
EDUCATION AND TRAINING:

- **Doctorate (PhD) in Earth and Planetary Sciences** (09/2019)
Department of Earth and Planetary Sciences, Macquarie University, Sydney, Australia
 - Advisors: Prof Stephen F. Foley, Prof Nathan Daczko, and Prof Simon Clark
- **Diplom Geologist equiv. to Master of Science (M.Sc.) in Geosciences** (07/2015)
University of Mainz, Germany
 - Advisors: Prof Richard White and Prof Dejan Prelević

POSITIONS HELD TO DATE:

- **Research fellow** (07/2026–current)
Department of Lithospheric Research, Universität Wien, 1090 Vienna, Austria
- **Lab manager of the NanoPhase Facility (Nano-IR, Raman, XRD, pXRF)**, full time (11/2023–11/2025)
Research School of Earth Sciences, The Australian National University, Canberra, Australia
 - Managing and maintaining high-quality analyses at the NanoPhase Laboratory
 - Train students and staff members to become independent users
 - Communicate aspects of analytical goals, feasibility, and budgeting with lab users
 - Collaborate with internal and external academic researchers and industry partners
 - Developing methods independently and proactively to enhance the applicability of analytical protocols
 - Analysing experimental outputs to assist in the preparation of data
- **Research fellow**, full-time (01/2022–11/2023)
Department of Earth and Environmental Sciences, Macquarie University, Sydney, Australia
 - Promoted from Postdoctoral Fellow (Macquarie University, academic level A) to Research Fellow (level B) in January 2022 following a successful application for promotion, in recognition of contributions to research, teaching, service, and behavior
- **Interim EPMA operator**, casual basis (8/2021–3/2022)
Research School of Earth Sciences, The Australian National University, Canberra, Australia
 - Independently acquired EPMA data for multiple projects during the transition period between operators, ensuring continuity of data acquisition
- **Postdoctoral research fellow**, full-time (09/2019–12/2021)
Department of Earth and Environmental Sciences, Macquarie University, Sydney, Australia
 - Advisor: Prof Stephen Foley
- **Research associate**, full-time (04/2019–09/2019)
Department of Earth and Environmental Sciences, Macquarie University, Sydney, Australia
 - Advisor: Prof Stephen Foley
- **Research assistant for ELSA team**, part-time (01/2013–12/2015)
Department of Geosciences, University of Mainz, Germany
 - Advisors: Prof Frank Sirocko
 - Work included field mapping, scouting for new drill sites, student supervision, sediment sampling and analyzation
- **Research assistant for EPMA and XRF**, part-time (01/2014–12/2015)
Department of Geosciences, University of Mainz, Germany
 - Advisors: Dr Stephan Buhre
- **Internship in the Research and Development section at SCHOTT**, part-time (06/2013–12/2013)
SCHOTT AG, Mainz, Germany
 - Advisors: Dr Franziska Riethmüller

CAREER BREAKS:

- **COVID-19 disruptions (3 months)**

The campus facilities were fully closed down for 1 month at Macquarie University and 2 months at ANU with limited access to laboratories and analytical facilities between March 2020 and October 2021. These disruptions delayed experimental work.

AWARDS AND HONORS:

Total prizes and awards: € 5,505

Note: Amounts were converted to EUR using an exchange rate of 1 AUD = 0.61 EUR

Awards:

- **Wiley Most Cited Article Award (2022)**
For the most cited paper (Otter, Förster et al., 2021) published between 01/2021 and 12/2022, in *Geostandards and Geoanalytical Research*
- **Wiley Most Downloaded Article Award (2021)**
For the most downloaded paper (Otter, Förster et al., 2021) within its first 12 months of publication in *Geostandards and Geoanalytical Research*
- **Faculty of Science and Engineering Award for Higher Degree Research** Macquarie University, Sydney, Australia (2018)
I have received this award in recognition of my successful PhD thesis that comprised five publications in Q1 journals including Science Advances. The award is given to one candidate out of 300 higher-degree research students per year.
- **Bernd Rendel Prize (2018)** – € 1,500 (=AUD \$2,400)
National, annual prize for Early Career Researchers awarded by the German Research Association (DFG). This award recognizes my early achievements including publishing my Master's thesis results in two peer-reviewed articles in *Chemical Geology*.
- **Postgraduate Research Fund (2017)** – € 3,355 (=AUD \$5,500)
Faculty of Science and Engineering, Macquarie University, funds supported my lab visit at the Bayerische Geoinstitut, Bayreuth, Germany
- **Travel Grant from the “Foundation for Gem Material and Economic Geology” (2015)** – € 500
have received the travel grant for presenting the results of my Master's thesis at the Goldschmidt 2015 conference in Prague, Czech Republic. The grant committee recognized the economic aspects of my research and sponsored my travel and accommodation expenses.
- **Thesis Award (2015)** – € 150
Awarded by the Johannes Gutenberg University for an outstanding Diplom thesis and field mapping project

Short listed in hearings for professorships:

- **Montanuniversität Leoben, Austria (7/2025)**
Shortlisted candidate following hearing for the position “University Professor in Resource Mineralogy at the Montanuniversität Leoben”
- **Montanuniversität Leoben, Austria (6/2025)**
Invited to the hearing for the position “University Professor in Resource Mineralogy at the Montanuniversität Leoben”
- **Bayerisches Geoinstitut, Germany (6/2022)**
Invited to the hearing for the position “W1-Professur für Geomaterialien mit Tenure Track nach W3”

COMMISSIONS OF TRUST:**Committee and working group engagement:**

- **Member of the Geological and Environmental Reference Materials (GeoReM) database team (2020–2022)**
I volunteered to be part of the GeoReM (<http://georem.mpch-mainz.gwdg.de/>) team at the Max-Planck-Institute for Chemistry (MPIC) and supported the research and compilation of published values for microanalytical reference materials.
- **Panel member of Macquarie Early Career Researcher Enabling Scheme (2021)**
I worked as a panel member for the ECR Enabling Scheme 2021 funding scheme that deployed a total of 100,000 \$ in research funds to early career scientists.
- **TEDx Macquarie University (2019)**
I joined the management team of the TEDx conference. Here, I coordinated aspects of planning and realization that guaranteed a smooth and successful full day event held on September 21st, 2019, with over 50 team members, 18 speakers, and 500 visitors.

Peer reviewing for academic journals:

- Reviewed manuscripts for the following journals, (2016–present) including:
American Mineralogist, Geochimica et Cosmochimica Acta, G3, Geophysical Research Letters, Journal of Quaternary Sciences, Nature Communications, Scientific Reports, and Science Advances

Organization of conferences and scientific meetings:

- **RSES Seminar speaker host (2025)**
Coordinated a 1-day program for Dr Rosa Didonna (CSIRO, Perth, Australia), including introduction, organizing accommodation, travel, meetings, lab tours, and an afternoon tea following her seminar presentation. Funded through the RSES seminar budget
- **RSP (Research School of Physics) Seminar speaker host (2025)**
Coordinated a 1-day program for Prof Christian Teichert (Montanuniversität Leoben, Leoben, Austria), including introduction, organizing accommodation, travel, meetings, lab tours, and a lunch following his seminar presentation.
- **Co-organizer**, Hyperspectral IR workshop in collaboration with CSIRO and Geoscience Australia:
Applications from the drill core to the nanoscale (2024)
- **RSES Seminar speaker host (2024)**
Coordinated a 2-day program for Prof Axel Schmitt (Curtin University, Perth, Australia), including introduction, organizing accommodation, travel, meetings, lab tours, and a networking dinner following his seminar presentation. Funded through the RSES seminar budget
- **Macquarie University School of Natural Sciences seminar series (2019-2020)**
I have coordinated the seminar at the Macquarie School of Natural Sciences in 2019 and 2020. This included inviting and hosting speakers and introducing them during their talks as well as moderating the questions and discussions.
- **Session Chair**, AGU Fall Meeting 2019, San Francisco, USA (2019)

PREVIOUS AND CURRENT COOPERATION PARTNERS:

Current academic collaboration partners:

- **Australian National University, Australia**
Dr Chris Gouramanis (2024–ongoing)
Collaboration on a project on climate reconstruction and neotectonics (seismites) in Holocene sediments in Southern Australia
Dr Laura Otter (2018–ongoing)
Collaboration on projects regarding stable isotope-based climate reconstruction in carbonate archives
Prof Olivier Alard (2018–ongoing)
Collaboration on projects regarding nitrogen cycling, geochronology and joined student supervision
Prof Dorrit Jacob (2015–ongoing)
Long-standing collaboration on exogenic-endogenic interplay on Earth's nitrogen cycle
Prof Stephen Foley (2015–ongoing)
PhD supervisor and long-standing collaboration on research on nitrogen and carbon cycling and exogenic-endogenic element cycling
- **University of Belgrade, Serbia**
Prof Dejan Prelević (2015–ongoing)
Master supervisor and long-standing collaboration on projects regarding element enrichment and ore formation
- **China University of Geosciences, Wuhan, China**
Prof Chunfei Chen (2016–ongoing)
Collaboration on experimental projects regarding sediment recycling in subduction zones
- **Central South University, Changsha, China**
Prof Huan Li (2020–ongoing)
Collaboration on projects regarding ore formation
- **Curtin University, Australia**
Prof Axel Schmitt (2024–ongoing)

Collaboration on projects regarding volatile measurements in volcanic glasses with SIMS

- **Macquarie University, Sydney, Australia**

Prof Simon Clark (2021–ongoing)

Collaboration on projects regarding nano-IR research on colloidal silica for soil stabilization, nanoplastics and PFAS, as well as student co-supervision

- **Macquarie University, Sydney, Australia**

Dr Phong Vo (2025–ongoing)

Collaboration on projects regarding nano-IR research on PFAS

- **University of Western Australia, Perth, Australia**

Dr Isra Ezad (2022–ongoing)

Collaboration on industry projects (BHP) regarding ore formation processes

Past academic collaboration partners:

- **Macquarie University, Sydney, Australia**

Dr Kate Selway (2018–2021)

Interdisciplinary collaboration with geophysics on the magnetotelluric effects of hydrous ore forming minerals

- **University of Mainz, Germany**

Prof Frank Sirocko (2014–2024)

Long standing collaboration within the Eifel Laminated Sediment Archive team on environmental and (paleo)climate research via field studies and sediment core archives, helped in several drilling campaigns and mapping trips

Industry collaboration partners:

- **BHP, Australia**

Projects in collaboration with Dr Isra Ezad (2022–2025)

Collaboration on PiFM investigations on sulphur speciation in metal sulfide formation processes

- **Molecular Vista Inc, San Jose, USA**

Dr Derek Nowak, Dr Padraic O'Reilly, and Dr Sung Park (2019–ongoing)

Collaboration on Nano-IR spectroscopy principles and analytical quality control measures

- **Rio Tinto, Australia**

Project in collaboration with Dr Ulrike Troitzsch (2023–2025)

Supporting XRD and PiFM analyses of metal ores reduced by H₂

- **SmartCrete CRC, Australia**

Project in collaboration with Prof Simon Clark (2024–2025)

Raman and Nano-IR investigations on concrete alteration

- **TOFWERK, Switzerland**

Project in collaboration with Dr Martin Tanner (2019–2022)

Visualization of trace element enrichment (REEs) in metasomatic minerals

COMPLETE LIST OF ACQUIRED FUNDING:

CI Total: € 742,800

Note: Amounts were converted to EUR using an exchange rate of 1 AUD = 0.61 EUR

Competitive research funding:

- **NCRIS/AuScope Opportunity Fund, Co-CI** (07/2024) – € 170,800 (=AUD \$280,000)

“State-of-the-art spectral characterization of complex materials” Lead CI: Prof. Penny King (ANU)

Current project where we develop a spectral database for quick phase analyzation (IR spectroscopy) during logging of sediments and host rocks in drill cores from mining sites

- **ARC LIEF grant, Co-CI** (12/2021) – € 210,000 (=AUD \$345,000) Lead CI: Prof. Penny King (ANU)

“Integrated volatile-mineral-isotope micro-analysis of Earth environments”

This project enabled an upgrade of the Sensitive High-Resolution Ion Microprobe II at ANU for high-resolution *in-situ* stable isotope measurements of bio-carbonates (oxygen, carbon)

- **Macquarie Research Fellowship (MQRF), Sole CI** (10/2020) – € 240,000 (=AUD \$400,000)

“Sediments under pressure: experiments on deep nitrogen cycling and ore formation”

In this project I investigated the deep nitrogen cycle and how the relationship between endogenous and

exogenous processes influence the long-term evolution of Earth's atmosphere. The MQRF is a prestigious fellowship offered by the Macquarie University, each year 10 fellowships are granted to national and international applicants with an outstanding track record (relative to opportunity).

- **Australian Government International Postgraduate Research Scholarship** Sole CI (01/2016) – € 122,000 (=AUD \$200,000)

Highly competitive national PhD scholarship awarded to the top ten international applicants across all disciplines at Macquarie University in the 2015 application round; the scholarship supported my PhD program, thesis entitled: “*Subduction zone metasomatism and its consequences on potassium-rich magmatism and deep nitrogen cycling*”

LIST OF MOST IMPORTANT SCIENTIFIC TALKS:

1. **Invited seminar**, University of Graz, Austria, invited by A/Prof Jesse Walters 5/2026:
“*Hidden volatile reservoirs in mantle xenoliths revealed at the nanoscale by Photo-Induced Force Microscopy*”
2. **Invited seminar**, University of Vienna, Austria, invited by Dr Thomas Griffith 3/2026:
“*Lower crustal differentiation and transient shallow assembly of the Laacher See magma system*”
3. **Invited seminar**, Montanuniversität Leoben, Austria, invited by Prof Helmut Flachberger 6/2025:
“*From ore genesis to applied science: emerging nanoscale approaches for advancing resource mineralogy*”
4. **Invited seminar**, China University of Geosciences, Wuhan, China, invited by Prof Yongsheng Liu, 9/2024:
“*Lost in subduction: nitrogen mobility in fluids indicates its low recycling efficiency in cold slabs*”
5. **Invited seminar**, at ETH Zürich, Switzerland, invited by Dr Andrea Giuliani, 8/2022:
“*Photo-induced Force Microscopy and its application to experimental petrology*”
6. **Invited seminar**, Nanyang Technological University, Singapore, invited by Prof Simon Redfern, 7/2022:
“*Photo-induced Force Microscopy: Infrared spectroscopy at the nanometer scale*”
7. **Invited seminar**, Bayerisches Geoinstitut, Germany, invited by Prof Dan Frost, 6/2022:
“*Subduction Zone Metasomatism and its Consequences for K-rich Magmatism and Deep Nitrogen Cycling*”

TEACHING AND MENTORING:

Montanuniversität Leoben:

- **Invited Lecture**, “Mineralogie und Anwendung von Serpentin-Mineralen“ (6/2025)

Australian National University:

- **Co-Lecturer**, EMSC-3022: Planetary Science lab (2025)
 - Short course on Scanning Electron Microscopy, including a hands-on laboratory session on the SEM and demonstration via remote desktop in seminar room
- **Co-Lecturer**, EMSC-3007: Economic Geology (2025)
 - Presentation of Scanning Electron Microscopy, including a hands-on laboratory session on the SEM investigating rock samples, 3 sessions with two students per session
 - Provided individual student feedback improving their analytical understanding
- **Co-Lecturer**, EMSC-4122: Analytical Techniques (2025)
 - Designed and delivered a lecture on PiFM and Raman spectroscopy, including a hands-on laboratory session with the Raman and PiFM
 - Provided individual student feedback improving their analytical understanding
- **Guest Lecturer**, Australian Science Innovations Program 2024 (non-profit) for Australian high school students (2024)
 - Designed and delivered the lecture ‘Geoscience at the nanoscale’
- **Co-Lecturer**, 3-day intensive Hyperspectral IR workshop ‘*Applications from the drill core to the Nanoscale*’, funded by NCRIS/AuScope (2024)
 - Designed and delivered lecture on nano-IR incl application examples for 45 participants, including graduate students, ECRs, and industry professionals
 - Facilitated live (remote controlled) lab demonstration of the Photo-induced Force Microscope (PiFM)
 - Supported workshop advertisement, resulting participation from 8 major Australian universities, industry, and governmental institutions
 - Received positive participant feedback with a strong desire to repeat the event
- **Co-Lecturer**, EMSC-4122: Analytical Techniques (2024)

- Designed and delivered a lecture on PiFM and Raman spectroscopy, including a hands-on laboratory session with the PiFM
- Designed and marked quizzes to assess student understanding of practical applications on PiFM and Raman
- Provided individual student feedback improving their analytical understanding
- **Co-Lecturer**, EMSC-4122: Analytical Techniques (2023)
 - Designed and delivered a lecture on PiFM and Raman spectroscopy, including a hands-on laboratory session with the Horiba Soleil Raman microscope
 - Provided individual student feedback improving their analytical understanding

Bayerisches Geoinstitut:

- **Invited Lecture**, “Recent views on the structure and dynamics of the Earth’s interior: The formation of the geochemical mantle reservoirs” (6/2022)

Macquarie University:

- **Co-Lecturer**, GEOS112: The Planet Earth (2016–2017)
 - Delivered practical lectures for two groups of 30 students each
 - Facilitated small group activities indoors and outdoors
 - Evaluated student essays and exams incl plagiarism scans, provided feedback to improve writing skills

Johannes Gutenberg University:

- **Teaching assistant**, Eifel Laminated Sediment Archive (2014–2015)
 - Supervised and guided students during field trips to the maars and dry maars of the West Eifel Volcanic Field
 - Demonstrated core logging and sampling
 - Assisted in petrography and characterization of sampled stratigraphy from drill cores and sites in the field
- **Teaching assistant**, Petrology (2013–2015)
 - Supervised and guided students during field excursions
 - Assisted in delivering hands-on instruction and practical demonstrations in petrology
 - Assisted in delivering the EPMA lab course
- **Teaching assistant**, Children’s University (2014–2015)
 - Supported the planning and execution of educational programs for school students at the university
 - Facilitated interactive learning activities to engage young learners
 - Assisted in organizing events to enhance student participation and learning experiences

Teaching and mentoring qualifications:

- **Intercultural Understanding** workshop Earth Evolution Research Retreat, Hobart, Tasmania (2024)
- **Cultural Awareness Workshop**, workshop for intercultural communication with First Nations people of Aboriginal and Torres Strait Islander heritage (2024)
- **ANU LGBTIQ+ Ally Training**, workshop offered as part of the University's commitment to on-campus inclusivity so all people can work and study safely and free of harassment or discrimination (2023)
- **The Human Face of Teaching** colloquium led by the ANU College of Science (2022)
- **Engage with Industry**, a Faculty of Medicine, Health & Human Sciences workshop at Macquarie University on academic-industry collaboration. Facilitated partnerships with TOFWERK AG (Switzerland) & Molecular Vista (USA) (2020)
- **Future STEMM Leaders**, a 5-month, 18-hour professional development program by Sally Purcell & Hossai Gul for selected doctoral candidates. Enhanced my communication & leadership skills, leading to a leadership role as Creative Producer with TEDx Macquarie University (2018)
- **Tutor Training**, 2-day intensive workshop for new prac tutors at Macquarie University (2016)
- **Intercultural Communication**, full day intensive (2014)

SUPERVISION EXPERIENCE:

Supervision philosophy:

I customize my support to meet the specific needs of the students. I'll guide them through every phase of their project, from initial planning and structuring to lab work and manuscript writing. I aim to create a group that mirrors the diversity we see in society, and I'm committed to reducing barriers faced by traditionally underrepresented groups. As a trained ally for the LGBTIQ+ community, I consistently advocate for an inclusive, respectful, and equitable work environment where everyone feels safe and supported.

Student supervision (adjunct-/co-supervision):

- **Jacob Lovi** (2025–ongoing): PhD thesis “*Formation of Amorphous Calcium Carbonate and its role in*

Biomineralization". Primary supervisor: Prof Dorrit Jacob, ANU

- **Imogene Pearson** (2025): Special topics project "Reconstructing the seawater history of Southwestern Iceland: A story told through the shells of *Arctica islandica*". Primary supervisor: Prof Dorrit Jacob, ANU
- **Jo Hannah Asetre** (2023–ongoing): PhD thesis "*The mechanics of serpentine breakdown and the fate of volatiles during subduction dehydration*". Primary supervisor: Prof Olivier Alard, Prof Stephen Foley, ANU
- **Max Lecoutre** (2024–2025): Honors thesis "*Micro- to nanostructure of Opal*". Primary supervisor: Prof Penny King, ANU
- **Farzana Iqbal** (2023–2024): Master thesis "*A micro- and macro scale study of Colloidal Silica-treated Sydney River sand for Soil Stabilisation*". Primary supervisors: Prof Simon Clark, Macquarie University
- **Oliver Medd** (2021–2023): Honors thesis "*An aquaculture-based calibration of bivalve shell isotope and trace element thermometry using the Sydney cockle *Anadara trapezia**". Primary supervisor: Dr Laura Otter, ANU
- **Lynthener Takenaka** (2019–2023): PhD thesis "*Origin and composition of the subcontinental lithospheric mantle along the lineament of 125° Azimuth, Brazil*". Primary supervisors: Prof Suzanne Yvette O'Reilly, Prof Bill Griffin, Macquarie University; Prof Dorrit Jacob, ANU
- **Sophie Fernández Arias** (2020–2021): Master thesis "*Sediment Petrographic Analysis of the Döttinger Maar Sediment Cores: Their Correlation with the Marine Isotopic Stages, based on Volcanic Deposits (Rieden Tephra), as a Contribution to date the Elsterian Cold Period in Central Europe*". Primary supervisor: Prof Frank Sirocko, University of Mainz
- **Esther Marie Kunert** (2020–2021): Master thesis "*Tephra layers of Laacher See Volcano in sediment cores compared to samples from the outcrop 'Wingertsbergwand'*". Primary supervisor: Prof Frank Sirocko, University of Mainz
- **Anastasia Zemlitskaya** (2017–2018): Master thesis "*Experimentelle Studie zur Hybridisierung des Erdmantels an Subduktionszonen*". Primary supervisors: Prof Dejan Prelević, Dr Stephan Buhre

PhD student supervision (instrument training and data acquisition/interpretation):

- PiFM: Kushani Jayasoma, Chitrangada Datta, Srijita Ray (Research School of Earth Sciences); Deena Baines, Manuka Suriyage, Zhuoyuan Lu, Boqing Liu (Research School of Engineering)
- Raman: Hilary Lewis, Lachlan Anderson, Liuyun Ouyang (Research School of Earth Sciences)
- XRD: Shao-Chen Hsu, Ramkumar Arcot Parthiban, Christina Loidolt, Naiga Erios Sembatya, Catharine Wilsbacher (Research School of Earth Sciences)
- XRF: Edgar Leong (Research School of Earth Sciences)
- SEM: Jabir Hussein, Jemi Ahnaf, Lily Quirke, Alana Mina, Rosmalia Nugraheni, Stephan Kashkarov, Isaac Peticato, Jason Sze, CJ Johnston, Ross Chandler (Research School of Earth Sciences)

Key supervision achievements:

- Guided students in developing critical skills, including project management, data analysis, and scientific communication
- Students interested in pursuing academic careers have successfully published in peer-reviewed journals, presented at international conferences, and received distinctions

Supervision training and qualifications:

- Certified Higher Degree Research supervisor, at ANU, incl annual renewals (2023–2025)
- Certified Higher Degree Research supervisor, at Macquarie University (2020–2023)
- Consent Matters training, at Macquarie University (2020)

Publication metrics:

Google scholar:	h-index 21, i10 index 31, 1236 citations (1062 since 2021), access date: 29/09/2026
Highlights:	Published author in <i>Nature</i> , <i>Nature Communications</i> , <i>Science Advances</i> , <i>Global and Planetary Change</i> and <i>Journal of Quaternary Sciences</i>
Total publications:	43 peer-reviewed publications
Abstracts:	20+ international conference presentations

List of peer-reviewed publications: *Supervised student

43. Förster, M. W., Prelević, D., Chen, C., Shcheka, S. S. 2026. Lower crustal differentiation and transient shallow assembly of the Laacher See magma system. *Lithos*, 108769. Q1
42. Luo, Q., Chen, C., Casalini, M., Prelević, D., Conticelli, S., Förster, M. W., Foley, S.F., Xiao, Xu., He, T., Hu, Z., Liu, Y. 2026. Halogen recycling initiated by sediment subduction: Insights from Mediterranean alkaline rocks. *Lithos*, 108777. Q1
41. Chen, C., Wang, Y., Shcheka, S. S., Förster, M. W., Jiang, W., Chen, Y., Foley, S. F., Jacob, D. E., Liu, Y. 2026. Rare earth element ore-forming carbonatite magmas driven by craton-margin lithosphere. *Nature Communications*. Q1
40. Vo, P. H., Vogel, C., Clark, S. M., Bishop, D. P., Droas, M., Partyka-Jankowska, E., Förster, M. W., Adam, C., Strezov, V., Nguyen, H. T. 2026. PFAS released from the metals recovery process of the lithium-ion battery black mass. *Journal of Hazardous Materials*, 141978. Q1
39. Förster, M. W., Otter, L. M., Brocks, J. J., Jayasoma, K., Cisneros-Lazaro, D., Nowak, D., Stolarski, J., Knowles, B. 2025. Quality Control Measures for Enhancing Confidence in Nanoscale IR Spectroscopy. *Geostandards and Geoanalytical Research*, 49(4), 685-703 Q1
38. Foley, S. F., Ezad, I. S., Shu, C., Förster, M. W. 2025. Melting of amphibole-apatite-rich metasomes in the continental mantle and comparison of melt compositions with natural igneous rocks. *Lithos*. 500–501, 107976. Q1
37. Chen, C., Förster, M. W., Shcheka, S. S., Ezad, I. S., Shea, J. J., Liu, Y., Jacob, D. E., Foley, S. F. 2025. Sulfide-rich continental roots at cratonic margins formed by carbonated melts. *Nature*. 637, 615–621. Q1
36. Khan, M., Li, H., Algeo T. J., Khan, A., Förster, M. W., Ullah, Z. 2025. Geochemistry and Geochronology of A-Type Intermediate-Felsic Rocks in NW Himalaya, Pakistan: Implications for Petrogenesis and Tectonic Evolution of Northern Gondwana. *Geochemistry, Geophysics, Geosystems*. 26(1) Q1
35. *Medd, O. M., Otter, L. M., Williams, I. S., Stern, R. A., Förster, M. W., Eggins, S. M., Rodrigues-Sanz, L., Abram, N. J., He, M., Ellwood, M. J., Hargreaves, J., Fallon, S. J., Knowles, B. M. 2024. Matrix corrected SIMS in situ oxygen isotope analyses of marine shell aragonite for high resolution seawater temperature reconstructions. *Geochemistry, Geophysics, Geosystems*, 25(11). Q1
34. Prelević, D., Förster, M. W., Buhre, S., Gülmez, F., Grützner, T., Wang, Y., Foley, S. F. 2024. Recent advances made by reaction experiments on melting of heavily metasomatized hydrous mantle. *Earth-Science Reviews*, 104881. Q1
33. Ezad, I. S., Saunders, M., Shcheka, S. S., Fiorentini, M. L., Gorjovskiy, L. R., Förster, M. W., Foley, S. F. 2024. Incipient carbonate melting drives metal and sulfur mobilization in the mantle. *Science Advances*, 10(12), eadk5979. Q1
32. Sirocko, F., Krebsbach, F., Albert, J., Britzius, S., Schenk, F., Förster, M. W. 2024. Relation between Central European Climate Change and Eifel Volcanism during the Last 130,000 Years: The ELSA-23-Tephra-Stack. *Quaternary*, 7(2), 21. Q1
31. Förster, M. W., Chen, C., Foley, S. F., Alard, O., Yaxley, G. M. 2024. Fluid loss to the fore-arc controls the recycling efficiency of nitrogen in subduction zones. *Chemical Geology*, 121985. Q1
30. Gülmez, F., Prelević, D., Förster, M. W., Buhre, S., Günther, J. 2023. Experimental production of K-rich metasomes through sediment recycling at the slab-mantle interface in the fore-arc. *Scientific Reports*. 13, 19608. Q1
29. Hu, Z., Zeng, L., Dilek, Y., Förster, M. W., Gao, L. E., Wang, Y., Madayipu, N., Li, H. 2023. Petrogenesis of Paleocene–Eocene gabbros in the Gangdese belt: Geochemical tracking of transitioning from oceanic subduction to continental collision related magmatism in southern Tibet. *GSA Bulletin*, 136 (5-6), 2582–2595. Q1
28. Chen, C., Förster, M. W., Foley S. F., Shcheka, S. S. 2023. Carbonate-rich crust subduction drives the deep carbon and chlorine cycles. *Nature*. 620, 576–581. Q1
27. *Fernández, S.A., Förster, M. W., Sirocko, F. 2023. Rieden tephra layers in the Dottinger Maar lake sediments: implications for the dating of the Holsteinian Interglacial and Elsterian Glacial. *Global and Planetary Change*. 104143. Q1
26. *Takenaka, L. B., Förster, M. W., Alard, O., Griffin, W. L., Jacob, D.E., Basei, M. A. S., O'Reilly, S. Y. 2023. Multi-mineral geochronology of kimberlites, kamafugites and alkaline-carbonatite rocks, SW São Francisco Craton, Brazil: Appraisal of intrusion ages. *Gondwana Research*. 124, 246-272. Q1
25. Ezad, I. S., Shcheka S. S., Buhre, S., Gorjovskiy, L. R., Shea, J. J., Förster, M. W., Foley S. F. 2023. Rapid quench piston cylinder apparatus: an improved design for the recovery of volatile-rich geological glasses from experiments at 0.5-2.5 GPa. *Review of Scientific Instruments*. 94(5). Q2
24. Alizadeh, E., Li, H., Babazadeh, S., Ma, C., Förster, M. W. 2023. Late Eocene slab retreat, extension, and mantle upwelling inferred from mantle signatures in potassium-rich magmatism in NE Iran. *International Geology Review*. 65(9), 1586-1600. Q1
23. Vincent, V. I., Li, H., Girei, M. B., Förster, M. W., Kamaunji, V. D. 2023. Tourmaline and zircon trace the nature and timing of magmatic-hydrothermal episodes in granite-related Sn mineralization: Insights from the Libata Sn ore field. *American Mineralogist*, 108(3), 552-571. Q1

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