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CHRONOLOGY OF EDUCATION

Washington University, St. Louis, MO, Dept. of Earth and Planetary Sciences
Ph.D. in Earth and Planetary Sciences, 1997
Thesis: Theoretical and Experimental Studies of Fe-Ni-S, Be, and B
Cosmochemistry
Advisor: Bruce Fegley, Jr.

University of Arizona, Tucson, AZ, Depts. of Physics, Mathematics, and East Asian Studies
B.S. in Physics and Mathematics, Cum Laude, 1993
B.A. in Oriental Studies (emphasis: Japanese), Cum Laude, 1993

CHRONOLOGY OF EMPLOYMENT

Director, Arizona Astrobiology Center, Research, Innovation, and Impact, University of Arizona, Tucson, AZ; 2023 – present.

Arizona Regents Professor, Lunar and Planetary Laboratory, Dept. of Planetary Sciences, University of Arizona, Tucson, AZ; 2021 – present.

Principal Investigator, OSIRIS-REx Asteroid Sample Return Mission, NASA New Frontiers Program, 2011 – present.

Professor, Lunar and Planetary Laboratory, Dept. of Planetary Sciences, University of Arizona, Tucson, AZ; 2012 – 2021.

Deputy Principal Investigator, OSIRIS-REx Asteroid Sample Return Mission, NASA New Frontiers Program, 2008 – 2011.

Associate Professor, Lunar and Planetary Laboratory, Dept. of Planetary Sciences, University of Arizona, Tucson, AZ; 2006 – 2012.

Assistant Professor, Lunar and Planetary Laboratory, Dept. of Planetary Sciences, University of Arizona, Tucson, AZ; 2001 – 2006.

Associate Research Scientist, Dept. of Chemistry & Biochemistry, Arizona State University, Tempe, AZ; 1999 – 2001.

Postdoctoral Research Associate, Dept. of Geology, Arizona State University, Tempe, AZ
Primary project: Transmission electron microscopy of meteoritic minerals.
Supervisor: Peter R. Buseck; Dates: 1997 – 1999.

Research Assistant, Dept. of Earth and Planetary Sci., Washington Univ., St. Louis, MO
Primary project: Experimental studies of sulfide formation in the solar nebula.
Advisor: Bruce Fegley, Jr.; Dates: 1993 – 1997.

Research Intern, NASA Undergraduate Research Program, Univ. of Arizona, Tucson, AZ
Primary project: Development of a logic-based language for S.E.T.I.
Advisor: Carl Devito; Dates: 1992 – 1993.

HONORS AND AWARDS (OSIRIS-REX TEAM)

Michael Collins National Air and Space Museum Trophy for Current Achievement (2025)
Collier Trophy – US National Aeronautical Association (2024)
Citation of Merit – Explorers Club (2024)
Network Laureate Award for Space – Aviation Week (2024)
Neil Armstrong Space Flight Achievement Award – American Astronautical Society (2024)
Goddard Memorial Trophy – National Space Club (2024)
NASA Group Achievement Award – OSIRIS-REx Sample Collection (2023)
John L. "Jack" Swigert Jr. Award for Space Exploration – Space Foundation (2022)
Space Technology Award – American Astronautical Society (2021)
NASA Group Achievement Award – OSIRIS-REx Approach and Preliminary Survey (2019)
Guinness World Record –The Smallest Object to be Orbited by a Spacecraft (2019)
Guinness World Record –The Closest Orbit of a Planetary Body (2019)
NASA Group Achievement Award – OSIRIS-REx Earth Gravity Assist (2018)
NASA Silver Achievement Medal – OSIRIS-REx Asteroid Astronomy Science Team (2017)
NASA Group Achievement Award – OSIRIS-REx Mission Team (2017)
Arizonan of the Year (awarded to OSIRIS-REx) – Arizona Republic (2016)
Robert H. Goddard Award for New Opportunities Captured for the OSIRIS-REx Team (2014)

HONORS AND AWARDS (INDIVIDUAL)

Arnold C. Ott Lectureship (2025)
Eric & Wendy Schmidt Explorers Club Visionary Award (2024)
von Kármán Lecturer – American Institute of Aeronautics and Astronautics (2024)
Eugene Shoemaker Lecturer – American Geophysical Union (2023)
Distinguished Lecturer – Sigma Xi (2023)
Robert M. Walker Distinguished Lecturer – Washington University in St. Louis (2022)
University of Arizona Commencement Speaker (2022)
University of Arizona Regents Professor (2021)
MOCA Tucson Local Genius Award (2021)
University of Arizona Galileo Circle Dean's Award (2020)
Silver Prize (for Constellations) – International Serious Play Board Game Award (2018)
Mensa Select Award (for Constellations) – Mensa Mind Games (2018)
University of Arizona, College of Humanities Alumni of the Year (2017)
University of Arizona Alumni Achievement Award (2017)
Boys and Girls Clubs of America Alumni Hall of Fame (2017)
Best Family Board Game of 2016 (for Xtronaut) – Good Housekeeping Magazine (2016)
Ceremonial First Pitch – Arizona Diamondbacks STEM Showcase (2016)
Arizona Governor's Celebration of Innovation Award – Innovator of the Year (2011)
Antarctica Service Medal of the United States of America (2010)
Kavli Fellow of the National Academy of Sciences (2008)

Award of Excellence Top 10 Oral Presentation AAPG Annual Convention (2008)
 U of A College of Science Distinguished Early Career Teaching Award (2006)
 Top 100 Science Discoveries – Discover Magazine (2004)
 The Alfred O. Nier Prize of the Meteoritical Society (2002)
 Asteroid 5819 named Laurretta (2002)
 Stephen E. Dworkin Planetary Geoscience Award (1997)
 Harvey H. Nininger Meteorite Award (1996)
 Meteoritical Society Student Travel Grant (1994, 1996)
 McDonnell Fellowship for the Space Sciences (1993-95)
 NASA Undergraduate Research Space Grant (1992-93)
 Silver Prize, Southwest Regional Japanese Essay Contest (1992)
 Arizona Regents Presidential Scholarship (1988-91)

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science, Fellow
 The Meteoritical Society, Fellow
 The Explorers Club, National Fellow
 American Geophysical Union
 The Geochemical Society
 Sigma Xi

INVITED TALKS (PAST FIVE YEARS)

1. “OSIRIS-REx: Unravelling the Mysteries of Asteroid Bennu,” April 10, 2025, Grand Valley State University, Grand Rapids, MI
2. “Exploring Quantum Astrobiology,” March 27, 2025, Howard University, Washington, DC
3. “Discussion on Quantum Consciousness,” March 23, 2025, Amazon MARS, Orlando, FL
4. “The Evolution of Intelligence: Insights from Systems Biology and SETI,” March 2, 2025, AI for Animals Conference, Virtual
5. “Quantum Astrobiology,” October 19, 2024, Institute of Noetic Sciences, Los Gatos, CA
6. “Life in Deep Space,” August 24, 2024, National Book Festival, Washington, DC
7. “Unlocking the Secrets of Our Solar System's History: The OSIRIS-REx Journey,” July 30, 2024, AIAA von Kármán Lectureship in Astronautics, Las Vegas, NV
8. “Exploring the Origin of Life and Consciousness in the Universe,” July 12, 2024, The Festival of Consciousness, Barcelona, Spain
9. Club Augusta Breakfast Seminar, July 11, 2024, Augusta Abogado, Barcelona, Spain
10. “OSIRIS-REx: Unravelling the Mysteries of Asteroid Bennu,” June 26, 2024, The OHP Summer School for Sample Returns, Observatoire de Haute-Provence, France
11. “Adventures in Asteroid Hunting,” June 21, 2024, University of Lausanne, Switzerland
12. “Leading a Billion-dollar Space Mission,” June 12, 2024, NASDAQ Town Hall, Virtual

13. "OSIRIS-REx: Revealing Secrets from the Dawn of our Solar System," May 22, 2024, National Air and Space Museum in Washington, DC
14. "From Bennu to the Brain," Starmus Festival, May 17, 2024, Bratislava, Slovakia
15. "Molecules of Life & Consciousness from the Asteroid Bennu," Keynote Lecture, The Science of Consciousness Conference, April 26, 2024, Tucson, AZ
16. "Exploring Asteroid Science and Astrobiology with OSIRIS-REx," March 26, 2024, Amazon MARS, Ojai, CA
17. "Astrobiology and OSIRIS-REx," Keynote Lecture, 61st Goddard Space Science Symposium, March 22, 2024, College Park, MD
18. "To Bennu and Back," Colloquium, February 15, 2024, Hokkaido University, Sapporo, Japan
19. "Biogenic Element Distribution in Samples Returned by OSIRIS-REx," February 13, 2024, Solar System Symposium, Sapporo, Japan
20. "From Asteroid to Earth: First Results from the OSIRIS-REx Mission and Implications for Planetary Science," Lunar and Planetary Laboratory Colloquium, January 16, 2024, University of Arizona, Tucson, AZ
21. "From Asteroid to Earth: First Results from the OSIRIS-REx Mission and Implications for Planetary Science," Eugene Shoemaker Lecture, December 11, 2023, American Geophysical Union, San Francisco, CA
22. AIAA Distinguished Speaker Lecture, November 29, 2023, Virtual
23. "OSIRIS-REx and Near-Earth Asteroid Bennu – Returning a Sample of the Early Solar System," November 14, 2023, Space Studies Board, Irvine CA
24. "Astrobiology and Astroconsciousness," Neuroscience Needs a Revolution to Understand Consciousness Symposium – Encinitas, CA, August 19, 2023
25. "The Economic Impact of Space Exploration," International Economic Development Council – Keynote – Tucson, AZ, January 30, 2023
26. "OSIRIS-REx and Near-Earth Asteroid Bennu - Returning a Sample of the Early Solar System," Colloquium, Washington University, St. Louis, MO, October 19, 2022
27. "Playing Tag with an Asteroid - NASA's OSIRIS-REx Mission at Asteroid Bennu," Public Lecture, St. Louis, MO, October 20, 2022
28. "To Bennu and Back: NASA's OSIRIS-REx Mission," Colloquium, York University, Toronto, ON, August 5, 2022
29. "OSIRIS-REx - Status of NASA's Near-Earth Asteroid Sample Return Mission," International Astronomical Union General Assembly, August 1, 2022
30. "OSIRIS-REx Sample Acquisition and Implications for the Nature of the Returned Sample from Asteroid (101955) Bennu," Goldschmidt Geochemistry Conference, Honolulu, HI, July 11, 2022
31. "OSIRIS-REx Samples of Near-Earth Asteroid (101955) Bennu: Testing Theories of the Origin of Life," Astrobiology Science Conference, Atlanta, GA, May 19, 2022
32. "What is Astrobiology", Increasing Student Interest and Engagement in Space Exploration Conference, April 29, 2022

33. “Science and Humanities United – Why We Explore”, Arizona Junior Science and Humanities Symposium Keynote Speaker, March 18, 2022
34. “Astrobiology and Astroconsciousness: An illustrated discussion with UArizona professors Dante Laurotta and Stuart Hameroff”, Museum of Contemporary Art, Tucson, Arizona, December 9, 2021
35. “OSIRIS-REx: Updates and Expectations”, Planetary Science Symposium Physical Research Laboratory, Ahmedabad, India, November 30, 2021
36. “OSIRIS-REx Overview”, NASA Lucy Mission Science Team Meeting, October 14, 2021
37. “Calibration Challenges for NASA’s OSIRIS-REx Mission”, CalCon Keynote Speaker, Space Dynamics Laboratory, North Logan, Utah, September 1, 2021
38. University Fellows Colloquium Panel Discussion – Engaging with the Media, February 11, 2021
39. “To Bennu and Back: NASA’s OSIRIS-REx Mission” Keck Institute for Space Studies/Caltech Virtual Talk, November 30, 2020
40. “To Bennu and Back: NASA’s OSIRIS-REx Mission” University of Arizona Humanities Seminar Program, November 20, 2020

SERVICE/OUTREACH (PAST FIVE YEARS)

OUTREACH PRESENTATIONS – LOCAL/STATE

1. Tucson Amateur Astronomy Association, May 2, 2025
2. Knight Science Journalism Workshop, April 26, 2025
3. Nerd Nite – April 11, 2024
4. Tucson Festival of Books – March 9, 2024
5. SARSEF Science Fair – March 7, 2024
6. Gem & Mineral Show – A Day at the Alfie – January 27, 2024
7. Bennu on Display – Norville Gem & Mineral Museum – November 30, 2023,
8. University of Arizona Astronomy Club – November 17, 2023
9. Sands Club – Public Lecture OSIRIS-REx Follow Up – November 8, 2023
10. Ten West Panel, Tucson Convention Center – November 7, 2023
11. Fuel Wonder Insiders Campaign Event – November 2, 2023
12. TEDx Talk – Centennial Hall – November 1, 2023
13. SETI Live, October 12, 2023
14. NASA Science Live – September 26, 2023
15. Sands Club – Public Lecture – January 25, 2023
16. ΦBK Honorary Society – Keynote Speaker – May 1, 2022
17. Space Camp at Biosphere 2 Lecturer, February 17, 2022
18. Sonoran Science Academy Mars Presentation – September 9, 2021
19. UArizona Honors NOW Event – April 6, 2021
20. An Evening with UArizona Leaders, February 25, 2021
21. UArizona President's Advisory Council – February 23, 2021

OUTREACH PRESENTATIONS – NATIONAL/INTERNATIONAL

1. Rosie Seymour Elementary School, Stswécem'c (Canoe Creek), British Columbia – May 27, 2025
2. Globe Institute, University of Copenhagen, Denmark, May 7, 2025
3. Perot Museum, Dallas TX – November 2, 2024
4. Lockheed Martin, Littleton, CO – January 31, 2023
5. Space and Rocket Center, Huntsville, AL, January 17, 2023
6. Google Quantum AI Tech Talk, November 13, 2023
7. Asteroid Mining Summer Program, MDA, Brampton, ON – May 24, 2022
8. Lockheed Martin, Littleton, CO – April 18, 2021
9. Motion Metrics Corporation, Vancouver, BC – April 9, 2021
10. NASA Small Bodies Assessment Group – January 25, 2021

DEPARTMENTAL COMMITTEES AND SERVICE

LPL Curriculum Committee (2024 – 2025)

Director, Lunar and Planetary Laboratory Electron Microprobe Laboratory (2016 – 2024)

Science and Technical Oversight Committee, Kuiper Materials Imaging Core Facility (2017 – 2024)

LPL Graduate Admissions and Advising Committee (2021 – 2023, Chair)

LPL Awards Committee (2018 – 2022, Chair)

UNIVERSITY OF ARIZONA COMMITTEES

Senior Vice President for Academic Affairs Search Committee (2024)

College of Science Faculty Council (2022 – 2024)

College of Humanities Deans Advisory Committee (2019 – present)

Honors College Faculty Advisory Committee (2019 – 2022)

EXTRAMURAL – PEER REVIEWER

Journals: *Science*, *Science Advances*, *Nature*, *Nature Communications*, *Meteoritics and Planetary Science*, *Geochimica et Cosmochimica Acta*, *Icarus*, *Earth and Planetary Science Letters*, *Space Science Reviews*, *American Mineralogist*, *Journal of Atmospheric and Solar-Terrestrial Physics*, *Fuel*, *Transactions of the JSAS*

Cambridge University Press

University of Arizona Press

NASA Research Opportunities in Space and Earth Science (ROSES)

NSF: OCE International Support

Agence Nationale de la Recherche - France

The Marsden Fund - New Zealand Government

Swiss National Science Foundation

MacArthur Fellows Program

European Research Council Executive Agency

The UK's Strategic Science Investment Agency, Particle Physics and Astronomy
Research Council (PPARC)
The Leverhulme Trust, London, UK
Shota Rustaveli National Science Foundation of Georgia

EXTRAMURAL – OTHER

Co-Investigator – NASA OSIRIS-APEX Mission (2022 – present)
Co-Investigator – ESA Hera Asteroid Mission (2020 – present)
Science Advisory Board – United Launch Alliance (2022 – 2024)
Science Review Panel – United Arab Emirates MAX Mission (2022, 2024)
Chief Scientist – Peace Satellite Project, Space Trust (2020 – 2024)
Organizing Committee – The Science of Consciousness Conference (2022, 2024,
2025)
Organizer and Chair – University of Arizona-University of Nairobi-Space Trust
Symposium (2021)
Board of Directors, Boys and Girls Clubs of Tucson (2018 – 2022)
Co-Investigator – JAXA Hayabusa2 Asteroid Sample Return Mission (2013 – 2022)
Chief Scientist – Creative Destruction Lab, Space Track (2021)

TEACHING & EDUCATIONAL ACTIVITIES

COURSES TAUGHT

S02 NATS 102: The Universe and Humanity, 3 credit hours, 160 students
F02 PTYS 510: Principles of Cosmochemistry, 3 credit hours, 12 students
S03 PTYS 195A: First Year Colloquium: Meteorites, 1 credit hour, 15 students
S03 PTYS 900: Team X – Spacecraft Mission Design, 3 credit hours, 9 students
F03 NATS 102: The Universe and Humanity, 3 credit hours, 160 students
S04 NATS 102: The Universe and Humanity, 3 credit hours, 72 students
F04 PTYS 510: Principles of Cosmochemistry, 3 credit hours, 18 students
F04 PTYS 195A: Asteroids, Comets, and Meteorites, 1 credit hour, 20 students
S05 PTYS 499/699: Team X – Spacecraft Mission Design, 3 credit hours, 8
students
F05 NATS 102: The Universe and Humanity, 3 credit hours, 160 students
S06 NATS 102: The Universe and Humanity, 3 credit hours, 86 students
F06 PTYS 510: Principles of Cosmochemistry, 3 credit hours, 14 students
S08 PHYS 498: Senior Capstone, 3 credit hours, 1 student
F08 PTYS 510: Principles of Cosmochemistry, 3 credit hours, 12 students
S09 PTYS 195A: Asteroids, Comets, and Meteorites, 1 credit hour, 20 students
F09 PTYS 407: Chemistry of the Solar System, 3 credit hours, 16 students
S17 PTYS 495/595: Special Topics – Spacecraft Mission Design and
Implementation, 19 students
F17 PTYS 499/499H: Independent Study – Star and Planet Formation – 6 students
F18 HNRS 499H/EDL 396B: Gameful Learning and Community Outreach – 8
students

S19 HNRS 499H/EDL 396B: Gameful Learning and Community Outreach – 16 students

F19 HNRS 499H/EDL 396B: Gameful Learning and Community Outreach – 18 students

S20 EDL 396B: Gameful Learning and Community Outreach – 15 students

F20 EDL 396B: Gameful Learning and Community Outreach – 15 students

S21 PTYS 495B/595B: Special Topics – Spacecraft Mission Design and Implementation, 19 students

F21 PTYS 214: Astrobiology – A Planetary Perspective, 42 students

F22 PTYS 214: Life in the Cosmos, 79 students

S23 PTYS 407: Chemistry of the Solar System, 24 students

F23 PTYS 214: Life in the Cosmos, 80 students

F24 PTYS 407: Chemistry of the Solar System, 22 students

CURRENT PH.D. STUDENTS

Nathalia Vega-Santiago (Ph.D.)

Melissa Kontogiannis (Ph.D.)

Sawsan Wehbi (Ph.D. – Co-Advisor)

FORMER POSTDOCTORAL RESEARCH ASSOCIATES

Eric Palmer (Ph.D. 2009 – University of Arizona)

Jemma Davidson (Ph.D. 2009 – Open University)

Andrew Ryan (Ph.D., 2018 – Arizona State University)

Ronald Ballouz (Ph.D., 2018 – University of Maryland)

FORMER PH.D. STUDENTS

Fred Ciesla (Ph.D. 2003)

Matthew Pasek (Ph.D. 2006)

Jade Bond (Ph.D. 2008)

Eric Palmer (Ph.D. 2009)

Eve Berger (Ph.D. 2011)

Kathryn Gardner-Vandy (Ph.D., 2012)

Devin Schrader (Ph.D., 2012)

Kelly Miller (Ph.D., 2016)

Yuhui "Harry" Tang (Ph.D., 2024)

FORMER M.S. STUDENTS

Celinda Marsh (M.S. 2007)

UNDERGRADUATE RESEARCH INTERNS

1. Frances McQueen (2002 – 2003)
2. Virginia Smith (2003 – 2004)
3. Alyssa La Blue (2003 – 2005)
4. Daniella DellaGiustina (2004 – 2009)

5. Devin Schrader (2005 – 2007)
6. Matthew Rodriguez (2006 – 2007)
7. Adria Brooks (2006 – 2008)
8. Courtney King (2008 – 2011)
9. Katrina Jackson (2008 – 2011)
10. Lujhendra Ohja (2009 – 2011)
11. Rachel Maxwell (2010 – 2011)
12. Jennifer Sterchio (2010 – 2011)
13. Ashley Nied (2015 – 2018)
14. Katherina Marchese (2016 – 2019)
15. Kerst Kingsbury (2018)
16. Jessica Forelli (2017 – 2020) – Honors Thesis Advisor
17. Collin Lewin (2017 – 2020) – Honors Thesis Advisor, Goldwater Fellow
18. Kana Ishimaru (2018) – summer intern from University of Tokyo
19. Lindsey Koelbel (2018 – 2021) – Brooke Owens Fellow
20. Sarah Graham (2019 – 2021) – Honors Thesis Advisor
21. Shae Henley (2021 – 2022)
22. Ruby Fulford (2021 – 2022) – Honors Thesis Advisor
23. Melissa Kontogiannis (2021 – 2023)
24. Henry Bentson (2024)
25. Sarah Nielsen (2022 – 2025)
26. Karla Parades-Aguilar (2024 – 2025)

GRANTS AND CONTRACTS – CURRENT

OSIRIS-REx Asteroid Sample Return Mission PI and Science Support – Phase-B/C/D/E

Role: Principal Investigator

Total Award: \$ 122.0M

Award Period: 12/16/2011 – 10/31/2026

Source: NASA MSFC New Frontiers Program Office – Contract NNM10AA11C

Annual Commitment (person months): 3

OSIRIS-APEX: An OSIRIS-REx Extended Mission to Apophis

Role: Emeritus Principal Investigator/ Co-Investigator

Total Award: \$18.4M

Award Period: 11/01/2023 – 9/30/2031

Source: NASA MSFC New Frontiers Program Office

Annual Commitment (person months): 1

Nanoscale Secondary Ion Mass Spectrometer for Planetary Materials

Program: Gordon and Betty Moore Foundation

Role: Collaborator

Proposal period: 06/01/2020-05/31/2025, Award amount: \$2,400,000

Annual Commitment: 0 FTE, capital equipment

The Kuiper Materials Imaging and Characterization Facility at the University of Arizona

Role: Co-Investigator
Total Award: \$2,919,856
Award Period: 12/7/2022 – 12/6/2026
Source: NASA Planetary Science Enabling Facilities
Annual Commitment: 0.01 person months/year

Amino Acid Frequencies in Ancient Life

Role: Collaborator
Total Award: \$150,000
Award Period: 08/20/2023 – 08/19/2026
Source: NNH22ZDA001N-FINESST
Annual Commitment: NA (Advising graduate student Sawsan Wehbi)

Expanding NASA's Community for Planetary Sample Science (ENCompSS)

Role: Co-Investigator
Total Award: \$ 118,207
Award Period: 11/11/2024 – 11/10/2026
Source: NNH23ZDA017C-NASA Support for Planetary Sample Science (SPSS)
Annual Commitment: 0.5 person months/year

PUBLICATIONS – BOOKS AND EDITED VOLUMES

2024: D. S. Lauretta, *The Asteroid Hunter*. Grand Central Publications.

2023: D. S. Lauretta, B. May, et al. *Bennu 3-D: Anatomy of an Asteroid*. London Stereoscopic Company/University of Arizona Press.

2011: D. S. Lauretta (ed.) *Elements: An International Magazine of Mineralogy, Geochemistry, and Petrology*. Special Issue on Cosmochemistry, Volume 7, Number 1.

2010: D. Apai and **D. S. Lauretta** (eds.) *Protoplanetary Dust: Astrophysical and Cosmochemical Perspectives*. Cambridge University Press.

2006: D. S. Lauretta and H. Y. McSween (eds.) *Meteorites and the Early Solar System II*. University of Arizona Press, Tucson, AZ.

2005: D. S. Lauretta and M. Killgore. *A Color Atlas of Meteorites in Thin Section*. Golden Retriever Publications, Tucson, AZ and Southwest Meteorite Press, Payson, AZ.

2002: M. K. Crombie, C. T. Gholson, **D. S. Lauretta**, and E. B. Melchiorre. *Rich Hill: The History of Arizona's Most Amazing Gold District*. Golden Retriever Publications, Tucson, AZ.

PUBLICATIONS – BOARD GAMES

2022: Pisces: A High-Stakes Fishing Competition. Xtronaut Enterprises.

2020: Xtronaut 2.0. Xtronaut Enterprises.

2019: Downlink: The Game of Planetary Discovery. Xtronaut Enterprises.

2017: Constellations: The Game of Stargazing and the Night Sky. Xtronaut Enterprises.

2016: Xtronaut: The Game of Solar System Exploration. Xtronaut Enterprises.

PUBLICATIONS – PEER-REVIEWED JOURNALS

2025:

290. Burns, R., & Lauretta, D. S. (2025). OSIRIS-REx Operational Key Decision Points: A Retrospective. arXiv preprint arXiv:2505.14632.

289. Connolly Jr, H. C., Lauretta, D. S., McCoy, T. J., Russell, S. S., Haenecour, P., Polit, A., ... & Tachibana, S. (2025). An overview of the petrography and petrology of particles from aggregate sample from asteroid Bennu. *Meteoritics & Planetary Science*.

288. McCoy, T. J., Russell, S. S., Zega, T. J., Thomas-Keprta, K. L., Singerling, S. A., Brenker, F. E., ... & Lauretta, D. S. (2025). An evaporite sequence from ancient brine recorded in Bennu samples. *Nature*, 637(8048), 1072-1077.

287. Glavin, D. P., Dworkin, J. P., Alexander, C. M. O. D., Aponte, J. C., Baczynski, A. A., Barnes, J. J., ... & Lauretta, D. S. (2025). Abundant ammonia and nitrogen-rich soluble organic matter in samples from asteroid (101955) Bennu. *Nature Astronomy*, 1-12.

286. Li, J. Y., Zou, X. D., Golish, D. R., Clark, B. E., Ferrone, S., Fornasier, S., ... & Lauretta, D. S. (2021). Spectrophotometric modeling and mapping of (101955) Bennu. *The Planetary Science Journal*, 2(3), 117.

2024:

285. Lauretta, D. S., Connolly Jr, H. C., Aebersold, J. E., Alexander, C. M. O. D., Ballouz, R. L., Barnes, J. J., ... & OSIRIS-REx Sample Analysis Team. (2024). Asteroid (101955) Bennu in the laboratory: Properties of the sample collected by OSIRIS-REx. *Meteoritics & Planetary Science*, 59(9), 2453-2486.

284. Nguyen, A. N., Clemett, S. J., Thomas-Keprta, K., Alexander, C. O. D., Glavin, D. P., Dworkin, J. P., ... & Lauretta, D. S. (2024). Micro-and nanoscale studies of insoluble organic matter and C-rich presolar grains in Murchison and Sutter's Mill in preparation for Bennu sample analysis. *Meteoritics & Planetary Science*, 59(10), 2831-2850.

283. Yumoto, K., et al. "Comparison of optical spectra between asteroids Ryugu and Bennu: II. High-precision analysis for space weathering trends." *Icarus* 420 (2024): 116204.

282. Jenniskens, Peter, et al. "Properties of outer solar system pebbles during planetesimal formation from meteor observations." *Icarus* (2024): 116229.

281. Walsh, K. J., et al. "Numerical simulations suggest asteroids (101955) Bennu and (162173) Ryugu are likely second or later generation rubble piles." *Nature Communications* 15.1 (2024): 5653.
280. Guigoz, Vincent, Anthony Seret, Marc Portail, Ludovic Ferrière, Guy Libourel, Harold C. Connolly Jr, and Dante S. Lauretta. "High-resolution cathodoluminescence of calcites from the Cold Bokkeveld chondrite: New insights on carbonatation processes in CM parent bodies." *Meteoritics & Planetary Science*, <https://doi.org/10.1111/maps.14225>.
279. Krot, Alexander N., Kazuhide Nagashima, Marina A. Ivanova, Dante Lauretta, Guy Libourel, Brandon C. Johnson, Frank E. Brenker, Viktoria Hoffman, and Martin Bizzarro. "Mineralogy, petrology, and oxygen isotopic compositions of chondritic and achondritic lithologies in the anomalous CB carbonaceous chondrites Sierra Gorda 013 and Fountain Hills." *Meteoritics & Planetary Science* 59, no. 4 (2024): 754-777.
278. Ryan, Andrew J., et al. "Rocks with Extremely Low Thermal Inertia at the OSIRIS-REx Sample Site on Asteroid Bennu." *The Planetary Science Journal* 5.4 (2024): 92.
277. Wehbi, S., Wheeler, A., Morel, B., Manepalli, N., Minh, B. Q., Lauretta, D. S., & Masel, J. (2024). Order of amino acid recruitment into the genetic code resolved by Last Universal Common Ancestor's protein domains. *Proceedings of the National Academy of Sciences*, 121(52), e2410311121.
276. Yumoto, K., et al. "Comparison of optical spectra between asteroids Ryugu and Bennu: I. Cross calibration between Hayabusa2/ONC-T and OSIRIS-REx/MapCam." *Icarus* (2024): 116122.
275. Jenniskens, Peter, et al. "Lifetime of cm-sized zodiacal dust from the physical and dynamical evolution of meteoroid streams." *Icarus* 415 (2024): 116034.
274. Tang, Y., D. S. Lauretta, R-L. Ballouz, D. N. DellaGiustina, A. T. Polit, M. M. Westermann, C. A. Bennett, K. J. Becker, K. J. Walsh, and D. R. Golish. "Characterization and implications of a mass movement site in Bennu's Bralgah Crater." *Icarus* 415 (2024): 116056.
273. Fulford, Ruby E., et al. "QRIS: A Quantitative Reflectance Imaging System for the Pristine Sample of Asteroid Bennu." *arXiv preprint arXiv:2402.18674* (2024).
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