

Dr. David J Janssen

1. Personal Information

Group Leader, Aquatic Geochemistry, Eawag

Present Address:

Eawag

Seestrasse 79

CH-6047 Kastanienbaum

Switzerland

Email: david.janssen@eawag.ch

Phone: +41 (0) 58 765 2251

OrcID: 0000-0002-9091-8936

Google Scholar: David J Janssen



2. Education

2011–2017 **PhD, Earth and Ocean Sciences**, School of Earth and Ocean Sciences, University of Victoria (UVic), Victoria BC Canada. *Advisor: Jay Cullen. Dissertation: Investigating the Distributions of Zinc and Cadmium in the Subarctic Northeast Pacific Ocean.*

Defense Date: 31/01/2017, Degree Completed: 17/03/2017, Degree Conferred: 05/2017.

2006–2011 **BSc Summa cum Laude**, Chemistry, Humboldt State University, Arcata California USA.

Degree conferred: 18/05/2011.

3. Employment History

2021-Present **Group Leader**, tenure track, Department Surface Waters, Eawag; 10/2021-present.

2017–2021 **Postdoctoral Researcher**, Institute of Geological Sciences, University of Bern (UniBern), Bern Switzerland, *Advisor: Samuel Jaccard*; 10/2017-9/2021.

2017 **Research Technician**, Institute of Ocean Sciences, Fisheries and Oceans Canada, Sydney BC Canada, *Contracted by: Dr. Andrew Ross, Institute of Ocean Sciences*; 03/2017-08/2017.

2011–2017 **Graduate Research Assistant**, School of Earth and Ocean Sciences, University of Victoria, Victoria BC Canada, *Advisor: Dr. Jay Cullen*; 09/2011-03/2017.

2007–2011 **Undergraduate Research Assistant**, Chemistry Department, Humboldt State University, Arcata California USA, *Advisor: Dr. Matt Hurst*; 12/2010-05/2011.

4. Refereed Journal Publications

In Rev Cloete, R.; Planquette, H., van Horsten, N., Samanta, S., Chen, X.-G., Achterberg, E., Middag, R., **Janssen, D.J.**, Bowie, A., van der Merwe, P., Looek, J., Mtshali, T., Fietz, S., Roychoudhury, A. Drivers of Nickel distribution and seasonality in the Southern Ocean: New perspectives from the GEOTRACES G1pr07 transect. In Review at *J. Geophys. Res. Oceans*. Manuscript ID: 2024JC021542.

In Rev Gilliard, D., **Janssen, D.J.**, Schuback, N., Jaccard, S.L. Controls on the distribution of dissolved Cr in the Atlantic Ocean. Revised manuscript in review at *Geochim. Cosmochim. Acta*. Manuscript ID: GCA-S-23-01014.

2024 **Janssen, D. J.**, Damanik, A., Tournier, N., Tolu, J., Winkel, L., Cahyarini, S. Y., Vogel, H. Biogeochemical cycling of trace elements and nutrients in ferruginous waters: Constraints from a deep oligotrophic ancient lake. *Limnol Oceanogr.*, doi: 10.1002/lno.12687.

2024 Saboret, G., Moccetti, C., Takatsu, K., **Janssen, D.J.**, Matthews, B., Brodersen, J., Schubert, C.J. Glacial Meltwater Increases the Dependence on Marine Subsidies of Fish in Freshwater Ecosystems. *Ecosystems*. doi: 10.1007/s10021-024-00920-1.

2024 Veciana, A., Steiner, S., Tang, Q., Pustovalov, V., Llacer-Wintle, J., Wu, J., Chen, X.-Z., Manyiwa, T., Ultra, V.U., Jr., Garcia-Cirera, B., Puigmartí-Luis, J., Franco, C., **Janssen, D.J.**, Nyström, L., Boulos, S., Pané, S., Breaking the Perfluorooctane Sulfonate Chain: Piezocatalytic Decomposition of PFOS Using BaTiO₃ Nanoparticles. *Small Sci.* 2400337. doi: 10.1002/smssc.202400337.

2023 Damanik, A., **Janssen, D.J.**, Tournier, N., Stelbrink, B., von Rintelen, T., Haffner, G.D., Cohen, A., Cahyarini, S.Y., Vohel, H. Perspectives from modern hydrology and hydrochemistry on a lacustrine biodiversity hotspot: Ancient Lake Poso, Central Sulawesi, Indonesia. *J. Great Lake Res.* doi: 10.1016/j.jglr.2023.102254

2023 Fourquez, M., **Janssen, D.J.**, Conway, T.M., Cabanes, D., Ellwood, M.J., Sieber, M., Trimborn, S., Hassler, C. Extreme variability of iron bioavailability in the Southern Ocean. *Sci. Adv.* **9**(26). doi: 10.1126/sciadv.adf9696.

2023 **Janssen, D.J.**, Gilliard, D., Rickli, J., Nasemann, P., Koschinsky, A., Hassler, C.S., Bowie, A.R., Ellwood, M.J., Kleint, C., Jaccard, S.L. Chromium stable isotope distributions in the southwest Pacific Ocean and potential hydrothermal input from the Kermadec Arc. *Geochim. Cosmochim. Acta.* **342**, 31-44. doi: 10.1016/j.gca.2022.12.010.

- 2022 **Janssen, D.J.**, Rickli, J., Wille, M., Sepúlveda Steiner, O., Vogel, H., Dellwig, O., Berg, J., Bouffard, D., Lever, M.A., Hassler, C.S., Jaccard, S.L. Chromium cycling in euxinic basins challenges $\delta^{53}\text{Cr}$ paleoredox proxy applications. *Geophys. Res. Lett.* **49**(21), e2022GL099154. doi: 10.1029/2022GL099154.
- 2022 Taves, R.C., **Janssen, D.J.**, Peña, M.A., Ross, A.R.S., Simpson, K.G., Crawford, W.R., Cullen, J.T. Relationship between surface dissolved iron inventories and net community production during a marine heatwave in the subarctic northeast Pacific. *Environ. Sci. Proc. Impact.* **24**, 1460-1473. doi: 10.1039/D2EM00021K.
- 2021 Horner, T.J., Little, S.H., Conway, T.M., Farmer, J.R., Hertzberg, J.E., **Janssen, D.J.**, Lough, A.J.M., McKay, J., Tessin, A., Galer, S.J.G., Lacan, F., Paytan, A., Wuttig, K., GEOTRACES–PAGES Biological Productivity Working Group Members. Bioactive trace metals and their isotopes as paleoproductivity proxies: An assessment using GEOTRACES-era data. *Glob. Biogeochem Cy.* **35**(11), e2020GB006814. doi: 10.1029/2020GB006814.
- 2021 Nixon, R.L., Peña, M.A., Taves, R., **Janssen, D.J.**, Cullen, J.T., & Ross, A.R. Evidence for the production of copper-complexing ligands by marine phytoplankton in the subarctic northeast Pacific. *Mar. Chem.* **237**, 104034. doi: 10.1016/j.marchem.2021.104034.
- 2021 Pöppelmeier, F., **Janssen, D.J.**, Jaccard, S.L., Stocker, T.F. Modeling the marine chromium cycle: New constraints on global-scale processes. *Biogeosci.* **18**, 5447–5463. doi: 10.5194/bg-18-5447-2021.
- 2021 **Janssen, D.J.**, Rickli, J., Abbott, A.N., Ellwood, M.J., Nasemann, P., Gilliard, D., Twining, B.S., Ohnemus, D.C., Jaccard, S.L. Release from biogenic particles, benthic fluxes, and deep water circulation control Cr and $\delta^{53}\text{Cr}$ distributions in the ocean interior. *Earth Planet. Sci. Lett.* **574**, 117163. doi: 10.1016/j.epsl.2021.117163.
- 2020 Nazarova, T., Alessic, D.S., **Janssen, D.J.**, Bernier-Latmani, R., Wanner, C. *In Situ* Biostimulation of Cr(VI) Reduction in a Fast-Flowing Oxidic Aquifer. *ACS Earth Space Chem.* **4**(11), 2018-2030. doi: 10.1021/acsearthspacechem.0c00200.
- 2020 Nasemann, P., **Janssen, D.J.**, Rickli, J., Grasse, P., Franck, M., Jaccard, S.L. Chromium reduction and associated stable isotope fractionation restricted to anoxic shelf waters in the Peruvian Oxygen Minimum Zone. *Geochim. Cosmochim. Acta.* **285**, 207-224. doi: 10.1016/j.gca.2020.06.027.
- 2020 Whitby, H., Planquette, H., Cassar, N., Bucciarelli, E., Osburn, C.L., **Janssen, D.J.**, Cullen, J.T., González, A.G., Völker, C., Sarthou, G. A call for refining the role of humic-like substances in the oceanic iron cycle. *Sci. Rep.* **10**, 2144. doi: 10.1038/s41598-020-62266-7.
- 2020 **Janssen, D.J.**, Sieber, M., Ellwood, M.J., Conway, T.M., Barrett, P.M., Chen, X., de Souza, G.F., Hassler, C.S., Vance, D., Jaccard, S.L. Trace metal and nutrient dynamics across broad geochemical gradients in the Indian and Pacific sectors of the Southern Ocean. *Mar. Chem.* **221**, 103773. doi: 10.1016/j.marchem.2020.103773.
- 2020 **Janssen, D.J.**, Rickli, J.R., Quay, P.D., White, A.E., Jaccard, S.L. Biological control of chromium redox and stable isotope composition in the surface ocean. *Glob. Biogeochem. Cy.* **34**(1), e2019GB006397. doi: 10.1029/2019GB006397.
- 2019 Rickli, J., **Janssen, D.J.**, Ellwood, M.E., Hassler, C.S., Jaccard, S.L. Chromium biogeochemistry and stable isotope distribution in the Southern Ocean. *Geochim. Cosmochim. Acta.* **262**, 188-206. doi: 10.1016/j.gca.2019.07.033.
- 2019 **Janssen, D.J.**, Abouchami, W.A., Galer, S.J.G., Purdon, K.B., Cullen, J.T. Particulate cadmium stable isotopes in the subarctic northeast Pacific reveal dynamic Cd cycling and a new isotopically light Cd sink. *Earth Planet. Sci. Lett.* **515**, 67-78. doi: 10.1016/j.epsl.2019.03.006.
- 2018 Schlitzer, R., and 285 others (including **D.J. Janssen**). The GEOTRACES Intermediate Data Product 2017. *Chem. Geol.* **493**, 210-223. doi: 10.1016/j.chemgeo.2018.05.040.
- 2018 Jackson, S.L., Spence, J., **Janssen, D.J.**, Ross, A., Cullen, J.T. Determination of Mn, Fe, Ni, Cu, Zn, Cd and Pb in seawater using offline extraction and triple quadrupole ICP-MS/MS. *J. Anal. Atom. Spectrom.* **33**(2), 304-313. doi: 10.1039/C7JA00237H.
- 2017 **Janssen, D.J.**, Abouchami, W., Galer, S.J.G., Cullen, J.T. Fine-scale spatial and temporal cadmium isotope variability in the subarctic northeast Pacific. *Earth Planet. Sci. Lett.* **472**, 241-252. doi: 10.1016/j.epsl.2017.04.048.
- 2017 Fassbender, A.J., and 81 others (including **D.J. Janssen**). Perspectives on Chemical Oceanography in the 21st century: Participants of the COME ABOARD Meeting examine aspects of the field in the context of 40 years of DISCO. *Mar. Chem.* **196**, 181-190. doi: 10.1016/j.marchem.2017.09.002.
- 2015 **Janssen, D.J.**, Cullen, J.T. Decoupling of zinc and silicic acid in the subarctic northeast Pacific interior. *Mar. Chem.* **177**, 124-133. doi: 10.1016/j.marchem.2015.03.014.
- 2014 **Janssen, D.J.**, Conway, T.M., John, S.G., Christian, J.R., Kramer, D.I., Pedersen, T.F., Cullen, J.T. Undocumented sink for cadmium in open ocean oxygen deficient zones. *Proc. Nat. Acad. Sci. USA.* **111**(19), 6888-6893. doi: 10.1073/pnas.1402388111.

5. Data sets

- 2022 Chemical data accompanying the manuscript "Chromium cycling in redox-stratified basins challenges $\delta^{53}\text{Cr}$ paleoredox proxy applications" in Geophysical research Letter [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.7127882>.
- 2021 GEOTRACES Intermediate Data Product Group. The GEOTRACES Intermediate Data Product 2021 (IDP2021). NERC EDS British Oceanographic Data Centre NOC. DOI: 10.5285/cf2d9ba9-d51d-3b7c-e053-8486abc0f5fd.
- 2021 Pöppelmeier, F., **Janssen, D.J.**, Jaccard, S.L., & Stocker, T.F. Modeling the marine chromium cycle: New constraints on global-scale processes: Model output data [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.4699993>
- 2021 **Janssen, D.J.**, Rickli, J., Abbott, A.N., Ellwood, M.J., Twining, B.S., Ohnemus, D.C., Nasemann, P., Gilliard, D., Jaccard, S.L. Dissolved Cr concentration and stable isotope data presented in "Release from biogenic particles, benthic fluxes, and deep water circulation control Cr and $\delta^{53}\text{Cr}$ distributions in the ocean interior" (Janssen et al., 2021, EPSL). (1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.5408613>
- 2020 **Janssen, D.J.**, Sieber, M., Ellwood, M.J., Conway, T.M., Barrett, P.M., Chen, X., de Souza, G.F., Hassler, C.S., Jaccard, S.L. Dissolved trace metal (Fe, Ni, Cu, Zn, Cd, Pb) concentrations in the Indian and Pacific sectors of the Southern Ocean from the Antarctic Circumnavigation Expedition (2016-2017) (Version 1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.3634411>
- 2019 **Janssen, D.J.**, Rickli, J., Quay, P.D., White, A.E., Nasemann, P., Jaccard, S.L. Seawater dissolved chromium concentration, redox speciation, and stable isotope composition in the North Pacific Ocean (1.0 (03-Dec-2019)) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.3560082>
- 2019 Rickli, J., **Janssen, D.J.**, Hassler, C., Ellwood, M., Jaccard, S.L. (2019). Seawater chromium concentrations and isotope compositions in the Southern Ocean during the austral summer of 2016/2017, on board the Antarctic Circumnavigation Expedition (ACE). (1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.3250980>

6. Funded Research Projects

- 2024 **Swiss Polar Institute PolARTS project.** Collaboration between scientific research and art – project partner Pauline Agustoni. Awarded 2024, project duration: 08.2024-10.2025.
- 2023 **Swiss National Science Foundation Project Grant.** ZuMn – Biogeochemical cycling of Mn, Fe and paleoredox proxies in the redox-stratified, 'Manganous' Lake Zug, Switzerland. Funding awarded 2023, project duration: 04.2024-03.2027.
- 2023 **Leister Go East 2023, selected participant.** Tracing contaminant metals in Southeast Greenland rivers.
- 2022 **Swiss Polar Institute Exploratory Grant:** Assessing the impact of mining and natural enrichments on heavy metal contamination in Greenland's rivers. Awarded 2022, project duration: 03.2022-09.2023.
- 2021 **Swiss National Science Foundation Ambizione Grant:** Biological productivity-dust coupling in the glacial Southern Ocean: New insights from metal isotopes. Funding awarded 2021, project duration: 06.2022-05.2026

7. Research Experience

- 2021-present **Research Group Leader**, Aquatic Geochemistry group; 01/10/21 to present
Eawag, Department Surface Waters, Kastanienbaum Switzerland
- 2018 **Visiting Researcher**, *Group of Dr. Michael Ellwood*; 09/08/2018 to 08/09/2018
Australian National University, Canberra Australia,
- 2017-21 **Postdoctoral Research Assistant, Advisor: Dr. Samuel Jaccard**; 15/10/2017 to 30/09/2021
Institute for Geological Sciences, University of Bern, Bern, Switzerland.
- 2017 **Research Technician, Contracted by: Dr. Andrew Ross**; 18/03/2018 to 30/08/2018
Institute of Ocean Sciences, Fisheries and Oceans Canada, Sidney, BC Canada
- 2011-17 **Graduate Research Assistant, Advisor: Dr. Jay Cullen**; 07/09/2011 to 17/03/2018
School of Earth and Ocean Sciences, University of Victoria, Victoria, BC Canada
- 2015-16 **Visiting Research Assistant, Advisors: Dr. Steve Galer (MPIC), Dr. Wafa Abouchami (IPG Paris)**; 01/10/2015 to 11/05/2016
Max Planck Institute for Chemistry, Mainz Germany
- 2013-14 **Visiting Research Assistant, Advisors: Dr. Wafa Abouchami and Dr. Steve Galer**; 01/10/2013 to 20/05/2014,
Max Planck Institute for Chemistry, Mainz, Germany
- 2010 **NSF-REU, Advisor: Dr. Kelly Falkner**; June-Aug 2010
College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, Or.
- 2010-11 **Undergraduate Research Assistant, Advisor: Dr. Matt Hurst**, Dec 2010 – May 2011
Chemistry Department, Humboldt State University, Arcata, Ca.
- 2007-10 **Undergraduate Research Assistant, Advisor: Dr. Matt Hurst**, July 2007 – Nov 2010
Chemistry Department, Humboldt State University, Arcata, Ca.

8. Oral contributions to international conferences

- 2023** **Janssen, D.J.**, Wille, M., Damanik, A., Vogel, H. What do Cr distributions in anoxic waters tell us about the $\delta^{53}\text{Cr}$ paleoredox proxy? Goldschmidt Conference, 9-14 July 2023.
- 2022** **Janssen, D.J.**, Rickli, J., Wille, M., Hassler, C.S., Vogel, H., Jaccard, S.L. Chromium cycling in euxinic basins: Implications for the $\delta^{53}\text{Cr}$ paleoredox proxy from modern systems. Oral presentation at the 2022 Ocean Sciences virtual meeting, 24/02/2022-04/03/2022.
- 2021** **Janssen, D.J.**, Rickli, J., Abbott, A.N., Ellwood, M.J., Nasemann, P., Gilliard, D., Twining, B.S., Ohnemus, D.C., Jaccard, S.L. Release from biogenic particles, benthic fluxes, and deep water circulation control Cr and $\delta^{53}\text{Cr}$ distributions in the ocean interior. Elucidating biogenic components of the $\delta^{53}\text{Cr}$ cycle in the modern ocean. Oral presentation at the 2021 Virtual Goldschmidt Conference, 4-9/07/2021.
- 2020** **D. Janssen**, Sieber, M., Ellwood, M., Conway, T., Barrett, P.M., Hassler, C., Jaccard, S. Significant Biological Uptake of Trace Metals in the Mertz Glacier Polynya, East Antarctica. Oral presentation at the 2020 Ocean Sciences Meeting, San Diego California, USA, 17-21/02/2020.
- 2019** **D. Janssen**, Rickli, J.R., Quay, P.D., White, A.E., Jaccard, S.L. Biological control of $\delta^{53}\text{Cr}$ in the surface ocean. Oral presentation at the 2019 Goldschmidt Conference, Barcelona Spain, 19-23/08/2019.
- 2018** **D. Janssen**, W. Abouchami, S. Galer, K. Purdon, J. Cullen. Particulate Cd isotopes demonstrate a dynamic oceanic Cd cycle. Poster presentation at the 2018 Ocean Sciences Meeting in Portland, Or, USA, 11-16/02/2018.
- 2016** **D. Janssen**. Investigating the distributions of Zn and Cd in the oxygen-depleted ocean interior. Invited oral presentation at Dissertations in Chemical Oceanography (DISCO) XXV, Honolulu, Hi USA, 9-13/10/2016.
- 2014** **D. Janssen**, J. Cullen, W. Abouchami, S. Galer, H. de Baar. Cadmium isotopes along the Line-P transect in the northeast subarctic Pacific. Oral presentation at the 2014 Goldschmidt Conference, Sacramento, Ca USA, 8-13/06/2014.
- 2014** **D. Janssen**, J. Cullen. Improvements to a fluorescence-based flow-injection method for shipboard determination of dissolved zinc. Poster presentation at the 2014 Ocean Sciences Meeting, Honolulu, Hi USA, 23-28/02/2014.
- 2012** **D. Janssen**, J. Cullen. Investigating the distribution of dissolved copper, zinc, silver and cadmium in the Pacific Ocean. Oral presentation at the American Geophysical Union (AGU) Fall Meeting, San Francisco, Ca, 3-7/12/2010.
- 2010** **D. Janssen**, J.M. Lee, E. Boyle, P. Yeats, K. Falkner. Cadmium and barium distributions in Baffin Bay and Nares Strait summer 2003. Poster presentation at the AGU Fall Meeting, San Francisco, Ca USA, 13-17/12/2010.
- 2010** **D. Janssen**, J. Martin, M. Hurst. Temporal variation and removal of metals and nutrients in a constructed wetlands. Poster presentation at the American Chemical Society National Meeting, San Francisco, Ca USA, 21-25/03/2010.

9. Expert consulting and Technical Reports

- 2024** La modélisation comme outil des gestion des lacs en Suisse: Exemple du phosphore. Francescangeli, D., Diebold, M., Doda, T., Perga, M.E., Bouffard, D., **Janssen, D.**, Daouk, S., Rossi, L Aqua & Gas 10, 72-82.
- 2023** Schmid, M., & **Janssen, D.** (2023). Sauerstoffdefizit im Lauerzersee: Review bisheriger Arbeiten als Grundlage für die künftige Überwachung und die Beurteilung möglicher Massnahmen. Eawag.
- 2022-Present** Scientific representative from Eawag for NADUF (National River Monitoring and Survey Programme)
- 2022** Schmid M, Voegelin A, **Janssen D** (2022). Seeschüttung Urnersee –Auswirkungen der Stickstoffrückstände im Ausbruchmaterial auf den Urnersee. Bericht im Auftrag der Gesundheits-, Sozial- und Umweltdirektion des Kantons Uri, Eawag, Kastanienbaum.
- 2022** Müller, B., Wüest, A., Schmid, M., **Janssen, D.**, & Sperlich, N. (2022). Auswirkungen der Zirkulationsunterstützung (Beurteilung see-interner Massnahmen zur beschleunigten Sanierung des Zugersees). Eawag. <https://www.dora.lib4ri.ch/eawag/islandora/object/eawag:24858>.

10. Institutional Responsibilities and Committees

- 2022-Present** Representative from Surface Waters Department for the Eawag Seminar Series. 05/2022-Present.
- 2012-13** Graduate Student Representative, UVic School of Earth and Ocean Sciences, 01/2012-09/2013.

11. Supervision of Junior Researchers

- 2024-Present** Pasqualina Vonlanthen Di Nenna (Eawag, PhD student), supervisor (04.2024-Present)
- 2024-Present** Jamima Rama (Eawag, Postdoc), co-supervisor (03.2024 -Present)
- 2023** Norberto Jr Aquino (ETH Zurich, MSc student), supervisor (01.2023 to 06.2023)
- 2022** Oscar Sepúlveda Steiner (Eawag, Postdoc), supervisor (07.2022 to 12.2022)
- 2022-Present** Chun Fung Chiu (ETH Zurich, PhD student), supervisor (06.2022 to Present)
- 2021-Present** Delphine Gilliard (University of Lausanne PhD student) co-supervisor (04.2021 to Present)
- 2019–2020** Delphine Gilliard (Uni Bern masters student), co-supervisor

2019	Tatiana Nazarova (Uni Bern masters student), trained and supervised in the lab
2017	Edward Gawne (UVic Undergraduate Honours thesis), trained and supervised in the lab
2017	Annaliese Meyer (UVic Undergraduate, NSERC USRA), trained and supervised in the lab and field
2016	Saskia Kowallik (UVic Undergraduate, NSERC USRA), trained and supervised in the lab
2015	Laura McKay (UVic Undergraduate, NSERC USRA), trained and supervised in the lab
2014	Kathryn Purdon (UVic Undergraduate, NSERC USRA), trained and supervised in the lab and field
2013–2015	Sarah Jackson (UVic M.Sc. student), trained in the lab
2013	Ashley Davidson (UVic Undergraduate, Honours thesis), trained in the lab
2012	Desirée Dillman (UVic Undergraduate, NSERC USRA), trained and supervised in the lab and field

12. Teaching Activities

2023-present	Biogeochemistry of Trace Elements , 701-1315-00L. Lecturer for 2 lessons, each spring semester.
2023-present	Biogeochemie Praktikum , 701-0420-01L ETH Zurich. Lead instructor of Modul 5 (Biogeochemie des Oberflächenwassers (Moor)), each spring semester.
2022-present	Term Paper Mentor , 701-1303-00L ETH Zurich, each fall semester.
2022	Biogeochemie Praktikum , 701-0420-01L Praktikum Biogeochemie FS2022, ETH Zurich. Assistant instructor for labwork of Modul 5 (Biogeochemie des Oberflächenwassers (Moor)), 05/2022 to 06/2022.
2017	Guest Instructor , EOS 312: Chemical Oceanography, School of Earth and Ocean Sciences, University of Victoria, 22 & 24/02/2017.
2014	Instructor , EOS 312: Chemical Oceanography, School of Earth and Ocean Sciences, University of Victoria, Co-taught with Dr. Jay Cullen, 07/2014-09/2014
2013	Teaching Assistant , EOS 240: Geochemistry, School of Earth and Ocean Sciences, University of Victoria, 01/2013-04/2013.
2012	Teaching Assistant , EOS 240: Geochemistry, School of Earth and Ocean Sciences, University of Victoria, 01/2012-04/2014.
2007–2011	Supplemental Instructor , Chemistry 107, 109, and 110: Fundamentals of Chemistry, General Chemistry I & II, Chemistry Department, Humboldt State University. 08/2007-05/2011.

13. Memberships in Panels and Scientific Reviewing Activities

Editorial Board: Aquatic Science (Nov 2022 to present)

Reviewer for: Aquatic Science, Aquatic Geochemistry, Biogeosciences, Chemical Geology, Earth & Planetary Science Letters, Geochimica Cosmochimica Acta, Gondwana Research, Limnology & Oceanography, Marine Chemistry, Czech National Science Foundation, United States National Science Foundation, contribution to reviews for Proceedings of the National Academy of Sciences of the United States of America.

14. Active Memberships in Scientific Societies

European Association of Geochemistry (EAG)

Association for the Sciences of Limnology & Oceanography (ASLO)

15. Organization of Scientific Conferences

2023	Session Convener, Emerging insights into processes controlling elemental and non-traditional stable isotope paleoproxies in past and present oceans (13h), Goldschmidt Conference, 9-14 July 2023.
2022	Session Convener, Sources, sinks, and cycling of trace elements in coastal and near-shore systems (CT-10), Ocean Sciences Virtual Meeting, 24/02-04/03/2022
2020	Session Convener, Biogeochemical cycles in oxygen minimum zones: mechanisms, drivers, and change (CT-42A), Ocean Sciences Meeting, San Diego California, 16-21/02/2020.
2015	Acting Session Co-Chair, Arctic GEOTRACES, ArcticNet Annual Scientific Meeting, Vancouver BC, 7-11/12/2015.

16. Prizes, Awards and Fellowships

2016	Dissertations in Chemical Oceanography (DISCO) XXV invited participant. 9-13/10/2016
2015–2016	Max Planck Institute for Chemistry Doctoral Stipend. 10/2014-05/2015
2014–2015	University of Victoria Dr. Arne H. Lane Graduate Fellowship. 09/2014-008/2015
2014	Ocean Sciences Meeting, Honolulu Hi, Outstanding Student Presentation Award. 02/2014
2014–2016	UVic Graduate Award. 09/2014-08/2016
2013–2014	DAAD (German Academic Exchange Service) Visiting Research Scholarship. 10/2013-04/2014
2013–2014	University of Victoria Bob Wright Graduate Scholarship. 09/2013-08/2014
2013	UVic SEOS Grad Student Workshop First Prize for Research Presentation. 19/04/2013
2011–2014	UVic Graduate Student Fellowship. 09/2011-08/2014
2011–2012	UVic Graphic Office Interiors Scholarship. 09/2011-08/2012
2011	Humboldt State University Outstanding Student of the Year 2010-2011. 04/2011
2011	Scripps Institute of Oceanography T. R. and Edith Folsom Graduate Fellowship (Declined). 03/2011

- 2010 American Chemical Society Undergraduate Award in Inorganic Chemistry. 08/2010
2010 NSF Research Experience for Undergraduates (REU) Fellowship. 06-08/2010

17. Activities to Promote Diversity and Inclusion

- 2023 Organizing committee for 2023 GEODES workshop “Fieldwork Inclusivity”, 17/11/23.
2022 Organizing committee for 2022 GEODES workshop “Engaging in diverse teams”, 18/11/22.
2022-Present Contact person at Eawag for GEODES (Promoting gender equality, diversity & inclusion in Swiss Geosciences). 10/2022-Present.

18. Field Research Experience

- 2023 Project lead for river sampling in rivers of East Greenland by land and ship, 27/08/2023-15/09/2023
2022 Project lead for river sampling in Southern Greenland from small boats, 09/08/2022-02/09/2022.
2022-present Project lead for re-occurring metal sampling in Swiss lakes (e.g. Zug, Geneva, Cadagno)
2018 *RV Investigator*, Chief Scientist: Dr. Michael Ellwood (Australian Nat. U.). 11/09/2018-08/10/2018.
2018 *RV Investigator*, Chief Scientist: Dr. Tom Trull (CSIRO, Australia). 3-21/03/2018.
2017 *RV Kilo Moana*, Chief Scientists: Dr. Paul Quay (UW) and Dr. Angel While (OSU). 3-26/09/2017.
2016-17 *Akademik Tryoshnikov*, Chief Scientist: Dr. David Walton (British Antarctic Survey); Project Lead: Dr. Michael Ellwood (Australian Nat. U.). 20/12/2016-19/01/2017.
2016 *MSV John Strickland*. 07/07/2016.
2016 *MSV John Strickland*. 28/01/2016.
2015 *NGCC Amundsen*, Chief Scientist: Dr. Roger Francois (UBC). 10/07/2015 to 20/08/2015.
2014 *CCGS JP Tully*, Chief Scientist Marie Robert (IOS, Canada). 19/08/2014 to 04/09/2014.
2014 *MSV John Strickland*. 30/07/2014.
2012 *CCGS JP Tully*, Chief Scientist Marie Robert (IOS, Canada). 14-30/08/2012.
2012 *CCGS JP Tully*, Chief Scientist Marie Robert (IOS, Canada). 22/05/2012 to 08/06/2012.
2010 *R/V Point Sur*, Chief Scientist Dr. Ken Bruland (UC Santa Cruz). 7-25/05/2011.