

Lucia R. Profeta

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Education

Doctorate in Geological Sciences

University of North Carolina-Chapel Hill
Advisor: Dr. Gilby Jepson

expected May 2028

M.S. Geoscience

University of Arizona

Jul. 2017

B.S. Geological Engineering

University of Bucharest, Romania

Jul. 2012

Professional Experience

Senior Research Associate

Lamont – Doherty Earth Observatory, Columbia University

Aug. 2023 – Jul. 2025

Supervisor: Dr. Kerstin Lehnert

Projects: IEDA2 Facility (NSF); Astromaterials Data System (NASA)

Research Associate

Sep. 2019 – Jul. 2023

Supervisor: Dr. Kerstin Lehnert

Project: EarthChem, sponsored by NSF

Business Data Analyst

Feb. 2019 – Aug. 2019

Oracle - Bucharest, Romania

Instructor

Sep. 2017 – Jan. 2019

International House - Bucharest, Romania

Awards

Fellowships

- NSF GRFP Fellow 2025-2027 (DGE-2439854, \$159,000)
- EMES UNC Martin Conference Travel Fellowship 2025

Scholarships and Honors

- Geological Society of America Research Grant 2015 & 2016
- College of Science Galileo Scholar 2014
- ChevronTexaco Geology Scholarship 2013
- Peter J. Coney scholarships 2013

Grants

- IEDA2 – Co-Principal Investigator (NSF EAR-2148939, \$3,637,233.00)
- Tephra Information Portal – Co-Principal Investigator (NSF EAR-2411333, \$623,273.00)

Peer Reviewed Publications

- Profeta, L., Ducea, M. N., Chapman, J. B., Paterson, S. R., Gonzales, S. M. H., Kirsch, M., Petrescu, L., & DeCelles, P. G. (2015). Quantifying crustal thickness over time in magmatic arcs. *Scientific Reports*, 5(1), 17786. <https://doi.org/10.1038/srep17786>
- Chapman, J. B., Ducea, M. N., DeCelles, P. G., & Profeta, L. (2015). Tracking changes in crustal thickness during orogenic evolution with Sr/Y: An example from the North American Cordillera. *Geology*, 43(10), 919–922.
- Ducea, M. N., Negulescu, E., Profeta, L., Săbău, G., Jianu, D., Petrescu, L., & Hoffman, D. (2016). Evolution of the Sibișel Shear Zone (South Carpathians): A study of its type locality near Răsinari (Romania) and tectonic implications. *Tectonics*, 35(9), 2131–2157.
- Roban, R. D., Ducea, M. N., Mațenco, L., Panaiotu, G. C., Profeta, L., Krézsek, C., Melinte-Dobrinescu, M. C., Anastasiu, N., Dimofte, D., & Apotrosoaei, V. (2020). Lower Cretaceous provenance and sedimentary deposition in the Eastern Carpathians: Inferences for the evolution of the subducted oceanic domain and its European passive continental margin. *Tectonics*, 39(7), e2019TC005780.
- Balica, C., Ducea, M. N., Gehrels, G. E., Kirk, J., Roban, R. D., Luffi, P., Chapman, J. B., Triantafyllou, A., Guo, J., Stoica, A. M., Ruiz, J., Balintoni, I., Profeta, L., Hoffman, D., & Petrescu, L. (2020). A zircon petrochronologic view on granitoids and continental evolution. *Earth and Planetary Science Letters*, 531, 116005. <https://doi.org/10.1016/j.epsl.2019.116005>
- Zhang, B., Lehnert, K. A., Rubin, A. E., McKeegan, K. D., Warren, P. H., Mays, J. L., Profeta, L. R., Johansson, A. K., Ni, P., & Young, E. D. (2023). The UCLA Cosmochemistry Database. *Scientific Data*, 10(1), 874.
- Profeta, L. R. (2023). Open Data. In *Encyclopedia of Mathematical Geosciences* (pp. 1017-1020). Cham: Springer International Publishing.
- Klöcking, M., Wyborn, L., Lehnert, K. A., Ware, B., Prent, A. M., Profeta, L., Kohlmann, F., Noble, W., Bruno, I., & Lambart, S. (2023). Community recommendations for geochemical data, services and analytical capabilities in the 21st century. *Geochimica et Cosmochimica Acta*.
- Ralph, J., Martynov, P., Ma, X., Bargen, D. V., Li, W., Huang, J., Golden, J., Profeta, L., Prabhu, A., Morrison, S., Que, X., & Zhang, J. (2024). Identifier Service in the Mindat Database: Persistent and Structured Access to Massive Records of Minerals and Other Natural Materials. *Data Intelligence*, 7(3), 692–711. <https://doi.org/10.3724/2096-7004.di.2024.0021>

Teaching Experience

Instructor

English as a second language courses for adult and young learners, Fall 2017/Spring 2018/Fall 2018 International House, Bucharest, Romania

Teaching Assistant

GEOS 212: *Introduction to Oceanography*, Fall 2012/Spring 2013/Fall 2014 Geosciences Department, University of Arizona

GEOS 306: *Mineralogy* Fall 2015 Geosciences Department, University of Arizona

GEOS 356: *Petrology* Spring 2014/2015/2016/2017 Geosciences Department, University of Arizona

Certifications

Certificate in Product Management, Reforge

Nov. 2023

Certificate in Product Management, UC Berkeley

Dec. 2021

Service

Executive Boards

- OneGeochemistry – Steering Committee Member (2021-2025)
- EAGE Student Chapter (2011-2012)
- AAPG Student Chapter (2010-2011, 2011-2012)

Journal Editorial Boards

- Geochemical Data Journal, Wiley – Associate Editor (2025-Present)

Workshop facilitation

- Klöcking, M., Profeta, L., Lehnert, K. A., & Kallas, L. (2023). Open Data in Geochemistry Part 1: Navigating the Present Data Infrastructure Landscape, 4-hour online workshop. Goldschmidt 2023 Conference.
- Klöcking, M., Profeta, L., Lehnert, K. A., & Kallas, L. (2023). Open Data in Geochemistry Part 2: Managing, Publishing, and Archiving Imagery Generated by Geochemical and Cosmochemical Sample Analysis | 1-day hybrid workshop. Goldschmidt 2023 Conference.
- Lehnert, K., and Profeta, L., (2020) Data Systems & Services at EarthChem & Astromat. Goldschmidt 2020 Conference, Zenodo, doi:10.5281/Zenodo.903378

Outreach

- Exhibit Booths for Geoinformatics tools (AGU, GSA, Goldschmidt 2019, 2023, 2024)
- Seismology and river systems demos (Tucson Festival of Books Volunteer 2014, 2015)
- Volunteer at Junior Education Booth (Tucson Gem & Mineral Show 2013, 2015, 2016)
- Mentoring undergraduate level students (University of Bucharest 2011– 2012)
- Participant in European Virtual Seminar on Sustainable Development (2011-2012)

Invited Talks

- Profeta, L., Lehnert, K., & Klöcking, M. (2023). Leveraging Data Systems to Propel an Open Geoscience Data Lifecycle. Geological Society of America Abstracts, 55, 392872.

Conference Proceedings and Presentations

- Profeta, L., Jepson, G., George, S. W. M., & Tanski, N. M. (2025). Apatite fission-track as a potential proxy for changes in paleo-erosion during paleoclimatic excursions. Geological Society of America Abstracts, 57(6).

- Profeta, L., Jepson, G., George, S. W. M., & Tanski, N. M. (2025). Testing detrital apatite fission-track as a tool for quantifying erosion rates during the Paleocene-Eocene Thermal Maximum, Pyrenees, Spain. 19th International Conference on Thermochronology.
- Profeta, L., Lehnert, K. A., Wörner, G., Klöcking, M., Richard, S., Kallas, L., Luzi-Helbing, M., Ji, P., Willbold, M., & Sturm, A. (2024). Providing analysis-ready data for computational geochemical modeling through geochemical data syntheses. Goldschmidt 2024 Conference.
- Profeta, L., Lehnert, K. A., Mays, J., Downs, R., Danninger, G., Ji, P., Celnick, M., Figueroa, J. D., Johansson, A., & Richard, S. (2024). Astromat: Future-proofing astromaterials research. Goldschmidt 2024 Conference.
- Profeta, L., Lehnert, K., Ji, P., Ustunisik, G., Nielsen, R., Vieglais, D., Walker, D., Block, K., & Grossberg, M. (2023). Open and FAIR sample-based data sharing through the IEDA2 facility. EGU 2023.
- Profeta, L. R., Lehnert, K. A., Klöcking, M., Richard, S., Ji, P., Johansson, A., Sweets, H. A., Sarbas, B., Hezel, D. C., & Sturm, A. (2023). What is your unit? Building integrated data experiences for community use and meta-analysis. Goldschmidt 2023 Conference.
- Profeta, L., Lehnert, K., Ramdeen, S., Ji, P., Nielsen, R. L., Ustunisik, G. K., Walker, J. D., Block, K. A., & Grossberg, M. (2022). The IEDA2 Facility—Harmonizing FAIR Sample (Meta)Data for VGP Research. AGU Fall Meeting 2022.
- Profeta, L., Ramdeen, S., Sweets, H. A., & Lehnert, K. A. (2022). Community-specific Best Practices for FAIR Data and Samples. Examples from the Tephra EarthChem Community. Goldschmidt 2022 Conference.
- Profeta, L., Ji, P., & Lehnert, K. (2021). Improving Machine-Readability of Geochemical Data and Sample Metadata in EarthChem/LEPR/TraceDs/Astromat and SESAR. Geological Society of America Abstracts, 53, 368618.
- Profeta, L., Lehnert, K., Ji, P., Figueroa, J. D., Johansson, A., Mays, J., Morrison, S. M., & Ostroverkhova, A. (2021). Bringing cosmochemistry data into the Big-Data Era: The AstroMaterials Data System. AGU Fall Meeting 2021.
- Profeta, L., Lehnert, K., Song, L., & Figueroa, J. D. (2021). EarthChem Communities: Building Geochemical Data Best Practices with Researcher Engagement. EGU General Assembly Conference Abstracts, EGU21-16459.
- Profeta, L., Lehnert, K., Figueroa, J., Ji, P., Johansson, A., Shane, N., Song, L., & Sweets, H. (2020). Enhancing Access to Data through EarthChem to Augment Volcano Science. AGU Fall Meeting Abstracts, 2020, V015-0005.
- Profeta, L., Ducea, M. N., & Gehrels, G. E. (2016). Melting depths associated with Jack Hills zircons crystallization as revealed by *in situ* trace element measurements. AGU Fall Meeting Abstracts, 2016, V11D-04.
- Profeta, L., & Ducea, M. (2015). Using trace element proxies for crustal thickness of magmatic arcs: La/Yb. Proceedings of the 2015 Goldschmidt Conference, Prague. Goldschmidt 2015 Conference.
- Profeta, L. R., Ducea, M. N., & Jianu, D. (2013). Sibișel Shear Zone: A late Variscan megashear and implications for the assembly of the South Carpathians basement (Romania). Geological Society of America Abstracts, 45, 598.