

# Nan Liu

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## EDUCATION

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**Ph.D.** Cosmochemistry, The University of Chicago, Chicago, IL, USA 2014  
**B.E.** Environmental Science, University of Science and Technology of China, China 2009

## PROFESSIONAL EXPERIENCE

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**Visitor**, Institute for Advanced Study, Princeton, NJ 01/2026 – 07/2026  
**Senior Research Scientist**, Institute for Astrophysical Research, Boston University 2023 – present  
**Visiting Investigator**, Earth & Planets Laboratory, Carnegie Institution for Science 2018 – present  
**Research Assistant Professor of Physics**, Washington University in St. Louis 2018 – 2022  
**Postdoctoral Associate**, DTM, Carnegie Institution for Science 2014 – 2017

## AWARDS AND HONORS

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**Nier Prize, Meteoritical Society** 2021  
*Awarded for outstanding research in meteoritics and closely allied fields by an early-career scientist.*  
**JINA-CEE Travel Award to the p-Process Workshop** 2019  
**Travel Award to the Meteoritical Society Meeting** 2017  
**JINA-CEE Travel Award to the Torino Workshop** 2016  
**Travel Award to the Meteoritical Society Meeting** 2016  
**Travel Award to the Meteoritical Society Meeting** 2012  
**NASA Earth and Space Science Fellowship** 2011 – 2014

## COMMUNITY SERVICE

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- Reviewer for ApJ, GCA, Science, MAPS, Nature, NASA, and DOE programs
- Guest Editor for the Topic Collection “From Stars to Nuclei: Honoring the Legacy of Roberto Gallino” in The European Physical Journal A
- Committee Member for the Astrophysics with Radioactive Isotopes 2026 conference (Traverse City, MI)
- Member of Scientific Committee for the s, i & r Element Nucleosynthesis (sirEN) Conference, Giulianova, Italy (2025)
- Member of Scientific Committee for the Russbach School on Nuclear Astrophysics (2024, 2025)
- Member of Scientific Organizing Committee for the Meteoritical Society Meeting (2021)
- Chair of the Presolar Grains Session, Lunar and Planetary Science Conference (2019, 2022, 2023, 2024, 2025, 2026)

- Chair of the Presolar Grains Session, Meteoritical Society Meeting (2015, 2017, 2021, 2023, 2025)
- Chair of the Calcium-Aluminum-rich Inclusions in Meteorites Session, Lunar and Planetary Science Conference (2021)
- Convener of the Protoplanetary Disk Evolution and Early Solar System Dynamics Session, Goldschmidt Conference (2020)
- Judge for the Dwornik Student Award, LPSC (2016, 2017, 2018, 2019, 2022, 2024, 2025)
- Judge for the McKay Student Award, Meteoritical Society Meeting (2015, 2017, 2018, 2023, 2024, 2025)

## MEDIA COVERAGE

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- **Quanta Magazine**, March 2026 — *What crystals older than the Sun reveal about the start of the solar system* Long-form interview.
- **WashU Source / Universe Today / Sci.News**, October 2021 — *Coverage of multielement isotopic compositions of presolar SiC grains (ApJL 920, L26)*
- **WashU Ampersand**, 2022 — *Conversation: Two award-winning space scientists* Interview following the Nier Prize.
- **WashU Source / ScienceDaily**, July 2021 — *Coverage of cosmic symplectite paper (Vacher et al., GCA 309, 135)*
- **WashU Source**, June 2020 — *Coverage of Kapoeta howardite paper (GCA 283, 243)*
- **Carnegie Science / ScienceDaily / Phys.org / Space.com**, January 2018 — *Coverage of late SiC formation in supernovae paper (Sci. Adv. 4, eaao1054)*
- **Carnegie EPL**, 2017 — *Postdoc Spotlight: Cosmochemist Nan Liu*

## INVITED TALKS

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- **10/2026** — OMEG18, RIKEN, Japan (*upcoming*)  
*TBD*
- **09/2026** — Nuclear Physics in Astrophysics XII, Cluj-Napoca, Romania (*upcoming*)  
*Meteoritic isotopic anomalies as precision tests of stellar nucleosynthesis*
- **05/2026** — Astrophysics with Radioactive Isotopes 2026, Traverse City, MI (*upcoming*)  
*Radioactive isotopes in presolar supernova grains*
- **01/2026** — AAS 247 Winter Meeting, Phoenix, AZ  
*Presolar grains from supernovae*
- **10/2025** — Nuclear Science Seminar, Facility for Rare Isotope Beams, Michigan State University  
*Presolar grains as probes of supernova nucleosynthesis*
- **09/2025** — Center for Meteorite Studies Virtual Seminar, Arizona State University  
*Stellar origins of types Y and Z silicon carbide grains revealed by nickel isotopes*
- **06/2025** — Carpathian Summer School of Physics 2025, Sinaia, Romania (invited lecture)  
*Presolar grains*
- **06/2025** — International Symposium on Nuclei in the Cosmos XVIII, Girona, Spain  
*Presolar grains from supernovae*

- **03/2025** — Department Seminar, University of Massachusetts Dartmouth  
*Isotope variations in meteorites linked to nucleosynthesis in Type Ia supernovae*
- **09/2024** — Department Seminar, Southern University of Science and Technology, Shenzhen, China  
*Presolar stardust grains in the solar system*
- **09/2024** — OMEG2024, Chengdu, China  
*Explosive nucleosynthesis in core-collapse Type II supernovae: constraints from presolar grains*
- **06/2024** — CeNAM Frontiers in Nuclear Astrophysics Meeting, Notre Dame  
*Explosive nucleosynthesis in core-collapse Type II supernovae: constraints from presolar grains*
- **06/2023** — Department Seminar, Earth and Planets Laboratory, Carnegie Institution for Science  
*The cosmic connection: ancient supernovae and their legacy in the solar system*
- **06/2023** — Workshop on Evolution of the Solar System, International Space Science Institute, Bern  
*Presolar SiC grains from Type II core-collapse supernovae*
- **02/2023** — Astro Seminar, University of Missouri  
*Presolar stardust grains in the solar system*
- **01/2023** — IAR Seminar, Boston University Astronomy  
*Nucleosynthesis and dust formation in supernovae*
- **12/2022** — INAC-COSNAP Colloquium, Institute for Nuclear Astrophysics of China  
*Presolar grains from asymptotic giant branch stars*
- **04/2022** — Department Colloquium, Washington University in St. Louis Physics  
*Cosmic forensics using presolar stardust*
- **09/2021** — Platinum Planetary Seminar, Physical Research Laboratory, Ahmedabad, India  
*AGB stars and their dust grains in the solar system*
- **09/2021** — 16th International Symposium on Nuclei in the Cosmos School, Chengdu, China  
*Isotopes in stardust*
- **06/2021** — School of Physical Sciences Seminar, The Open University, UK  
*Coordinated chemical, isotopic and structural analysis of extraterrestrial materials*
- **02/2021** — INAF-Osservatorio Astronomico d'Abruzzo Virtual Seminar, Italy  
*AGB stars and their dust grains in the solar system*
- **08/2020** — Center for Meteorite Studies Virtual Seminar, Arizona State University  
*AGB stars and their dust grains in the solar system*
- **03/2020** — Department Seminar, Department of Planetary and Space Sciences, University of Colorado, Boulder  
*Laboratory astrophysics: isotopic and structural characterization of presolar grains and micrometeorites*
- **03/2020** — Colloquium, LASP, University of Colorado, Boulder  
*A perspective on solar system origin and evolution from microanalysis of meteoritic components*
- **11/2019** — Department Seminar, Department of Astronomy, University of Illinois Urbana-Champaign  
*Laboratory astronomy using microscopes*

- **11/2019** — Department Seminar, HIGP, University of Hawai'i at Mānoa  
*Presolar dust from supernovae and its implication to solar system formation*
- **03/2019** — Russbach School in Nuclear Astrophysics, Austria (invited lecture)  
*Presolar grains and their stellar origins*
- **09/2018** — Robert Clayton Memorial Symposium, University of Chicago  
*Presolar supernova grains and solar system formation*
- **07/2018** — Goldschmidt 2018 (Boston) — Presolar Grains Session  
*Late formation of silicon carbide in Type II supernovae*
- **02/2018** — Department Colloquium, University of Arizona Planetary Sciences  
*Laboratory astrophysics: isotopic and structural analysis of presolar SiC*
- **02/2018** — Brown Bag Talk, University of Arizona Planetary Sciences  
*What can we learn from a micron-sized presolar grain?*
- **05/2016** — Geochemistry Seminar, Department of Geology, University of Maryland  
*Isotopic and structural studies of presolar SiC: constraints on nucleosynthesis and dust formation*
- **03/2016** — Mid-Atlantic Senior Physicists Group Seminar, Applied Physical Sciences  
*Neutron-capture processes in stars: theories, stellar sites, and implications from presolar grain studies*
- **04/2015** — Department of Terrestrial Magnetism Seminar, Carnegie Institution for Science  
*Isotopic compositions of s-process elements in presolar silicon carbide*

## PUBLICATIONS

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- [38] B. Mei, N. Zeng, N. Zheng, S. Cristallo, D. Vescovi, **N. Liu**, Y. Guan, Y. Wang, W. Jiang, J. Y. Tang, R. Fan & Y. Chen (2026) Neutron capture cross sections of Dy isotopes and their implications for s-process nucleosynthesis. *Physical Review Letters*. submitted.
- [37] **N. Liu**, C. M. O'D. Alexander, D. Vescovi, S. Cristallo, C. J. Hansen, J. Wang, L. Piersanti & M. Molero (2026) Nickel-60 in ancient stardust traces stochastic Type Ia supernova pollution in the Galaxy. *Nature Astronomy*. submitted.
- [36] J. Balibrea-Correa, J. Lerendegui-Marco, C. Domingo-Pardo, V. Babiano-Suárez, I. Lădărescu, M. Krτίčka, G. Cescutti, S. Cristallo, D. Vescovi, **N. Liu**, et al. (n\_TOF Collaboration) (2026) First  $^{94}\text{Nb}(n,\gamma)$  measurement: Constraining the nucleosynthetic origin of  $^{94}\text{Mo}$  in presolar grains. *Physical Review Letters*. submitted.
- [35] J. José, **N. Liu**, C. M. O'D. Alexander & J. Wang (2026) New NanoSIMS multielement isotope data reveal CO novae as key sources of  $^{13}\text{C}$ -rich presolar silicon carbide grains. *European Physical Journal A*. submitted.
- [34] A. Jain & **N. Liu** (2026) On the claimed  $^{26}\text{Al}$ - $^{50}\text{Ti}$  exclusivity in presolar grains. *Research Notes of the AAS* **10**, 39. <https://doi.org/10.3847/2515-5172/ae4873>.
- [33] **N. Liu** (2025) Galactic messages carried by moissanite. *Nature Geoscience* **18**, 377. <https://doi.org/10.1038/s41561-025-01682-8>.
- [32] **N. Liu** (2025) Presolar grains. *Treatise on Geochemistry (Third Edition)* **7**, 113. <https://doi.org/10.1016/B978-0-323-99762-1.00129-7>.
- [31] **N. Liu**, M. Lugaro, J. Leitner, B. S. Meyer & M. Schönabächler (2024) Presolar grains as probes of supernova nucleosynthesis. *Space Science Reviews* **20**, 88. <https://doi.org/10.1007/s11214-024-01122-w>.

- [30] **N. Liu**, C. M. O'D. Alexander, B. S. Meyer, L. R. Nittler, J. Wang & R. M. Stroud (2024) Explosive nucleosynthesis in core-collapse Type II supernovae: insights from new C, N, Si, and Al–Mg isotopic compositions of presolar grains. *The Astrophysical Journal Letters* **961**, L22. <https://doi.org/10.3847/2041-8213/ad18c7>.
- [29] T. Stephan, R. Trappitsch, P. Hoppe, A. M. Davis, M. Bose, A. Boujibar, F. Gyngard, K. M. Hynes, **N. Liu**, L. R. Nittler & R. C. Ogliore (2024) The presolar grain database: I. Silicon carbide. *The Astrophysical Journal Supplement Series* **270**, 27. <https://doi.org/10.3847/1538-4365/ad1102>.
- [28] K. L. Utt, R. C. Ogliore, **N. Liu**, A. N. Krot, J. P. Bradley, D. E. Brownlee & D. J. Joswiak (2023) Diverse oxygen isotopic compositions among cometary vapor-phase condensates. *Geochimica et Cosmochimica Acta* **343**, 250. <https://doi.org/10.1016/j.gca.2022.11.020>.
- [27] **N. Liu**, T. Stephan, S. Cristallo, D. Vescovi, R. Gallino, L. R. Nittler, C. M. O'D. Alexander & A. M. Davis (2022) Presolar silicon carbide grains of types Y and Z: their strontium and barium isotopic compositions and stellar origins. *European Physical Journal A* **58**, 216. <https://doi.org/10.1140/epja/s10050-022-00838-z>.
- [26] **N. Liu**, S. Cristallo & D. Vescovi (2022) Slow neutron-capture process: low-mass asymptotic giant branch stars and presolar silicon carbide grains. *Universe* **8**, 363. <https://doi.org/10.3390/universe8070362>.
- [25] **N. Liu**, N. Dauphas, S. Cristallo, S. Palmerini & M. Busso (2022) Oxygen and aluminum–magnesium isotopic systematics of presolar nanospinel grains from Orgueil. *Geochimica et Cosmochimica Acta* **319**, 296. <https://doi.org/10.1016/j.gca.2021.11.022>.
- [24] G. Hystad, A. Boujibar, **N. Liu**, L. R. Nittler & R. M. Hazen (2022) Evaluation of the classification of presolar silicon carbide grains using consensus clustering with resampling methods: an assessment of the confidence of grain assignments. *Monthly Notices of the Royal Astronomical Society* **510**, 334. <https://doi.org/10.1093/mnras/stab3478>.
- [23] L. G. Vacher, R. C. Ogliore, C. Jones, **N. Liu** & D. A. Fike (2022) Cosmic symplectite recorded irradiation by nearby massive stars in the solar system's parent molecular cloud. *Geochimica et Cosmochimica Acta* **309**, 135. <https://doi.org/10.1016/j.gca.2021.06.026>.
- [22] S. A. Singerling, **N. Liu**, L. R. Nittler, C. M. O'D. Alexander & R. M. Stroud (2021) TEM analyses of unusual presolar silicon carbide: insights into the range of circumstellar dust condensation conditions. *The Astrophysical Journal* **913**, 90. <https://doi.org/10.3847/1538-4357/abece2>.
- [21] **N. Liu**, J. Barosch, L. R. Nittler, C. M. O'D. Alexander, J. Wang, S. Cristallo, M. Busso & S. Palmerini (2021) New multielement isotopic compositions of presolar SiC grains: implications for their stellar origins. *The Astrophysical Journal Letters* **920**, L26. <https://doi.org/10.3847/2041-8213/ac260b>.
- [20] S. A. Singerling, **N. Liu**, L. R. Nittler, C. M. O'D. Alexander & R. M. Stroud (2020) TEM structural and compositional studies of presolar SiC grains and their relation to Raman spectra. *Microscopy and Microanalysis* **26 (Suppl 2)**, 2025. <https://doi.org/10.1017/S1431927620020280>.
- [19] N. X. Nie, N. Dauphas, K. L. Villalon, **N. Liu**, A. W. Heard, R. V. Morris & S. A. Meterzian (2020) Iron isotopic and chemical tracing of basalt alteration and hematite spherule formation in Hawaii: a prospective study for Mars. *Earth and Planetary Science Letters* **544**, 116385. <https://doi.org/10.1016/j.epsl.2020.116385>.
- [18] A. Boujibar, S. Howell, S. Zhang, G. Hystad, A. Prabhu, **N. Liu**, T. Stephan, S. Narkar, A. Eleish, S. M. Morrison, R. M. Hazen & L. R. Nittler (2021) Cluster analysis of presolar silicon carbide grains: evaluation of their classification and astrophysical implications. *The Astrophysical Journal Letters* **907**, L39. <https://doi.org/10.3847/2041-8213/abd102>.

- [17] **N. Liu**, R. C. Ogliore & L. G. Vacher (2020) NanoSIMS isotopic investigation of xenolithic carbonaceous clasts from the Kapoeta howardite. *Geochimica et Cosmochimica Acta* **283**, 243. <https://doi.org/10.1016/j.gca.2020.05.026>.
- [16] S. Cristallo, A. Nanni, G. Cescutti, I. Minchev, **N. Liu**, D. Vescovi, D. Gobrecht & L. Piersanti (2020) Mass and metallicity distribution of parent AGB stars of presolar SiC. *Astronomy & Astrophysics* **664**, A8. <https://doi.org/10.1051/0004-6361/202039492>.
- [15] D. Vescovi, S. Cristallo, M. Busso & **N. Liu** (2020) Magnetic-buoyancy induced mixing in AGB stars: I. Presolar SiC grains. *The Astrophysical Journal Letters* **897**, L25. <https://doi.org/10.3847/2041-8213/ab9fa1>.
- [14] **N. Liu**, T. Stephan, S. Cristallo, P. Boehnke, L. R. Nittler, C. M. O'D. Alexander, A. M. Davis, R. Trappitsch, M. J. Pellin & I. Dillmann (2019) Presolar silicon carbide grains of types Y and Z: their molybdenum isotopic compositions and stellar origins. *The Astrophysical Journal* **881**, 28. <https://doi.org/10.3847/1538-4357/ab2d27>.
- [13] L. R. Nittler, C. M. O'D. Alexander, **N. Liu** & J. Wang (2018) Extremely  $^{54}\text{Cr}$ - and  $^{50}\text{Ti}$ -rich presolar oxide grains in a primitive meteorite: formation in rare types of supernovae and implications for the astrophysical context of solar system birth. *The Astrophysical Journal Letters* **856**, L24. <https://doi.org/10.3847/2041-8213/aab61f>.
- [12] **N. Liu**, L. R. Nittler, C. M. O'D. Alexander & J. Wang (2018) Late formation of silicon carbide in Type II supernovae. *Science Advances* **4**, eaao1054. <https://doi.org/10.1126/sciadv.aao1054>.
- [11] **N. Liu**, T. Stephan, P. Boehnke, L. R. Nittler, B. S. Meyer, C. M. O'D. Alexander, A. M. Davis, R. Trappitsch & M. J. Pellin (2018) Common occurrence of explosive hydrogen burning in Type II supernovae. *The Astrophysical Journal* **855**, 144. <https://doi.org/10.3847/1538-4357/aab4e>.
- [10] **N. Liu**, R. Gallino, S. Cristallo, S. Bisterzo, A. M. Davis, R. Trappitsch & L. R. Nittler (2018) New constraints on the major neutron source in low-mass AGB stars. *The Astrophysical Journal* **865**, 112. <https://doi.org/10.3847/1538-4357/aad9f3>.
- [9] R. M. Stroud, **N. Liu**, B. T. De Gregorio, A. Steele, C. M. O'D. Alexander & L. R. Nittler (2017) Identification of rare polytypes of presolar SiC with coordinated TEM, Raman spectroscopy and NanoSIMS measurements. *Microscopy and Microanalysis* **23 (Suppl 1)**, 2134. <https://doi.org/10.1017/S1431927617011333>.
- [8] **N. Liu**, A. Steele, L. R. Nittler, R. M. Stroud, B. T. De Gregorio, C. M. O'D. Alexander & J. Wang (2017) Coordinated EDX and micro-Raman analysis of presolar silicon carbide: a novel, non-destructive method to identify rare sub-group SiC. *Meteoritics & Planetary Science* **52**, 2550. <https://doi.org/10.1111/maps.12954>.
- [7] **N. Liu**, T. Stephan, P. Boehnke, L. R. Nittler, C. M. O'D. Alexander, J. Wang, A. M. Davis, R. Trappitsch & M. J. Pellin (2017) J-type carbon stars: a dominant source of  $^{14}\text{N}$ -rich presolar SiC grains of type AB. *The Astrophysical Journal Letters* **844**, L12. <https://doi.org/10.3847/2041-8213/aa7d4c>.
- [6] **N. Liu**, L. R. Nittler, M. Pignatari, C. M. O'D. Alexander & J. Wang (2017) Stellar origin of  $^{15}\text{N}$ -rich presolar AB SiC grains: supernovae with explosive hydrogen burning. *The Astrophysical Journal Letters* **842**, L1. <https://doi.org/10.3847/2041-8213/aa74e5>.
- [5] **N. Liu**, L. R. Nittler, C. M. O'D. Alexander, J. Wang, M. Pignatari & J. José (2016) Stellar origin of extremely  $^{13}\text{C}$ - and  $^{15}\text{N}$ -enriched presolar grains: novae or supernovae?. *The Astrophysical Journal* **820**, 140. <https://doi.org/10.3847/0004-637X/820/2/140>.
- [4] T. Stephan, R. Trappitsch, A. M. Davis, M. J. Pellin, D. Rost, M. R. Savina, R. Yokochi & **N. Liu** (2016) CHILI — the Chicago Instrument for Laser Ionization — a new tool for isotope measurements in cosmochemistry. *International Journal of Mass Spectrometry* **407**, 1. <https://doi.org/10.1016/j.ijms.2016.06.001>.

- [3] **N. Liu**, M. Savina, R. Gallino, A. M. Davis, S. Bisterzo, F. Gyngard, F. Käppeler, S. Cristallo, N. Dauphas, M. Pellin & I. Dillmann (2015) Correlated strontium and barium isotopic compositions of acid-cleaned single mainstream silicon carbides from Murchison. *The Astrophysical Journal* **803**, 12. <https://doi.org/10.1088/0004-637X/803/1/12>.
- [2] **N. Liu**, R. Gallino, A. M. Davis, S. Bisterzo, M. R. Savina & M. J. Pellin (2014) The  $^{13}\text{C}$ -pocket structure in AGB models: constraints from zirconium isotope abundances in single mainstream SiC grains. *The Astrophysical Journal* **788**, 163. <https://doi.org/10.1088/0004-637X/788/2/163>.
- [1] **N. Liu**, M. R. Savina, A. M. Davis, R. Gallino, O. Straniero, F. Gyngard, M. J. Pellin, D. G. Willingham, N. Dauphas, M. Pignatari, S. Bisterzo, S. Cristallo & F. Herwig (2014) Barium isotopic composition of mainstream silicon carbides from Murchison: constraints for s-process nucleosynthesis in asymptotic giant branch stars. *The Astrophysical Journal* **786**, 66. <https://doi.org/10.1088/0004-637X/786/1/66>.

## CONFERENCE ABSTRACTS

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- [91] **N. Liu** (2026) Meteoritic isotopic anomalies as precision tests of stellar nucleosynthesis. *Nuclear Physics in Astrophysics XII* (invited).
- [90] **N. Liu**, C. M. O'D. Alexander & J. Wang (2026) Radioactive isotopes in presolar supernova grains. *Astrophysics with Radioactive Isotopes 2026* (invited).
- [89] A. Jain & **N. Liu** (2026) On the claimed  $^{26}\text{Al}$ - $^{50}\text{Ti}$  exclusivity in presolar grains. *57<sup>th</sup> Lunar and Planetary Science Conference* (oral).
- [88] **N. Liu**, J. José, C. M. O'D. Alexander & J. Wang (2026) New NanoSIMS multielement isotope data reveal CO novae as key sources of  $^{13}\text{C}$ -rich presolar SiC grains. *57<sup>th</sup> Lunar and Planetary Science Conference* (oral).
- [87] **N. Liu**, C. M. O'D. Alexander, J. Wang, B. S. Meyer & L. S. Walls (2026) Presolar grains from supernovae. *AAS 247 Winter Meeting, Phoenix, AZ* (oral).
- [86] **N. Liu**, C. M. O'D. Alexander, J. Wang, L. S. Walls, B. S. Meyer & A. Jain (2025) Constraining neutron-burst nucleosynthesis in core-collapse supernovae through multielement isotopic composition of presolar Type C and X grains. *87<sup>th</sup> Meteoritical Society Meeting* (oral).
- [85] J. Wang, **N. Liu** & C. M. O'D. Alexander (2025) New advances in presolar grain research via high-resolution NanoSIMS isotope imaging. *87<sup>th</sup> Meteoritical Society Meeting* (oral).
- [84] M. Cockshutt, P. Denisenkov, **N. Liu** & F. Herwig (2025) The impact of extra mixing in low-mass stars on presolar grain abundance predictions. *International Symposium on Nuclei in the Cosmos XVIII, Girona, Spain* (oral).
- [83] **N. Liu**, C. M. O'D. Alexander, J. Wang, B. S. Meyer, L. S. Walls & A. Jain (2025) Presolar grains as probes of Type II supernova nucleosynthesis. *International Symposium on Nuclei in the Cosmos XVIII, Girona, Spain* (poster).
- [82] **N. Liu**, C. M. O'D. Alexander, J. Wang, S. Cristallo, B. S. Meyer, D. Vescovi & L. S. Walls (2025) Diverse stellar neutron-capture isotopic signatures recorded in presolar silicon carbide grains. *s, i & r Element Nucleosynthesis (sirEN) Conference, Giulianova, Italy* (oral).
- [81] **N. Liu**, C. M. O'D. Alexander, J. Wang, B. S. Meyer, L. S. Walls & A. Jain (2025) Presolar grains as probes of Type II supernova nucleosynthesis. *2025 IReNA-CeNAM Frontiers in Nuclear Astrophysics Conference* (oral).
- [80] **N. Liu**, C. M. O'D. Alexander, J. Wang, S. Cristallo & D. Vescovi (2025) Stellar origins of types Y and Z silicon carbide grains revealed by nickel isotopes. *56<sup>th</sup> Lunar and Planetary Science Conference* (oral).

- [79] L. S. Walls, B. S. Meyer & **N. Liu** (2025) An analytic tool for studying neutron burst nucleosynthesis in core-collapse Type II supernovae. *56<sup>th</sup> Lunar and Planetary Science Conference* (oral).
- [78] **N. Liu**, C. M. O'D. Alexander & J. Wang (2024) Unveiling the stellar origins of types Y and Z silicon carbide grains: new isotope insights. *XIV Torino Workshop on AGB Stars, Frascati, Italy* (oral).
- [77] **N. Liu**, C. M. O'D. Alexander & J. Wang (2024) Sulfur isotopic compositions of presolar silicon carbide grains. *86<sup>th</sup> Meteoritical Society Meeting* (oral).
- [76] T. Stephan, A. M. Davis, F. Gyngard, P. Hoppe, K. M. Hynes, M. Jadhav, **N. Liu**, L. R. Nittler, R. C. Ogliore & R. Trappitsch (2024) The presolar grain database reloaded — graphite. *86<sup>th</sup> Meteoritical Society Meeting* (oral).
- [75] **N. Liu**, C. M. O'D. Alexander, J. Wang, L. R. Nittler & B. S. Meyer (2024) Potassium-calcium isotope systematics of supernova silicon nitride grains. *55<sup>th</sup> Lunar and Planetary Science Conference* (oral).
- [74] **N. Liu**, C. M. O'D. Alexander, J. Wang & S. Cristallo (2024) The stellar origin of a <sup>25</sup>Mg-rich mainstream SiC grain. *Presolar Grain Workshop, Arizona State University* (oral).
- [73] **N. Liu**, C. M. O'D. Alexander, J. Wang, L. R. Nittler & B. S. Meyer (2023) Radioactive <sup>44</sup>Ti found in <sup>15</sup>N-rich Type AB presolar SiC grains. *85<sup>th</sup> Meteoritical Society Meeting* (oral).
- [72] **N. Liu**, C. M. O'D. Alexander, L. R. Nittler & J. Wang (2023) Late formation of silicon carbide in supernova remnants confirmed by new vanadium-titanium isotope data. *54<sup>th</sup> Lunar and Planetary Science Conference* (oral).
- [71] **N. Liu**, C. M. O'D. Alexander, L. R. Nittler & J. Wang (2023) Calibrating SIMS relative sensitivity factor for Al/Mg in presolar silicon carbide. *54<sup>th</sup> Lunar and Planetary Science Conference* (poster).
- [70] **N. Liu**, T. Stephan, S. Cristallo, D. Vescovi, R. Gallino, L. R. Nittler, C. M. O'D. Alexander & A. M. Davis (2022) Presolar silicon carbide grains of types Y and Z: stardust from low-metallicity asymptotic giant branch stars?. *84<sup>th</sup> Meteoritical Society Meeting* (oral).
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