

Nicolle E. B. Zellner
Curriculum vitae (Abridged)

Professional Appointments

Professor of Physics, Albion College (2005-present)
NASA Program Officer, IPA (Intergovernmental Personnel Act, 2021 – 2023)
Meteorite Hunter, Antarctic Search for Meteorites (ANSMET, 2006-2007)
Postdoc and Faculty Scholar, Lawrence Livermore National Laboratory (LLNL, 2002-2005)
Adjunct Lecturer, Ohlone College, Las Positas College, Siena College (2002-2005)
New York Center for Studies on the Origin of Life, Postdoctoral Research Scientist (2002)
Jet Propulsion Laboratory, Optical Communications Group, Research Scientist (1997)
UW-Madison, Space Astronomy Laboratory, Research Scientist (1994-1996)
UW-Madison, Space Science and Engineering Center, Research Scientist (1993-1994)

Education

Ph.D., Department of Physics, Rensselaer Polytechnic Institute (RPI), 2001
M.S., Department of Physics, Rensselaer Polytechnic Institute, 1998
B.S., Department of Astronomy, University of Wisconsin-Madison, 1993
Major: Astronomy (Honors Degree, incl. a thesis), Major: Physics
Certificate: Institute for Environmental Studies (IES)

Awards & Honors

2023, 2020, Graduation Speaker (Farewell from the Albion College Faculty)
2022, Fellow, American Association for the Advancement of Science (AAAS)
2021, Carl Sagan Medal, Division for Planetary Sciences of the American Astronomical Society
2019, Herbert and Grace Dow Endowed Professor in the Sciences. Albion College
2018, Arthur Anderson Teacher of the Year, Albion College
2017, Phi Beta Kappa Scholar of the Year, Albion College Chapter
2016, Matriculation Speaker (Charge from the Albion College Faculty)
2016, Sigma Xi Scientific Research Honor Society
2011, Antarctic Service Medal, National Science Foundation
2010, Chrétien International Research Award, American Astronomical Society
2007, Blanchard Faculty Research Fellowship, Albion College
2004, American Postdoctoral Research Fellowship, American Association of University Women
2001, Harry F. Meiners Fellowship (RPI)
2000, 1999, Amelia Earhart Fellowship, Zonta International
1998, Founders' Award for Excellence (RPI)
1997, Walter Eppenstein Graduate Teaching Assistant Award (RPI)
1996, *NASA Group Achievement Award*, Astro-2 Mission Team
1993, Wisconsin Alumni Association Outstanding Senior Student Award

Recent Publications (select list, >80 others; students denoted by * and †)

Long T., Qian Y. Norman M. D., ... **Zellner N. E. B.**, ... Nemchin A. (2022) Constraining the formation and transport of lunar impact glasses using the ages and chemistry of Chang'e-5 glass beads, *Science Advances*, **8**(9), [DOI: 10.1126/sciadv.abq254](https://doi.org/10.1126/sciadv.abq254).
Zellner N. E. B., Rathbun J. A., Seidel A. M.*, Martindale N. L.* (2022) Participation of Women in the Annual Lunar and Planetary Science Conference, *Earth and Space Science*, **9**, e2021EA002188, <https://doi.org/10.1029/2021EA002188>.

- Cohen B. A., Young K. E., **Zellner N. E. B.**, Zacny K., Yingst R. A., Watkins R. N., *et al.* (2021) In Situ Geochronology for the Next Decade: Mission Designs for the Moon, Mars, and Venus, *The Planetary Science Journal* **2**(4), <https://doi.org/10.3847/PSJ/abedbf>.
- Zellner N. E. B.**, McCaffrey V. P., Butler J. H.-E.* (2020) Cometary glycolaldehyde: A source of pre-RNA molecules, *Astrobiology*, **20**(11), doi:10.1089/ast.2020.2216.
- Zellner N. E. B.** (2019) Lunar Impact Glasses: Probing the Moon's Surface and Constraining its Impact History, *Journal of Geophysical Research: Planets*, **124**, 2686-2702, doi:10.1029/2019JE006050; featured on the cover of the November issue.
- Nguyen P. Q.* and **Zellner N. E. B.** (2019) Using Size and Composition to Assess the Quality of Lunar Impact Glass Ages, *Geosciences*, **9**(85), doi:10.3390/geosciences9020085.
- Zellner N. E. B.** (2018) Video Killed the Writing Assignment, *Journ. Astron. Earth Sci. Edu.*, **5**(2), 137-150.
- Huang Y.-H.⁺, Minton D. A., **Zellner N. E. B.**, Hirabayashi M., Richardson J. E., and Fassett C.I. (2018) No Change in Recent Lunar Impact Flux from Modeling Impact Glass Spherule Ages, *Geophys. Res. Lett.*, **45**, 6805–6813, 10.1029/2018GL077254.
- Zellner N. E. B.** (2017) Cataclysm no more: New views on the timing and delivery of lunar impactors, *Origins of Life and Evolution of Biospheres*, **47**(3), 261-280; interview with *Nature* (January 2018) at <https://www.nature.com/articles/d41586-018-01074-6>
- Huang Y.-H.⁺, Minton D. A., Hirabayashi M., Elliot J., Richardson J. E., Fassett C. I., and **Zellner N. E. B.** (2017) Heterogeneous Impact Transport on the Moon, *JGR-Planets*, **122**, 1158-1180, doi:10.1002/2016JE005160; Selected by editors as a featured “Research Spotlight” at <https://eos.org>.
- McCavit Karla R. and **Zellner Nicolle E. B.** (2016) Using peer mentors to increase persistence of Physics and Engineering Students, *European Journal of Physics*, **37**, 065702; Selected by the editors for inclusion in *EJP*'s ‘Highlights of 2016’ collection.
- Zellner N. E. B.** and Delano J. W. (2015) ⁴⁰Ar/³⁹Ar ages of lunar impact glasses: Relationships among Ar diffusivity, chemical composition, shape, and size, *Geochim. et Cosmochim. Acta*, **161**, 203-218, 10.1016/j.gca.2015.04.013.

Recent Funding Received (>\$2M total)

- 2023-present, **NASA SSERVI**, co-I, *CASA Moon: Center for Advance Sample Analysis of materials from the Moon and beyond*, \$492,700, Awarded 2023.
- 2017-present, **NASA Solar System Workings, PI**, *Using Lunar Glasses to Investigate Solar System Processes*, \$97,120, Awarded 2016.
- 2019, **NASA, Geochemical Society, International Astrobiology Society, MDPI Publishing, Earth-Life Science Institute, and Gordon Research Conferences**, to support the 2020 Gordon Research Conference on the Origins of Life, \$102,404, Awarded 2019-2020.
- 2015-2021, **National Science Foundation Division of Astronomical Sciences, PI**, *Using Lunar Impact Glasses as Tools for Investigating Solar System Processes*, \$193,612, Awarded 2015.
- 2008-2023, **Albion College Faculty Development Grant**, for various activities related to prof. development, research, publications, course materials, and telescope maintenance,

Synergistic Activities (selected events)

- Committee on the Status of Women in Astronomy (American Astronomical Society; 2012-2020)
Invited speaker, topics ranging from stargazing to women in science to research (>170 since 2006)

Undergraduate Student Research Collaborations

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| Supervised Projects: 60 (53 students) | Theses: 6 (Advisor), 11 (Committee Member) |
| Conference Presentations: 34 | Journal Publications: 6 (1 in prep) |
| Outstanding Student Honors Thesis: 3 | Other Scholarly Publications: 3 |