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a. Professional Preparation

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| West Texas A&M University | Environmental Science | M.S. | 2005 |
| Texas A&M University | Atmospheric Science | Ph.D. | 2010 |
| Pacific Northwest National Lab | Atmospheric Science | Postdoc | 2012 |

b. Appointments

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| 2021 – | Associate Professor, West Texas A&M Univ., Dept. of Life, Earth and Environmental Sciences, Canyon, TX |
| 2019 – | Adjunct Professor, Texas Tech Univ., Dept. of Environmental Toxicology, Lubbock, TX |
| 2016 – 2021 | Assistant Professor, West Texas A&M Univ., Dept. of Life, Earth and Environmental Sciences, Canyon, TX |
| 2012 – 2016 | Research Scientist (TV-L 13), Karlsruhe Institute of Technology, Institute for Meteorology and Climate Research – Atmospheric Aerosol Research, Karlsruhe, Germany |

c. External Grants (last five years)

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| 2021 – | <i>Chemical Imaging of Particles from TRACER field study (Co-I)</i> . Grant specification - EMSL user grant; Source - U.S. DOE, Funding ID: 51867; Award Period Covered: 10/1/2021 - 9/30/2022 |
| 2021 – | <i>Investigation of the Aerosol Impact on the Surface-Atmosphere Interactions (Co-I)</i> . Grant specification - EMSL user grant; Source - U.S. DOE, Funding ID: 51866; Award Period Covered: 10/1/2021 - 9/30/2022 |
| 2020 – | <i>MRI: Acquisition of a surface & sorption characterization instrument to enable multi-disciplinary research at a rural West Texas HSI (Co-PI)</i> . Grant specification – NSF MRI; Amount \$257,361 ; Source - NSF, Funding ID: 2018383; Award Period Covered: 08/25/2020 - 08/24/2023 |
| 2020 – | <i>CAREER: The Role of Ice-Nucleating Particles and Their Feedback on Clouds in Warming Arctic Climate (PI)</i> . Grant specification – NSF CAREER; Amount \$500,000 (\$260,879 to date); Source - NSF, Funding ID: 1941317; Award Period Covered: 07/01/2020 - 06/30/2025 |
| 2018 – | <i>Implications of Aerosol Physicochemical Properties Including Ice Nucleation at ARM Mega Sites for Improved Understanding of Microphysical Atmospheric Cloud Processes (PI)</i> . Grant specification – DOE Early Career Research Program (ECRP) Award; Amount \$750,000 ; Source - U.S. DOE, Office of Science; Funding ID: DE-SC0018979; Award Period Covered: 09/01/2018 - 08/31/2023 |
| 2019 – 2020 | <i>Small Field Campaign: Aerosol-Ice Formation Closure Pilot Study (Co-PI)</i> . Grant specification - U.S. DOE Atmospheric System Research program; Amount: \$357,055 ; Source - U.S. DOE; Funding ID: FAP (DE-SC0020006); Award Period Covered: 05/01/2019 - 10/31/2020 |
| 2018 – 2019 | <i>Investigation of Morphological and Mixing State Properties of Aerosol and Ice Crystal Residual Particles from the Atlantic Sector of the Arctic (PI)</i> . Grant specification - Environmental Molecular Sciences Laboratory (EMSL) General Cycle grant; Amount |

- \$49,567**; Source - U.S. DOE, Funding ID: 50504; Award Period Covered: 10/01/2018 - 09/30/2019
- 2018 – 2020 *Fate & Transport of Antimicrobial-Resistant Bacteria in Feedyard Dust: filling the gaps (Collaborator)*. Grant speciation - Texas A&M AgriLife Research Air Quality Research Seed Grant Program; Amount **\$247,735**; Source - Texas A&M AgriLife Research, Funding ID: N/A; Award Period Covered: 09/01/2018 - 08/31/2020
- 2018 *AIDA (Aerosol Interaction and Dynamics in the Atmosphere) Investigation on Ice Nucleation Activity of Dust Particles Emitted from Cattle Feeding Operations in Texas Panhandle (PI)*. Grant specification - Transnational Access under EUROCHAMP-2020; Amount **\$13,405**; Source - EUROCHAMP-2020, Funding ID: 730997; Award Period Covered: 10/01/2018 - 11/30/2018
- 2018 *Ice Nucleating Particles in the Arctic Region (Collaborator)*. Grant speciation – CNR grant; Amount **\$8,000**; Source - National Research Council - Institute of atmospheric sciences and climate, Funding ID: INPAR; Award Period Covered: 04/15/2018 - 09/30/2018
- 2016 – 2017 *Chemical and Physical Characterization of Fertile Soil-derived Ice Residuals from the Fifth International Ice Nucleation Workshop in November 2014 - FIN-1 (Co-I)*. Grant specification - EMSL Scientific theme grant; Amount **\$31,841**; Source - U.S. DOE, Funding ID: 49302; Award Period Covered: 10/01/2016 - 09/30/2017
- 2015 – 2017 *Development and Evaluation of A Simple but Powerful Method for Measuring Atmospheric Ice Nucleating Particles (Co-I)*. Grant specification - Arctic Challenge for Sustainability (ArCS) project grant; Amount **\$33,000**; Source - Japan Society for the Promotion of Science (JSPS); Funding ID: 15K13570; Award Period Covered: 4/1/2015 - 3/31/2017
- 2015 – 2016 *Molecular Identification of Non-proteinaceous Biological Particles towards Nucleating Ice (Co-I)*. Grant specification - EMSL general user grant; Amount **\$24,519**; Source - U.S. DOE, Funding ID: 49077; Award Period Covered: 10/15/2015 - 09/30/2016

d. Memberships

- 2012 – Member, Conference Network: European Geosciences Union (EGU)
- 2007 – Member, Conference Network: American Geophysical Union (AGU)
- 2007 – Member, Conference Network: American Meteorological Society (AMS)

e. Awards and Scholarships/Fellowships

- 2020 University Intellectual Contributions Award, West Texas A&M University
- 2020 PCANS College Intellectual Contributions Award, West Texas A&M University
- 2020 NSF CAREER Award, National Science Foundation
- 2019 PCANS College Intellectual Contributions Award, West Texas A&M University
- 2018 Early Career Research Program Award, U.S. DOE, Office of Science
- 2017 Ny-Ålesund Atmosphere Flagship Program Travel Award, Norwegian Polar Institute
- 2009 PNNL Summer Research Institute Fellowship, Battelle / Pacific Northwest National Lab
- 2008 National Atmospheric Deposition Program (NADP) Travel Award, NADP
- 2007 AMS Student Presentation Award, AMS
- 2006 NASA Tropospheric Chemistry Program Travel Scholarship, AMS
- 2005 Pathways to the Doctorate Fellowship, Texas A&M University System
- 2004 Student Endowment Scholarship, West Texas A&M University

f. Synergistic & Leadership Activities

Invited Lectures: I am internationally sought after for guest lectures. Since 2012, I have given 18 invited lectures in 9 different nations and two solicited online lectures.

Science Community Service: I joined the topic board of *Atmosphere* as of October 2019. Further, I was also an editor of a special issue in *Atmosphere* (Aerosol Influence on Mixed-Phase and Ice Clouds: Laboratory, Field, Remote-Sensing and Modeling Studies) for 2019-2020. In my career, I have been a reviewer for 37 papers and science research proposals as a peer/panel member for Natural Environment Research Council in the U.K., the Italian Scientific Committee on Antarctic Research, NSF, and the U.S. DOE.

Outreach and Supervision: I have developed curricular modules with a local school district, provided outreach lectures at museum/zoo, and conducted training for the local Boy Scouts to obtain their environmental science-related merit badges. This provided an important and well-received service to these organizations. I also supervised an NSF-funded student project (NSF-EAPSI on freezing of nano-cellulose and Ny-Ålesund samples) in 2017, and we have presented the outcome at the local middle school and AMS (with the best student poster presentation award) to educate as well as outreach to the public.

Conference Organization: I served as a conference session convener & chair for AGU Fall Meeting (2013, 2015, and 2018) as well as AMS Annual Meeting (2018, 2020, and 2021). Sessions I led helped the INP research community to discuss their research, and I provided a venue for researchers to come together that fostered further collaborations.

International Research Organization: I helped organize the international research campaigns for inter-comparing >20 ice nucleation instruments and 11 aerosol mass spectrometers as well as chemical characterization of simulated cloud particles at the Fifth Ice Nucleation (FIN) workshop, held in Karlsruhe, Germany, during 3-26 Nov. 2014 & 9-28 March 2015, with other world-renowned community leaders, including Dr. Paul DeMott, CSU & Dr. Ottmar Möhler, KIT. This activity was in part supported by NSF. I am also involved in the recent EUROCHAMP-2020 infrastructure activities. I have acquired a guest visit travel award from the Ny-Ålesund Atmosphere Flagship program and used the travel funds to attend an international workshop to present my INP research.

Online Curricular Activities: With the support of WTAMU IT Office, I have successfully transformed three of the face-to-face environmental science courses, which I teach at WTAMU, into online courses. My online educational activities target teaching environmental science to both traditional and non-traditional students in the Texas Panhandle community. Combining the topics of environmental science is an efficient and interesting tool to connect audiences with fundamental science by demonstrating how science provides information so one can interpret, digest, and solve everyday life problems.

Academic Advisory: I have mentored 16 students at WTAMU for their research projects (3 M.S. students, and 13 undergraduates) with extramural funding supports (e.g., DOE-ECRP, NSF-EAPSI). My students are active in producing scientific deliverables (i.e., publication and conference products). All students got their scientific product (poster at the least) while researching with me. Several students under my supervision received travel/research grants, providing them with important international research opportunities.

g. Computer Skills

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|  MatLab |  Igor Pro |  IDL |
|  Fortran77 |  Python |  SPSS |
|  SQL |  LabView |  MS Office |

h. Peer-reviewed Publications (*WTAMU student)

1. Knopf, D. A., Barry, K. R., Brubaker, T. A., Jahl, L. G., Jankowski, K. A. L., Li, J., Lu, Y., Monroe, L. W., Moore, K. A., Rivera-Adorno, F. A., ***Sauceda, K. A.**, Shi, Y., Tomlin, J. M., ***Vepuri, H. S. K.**, Wang, P., Lata, N. N., Levin, E. J. T., Creamean, J. M., Hill, T. C. J., China, S., Alpert, P. A., Moffet, R. C., **Hiranuma, N.**, Sullivan, R. C., Fridlind, A. M., West, M., Riemer, N., Laskin, A., DeMott, P. J., and Liu, X.: Aerosol–ice formation closure: a Southern Great Plains field campaign, *Bull. Am. Meteorol. Soc.*, <https://doi.org/10.1175/BAMS-D-20-0151.1>, 2021.
2. Rinaldi, M., **Hiranuma, N.**, Santachiara, G., Mazzola, M., Mansour, K., Paglione, M., ***Rodriguez, C. A.**, Traversi, R., Becagli, S., Cappelletti, D. M., and Belosi, F.: Ice-nucleating particle concentration measurements from Ny-Ålesund during the Arctic Spring-Summer in 2018, *Atmos. Chem. Phys.*, in press.
3. **Hiranuma, N.**, Auvermann, B. W., Belosi, F., Bush, J., ***Cory, K. M.**, Georgakopoulos, D., Höhler, K., ***Hou, Y.**, Saathoff, H., Santachiara, G., Shen, X., Steinke, I., Ullrich, R., Umo, N., ***Vepuri, H. S. K.**, Vogel, F., and Möhler, O.: Laboratory and field studies of ice-nucleating particles from open-lot livestock facilities in Texas, *Atmos. Chem. Phys.*, 21, 14215-14234, 2021.
4. ***Vepuri, H. S. K.**, ***Rodriguez, C. A.**, Georgakopoulos, D. G., Hume, D., Webb, J., Mayer, G. D., and **Hiranuma, N.**: Ice-nucleating particles in precipitation samples from the Texas Panhandle, *Atmos. Chem. Phys.*, 21, 4503-4520, 2021.
5. Möhler, O., Adams, M., Lacher, L., Vogel, F., Nadolny, J., Ullrich, R., Boffo, C., Pfeuffer, T., Hobl, A., Weiß, M., ***Vepuri, H. S. V.**, **Hiranuma, N.**, and Murray, B.J.: The Portable Ice Nucleation Experiment (PINE): a new online instrument for laboratory studies and automated long-term field observations of ice-nucleating particles, *Atmos. Meas. Tech.*, 14, 1143-1166, 2021.
6. Steinke, I., **Hiranuma, N.**, Funk, R., Höhler, K., Tüllmann, N., Umo, N. S., Weidler, P. G., Möhler, O., and Leisner, T.: Complex plant-derived organic aerosol as ice-nucleating particles – more than a sum of their parts?, *Atmos. Chem. Phys.*, 20, 11387-11397, 2020.
7. Kulkarni, G., **Hiranuma, N.**, Möhler, O., Höhler, K., China, S., Cziczo, D. J., and DeMott, P. J.: A new method for operating a continuous flow diffusion chamber to investigate immersion freezing: assessment and performance study, *Atmos. Meas. Tech.*, 13, 6631-6643, 2020.
8. **Hiranuma, N.**, Adachi, K., Bell, D. M., Belosi, F., Beydoun, H., Bhaduri, B., Bingemer, H., Budke, C., Clemen, H.-C., Conen, F., ***Cory, K. M.**, Curtius, J., DeMott, P. J., Eppers, O., Grawe, S., Hartmann, S., Hoffmann, N., Höhler, K., Jantsch, E., Kiselev, A., Koop, T., Kulkarni, G., Mayer, A., Murakami, M., Murray, B. J., Nicosia, A., Petters, M. D., Piazza, M., Polen, M., Reicher, N., Rudich, Y., Saito, A., Santachiara, G., Schiebel, T., Schill, G. P., Schneider, J., Segev, L., Stopelli, E., Sullivan, R. C., Suski, K., Szakáll, M., Tajiri, T., Taylor, H., Tobo, Y., Ullrich, R., Weber, D., Wex, H., Whale, T. F., ***Whiteside, C. L.**, Yamashita, K., Zelenyuk, A., and Möhler, O.: A comprehensive characterization of ice nucleation by three different types of cellulose particles immersed in water, *Atmos. Chem. Phys.*, 19, 4823-4849, 2019.
9. DeMott, P. J., Möhler, O., Cziczo, D. J., **Hiranuma, N.**, Petters, M. D., Petters, S. S., Belosi, F., Bingemer, H. G., Brooks, S. D., Budke, C., Burkert-Kohn, M., Collier, K. N., Danielczok, A., Eppers, O., Felgitsch, L., Garimella, S., Grothe, H., Herenz, P., Hill, T. C. J., Höhler, K., Kanji, Z. A., Kiselev, A., Koop, T., Kristensen, T. B., Krüger, K., Kulkarni, G., Levin, E. J. T., Murray, B. J., Nicosia, A., O'Sullivan, D., Peckhaus, A., Polen, M. J., Price, H. C., Reicher, N., Rothenberg, D. A., Rudich, Y., Santachiara, G., Schiebel, T., Schrod, J., Seifried, T. M., Stratmann, F., Sullivan, R. C., Suski, K. J., Szakáll, M., Taylor, H. P., Ullrich, R., Vergara-Temprado, J., Wagner, R., Whale, T. F., Weber, D., Welti, A., Wilson, T. W., Wolf, M. J., and Zenker, J.: The Fifth International Workshop on Ice Nucleation phase 2 (FIN-02): laboratory intercomparison of ice nucleation measurements, *Atmos. Meas. Tech.*, 11, 6231-6257, 2018.
10. Suski, K. J., Bell, D. M., **Hiranuma, N.**, Möhler, O., Imre, D., and Zelenyuk, A.: Activation of intact bacteria and bacterial fragments mixed with agar as cloud droplets and ice crystals in cloud chamber experiments, *Atmos. Chem. Phys.*, 18, 17497-17513, 2018.
11. Ghosh, N., Sherali, N., **Hiranuma, N.**, Banerjee, P., Sherali, S., Romero, R., Rogers, J., Bennert, J., Vitale, J., Saadeh, C., Revanna, C.: Air pollution with 2.5 micron particulate matters and testing

- the decay of the aerosol concentration as a function of time to compare the efficiency of AHPCO® and Bi-Polar units in reducing the indoor particle counts, *European Scientific Journal*, 14, 26-40, 2018.
12. Ullrich, R., Hoose, C., Möhler, O., Niemand, M., Wagner, R., Höhler, K., **Hiranuma, N.**, Saathoff, H., and Leisner, T.: A new ice nucleation active site parameterization for desert dust and soot, *J. Atmos. Sci.*, 74, 699-717, 2017.
 13. **Hiranuma, N.**, Möhler, O., Kulkarni, G., Schnaiter, M., Vogt, S., Vochezer, P., Järvinen, E., Wagner, R., Bell, D. M., Wilson, J., Zelenyuk, A., and Cziczo, D. J.: Development and characterization of an ice-selecting pumped counterflow virtual impactor (IS-PCVI) to study ice crystal residuals, *Atmos. Meas. Tech.*, 9, 3817-3836, 2016.
 14. **Hiranuma, N.**, Möhler, O., Yamashita, K., Tajiri, T., Saito, A., Hoffmann, N., Hoose, C., Jantsch, E., Koop, T., and Murakami, M.: Ice nucleation by cellulose and its potential contribution to ice formation in clouds, *Nat. Geosci.*, 8, 273-277, 2015.
 15. **Hiranuma, N.**, Augustin-Bauditz, S., Bingemer, H., Budke, C., Curtius, J., Danielczok, A., Diehl, K., Dreischmeier, K., Ebert, M., Frank, F., Hoffmann, N., Kandler, K., Kiselev, A., Koop, T., Leisner, T., Möhler, O., Nillius, B., Peckhaus, A., Rose, D., Weinbruch, S., Wex, H., Boose, Y., DeMott, P. J., Hader, J. D., Hill, T. C. J., Kanji, Z. A., Kulkarni, G., Levin, E. J. T., McCluskey, C. S., Murakami, M., Murray, B. J., Niedermeier, D., Petters, M. D., O'Sullivan, D., Saito, A., Schill, G. P., Tajiri, T., Tolbert, M. A., Welti, A., Whale, T. F., Wright, T. P., and Yamashita, K.: A comprehensive laboratory study on the immersion freezing behavior of illite NX particles: a comparison of seventeen ice nucleation measurement techniques, *Atmos. Chem. Phys.*, 15, 2489-2518, 2015.
 16. Wex, H., Augustin-Bauditz, S., Boose, Y., Budke, C., Curtius, J., Diehl, K., Dreyer, A., Frank, F., Hartmann, S., **Hiranuma, N.**, Jantsch, E., Kanji, Z. A., Kiselev, A., Koop, T., Möhler, O., Niedermeier, D., Nillius, B., Rösch, M., Rose, D., Schmidt, C., Steinke, I., and Stratmann, F.: Intercomparing different devices for the investigation of ice nucleating particles using Snomax® as test substance, *Atmos. Chem. Phys.*, 15, 1463-1485, 2015.
 17. **Hiranuma, N.**, Paukert, M., Steinke, I., Zhang, K., Kulkarni, G., Hoose, C., Schnaiter, M., Saathoff, H., and Möhler, O.: A comprehensive parameterization of heterogeneous ice nucleation of dust surrogate: laboratory study with hematite particles and its application to atmospheric models, *Atmos. Chem. Phys.*, 14, 13145-13158, 2014.
 18. **Hiranuma, N.**, Hoffmann, N., Kiselev, A., Dreyer, A., Zhang, K., Kulkarni, G., Koop, T., and Möhler, O.: Influence of surface morphology on the immersion mode ice nucleation efficiency of hematite particles, *Atmos. Chem. Phys.*, 14, 2315-2324, 2014.
 19. **Hiranuma, N.**, Brooks, S. D., Moffet, R. C., Glen, A., Laskin, A., Gilles, M. K., Liu, P., MacDonald, A. M., Strapp, J. W., and McFarquhar, G. M.: Chemical characterization of individual particles and residuals of cloud droplets and ice crystals collected on board research aircraft in the ISDAC 2008 study, *J. Geophys. Res. Atmos.*, 118, 6564-6579, 2013.
 20. Shakya, K. M., Liu, S., Takahama, S., Russell, L. M., Keutsch, F. N., Galloway, M. M., Shilling, J. E., **Hiranuma, N.**, Song, C., Kim, H., Paulson, S.E., Pfaffenberger, L., Barmet, P., Slowik, J., Prevot, A. S. H., Dommen, J., and Baltensperger, U.: Similarities in STXM-NEXAFS spectra of atmospheric particles and secondary organic aerosol generated from glyoxal, α -pinene, isoprene, 1,2,4-trimethyl benzene, and d-limonene, *Aerosol Sci. Technol.*, 47, 543-555, 2013.
 21. You, Y., Renbaum-Wolff, L., Carreras-Sospedra, M., Hanna, S. J., **Hiranuma, N.**, Kamal, S., Smith, M. L., Zhang, X., Weber, R. J., Shilling, J. E., Dabdub, D., Martin, S. T., and Bertram, A. K.: Images reveal that atmospheric particles can undergo liquid-liquid phase separations, *P. Natl. Acad. Sci. USA*, 109, 13188-13193, 2013.
 22. Zaveri, R. A., Shaw, W. J., Cziczo, D. J., Schmid, B., Ferrare, R. A., Alexander, M. L., Alexandrov, M., Alvarez, R. J., Arnott, W. P., Atkinson, D. B., Baidar, S., Banta, R. M., Barnard, J. C., Beranek, J., Berg, L. K., Brechtel, F., Brewer, W. A., Cahill, J. F., Cairns, B., Cappa, C. D., Chand, D., China, S., Comstock, J. M., Dubey, M. K., Easter, R. C., Erickson, M. H., Fast, J. D., Floerchinger, C., Flowers, B. A., Fortner, E., Gaffney, J. S., Gilles, M. K., Gorkowski, K., Gustafson, W. I., Gyawali, M., Hair, J., Hardesty, R. M., Harworth, J. W., Herndon, S.,

- Hiranuma, N.**, Hostetler, C., Hubbe, J. M., Jayne, J. T., Jeong, H., Jobson, B. T., Kassianov, E. I., Kleinman, L. I., Kluzek, C., Knighton, B., Kolesar, K. R., Kuang, C., Kubátová, A., Langford, A. O., Laskin, A., Laulainen, N., Marchbanks, R. D., Mazzoleni, C., Mei, F., Moffet, R. C., Nelson, D., Obland, M. D., Oetjen, H., Onasch, T. B., Ortega, I., Ottaviani, M., Pekour, M., Prather, K. A., Radney, J. G., Rogers, R. R., Sandberg, S. P., Sedlacek, A., Senff, C. J., Senum, G., Setyan, A., Shilling, J. E., Shrivastava, M., Song, C., Springston, S. R., Subramanian, R., Suski, K., Tomlinson, J., Volkamer, R., Wallace, H. W., Wang, J., Weickmann, A. M., Worsnop, D. R., Yu, X.-Y., Zelenyuk, A., and Zhang, Q.: Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES), *Atmos. Chem. Phys.*, 12, 7647-7687, 2012.
23. Liu, S., Shilling, J. E., Song, C., **Hiranuma, N.**, Zaveri, R. A., and Russell, L. M. Hydrolysis of organonitrate functional groups in aerosol particles, *Aerosol Sci. Technol.*, 46, 1359-1369, 2012.
24. **Hiranuma, N.**, Kohn, M., Pekour, M. S., Nelson, D. A., Shilling, J. E., and Cziczo, D. J.: Droplet activation, separation, and compositional analysis: laboratory studies and atmospheric measurements, *Atmos. Meas. Tech.*, 4, 2333-2343, 2011.
25. **Hiranuma, N.**, Brooks, S. D., Gramann, J., and Auvermann, B. W.: High concentrations of coarse particles emitted from a cattle feeding operation, *Atmos. Chem. Phys.*, 11, 8809-8823, 2011.
26. Wright, M. E., Atkinson, D. B., Ziemba, L., Griffin, R., **Hiranuma, N.**, Brooks, S. D., Lefer, B., Perna, R., Rappenglück, B., and Luke, W. Extensive aerosol optical properties and aerosol mass related measurements during TRAMP/TexAQ5 2006 – implications for PM compliance and planning, *Atmos. Environ.*, 44, 4035-4044, 2010.
27. **Hiranuma, N.**, Brooks, S. D., Thornton, D. C. O., and Auvermann, B. W.: Atmospheric ammonia mixing ratios at an open-air cattle feeding facility, *J. Air Waste Manage. As.*, 60, 210-218, 2010.
28. Upadhyay, J., Auvermann, B. W., Paila, A.N., and **Hiranuma, N.**: Open-path transmissometry to determine the atmospheric extinction efficiency of feedyard dust, *Transactions of the ASABE*, 51, 1433-1441, 2008.
29. **Hiranuma, N.**, Brooks, S. D., Auvermann, B. W., and Littleton, R.: Using environmental scanning electron microscopy to determine the hygroscopic properties of agricultural aerosols, *Atmos. Environ.*, 42, 1983-1994, 2008.

i. Unrefereed Publications (*WTAMU student)

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1. Knopf, D. A., Riemer, N., China, S., DeMott, P. J., Fridlind, A., **Hiranuma, N.**, Kulkarni, G., Laskin, A., Levin, E., Liu, X., and Perkins, R.: Aerosol-Ice Formation Closure Laboratory Study (AEROICELAB)., For EUROCHAMP-TNA Program, AIDA-010-2021 (www.eurochamp.org/tna-documents), 2021.
2. ***Hou, Y.**, ***Hee, P.**, Umo, N.S., Möhler, O., and **Hiranuma, N.**: Characterization of Physicochemical Properties of Feedlot Dust Ice Crystal Residuals (ICRs). *Environ. Sci. Proc.*, 4, 23. DOI: <https://doi.org/10.3390/ecas2020-08438>, 2021.
3. ***Vepuri, H.S.K.**, Lacher, L., Nadolny, J., Möhler, O., and **Hiranuma, N.**: Online Ice-Nucleating Particle Measurements in the Southern Great Plains (SGP) Using the Portable Ice Nucleation Experiment (PINE) Chamber. *Environ. Sci. Proc.*, 4, 25. DOI: <https://doi.org/10.3390/ecas2020-08469>, 2021.
4. Knopf, D. A., DeMott, P. J., Creamean, J., Hill, T., Riemer, N., **Hiranuma, N.**, Laskin, A., Sullivan, R., Fridlind, A., Liu, X., and West, M.: Aerosol-Ice Formation Closure Pilot Study (AEROICSTUDY) Field Campaign Report, United States, DOE: <https://doi.org/10.2172/1691464>, 2020.
5. **Hiranuma, N.**, ***Vepuri, H. S. K.**: Examining the Ice-Nucleating Particles from the Southern Great Plains Field Campaign Report, United States, DOI: <https://doi.org/10.2172/1721707>, 2020.
6. **Hiranuma, N.**, ***Vepuri, H. S. K.**, Lacher, L., Nadolny, J., and Möhler, O.: Characterization of a new Portable Ice Nucleation Experiment chamber (PINE) and first field deployment in the Southern Great Plains, Earth and Space Science Open Archive, DOI: <https://doi.org/10.1002/essoar.10502526.1>, 2020.

7. ***Rodriguez, C. A., *Vepuri, H. S. K., and Hiranuma, N.:** Implications of precipitation particle properties for improved understanding of ice-nucleating particles in West Texas, Earth and Space Science Open Archive, DOI: <https://www.essoar.org/doi/abs/10.1002/essoar.10502568.1>, 2020.
8. ***Kimberly Cory, *Joshua Mills, Yutaka Tobo, Kotaro Murata, Kumiko Goto-Azuma, *Craig Whiteside, *Bobby McCauley, *Carolyn Bouma, and Naruki Hiranuma:** Laboratory measurements of immersion freezing abilities of non-proteinaceous and proteinaceous biological particulate proxies, Earth and Space Science Open Archive, DOI: <https://doi.org/10.1002/essoar.10500739.1>, 2019.
9. ***Craig Whiteside, Yutaka Tobo, Sarah Brooks, Oliver Mulamba, Jessica Mirrielees, and Naruki Hiranuma:** Immersion freezing of coal combustion ash particles from the Texas Panhandle, Earth and Space Science Open Archive, DOI: <https://doi.org/10.1002/essoar.10500578.1>, 2019.
10. Adams, M., Barr, S., **Hiranuma, N.**, Rinaldi, M., Brunner, C., Freney, E., Bros, Y.: An inter-comparison of new ice-nucleating particle counters, For EUROCHAMP-TNA Program, AcCloud-001-2019 (www.eurochamp.org/tna-documents), 2019.
11. **Hiranuma, N.**, Auvermann, B. W., ***Cory, K. M.**, Georgakopoulos, D., and Belosi, F.: AIDA (Aerosol Interaction and Dynamics in the Atmosphere) investigation on the ice nucleation activity of dust particles emitted from cattle feeding operations in the Texas Panhandle., For EUROCHAMP-TNA Program, AIDA-005-2018 (www.eurochamp.org/tna-documents), 2019.
12. **Hiranuma, N.**, Möhler, O., Wex, H., Kulkarni, G., Boose, Y., Bundke, U., Cziczko, D. J., Danielczok, A., Ebert, M., Garimella, S., Hoffmann, N., Höhler, K., Kanji, Z. A., Kiselev, A., Raddatz, M., and Stetzer, O.: Immersion freezing of clay minerals and bacterial ice nuclei, in: Nucleation and Atmospheric Aerosols, 19th International Conference, edited by: DeMott, P. J., and O'Dowd, C. D., AIP Publishing, Melville, New York, 914-917, 2013.
13. Möhler, O., **Hiranuma, N.**, Höhler, K., Hoose, C., Hummel, M., Niemand, M., Oehm, C., Schmitt, T., Steinke, I., and Wagner, R.: Parameterizations of ice formation derived from AIDA cloud simulation experiments, in: Nucleation and Atmospheric Aerosols, 19th International Conference, edited by: DeMott, P. J. and O'Dowd, C. D., AIP Publishing, Melville, New York, 851-858, 2013.
14. **Hiranuma, N.** and Brooks, S. D.: Technical report: The loss rate of Perma Pure PD-Series Dryer for low air flow applications. For Perma Pure LLC, 2007.
15. Auvermann, B. W., **Hiranuma, N.**, Heflin, K., and Marek, G.: Open-path transmissometry for measurement of visibility impairment by fugitive emissions from livestock facilities, American Society of Agricultural Engineers, 044010, DOI: <https://doi.org/10.13031/2013.17090>, 2004.

j. Oral Presentations and Lectures (†invited; *WTAMU postdoc/student)

1. †**Hiranuma, N., *Vepuri, H. S.K., and *Wilbourn, E. K.:** An abundance of ice-nucleating particles in the Atlantic sector of the Arctic and the mid-latitude sites, TAMU-ATMO seminar, College Station, TX, USA, Sept., 2021.
2. ***Wilbourn, E.K., Hiranuma, N., *Vepuri, H. S.K., Lacher, L., Nadolny, J., and Möhler, O.:** A comparison of aerosol particle sources and ice-nucleating particle properties from the Eastern North Atlantic and U.S. Southern Great Plains, European Aerosol Conference 2021, Online, Aug., 2021.
3. Möhler, O., Bertozzi, B., Bogert, P., **Hiranuma, N.**, Höhler, K., Hoose, C., Lacher, L., Schiebel, T., Schneider, J., Schorr, T., Steinke, I., Ullrich, R., Umo, N., Vogel, F., and Wagner, R.: A comprehensive set of parameterizations for primary ice formation in clouds as derived from AIDA cloud simulation experiments, International Conference on Clouds and Precipitation 2021, Online, Aug., 2021.
4. **Hiranuma, N., *Vepuri, H. S.K., and *Wilbourn, E. K.:** Implications of aerosol physicochemical properties including ice nucleation at ARM mega sites for improved understanding of microphysical atmospheric cloud processes, DOE EESSD Early Career Presentation, Online, Feb., 2021.
5. Lacher, L., Vogel, F., Nadolny, J., Ullrich, R., Büttner, N., Adams, M., Boffo, C., Pfeuffer, T., Hobl, A., Weiß, M., ***Vepuri, H. S. K., *Wilbourn, E. K., Hiranuma, N., Murray, B. J., and Möhler, O.:**

- Characterization and first applications of the Portable Ice Nucleation Experiment (PINE), 10th virtual INP Colloquium, Online, Jan., 2021.
6. Knopf, D., Barry, K., Brubaker, T., Jahl, L., Li, J., Lu, Y., Monroe, L., Moore, K., Rivera-Adorno, F., ***Sauceda, K.**, Shi, Y., Tomlin, J., ***Vepuri, H. S.K.**, Wang, P., Levin, E., Creamean, J., Hill, T., China, S., Moffet, R., **Hiranuma, N.**, Sullivan, R., Fridlind, A., West, M., Riemer, N., Laskin, A., DeMott, P., and Liu, X.: A field-observational approach to aerosol-ice formation closure, 101th American Meteorological Society Annual Meeting, 13th Symposium on Aerosol–Cloud–Climate Interactions, Online, Jan., 2021.
 7. †**Hiranuma, N.** and PINE-c Team: Portable Ice Nucleation Experiment (PINE) chamber: remote measurements of ice-nucleating particles (INPs) at multiple atmospheric observatories, TAMU-ATMO webinar, College Station, TX, USA, Nov., 2020.
 8. †**Hiranuma, N.**, ***Vepuri, H. S. K.**, Lacher, L., Nadolny, J., and Möhler, O.: The Portable Ice Nucleation Experiment chamber (PINE): laboratory characterization and field test for its semi-automated ice-nucleating particle measurements in the Southern Great Plains, EGU2020-12385, DOI: <https://doi.org/10.5194/egusphere-egu2020-12385>, EGU Sharing Geoscience Online, May, 2020.
 9. Abdelmonem, A., Lützenkirchen, J., Ratnayake, S., and **Hiranuma, N.**: A spectroscopic view of mineral aerosol surface aging under atmospheric conditions, EGU2020-8279, DOI: <https://doi.org/10.5194/egusphere-egu2020-8279>, EGU Sharing Geoscience Online, May, 2020.
 10. †**Hiranuma, N.** and ***Vepuri, H. S. K.**: Atmospheric ice-nucleating particles (INPs), American Chemical Society – WTAMU Chapter Seminar, Canyon, TX, Mar., 2020.
 11. Steinke, I., **Hiranuma, N.**, Möhler, O., Burrows, S.: Complex organic particles from terrestrial sources as ice nucleators – more than a sum of their parts? American Association of Aerosol Research (AAAR), Portland, OR, USA, Oct., 2019.
 12. Möhler, O., and **Hiranuma, N.**: A comprehensive characterization of ice nucleation by three different types of cellulose particles, 12th International Conference on Carbonaceous Particles in the Atmosphere (ICCPA), Vienna, Austria, Apr., 2019.
 13. †**Hiranuma, N.**: Measurements of immersion freezing efficiency of non-proteinaceous and proteinaceous biological aerosols, Lubbock, TX, USA, Nov., 2018.
 14. †**Hiranuma, N.**, and 55 co-authors: A comprehensive laboratory study on the immersion freezing behavior of INUIT calibrants: lessons learned and future research directions, INUIT Final Conference and 2nd Atmospheric Ice Nucleation Conference, Grasellenbach, Germany, Feb.-Mar., 2018.
 15. **Hiranuma, N.**, and 55 co-authors: A comprehensive dataset on the immersion freezing behaviour of cellulose particles, 98th American Meteorological Society Annual Meeting, 10th Symposium on Aerosol–Cloud–Climate Interactions, Austin, TX, USA, Jan., 2018.
 16. Curtius, J., ... **Hiranuma, N.**, et al.: Heterogeneous Ice Nucleation of Dusts: Overview of Results from the INUIT Project, 98th American Meteorological Society Annual Meeting, 10th Symposium on Aerosol–Cloud–Climate Interactions, Austin, TX, USA, Jan., 2018.
 17. DeMott, P. J., Möhler, O., Cziczo, D. J., **Hiranuma, N.**, Brooks, S. D., Petters, M. D., and FIN participant teams: Insights regarding ice nucleating particle measurement capabilities from laboratory and field measurements during the Fifth International Ice Nucleation Workshop, American Geophysical Union Fall Meeting, New Orleans, LA, USA, Dec., 2017.
 18. †**Hiranuma, N.**, Möhler, O., Bell, D., El Khoury, P., Kovarik, L., Kulkarni, G., Laskin, A., Mahrt, F., Schiebel, T., Suski, K., Zelenyuk, A., INUIT/FIN-1/ISDAC Team: Chemical and physical characterization of atmospheric ice residuals, CNR-ISAC, Invited Seminar, Bologna, Italy, Oct., 2017.
 19. Möhler, O., **Hiranuma, N.**, Cziczo, D. J., DeMott, P. J., Petters, M. D., and FIN participant teams: A Summary of Results from the Fifth International Ice Nucleation (FIN) Workshop Series, ICNAA, Helsinki, Finland, Jun., 2017.
 20. †**Hiranuma, N.**, Möhler, O., Kulkarni, G., Laskin, A., Zelenyuk, A., and INUIT/FIN-1 Team: Chemical and physical characterization of fertile soil-derived ice residuals from the Fifth

- International Ice Nucleation workshop in November 2014 (FIN-1), EGU Annual Meeting, Vienna, Austria, Apr., 2017.
21. Steinke, I., Funk, R., **Hiranuma, N.**, Möhler, O., Zhang, K.: Immersion freezing properties of complex biological aerosols derived from plants, 5th Workshop - Microphysics of Ice Clouds - Vienna, Austria, Apr., 2017.
 22. Schiebel, T., ... **Hiranuma, N.**, et al.: Contribution of Soil Organic Matter to the Ice Nucleation Activity of Arable Soil Dust Aerosol Particles, 97th American Meteorological Society Annual Meeting, 9th Symposium on Aerosol–Cloud–Climate Interactions, Seattle, WA, USA, Jan., 2017.
 23. Möhler, O., ... **Hiranuma, N.**, and the INUIT and FIN participant teams: Coordinated laboratory and field research on the sources, distribution, and prediction of atmospheric ice-nucleating particles, 97th American Meteorological Society Annual Meeting, Seattle, 9th Symposium on Aerosol–Cloud–Climate Interactions, WA, USA, Jan., 2017.
 24. †**Hiranuma, N.**: Chemical and physical characterization of ice residuals from the North Slope of Alaska during ISDAC2008 – Challenges in ArcticCARE-2017, Polar Meteorology and Glaciology Colloquium, NIPR, Tachikawa, Japan, Dec., 2016.
 25. †**Hiranuma, N.**: The importance of bioaerosol-cloud interactions in climate studies - Physico-chemical and ice-nucleating properties of cellulose & its potential contribution to ice formation in clouds, Invited Seminar, Leipzig, Germany, Aug., 2016.
 26. Möhler, O., **Hiranuma, N.**, et al.: Suppression of the feldspar ice nucleation activity by thin coating layers of secondary organics and sulphuric acid, 17th International Conference on Clouds & Precipitation, Manchester, UK, Jul., 2016.
 27. DeMott, P. J. ... **Hiranuma, N.**, et al.: Intercomparison of ice nucleation measurement methods: the Fifth International Ice Nucleation Workshop and ambient aerosol sampling, 17th International Conference on Clouds & Precipitation, Manchester, UK, Jul., 2016.
 28. †**Hiranuma, N.**: Technical seminar on atmospheric bioaerosol, Invited Lecture, Weizmann Institute of Science, Rehovot, Israel, Jun., 2016.
 29. †**Hiranuma, N.**: Technical seminar on spectrophotometry and aerosol-cloud interactions, Invited Lecture, University of Alaska – Fairbanks, AK, USA, Apr., 2016.
 30. Schiebel, T., Höhler, K., Funk, R., Hill, T.C.J., **Hiranuma, N.**, Levin, E.J.T., Nadolny, J., Steinke, I., Suski, K.J., Ullrich, R., Wagner, R., Weber, I., DeMott, P.J., and Möhler, O.: Ice Nucleation Activity of Agricultural Soil Dust Aerosol, EGU Annual Meeting, Vienna, Austria, Apr., 2016.
 31. †**Hiranuma, N.**: Technical seminar on atmospheric ice nucleation, Invited Lecture, PSI, Switzerland, Mar., 2016.
 32. DeMott, P. J., Suski, K. J., Hill, T. C. J., Levin, E. J. T., McCluskey, C. S., Möhler, O., **Hiranuma, N.**, Schiebel, T., Hoehler, K., Petters, M. D., Bertram, A., Mason, R., Chou, C., and FIN Team: Assessing the varied sources of ice-nucleating particles from soils and their atmospheric abundances, AMS Conference, New Orleans, LA, USA, Jan., 2016.
 33. Cziczo, D. J., DeMott, P. J., **Hiranuma, N.**, Möhler, O and FIN Team: Advances in understanding the role of aerosols in cirrus formation from the Fifth International Ice Nucleation (FIN) workshop (invited presentation), AMS Conference, New Orleans, LA, USA, Jan., 2016.
 34. **Hiranuma, N.**, Hoose, C., Järvinen, E., Kiselev, A., Möhler, O., Schnaiter, M., Ulrich, R., Cziczo, D.J., Zawadowicz, M., Felgitsch, L., Grothe, H., Kulkarni, G., Reicher, N., Rudich, Y., and Tobo, Y: Ice nucleation by plant structural materials and its potential contribution to glaciation in clouds, AGU Fall Meeting, San Francisco, CA, USA, Dec., 2015.
 35. Möhler, O., **Hiranuma, N.**, Cziczo, D., DeMott, P., Petters, M., and FIN teams: The fifth international ice nucleation workshop activities: overview and selected results, AGU Fall Meeting, San Francisco, CA, USA, Dec., 2015.
 36. **Hiranuma, N.**: Getting ahead in making a cloud, DFG-JSPS Workshop on Aerosols, Max Planck Institute for Chemistry, Mainz, Germany, Nov., 2015.
 37. †**Hiranuma, N.**: Technical seminar on a PCVI, Invited Lecture, University of Leeds, UK, Oct., 2015.

38. †**Hiranuma, N.:** Technical seminar on a PCVI & cloud chamber, Invited Lecture, PSI, Switzerland, Jul., 2015.
39. Möhler, O., Hiranuma, N., Yamashita, K., Tajiri, T., Saito, A., Kiselev, A., Hoffmann, N., Hoose, C., Jantsch, E., Koop, T., and Murakami, M.: Ice nucleation by cellulose and its potential contribution to ice formation in clouds, IUGG General Assembly, Prague, Jun., 2015.
40. †**Hiranuma, N.:** Technical seminar on a cloud simulation chamber, Invited Lecture, KAUST, Saudi Arabia, May, 2015.
41. **Hiranuma, N.,** Möhler, O., Kiselev, A., Saathoff, H., Weidler, P., Shutthanandan, S., Kulkarni, G., Jantsch, E., and Koop, T.: Surface structure, crystallographic and ice-nucleating properties of cellulose, EGU Annual Meeting, Vienna, Austria, Apr., 2015.
42. Ullrich, R., **Hiranuma, N.,** Hoose, C., Möhler, O., Niemand, M., Steinke, I., Wagner, R.: Dust in AIDA cloud chamber immersion freezing experiments, AMS Annual Meeting, Phoenix, AZ, USA, Jan., 2015.
43. Ullrich, R., **Hiranuma, N.,** Hoose, C., Möhler, O., Niemand, M., Steinke, I., Wagner, R., Cziczo, D., Walter, C., Rieger, and D., Deetz, K.: Quantifying the contribution of soot and dust to ice formation in cirrus clouds – a model study using a new parameterization framework, AMS Annual Meeting, Phoenix, AZ, USA, Jan., 2015.
44. Möhler, O., **Hiranuma, N.,** Wex, H., Augustin, S., Curtius, J., Bingemer, H., Diehl, K., Mitra, S., Ebert, M., Kandler, K., Budke, C., and Koop, T.: A comprehensive laboratory study on the immersion freezing behavior of atmospherically relevant aerosols, International Aerosol Conference, Busan, Korea, Aug.-Sep., 2014.
45. **Hiranuma, N.:** Finding ice nucleating particles, 2nd Cross-disciplinary Meeting of Japanese Young Scientists in Europe, Rüdesheim am Rhein, Germany, Jul., 2014.
46. Möhler, O., **Hiranuma, N.,** Hoffmann, N., Kiselev, A., Leisner, T., Wex, H., Augustin, S., Curtius, J., Danielczok, A., Diehl, K., Ebert, M., Kandler, K., Budke, C., Koop, T., Schill, G. P., Murakami, M., Kulkarni, G., Murray, B. J., Kanji, Z., Cziczo, D. J., Petters, M., and DeMott, P. J.: A summary of immersion freezing results from the ice nucleation research unit INUIT, AMS, Boston, MA, USA, Jul., 2014.
47. Lamb, K. D. , Clouser, B., Sarkozy, L., Stutz, E., Kühnreich, B., Landsberg, J., Habig, J., **Hiranuma, N.,** Wagner, R., Ebert, V., Kerstel, E., Saathoff, H., Möhler, O., and Moyer, E. J.: Implications of the ISOCLOUD campaigns at the AIDA cloud chamber for ice growth in cold cirrus, AMS, Boston, MA, USA, Jul., 2014.
48. **Hiranuma, N.,** Möhler, O., Yamashita, K., Tajiri, T., Saito, A., Kiselev, A., Hoose, C., and Murakami, M.: Ice nucleation by cellulose and its potential impact on clouds and climate, EGU Annual Meeting, Vienna, Austria, Apr., 2014.
49. Ullrich, R., **Hiranuma, N.,** Hoose, C., Möhler, O., Niemand, M., Steinke, I., and Wagner, R.: Developing a new parameterization framework for the heterogeneous ice nucleation of atmospheric aerosol particles, EGU Annual Meeting, Vienna, Austria, Apr., 2014.
50. Möhler, O., **Hiranuma, N.,** Höhler, K., Hoose, C., Niemand, M., Schmitt, T., Steinke, I., Ullrich, R., and Wagner, R.: Laboratory cloud simulation experiments on ice nucleation processes, Centre Européen de Calcul Atomique et Moléculaire Workshop, Zurich, Switzerland, Apr., 2014.
51. **Hiranuma, N.,** Hoffmann, N., Paukert, M., Steinke, I., Hummel, M., Kiselev, A., Dreyer, A., Zhang, K., Kulkarni, G., Koop, T., Hoose, C., and Möhler, O.: Influence of surface morphology on the heterogeneous ice nucleation efficiency of hematite particles, AGU Fall Meeting, San Francisco, CA, USA, Dec., 2013.
52. Möhler, O., **Hiranuma, N.,** Höhler, K., Hoose, C., Hummel, M., Niemand, M., Oehm, C., Schmitt, T., Steinke, I., and Wagner, R.: Parameterizations of ice formation derived from AIDA cloud simulation experiments, Plenary talk, International Conference on Nucleation and Atmospheric Aerosols (ICNAA) 2013, Fort Collins, CO, USA, Jun., 2013.
53. **Hiranuma, N.,** Möhler, O., Wex, H., Kulkarni, G., Boose, Y., Bundke, U., Cziczo, D. J., Danielczok, A., Ebert, M., Garimella, S., Hoffmann, N., Höhler, K., Kanji, Z.A., Kiselev, A., Raddatz, M., and

- Stetzer, O.: Immersion freezing of clay minerals and bacterial ice nuclei, European Science Foundation Atmospheric Ice Nucleation Workshop, Vienna, Austria, Apr., 2013.
54. †**Hiranuma, N.** and Möhler, O.: Immersion freezing of clay minerals and its temperature dependence, Invited Lecture, MRI, Tsukuba, Japan, Jan., 2013.
 55. **Hiranuma, N.**: Technique for separation of droplets from the interstitial components, 2012 DMT User Group Meeting, Boulder, CO, USA, Nov., 2012.
 56. †**Hiranuma, N.**, Kohn, M., Pekour, M. S., Nelson, D. A., Shilling, J. E., and Cziczo, D. J.: Cloud droplets, ready for prime time, Invited Lecture, Karlsruhe Institute of Technology, Germany, Feb., 2012.
 57. **Hiranuma, N.**, Brooks, S. D., Thornton, D. C. O., Auvermann, B. W., and Fitz, D. R.: Concentration, size distributions, and transport of agricultural aerosols, NADP Conference, Madison, WI, USA, Oct., 2008.
 58. **Hiranuma, N.**, Brooks, S. D., Cheek, L., Thornton, D. C. O., Auvermann, B. W., and Littleton, R.: Optical, morphological, hygroscopic, and chemical properties of agricultural aerosols, International Symposium on Advanced Environmental Monitoring, Honolulu, HI, USA, Feb., 2008.
 59. **Hiranuma, N.**, Brooks, S. D., Auvermann, B. W., and Littleton, R.: Size distribution and hygroscopic properties of agricultural aerosols, AMS Conference, San Antonio, TX, USA, Jan., 2007.

k. Poster Presentations (*WTAMU postdoc/student)

1. Lacher, L., Vogel, F., Nadolny, J., Adams, M. P., King, L., Boffo, C., Pfeuffer, T., Hobl, A., **Hiranuma, N.**, ***Vepuri, H. S. K.**, Murray, B. J. and Möhler, O.: Characterization and application of the Portable Ice Nucleation Experiment PINE: A novel instrument to monitor INP concentrations, International Conference on Clouds and Precipitation 2021, Online, Aug., 2021.
2. Murray, B. J., Carslaw, K. S., Field, P. R., Storelvmo, T., **Hiranuma, N.**, Lacher, L., Adams, M. P., Hobl, A., Vogel, F., and Möhler, O.: A new instrument for semi-autonomous measurements of atmospheric ice-nucleating particles: the Portable Ice Nucleation Experiment (PINE), WMO Global Atmosphere Watch Programme symposium 2021, Online, Jun., 2021.
3. **Hiranuma, N.**, ***Wilbourn, E. K.**, ***Vepuri, H. S. K.**, Lacher, L., Nadolny, J., and Möhler, O.: INP concentration measurements from the ARM ENA & SGP observatories, 2021 ARM/ASR PI Meeting, Online, Jun., 2021.
1. ***Wilbourn, E. K.**, Hiranuma, N., Lacher, L., Nadolny, J., and Möhler, O.: Remotely-controlled ice-nucleating particle measurements from the Eastern North Atlantic during autumn and winter, EGU General Assembly – Earth Online, Online, Apr., 2021.
2. ***Hou, Y.**, ***Wilbourn, E. K.**, **Hiranuma, N.**, Bruschi, F., Cappelletti, D., Gravina, P., and Mazzola, M.: Abundance of ice-nucleating particles from the Gruebadet observatory in Svalbard during 2017-2019, EGU General Assembly – Earth Online, Online, Apr., 2021.
3. Möhler, O., Adams, M., Lacher, L., Vogel, F., Nadolny, J., Ullrich, R., Boffo, C., Pfeuffer, T., Hobl, A., Weiß, M., ***Vepuri, H. S. K.**, **Hiranuma, N.**, and Murray, B. J.: The portable ice nucleation experiment PINE: a new online instrument for laboratory studies and automated long-term field observations of ice-nucleating particles, 101th American Meteorological Society Annual Meeting, 13th Symposium on Aerosol–Cloud–Climate Interactions, Online, Jan., 2021.
4. **Hiranuma, N.**, Auvermann, B. W., Belosi, F., Bush, J., ***Cory, K. M.**, Fösig, R., Georgakopoulos, D., Höhler, K., ***Hou, Y.**, Saathoff, H., Santachiara, G., Shen, X., Steinke, I., Umo, N., ***Vepuri, H. S. K.**, Vogel, F., and Möhler, O.: Feedlot is a constant source of atmospheric ice-nucleating particles in West Texas, 101th American Meteorological Society Annual Meeting, 13th Symposium on Aerosol–Cloud–Climate Interactions, Online, Jan., 2021.
5. ***Sauceda, K. A.**, ***Wilbourn, E.**, and **Hiranuma, N.**: Photolysis of hydrogen peroxide purifies water and may make it suitable for droplet freezing experiments, AGU Fall Meeting, Online, Dec., 2020.
6. ***Hou, Y.**, ***Hee, P.**, Umo, N., Möhler, O., and **Hiranuma, N.**: Characterization of physicochemical properties of feedlot dust ice crystal residuals (ICRs), The 3rd International Electronic Conference on Atmospheric Sciences, Online, Nov., 2020.

7. ***Vepuri, H. S. K.**, Lacher, L., Nadolny, J., Möhler, O., and **Hiranuma, N.**: Online ice-nucleating particle measurements in the Southern Great Plains (SGP) using the Portable Ice Nucleation Experiment (PINE) chamber, The 3rd International Electronic Conference on Atmospheric Sciences, Online, Nov., 2020.
8. **Hiranuma, N.**, ***Vepuri, H. S. K.**, Lacher, L., Nadolny, J., and Möhler, O.: Characterization of a new Portable Ice Nucleation Experiment chamber (PINE) and first field deployment in the Southern Great Plains, 100th American Meteorological Society Annual Meeting, 12th Symposium on Aerosol–Cloud–Climate Interactions, Boston, MA, USA, Jan., 2020.
9. ***Rodriguez, C.**, ***Vepuri, H. S. K.**, and **Hiranuma, N.**: Implications of precipitation particle properties for improved understanding of ice-nucleating particles in West Texas, AGU Fall Meeting, San Francisco, CA, USA, Dec., 2019.
10. Rinaldi, M., Mazzola, M., Decesari, S., **Hiranuma, N.**, and Belosi, F.: Spring and summer-time INP observations at Ny Ålesund by DFPC, European Aerosol Conference 2019, Gothenburg, Sweden, Aug., 2019.
11. **Hiranuma, N.**, Lacher, L., Nadolny, J., Vogel, F., Murray, B. J., Adams, M., Boffo, C., Pfeuffer, T., and Möhler, O.: The Portable Ice Nucleation Experiment (PINE): a new commercially available instrument to advance atmospheric ice nucleation research, 2019 ARM/ASR PI Meeting, Rockville, MD, Jun., 2019.
12. **Hiranuma, N.**, Auvermann, B. W., Belosi, F., ***Cory, K. M.**, Georgakopoulos, D. G., Höhler, K., Möhler, O., Norman, K., Saathoff, H., Schaupp, C., Scott, H. M., Shen, X., Steinke, I., Ullrich, R., and Umo, N.: Ice Nucleation Activity of Dust Particles Emitted from Cattle Feeding Operations in the Texas Panhandle, EGU Annual Meeting, Vienna, Austria, Apr., 2019.
13. ***Salcido, Z.**, ***Rodriguez, C.**, Dall'Osto, M., Rinaldi, M., and **Hiranuma, N.**: Laboratory Studies of Ice-Nucleating Particles in the Atlantic Sector of the Southern Ocean: Tackling Polar Amplification, WTAMU Student Research Conference, Canyon, TX, USA, Apr., 2019.
14. ***Rodriguez, C.**, ***Salcido, Z.**, ***Hou, Y.**, ***Wittlake, B.**, Webb, J., and **Hiranuma, N.**: Implications of Precipitation Particle Properties for Improved Understanding of Artificial Rain Enhancement and Hail Prevention in West Texas, WTAMU Student Research Conference, Canyon, TX, USA, Apr., 2019.
15. Umo, N., Wagner, R., Ullrich, R., Höhler, K., **Hiranuma, N.**, Lea-Langton, A., Kiselev, A., Weidler, P. G., Wex, H., Grawe, S., Jones, J. M., Williams, A., Murray, B. J., Leisner, T., and Möhler, O.: Coal fly ash as good ice-nucleating particles in cirrus cloud conditions, 12th International Conference on Carbonaceous Particles in the Atmosphere (ICCPA), Vienna, Austria, Apr., 2019.
16. **Hiranuma, N.**, et al.: Immersion freezing efficiencies of ambient particles collected from five different regions across latitudes, American Geophysical Union Fall Meeting, Washington D.C., USA, Dec., 2018.
17. ***Davis, C.** ... **Hiranuma, N.**, et al.: Ice Nucleation Efficiency of the Laboratory-synthesized Lead Oxide Particles as the Proxy of Lead-containing Aerosols, TAMUS Pathways Conference, Canyon, TX, USA, Nov., 2018.
18. Umo, N. ... **Hiranuma, N.**, et al.: Ice-Nucleating Properties of Coal Fly Ash Particles in Cirrus Cloud Conditions, IAC/AAAR, St. Louis, MO, USA, Sep., 2018.
19. Suski, K. J., Bell, D. M., **Hiranuma, N.**, et al.: Activation of Intact Bacteria and Bacterial Fragments Mixed with Agar as Cloud Droplets and Ice Crystals in Cloud Chamber Experiments, IAC/AAAR, St. Louis, MO, Sep., 2018.
20. ***Davis, C.**, Dreyer, A., and **Hiranuma, H.**: Ice Nucleation Efficiency of the Laboratory-synthesized Lead Oxide Particles as the Proxy of Lead-containing Aerosols, WTAMU Student Research Conference, Canyon, TX, USA, Apr., 2018.
21. Möhler, O., **Hiranuma, N.**, et al.: AIDA ice nucleation research: new findings and developments during the INUIT project, INUIT Final Conference and 2nd Atmospheric Ice Nucleation Conference, Grasellenbach, Germany, Feb.-Mar., 2018.

22. Steinke, I., Funk, R., **Hiranuma, N.**, Möhler, O., and Zhang, K.: Immersion freezing properties of complex biological aerosols derived from plants, INUIT Final Conference and 2nd Atmospheric Ice Nucleation Conference, Grasellenbach, Germany, Feb.-Mar., 2018.
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I. Additional Information

Please allow me to explain another name that may appear on my documents. I was born in Japan as an ethnic-Korean resident with the official Korean name (i.e., passport name) of SEONGGI MOON and a Japanese name; NARUKI HIRANUMA. I currently live and work in the U.S. Please note that all of my scientific presentations and papers have been published with "Naruki Hiranuma", as evident in my publication record.