Schmidt, P. Pilewskie, H. Chen, S. P. Cochrane, A. J. Sedlacek, T. J. Lang, E. Stith, M. Segal-Rozenhaimer, R. A. Ferrare, S. P. Burton, C. A. Hostetler, D. J. Diner, S. Platnick, J. S. Myers, K. Meyer, D. A. Spangenberg, H. Maring, and L. Gao (2021) An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosol-cloud-radiation interactions in the Southeast Atlantic basin, *Atmos.Chem.Phys.*, 21, 1507–1563, https://doi.org/10.5194/acp-21-1507-2021
10. Sotiropoulou, G., Vignon, É., Young, G., Morrison, H., O'Shea, S. J., Lachlan-Cope, T., Berne, A., and Nenes, A. (2021) Secondary ice production in summer clouds over the Antarctic coast: an underappreciated process in atmospheric models, *Atmos. Chem. Phys.*, 21, 755–771, https://doi.org/10.5194/acp-21-755-2021
11. Shahpoury, P., Zhang, Z.W., Arangio, A., Celo, V., Dabek-Zlotorzynska, E., Harner, T., Nenes, A. (2021) Oxidative potential of fine particulate matter – implication of emission source sectors and particle chemical composition, *Env. Int.*, 148 (2021) 106343
12. Kakavas, S., Patoulias, D., Zakoura, M., Nenes, A., Pandis S.N. (2021) Size-resolved aerosol pH over Europe during summer, *Atmos.Chem.Phys.*, **21**, 799–811, https://doi.org/10.5194/acp-21-799-2021
13. Vuilleumier, L., Harris, T., Nenes, A., Backes, C., Vernexs (2021) Developing a UV climatology for public health purposes using satellite data, Env. Int., 146, doi:10.1016/j.envint.2020.106177
14. Kodros, J.K., Papanastasiou, D., Paglione, M., Masiol, M., Squizzato, S., Florou, K., Skyllakou, K., Kaltsonoudis, C., Nenes, A., Pandis, S.N.P. (2020) Rapid dark aging of biomass burning as an overlooked source of oxidized organic aerosol, *Proc.Nat.Acad Sci,*, in press https://doi.org/10.1073/pnas.2010365117
15. Quaas, J., Arola, A., Cairns, B., Christensen, M., Deneke, H., Ekman, A. M. L., Feingold, G., Fridlind, A., Gryspeerdt, E., Hasekamp, O., Li, Z., Lipponen, A., Ma, P.-L., Mülmenstädt, J., Nenes, A., Penner, J., Rosenfeld, D., Schrödner, R., Sinclair, K., Sourdeval, O., Stier, P., Tesche, M., van Diedenhoven, B., and Wendisch, M. (2020) Constraining the Twomey effect from satellite observations: Issues and perspectives, *Atmos. Chem. Phys.*, 20, 15079–15099, https://doi.org/10.5194/acp-20-15079-2020
16. Laaksonen, A., Malila, J., Nenes, A. (2020) Heterogeneous nucleation of water vapor on soot particles, *Atmos.Chem.Phys.*, 20, 13579–13589
17. Bougiatioti, A., Nenes, A., Lin, J.J., Brock, C.A., de Gouw, J., Liao, J., Middlebrook, A.M., Welti, A. (2020) Drivers of cloud droplet number variability in the summertime with focus on the Southeast United States, Atmos.Chem.Phys 20, 12163–12176
18. Chen, Y., Shen, H., Shih, J.S., Russell, A.G., Shao, S., Hu, Y., Odman, M.T., Nenes, A., Pavur, G.K., Burtraw, D., and Driscoll, C.T., Greater contribution from agricultural sources to future reactive nitrogen deposition in the United States. Earth's Future, 8, e2019EF001453
19. Zhao, Q., Nenes, A., Yu, H., Song, S., Xiao, Z., Chen, K., Shi, G., Feng, Y., Russell A.G. (2020) Using high temporal resolution ambient data to investigate gas-particle partitioning of ammonium over different seasons in Tianjin, *Env.Sci.Tech.*, 54, 9834−9843

20. Zhao, S., Russell, M. G., Hakami, A., Capps, S. L., Turner, M. D., Henze, D. K., Percell, P. B., Resler, J., Shen, H., Russell, A. G., Nenes, A., Pappin, A. J., Napelenok, S. L., Bash, J. O., Fahey, K. M., Carmichael, G. R., Stanier, C. O., and Chai, T. (2020) A Multiphase CMAQ Adjoint, *Geosci. Model Dev.*, 13, 2925–2944, https://doi.org/10.5194/gmd-13-2925-2020
21. Wong, J., Yang, Y., Mulholland, J., Russell, A., Sarnat, S., Nenes, A., Weber, R. (2020) Fine Particle Iron in Soils and Road Dust is Modulated by Coal-Fired Power Plant Sulfur, *Env.Sci.Tech., published ASAP*, https://dx.doi.org/10.1021/acs.est.0c00483
22. Methymaki, G., Bossioli, E., Kalogiros, J., Kouvarakis, G., Mihalopoulos, N., Nenes, A., Tombrou, M. (2020) Aerosol absorption over the Aegean Sea under northern summer winds, *Atmos.Env.*, doi: https://doi.org/10.1016/j.atmosenv.2020.117533
23. Pye, H. O. T., Nenes, A., Alexander, B., Ault, A. P., Barth, M. C., Clegg, S. L., Collett Jr., J. L., Fahey, K. M., Hennigan, C. J., Herrmann, H., Kanakidou, M., Kelly, J. T., Ku, I.-T., McNeill, V. F., Riemer, N., Schaefer, T., Shi, G., Tilgner, A., Walker, J. T., Wang, T., Weber, R., Xing, J., Zaveri, R. A., and Zuend, A.: (2020) The Acidity of Atmospheric Particles and Clouds, *Atmos.Chem.Phys.*, 20, 4809–4888
24. Nenes, A., Pandis, S. N., Weber, R. J., and Russell, A. (2020) Aerosol pH and liquid water content determine when particulate matter is sensitive to ammonia and nitrate availability, *Atmos. Chem. Phys*., 20, 3249–3258
25. Kacarab, M., Thornhill, K.L., Dobracki, A., Howell, S.G., O'Brien, J.R., Freitag, S., Poellot, M.R., Wood, R., Zuidema, P., Redemann, J., Nenes, A. (2020) Biomass Burning Aerosol as a Modulator of Droplet Number in the Southeast Atlantic Region, *Atmos.Chem.Phys.*, 20, 3029–3040
26. Negron, A., DeLeon-Rodriguez, N., Waters, S. M., Ziemba, L. D., Anderson, B., Bergin, M., Konstantinidis, K. T., and Nenes, A. (2020) Using flow cytometry and light-induced fluorescence technique to characterize the variability and characteristics of bioaerosols in springtime at Metro Atlanta, Georgia, *Atmos. Chem. Phys.*, 20, 1817–1838
27. Sotiropoulou, G., Sullivan, S., Savre, J., Lloyd, G., Lachlan-Cope, T., Ekman, A., Nenes, A. (2020) The impact of Secondary Ice Production on Arctic Stratocumulus, *Atmos.Chem.Phys.*, 20, 1301–1316.
28. Masiol, M., Squizzato, S., Formentond, G., Badiuzzaman Khan, M., Hopke, P.K., Nenes, A., Pandis, S.N., Tosittik, L., Visinc, F., Pavonic, B. (2020) Hybrid multiple-site mass closure and source apportionment of PM2.5 and aerosol acidity at major cities in the Po Valley, *Sci.Tot.Env.*, doi: 10.1016/j.scitotenv.2019.135287
29. Battaglia, M. A. Jr., Weber, R.J., Nenes, A., Hennigan, C.J. (2019) Effects of Water-soluble Organic Carbon on Aerosol pH, *Atmos.Chem.Phys.*, 19, 14607–14620
30. Song, S., Nenes, A., Gao, M., Zhang, Y., Liu, P., Shao, J., Ye, D., Xu, W., Sun,Y., Liu, B., Wang, S., McElroy, M.B. (2019) Recent Declines in Water Uptake and Acidity of Inorganic Aerosols during Beijing Winter Haze Events, *Env.Sci.Tech.Let.*, 6, 12, 752-760
31. Marinou, E., Tesche, M., Nenes, A., Ansmann, A., Schrod, J., Mamali, D., Tsekeri, A., Pikridas, M., Baars, H., Engelmann, R., Voudouri, K.-A., Solomos, S., Sciare, J., Groß, S., Ewald, F., and Amiridis, V. (2019) Retrieval of ice-nucleating particle concentrations from lidar observations and comparison with UAV in situ measurements, *Atmos. Chem. Phys.*, 19, 11315–11342, https://doi.org/10.5194/acp-19-11315-2019
32. Peng, X., Vasilakos, P., Nenes, A., Shi, G., Qian, Y., Shi, X., Xiao, Z., Chen, K., Feng, Y., Russell, A.G. (2019) A detailed analysis of estimated pH, activity coefficients and ion concentrations between the three aerosol thermodynamic models, *Env.Sci.Tech.*, 53, 8903−8913, DOI: 10.1021/acs.est.9b00181
33. Fanourgakis, G. S., Kanakidou, M., Nenes, A., Bauer, S. E., Bergman, T., Carslaw, K. S., Grini, A., Hamilton, D. S., Johnson, J. S., Karydis, V. A., Kirkevåg, A., Kodros, J. K., Lohmann, U., Luo, G., Makkonen, R., Matsui, H., Neubauer, D., Pierce, J. R., Schmale, J., Stier, P., Tsigaridis, K., van Noije, T., Wang, H., Watson-Parris, D., Westervelt, D. M., Yang, Y., Yoshioka, M., Daskalakis, N., Decesari, S., Gysel Beer, M., Kalivitis, N., Liu, X., Mahowald, N. M., Myriokefalitakis, S., Schrödner, R., Sfakianaki, M., Tsimpidi, A. P., Wu, M., and Yu, F. (2019) Evaluation of global simulations of aerosol particle number and cloud condensation nuclei, and implications for cloud droplet formation, *Atmos. Chem. Phys.*, **19**, 8591-8617
34. Wong, J.P.S., Tsagaraki, M., Tsiodra, I., Mihalopoulos, N., Violaki, K., Kanakidou, M., Sciare, J., Nenes, A., and Weber, R.J. (2019) Effects of Atmospheric Processing on the Oxidative Potential of Biomass Burning Organic Aerosols, *Env.Sci.Tech.*, **53** (12), 6747-6756, doi:10.1021/acs.est.9b01034

35. Falasca, F., Bracco, A., Nenes, A., Fountalis, I. (2019) Dimensionality reduction and network inference for climate data using δ-MAPS: application to the CESM Large Ensemble sea surface temperature, *J.Adv.Mod.Earth Sys.*, **11**. https://doi.org/10.1029/2019MS001654
36. Wong, J.P.S., Tsagaraki, M., Tsiodra, I., Mihalopoulos, N., Violaki, K., Kanakidou, M., Sciare, J., Nenes, A., and Weber, R.J. (2019) Atmospheric Evolution of Molecular Weight Separated Brown Carbon from Biomass Burning, *Atmos. Chem. Phys.*, **19**, 7319–7334
37. Dall´Osto, M., Airs, R.L., Beale, R., Cree, C., Fitzsimons, M. F., Beddows, D., Harrison, R. M., Ceburnis, D., O´Dowd, C., Nenes, A., Rinaldi, M., Paglione, M., Decesari, S. and Simó, R. (2019) Simultaneous detection of alkylamines in the surface ocean and atmosphere of the Antarctic Sympagic Environment, *ACS Earth and Space Chemistry*, 3, 854−862
38. Kalkavouras, P., Bougiatioti, A., Kalivitis, N., Tombrou, M., Nenes, A., and Mihalopoulos, N. (2019) Regional New Particle Formation as Modulators of Cloud Condensation Nuclei and Cloud Droplet Number in the Eastern Mediterranean, *Atmos. Chem. Phys.*, **19**, 6185-6203, https://doi.org/10.5194/acp-19-6185-2019
39. Ito, A., Myriokefalitakis, S., Kanakidou, M., Mahowald, N.M., Scanza, R.A., Hamilton, D.S., Baker, A.R., Jickells, T., Sarin, M., Bikkina, S., Gao, Y., Shelley, R.U., Buck, C.S., Landing, W.M., Bowie, A.R., Perron, M.M.G., Guieu, C., Meskhidze, N., Johnson, M.S., Feng, Y., Kok, J.F., Nenes, A., Duce, R.A. (2019) Pyrogenic iron: The missing link to high iron solubility in aerosols, *Sci.Adv.*, **5**(5), doi: 10.1126/sciadv.aau7671
40. Prisle, N.L., Lin, J.J., Purdue, S., Lin, H., Meredith, J. C., and Nenes, A. (2019) CCN activity of six pollenkitts and the influence of their surface activity, *Atmos.Chem.Phys.*, **19**, 4741-4761
41. Paraskevopoulou, D., Bougiatioti, A., Stavroulas, I., Fang, T., Lianou., M., Liakakou, E., Gerasopoulos E., Weber, R., Nenes, A., Mihalopoulos, N. (2019) Yearlong variability of oxidative potential of particulate matter in an urban Mediterranean environment., *Atmos. Env.*, **206**, 183-196
42. Shi, X., Nenes, A., Xiao, Z., Song, S., Yu, H., Shi, G., Zhao, Q., Chen, K., Feng, Y., Russell, A.G. (2019) High-resolution datasets unravel the effects of sources and meteorological conditions on nitrate and its gas-particle partitioning, *Env.Sci.Tech.*, **53** (6), pp 3048–3057
43. Solomos, S., Bougiatioti, A., Soupiona, O., Papayannis, A., Mylonaki, M., Papanikolaou, C.A., Argyrouli, A., Nenes, A. (2019) Effects of regional and local atmospheric dynamics on the aerosol and CCN load over Athens, *Atmos.Env.*, **197**, 53-65
44. Wang, H., Ding, J., Xu, J., Wen, J., Han, J., Wang, K., Feng, Y., Ivey, C.E., Wang, Y., Nenes, A., Zhao, Q., Russell, A.G. (2019) Effects of Aerosol Acidity, Gaseous Precursors, and Meteorological Conditions on the Formation of Secondary Inorganic PM2.5 Aerosol in an Arid Atmosphere, *Sci.Tot.Env.*, **646**, 564-572
45. Liu, J., Russell, L.M., Ruggeri, G., Takahama, S., Claflin, M., Ziemann, P.J., Pye, H.O.T., Murphy, B.N., Xu, L., Ng, N.L., McKinney, M., Budisulistiorini, S.H., Bertram, T.H., Nenes, A. and Surratt, J.D. (2018) Regional Similarities and NOx-related Increases in Biogenic Secondary Organic Aerosol in Summertime Southeastern U.S., *J.Geoph.Res.*, **123**, 10,620–10,636
46. Guo, H., Nenes, A., Weber, R.J. (2018) The underappreciated role of nonvolatile cations on aerosol ammonium-sulfate molar ratios, *Atmos.Chem.Phys.*, **18**, 17307–17323
47. Myriokefalitakis, S., Ito, A., Kanakidou, M., Nenes, A., Krol, M.C., Mahowald, N.M., Scanza, R.A., Hamilton, D.S., Johnson, M.S., Meskhidze, N., Kok, J.F., Guieu, C., Baker, A.R., Jickells, T.D., Sarin, M.M., Srinivas, B., Perron, M. and Duce, R.A. (2018) The GESAMP atmospheric iron deposition model intercomparison study, *Biogeosciences*, **15**, 6659-6684
48. Sullivan, S.C., Barthlott, C., Crosier, J., Nenes, A., and Hoose, C. (2018) The effect of secondary ice production parameterization on the simulation of a cold frontal rainband, *Atmos.Chem.Phys.*, **18**, 16461-16480
49. Vasilakos, P., Russell, A., Weber, R., and Nenes, A. (2018) Understanding nitrate formation in a world with less sulfate, *Atmos.Chem.Phys.*, **18**, 12765-12775
50. A. Sorooshian, 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. Negron Marty, L.C. Maudlin, A.R. Metcalf, S.M. Murphy, L.T. Padro, 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, J.H. Seinfeld (2018) A Multi-Year Data Set on Aerosol-Cloud-Precipitation-Meteorology Interactions for Marine Stratocumulus Clouds, *Sci.Dat.*, **5**, 180026
51. Bacer, S., Sullivan, S., Karydis, V.A., Barahona, D., Nenes, A., Tost, H., Tsimpidi, A.P., Lelieveld, J., and Pozzer, A. (2018) Implementation of a comprehensive ice crystal formation parameterization for

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298. West, J.J., Pilinis, C., Nenes, A., Pandis, S.N. (1998) Marginal Direct Climate Forcing by Atmospheric Aerosols, *Atmos. Environ.*, **32 (14-15)**, 2531-2542
299. Koloutsou-Vakakis, S., Rood, M.J., Nenes, A., Pilinis, C. (1998) Modeling of Aerosol Properties Related to Direct Climate Forcing, *J. Geophys. Res.*, **103 (D14)**, 17009-17032
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301. Nenes, A., Assimacopoulos, D., Markatos, N., Karidakis, G. (1996) Simulation of Airlift Pumps for Moderate-Depth Water Wells, *Technika Chronika*, **14**, 1-20

Refereed Publications – In review

1. Sotiropoulou, G., Ickes, L., Nenes, A., and Ekman, A. M. L. (2020) Ice multiplication from ice-ice collisions in the high Arctic: sensitivity to ice habit, rimed fraction and the spectral representation of the colliding particles, Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2020-786, in review

2. Ibikunle, I., Allen, H., Beyersdorf, A.,Campuzano-Jost, P., Corr., C., Crounse, J., Dibb, J., Diskin, G., Huey, L.G., Jimenez, J.L., Scheuer, E., Kim, M., Teng, A., Wennberg, P., Anderson, B., Crawford, J., Weber, R., Nenes, A., pH and PM sensitivity fine particles to NH_3 and HNO_3 over summertime South Korea during KORUS-AQ, *Atmos.Chem.Phys.*, in review
3. Chatwin-Davies, R., Alhusban, A., Oztaner, B., Zhao, S., Soltanzadeh, M., Fillingham, M., Hakami, A., Pappin, A.J., Kheirbek, A., Ito, K., Haney, J., Douglas, S., Capps, S.L., Henze, D.K., Percell, P.B., Resler, J., Russell, A.G., Nenes, A., Carmichael, G.R., Adjoint Sensitivity Analysis for Development of Coordinated Environmental Justice and Population Health Policies in New York, in review
4. Tilgner, A., Schaefer, T., Alexander, B., Barth, M., Collett, J.L., Fahey, K.M., Nenes, A.N., Pye, H.O.T., Herrmann, H., and McNeill, V.F., Acidity and the multiphase chemistry of atmospheric aqueous particles and clouds, *Atmos.Chem.Phys.*, in review
5. Violaki, K., Nenes, A., Tsagaraki, M., Paglione, M., Jacquet, S., Sempéré, R., Panagiotopoulos, C., Bioaerosols and dust are the dominant sources of organic P in atmospheric particles, in review.
6. Nair, A.A., Yu, F., Campuzano-Jost, P., DeMott, P.J., Moore, K.A., Levin, E.J.T., Peischl, J., Pollack, I.B., Fredrickson, C.D., Beyersdorf, A.J., Nault, B.A., Park, M., Yum, S.S., Xu, L., Bourgeois, I., Anderson, B.E., Nenes, A., Ziemba, L.D., Moore, R.H., Barry, K.R., Toohey, D.W., Reeves, J.N., Palm, B.B., Jimenez, J.L., Lee, T., Park, T., Thompson, C.R., Flocke, F., Ryerson, T.B., Huey, L.G., Kim, M.J., Peng, Q., and Thornton, J.A., Machine learning uncovers aerosol size information from chemistry and meteorology to quantify potential cloud-forming particles, Geoph.Res.Let., *in review*
7. Lbadaoui-Darvas, M., Takahama, S., and Nenes, A., Molecular scale description of interfacial mass transfer in phase separated aqueous secondary organic aerosol, *Atmos.Chem.Phys.*, in review
8. Wei, Y., Nenes, A., Yu, H., Gao, J., Liang, D., Shi, G., Feng, Y., Russell A.G., Synergistic effect of driving factors from oxidation and distribution processes during nitrate gas phase formation, basing on theoretical calculation and online observation, *Env.Sci.Tech.*, in review
9. Tsiodra, I., Grivas, G., Tavernaraki, K., Bougiatioti, A., Apostolaki, M., Paraskevopoulou, D., Gogou, A., Parinos, C., Oikonomou, K., Tsagkaraki, M., Zarmpas, P., Nenes, A. and Mihalopoulos, N., Year-long variability of polycyclic aromatic hydrocarbons (PAHs) and their contribution on winter intense pollution events in the urban environment of Athens, Greece, *Atmos.Chem.Phys.*, in review
10. Jorga, S.D., Florou, K., Kaltsonoudis, C., Kodros, J.K., Vasilakopoulou, C., Fouqueau, A., Picquet-Varrault, B., Nenes, A., and Pandis, S.N., Night-time chemistry of biomass burning plumes in urban areas: A dual mobile chamber study, *Atmos.Chem.Phys.*, in review
11. Lbadaoui-Darvas, M., Garberoglio, G., Karadima, K.S., Cordeiro, M.N., Nenes, A., and Takahama, S., Molecular Simulations of Interfacial Systems: Challenges, Applications and Future Perspectives, Mol.Sim., in review
12. Kakavas, S., Pandis, S.N., and Nenes, A., ISORROPIA-lite: A comprehensive atmospheric aerosol thermodynamics module for Earth System Models, *Tellus B*, in review

Other Publications:

Roberts, G., and Nenes, A., "Stream-Wise Thermal Gradient Cloud Condensation Nuclei Chamber.", US Patent No. 7,656,510 (issued 2 February, 2010).

Postdocs mentored: Nicholas Meskhidze (GIT; 2003-2006); Rafaella Sotiropoulou (GIT; 2005-2009); Vlassis Karydis (GIT; 2009-2011); Alexandra Tsimpidi (GIT; 2009-2011); Tomi Raatikainen (GIT; 2010-2012); Aikaterini (Katerina) Bougiatioti (GIT; 2013-2014); Kalliopi Violaki (GIT; 2014-2015); Samantha Waters (GIT; 2014-2016); Mary Kacarab (GIT; 2016-2018); Pui Shan (Jenny) Wong (GIT; 2015-2019); Mauro Masiol (FORTH; 2018-2019); Marco Paglione (FORTH; 2018-2019); Stefania Squizzato (FORTH; 2018-2019); Georgia Sotiropoulou (EPFL; 2018-2020); Jack Kodros (FORTH; 2018-2021); Andrea Arangio (EPFL; 2020-); Kalliopi Violaki (EPFL;2019-); Ghislain Motos (EPFL; 2020-); Maria Lbdaoui-Darvas (EPFL;2020-); Michael Battaglia (GIT; 2019-)

PhD students graduated: Fountoukis, Christos (GIT; 2007); Lance, Sara (GIT; 2007); Asa-Awuku, Akua-Asabea (GIT; 2008); Hsieh, Wei-Chun (GIT; 2009); Padro, Luz-Tereza (GIT; 2009); Barahona, Donifan (GIT; 2010); Kumar, Prashant (GIT; 2011); Moore, Richard (GIT; 2011); Lathem, Terry (GIT; 2012); Capps, Shannon (GIT; 2012); Morales Betancourt, Ricardo (GIT; 2013); Cerully, Kate (GIT; 2013); Liu, Peng (GIT; 2015); Lin, Jack (GIT; 2016); Sullivan, Sylvia (GIT; 2017); Vasilakos, Petros (GIT; 2018); Arnaldo Negron-Marty (GIT; 2019); Paraskevi Georgakaki (EPFL; 2019-); Lucile Ricard (EPFL; 2020-); Irene Tsiodra (FORTH; 2018-).

MSc students graduated: Williams, Robyn (GIT; 2005); Sheyko, Benjamin (GIT; 2014); Negron, Arnaldo (GIT; 2016); Purdue, Sara (GIT; 2016); Forrister, Haviland (GIT; 2017); Shi, Tianyu (GIT; 2018); Harabia Baliaka (FORTH; 2020-)

Invited Seminars

Panel Member, Swiss Medical Weekly, Indoor Air and COVID Transmission, May 10, 2021
Short Course "European Research Council Funding Opportunities", EGU General Assembly, April 20, 2021
Department of Chemical Engineering, University of Patras, Patras, Greece, December 19, 2020
American Geophysical Union, San Francisco, December 9, 2020
FORCeS winter school at Tjärnö, Norway, November 5, 2020
iMIRACLI Summer School, University of Oxford, UK, September 15, 2020
Plenary Lecture, Aerosol Acidity and Secondary Particles Workshop, Nankai University, China, December 6, 2019
Plenary Lecture, Annual Assembly of the PANhellenic infrastructure for Atmospheric Composition and climatE chAnge (PANACEA), Heraklion, Crete, September 23, 2019
Institute of Atmospheric Sciences and Climate, National Research Council, Bologna, Italy, July 2, 2019
Inaugural Lecture, Ecole Polytechnique federale de Lausanne, Switzerland, June 18, 2019
Summer School Lecturer on Atmospheric Aerosols and Clouds, Hellenic Association for Aerosol Research, Pylos, Greece, June 12, 2019
Atmospheric Acidity Workshop, US EPA- Research Triangle Park, Maryland, USA, May 31, 2019
Atmospheric Chemistry Group, Paul Scherer Institute, March 27, 2019
Quantifying & Reducing Uncertainty in Earth System Model projections, Leeds University, UK, January 9, 2019
Invited talk, EuroScience Open Forum, Toulouse, France, July 13, 2018
Keynote talk, Gordon Research Conference on Biogenic Hydrocarbons and the Atmosphere, Les Diablerets, Switzerland, June 10, 2018
Summer School Lecturer on Atmospheric Aerosols and Clouds, Hellenic Association for Aerosol Research, Pylos, Greece, June 8, 2018
Dow Chemical Company Keynote Address, 39th Annual ChEGSA Symposium, Carnegie Mellon University, Pittsburgh, PA, 26 October, 2017
Environmental Science & Engineering, Harvard University, Boston, MA, 15 September, 2017
Department of Chemistry, University of Crete, Heraklion, Greece, 19 July, 2017
Plenary Lecture, 28th International Lidar and Radar Conference, Bucharest, Romania, 26 June 2017
Department of Environmental Engineering, Ecole Polytechnique Federale de Lausanne, Switzerland, 24 June 2017
National Observatory of Athens, Palea Penteli, Greece, 8 June 2017
Summer School Lecturer on Atmospheric Aerosols and Clouds, Hellenic Association for Aerosol Research, Pylos, Greece, May 24, 2017
GESAMP Workshop on the impacts of changing Atmospheric and Oceanic Acidity, Norwich, UK, February 27, 2017
Meteorological Institute, Stockhom Univeristy, Sweden, January 12, 2017
Institute for Atmospheric and Climate Science, ETH Zurich, January 9, 2017
Tutorial Speaker, American Association for Aerosol Research, Portland, OR, October 25, 2016.
35th ITM on Air Pollution Modelling and Applications, Chania, Greece, October 3, 2016
Department of Physics, Aristotelian University of Thessaloniki, Greece, June 2, 2016
Hellenic Association for Aerosol Research, Annual Assembly, Pylos, Greece, May 16, 2016
European Geophysical Union, General Assembly, Vienna, Austria, April 20, 2016
WMO workshop on reactive nitrogen deposition, York, UK, April 14, 2016
ESA-ACTRIS General Assembly, Rome, Italy, March 2, 2016
University of West Macedonia, Department of Env. Engineering, Kozani, Greece, January 19, 2016
Stockholm University, Department of Meteorology, Stockholm, Sweden, January 12, 2016
University of Patras, Department of Chemical Engineering, Patras, Greece, December 15, 2015
University of Athens, Department of Physics, Athens, Greece, December 11, 2015
Secondary Ice Multiplication Symposium, Manchester, UK, November 3, 2015
American Association of Aerosol Research, Annual Assembly, Minneapolis, MN, October 14, 2015
Department of Chemical Engineering, University of California, Berkeley, CA, October 13, 2015

Nutrient Cycling on the Modern and Ancient Earth, Plenary Speaker, University of Leeds, July 7, 2015
National Academy of Sciences, Sackler Symposium on Improving Our Fundamental Understanding of the Role of Aerosol-Cloud Interactions in the Climate System, Irvine, CA, June 23, 2015
ENV-VISION Conference, Crystal City, VA, May 14, 2015
Climate@Emory Day of Scholarship, Atlanta, GA, April 24, 2015
NOSA-FAAR Annual Assembly Plenary Speaker, Kuopio, Finland, March 12, 2015.
Electrical Power Research Institute, Env.Advisory Program Mtg, Charleston, SC, February 10, 2015.
Institute for Atmospheric and Climate Science in Zurich, Switzerland, January 14, 2015.
European Research Council, Brussels, Belgium, November 18, 2014.
Initial Training for Atmospheric Remote Sensing (ITARS Summer School), September 12, 2014.
Department of Chemical Engineering, National Technical University of Athens, Greece, June 10, 2014.
Plenary Talk, 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Crete, Greece, May 29, 2014.
Vaughan Lectureship in Chemical Engineering, Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, May 8, 2014
Physical Chemistry seminar, Department of Chemistry, University of Georgia, Athens, GA, April 8, 2014
American Meteorological Society, Annual Assembly, Atlanta, GA, February 7, 2014
NOAA Geophysical Research Laboratory, Princeton University, Princeton, NJ, December 5, 2013
NSF Workshop on the hydrometeorological implications of extensive urbanization, Department of Civil and Environmental Engineering, Princeton University, December 3, 2013
Tutorial Speaker, American Association for Aerosol Research, Portland, OR, September 30, 2013
Initial Training for Atmospheric Remote Sensing (ITARS Summer School), September 24, 2013.
Goldschmidt Conference, Florence, Italy, August 30, 2013.
Pacific Northwest National Laboratory, Global Change Frontiers Seminar, Richland, WA, August 1, 2013
NASA Headquarters, Brownbag Seminar Series, Washington DC, March 21, 2013.
Environmental Sciences PhD program, Ball State University, Muncie, IN, March 12, 2013.
IGAC Open Science Conference "Atmospheric Chemistry in the Anthropocene", Beijing, China, September 20, 2012
Gordon Research Conference on Biogenic Hydrocarbons & the Atmosphere, Lewiston, ME, June 27, 2012.
Alpine Summer School on Climate, Aerosols and the Cryosphere, Valsavarenche, Italy, June 20-29, 2012.
7th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries, Corfu, Greece, April 30, 2012.
84th Meeting of the Petroleum Environmental Research Forum, Bartlesville, OK, November 10, 2011.
International Aerosol Modeling Algorithms Conference, Davis, CA, December 2, 2011.
American Chemical Society, Fall SERMACS Assembly, Richmond, VI, October 26, 2011.
American Institue of Chemical Engineers, Annual Assembly, Minneapolis, MN, October 17, 2011.
Tutorial Speaker, American Association for Aerosol Research, Orlando, FL, October 4, 2011.
American Chemical Society, Fall General Assembly, Denver, CO, August 30, 2011.
Goldschmidt Conference, Prague Czech Republic, August 16, 2011.
Karlsruhe Institute of Technology, Germany, August 12, 2011.
Department of Physics, University of Athens, Greece, June 23, 2011.
Demokritos National Center of Scientific Research, Athens, Greece, June 24, 2011.
Plenery Lecture, DOE ASR Annual Science Meeting, San Antonio, TX, March 31, 2011.
American Geophysical Union, Fall Meeting, San Francisco, CA, December 15, 2010.
Department of Physics, University of Oxford, United Kingdom, November 23, 2010.
Institute of Climate and Atmospheric Science, University of Leeds, United Kingdom, November 17, 2010.
School of the Environment, University of Leeds, United Kingdom, November 15, 2010.
Tutorial Speaker, American Association for Aerosol Research, Portland, OR, October 25, 2010.
Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA, September 17, 2010.
Telluride Workshop on Cloud Physics, Telluride, CO, 2010.
Jet Propulsion Laboratory, Pasadena, CA, May 6, 2010.
Dean's Distinguished Lecture, College of Engineering, Columbia University, April 20, 2010.
Forum on Aerosols and Climate, Yale University, March 26, 2010.
American Meteorological Society, January 19, 2010.
International Aerosol Modeling Algorithms Conference, Davis, CA, December 12, 2009.

International Aerosol Modeling Algorithms Conference, Davis, CA, December 11, 2009.
University of Kuopio, Finland, Department of Physics, December 3, 2009.
University of Copenhagen, Denmark, Department of Chemistry, November 25, 2009.
National Academy of Engineering, Japan-America Frontiers of Engineering, Irvine, 11 November, 2009.
American Association for Aerosol Research, Minneapolis, MN, October 25, 2009.
Georgia Air Policy Symposium, Atlanta, GA, August 4, 2009.
Goldschmidt Conference, Davos Switzerland, 26 June 2009.
Georgia Institute of Technology, School of Chemical and Biomolecular Engineering, 2 April, 2009.
University of Manchester, UK, School of Earth, Atmospheric & Environmental Sciences, 8 January, 2009.
Columbia University, Department of Chemical Engineering, 25 November, 2008.
3rd International Dust Workshop, Leipzig, Germany, 17 September, 2008.
Telluride Summer Research Workshop on Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact, Telluride, CO, 5 August, 2008.
American Physical Society, Annual Meeting, New Orleans, LA, 13 March 2008.
Department of Chemical Engineering, Bucknell University, Lewisburgh, PA, March 25, 2008.
NASA Ames Research Center, Moffett Field, CA, February 27, 2008.
Atmospheric Sciences Center Seminar, UC-Berkeley, Berkeley, CA, February 26, 2008.
American Association for the Advancement of Science, Annual Meeting, Boston, MA, 2008.
NASA CERES Workshop on aerosol-cloud interactions, Victoria, BC, Canada, November 14, 2007.
American Geophysical Union, Fall Meeting, San Francisco, CA, December 12, 2007.
International Aerosol Modeling Algorithms Conference, Davis, CA, December, 2007
Tutorial Speaker, American Association for Aerosol Research, Reno, NV, September, 2007.
Gordon Research Conference in Atmospheric Chemistry, Big Sky, MT, August 2007
School of Earth and Atmospheric Sciences, Georgia Institute of Technology, GA, August, 2007
Gordon Research Conference in Radiation in Climate, Colby Sawyer College, NH, August 2007
Institute of Chemical Engineering-University of Patras, Patras, Greece, June 2007
NASA Goddard Institute of Space Studies, New York, May, 2007.
INTROP/ESF meeting, Heraklion, Crete, Greece, April 2007
American Chemical Society, Annual Meeting, Chicago, IL, 2007
Atmospheric Sciences Seminar, Massachusetts Institute of Technology, Boston, MA, December 18, 2006.
Southeastern Regional Meeting of the American Chemical Society, Augusta, GA, November 1, 2006.
Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, PA, October 8, 2006.
Annual Congress of the Mexican Chemical Society, Mexico City, Mexico, September 28, 2006.
Tutorial Speaker, International Aerosol Conference, Saint Paul, MN, September 10, 2006.
2nd International Conference On Global Warming And The Next Ice Age And Aerosol Workshop On Climate Prediction Uncertainties, Santa Fe, NM, July 20, 2006.
NASA-Goddard Space Flight Center, Greenbelt, MD, April 10, 2006.
Universidad Autonoma de Aguascalientes, Aguascalientes, Mexico, March 27, 2006
American Geophysical Union, Fall Meeting, San Francisco, CA, December 7, 2005.
Department of Earth Sciences, University of California at Santa Cruz, CA, November 8, 2005.
ACD Seminar, National Center for Atmospheric Research, Boulder, CO, June 25, 2005.
NASA Jet Propulsion Laboratory, Pasadena, CA, February 18, 2005
CDSNS Colloquium, School of Mathematics, Georgia Institute of Technology, January 10, 2005.
American Geophysical Union, Fall Meeting, San Francisco, CA, December 17, 2004.
Department or Earth and Atmospheric Sciences, Harvard University, December 10, 2004.
Aspen Global Change Institute, "Aerosols and the Hydrological Cycle", 17 July 2004.
NASA-Goddard Space Flight Center, Greenbelt, MD, June 9, 2004.
Department of Chemical Engineering, National Technical University of Athens, Greece, May 13, 2004.
Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, April 26, 2004.
Department of Chemistry, University of Crete, Greece, December 19, 2003.
NOAA-Aeronomy Laboratory, Boulder, CO, May 28, 2003.
NASA-Goddard Institute of Space Studies, New York City, NY, March 7, 2003.
Center for Integrated Study of the Human Dimensions of Global Change, Carnegie Mellon University, Pittsburgh, PA, November 20, 2002.

Membership in Professional and Honor Societies

American Chemical Society, American Institute of Chemical Engineers, American Meteorological Society, American Association for Aerosol Research, American Geophysical Union, European Geophysical Union, Hellenic Association for Aerosol Research, Earth System Scholars Forum, Technical Chamber of Engineers (Greece)

Last updated: May 25, 2021