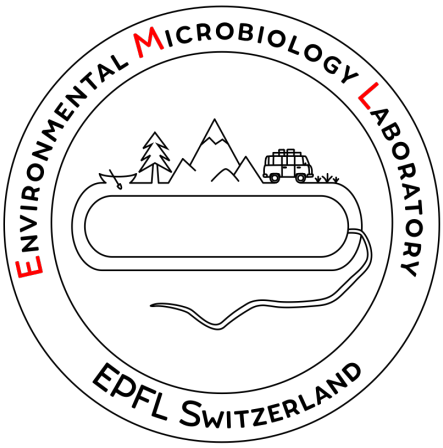
Curriculum vitae

Prof. Rizlan Bernier-Latmani

May 4th, 2024



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1. Education and Employment

1.1. Biographical information

Name: Rizlan Bernier-Latmani (born Bencheikh-Latmani)

Address: Environmental Microbiology Laboratory
School of Architecture, Civil and Environmental Engineering
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Date of birth: 19th July 1972
Nationality: Swiss
Marital status: Married, 2 children (born 08.2011 and 05.2008)

1.2. Higher education

Summer course: Advances in Genome Technology and Bioinformatics Course at the Marine Biology Laboratory in Woods Hole, MA. October 2005.

Ph.D. 2001 Civil and Environmental Engineering, Stanford University, CA, USA
(*Advisor*, Jim Leckie, 'Biodegradation of uranyl (UO_2^{2+})-complexed citrate and implications for uranyl mobility in the subsurface')
M.S. 1995 Civil and Environmental Engineering, Stanford University, CA, USA
B.S. 1993 Natural Resources with Honors, Cornell University, Ithaca, NY, USA

1.3. Professional employment

2022-present	***Full professor***, Environmental Engineering, Institute, Swiss Federal Institute of Technology, Lausanne, Switzerland
2013- 2022 Institute of	***Associate professor***, Environmental Engineering Institute, Swiss Federal Technology, Lausanne, Switzerland
2005-2013	***Assistant professor tenure-track***, Environmental Engineering Institute, Swiss Federal Institute of Technology, Lausanne, Switzerland
2001-2005	***Post-Graduate Researcher***, Scripps Institution of Oceanography, La Jolla, CA, USA (PI: Brad Tebo)

1.4. Academic honors

Member of Academia Europaea, 2023
ERC Consolidator Grant, 2017
Teaching award 'Prix SIE d'excellence dans l'enseignement', 2019.
Rotary Foundation University Professor grant, 2004.
Swiss National Science Foundation Post-Doctoral Fellowship, 2001.
Leon B. Reynolds Memorial Scholarship at Stanford University, 1995-96.
Graduated with Honors from Cornell University, 1993.

2. Publication list

ORCID: 1-6547-722X

2.1. Original (peer reviewed) papers

2024

1. Brown, A.R. et al. (2024) The isotopic signature of U(V) during bacterial reduction. **Geochemical Perspectives Letters**, 29, 1-6. doi: 10.7185/geochemlet.2411

2. Rolland, C., et al. (2024) Microbial hydrogen sinks in the sand-bentonite backfill material for the deep geological disposal of radioactive waste. **Frontiers in Microbiology**, 15:1359677. doi: 10.3389/fmicb.2024.1359677

3. Pan, Z., et al. (2024) Pentavalent U reactivity impacts U isotopic fractionation during reduction by magnetite. **Environmental Science and Technology,** 58, 15, 6595–6604. doi: 10.1021/acs.est.3c10324

4. Meibom, K.L., et al. (2024) BaiJ and BaiB are key enzymes in the chenodeoxycholic acid 7a-dehydroxylation pathway in the gut microbe *Clostridium scindens* ATCC 35704. **Gut Microbes**, 16:1. doi: 10.1080/19490976.2024.2323233

5. Janot, N. et al. (2024) Reducing conditions influence U(IV) accumulation in sediments during in situ bioremediation. **ACS Earth and Space Chemistry**, 8, 148-158. doi; 10.1021/acsearthspacechem.3c00271

6. Qiao, J., Sallet, H., Meibom, K.L., Jacquemin, N. and **R. Bernier-Latmani**. The effect of substrate availability on anaerobic arsenic methylation by *Paraclostridium bifermentans*, strain EML. **Submitted.** Preprint: https://biorxiv.org/cgi/content/short/2023.01.09.523296v1

7. Vico Oton, E., Volet, C., Jacquemin, N., Meibom, K.L., and **R. Bernier-Latmani**. Strain-dependent induction of primary bile acid 7-dehydroxylation by cholic acid. **Submitted**. Preprint: doi: 10.1101/2022.02.15.480494

8. Wortmann, E., Osswald, A., Wylensek, D., Liang, W., Triechel, N., Schmacher, F., Volet, C., Matysik, S., Kleigrewe, K., Gigl, M., Rohn, S., Kleuser, B., Liebisch, G., **Bernier-Latmani, R**., Schnieke, A., Flisikowski, K., Ocvirk, S., and T. Clavel. Secondary bile acid production by gut bacteria promotes Western diet-associated colorectal cancer. **Submitted**. 10.1101/2023.03.17.533140

2023

9. Brown, A. R., Roebbert, Y., Sato, A., Hada, M., Abe, M., Weyer, S. and **R. Bernier-Latmani** (2023) Contribution of the nuclear field shift to kinetic uranium isotope fractionation. **Geochemical Perspectives Letters**. doi: 10.7185/geochemlet.2333.

10. Brown, A.R., Molinas, M., Roebbert, Y., Sato, A., Abe, M., Weyer, S. and **R. Bernier-Latmani** (2023). Electron flux is a key determinant of uranium isotope fractionation during bacterial reduction. **Communications Earth and Environment**, v4, 1, doi: 10.1038/s43247-023-00989-x

11. Molinas, M., Meibom, K.L., Faizova, R., Mazzanti, M., and **R. Bernier-Latmani** (2023). Mechanism of reduction of aqueous U(V)-dpaea and solid phase U(VI)-dpaea

complexes: the role of multiheme cytochromes. **Environmental Science and Technology**, doi: 10.1021/acs.est.3c00666

12. Miele, F., Benettin, P., Wang, S., Retti, I., Asadollahi, M., Frutschi, M., Binayak, M., **Bernier-Latmani, R**., and A. Rinaldo (2023). Spatially explicit linkages between redox potential cycles and soil moisture fluctuations. **Water Resources Research**, v59, p1-23, doi: 10.1029/2022WR032328

2022

13. Burzan, N., Murad Lima, R., Frutschi M., Janowczyk, A., Reddy, B., Rance, A., Diomidis, N., and **R. Bernier-Latmani**. (2022) Growth and persistence of an aerobic microbial community in Wyoming bentonite MX-80 anoxic in-situ conditions. **Frontiers in Microbiology**, doi: 10.3389/fmicb.2022.858324

14. Viacava, K., Qiao, J., Janowczyk, A., Poudel, S., Jacquemin, N., Meibom Lederballe K., Shrestha, H.K., Reid, M.C., Hettich, R.L., and **R. Bernier-Latmani** (2022) Meta-omics-aided isolation of an elusive anaerobic arsenic-methylating soil bacterium. **The ISME Journal,** doi: 10.1038/s41396-022-01220-z

15. Bell, E., Lamminmäki, T., Alneberg, J., Qian, C., Xiong, W., Hettich, R., Frutschi, M., and **R. Bernier-Latmani.** (2022) Active anaerobic methane oxidation and sulfur disproportionation in the deep terrestrial subsurface. **The ISME Journal**, doi: 10.1101/2021.08.21.457207

16. Coral, T., Placko, A-L., Beaufort, D., Tertre, E., **Bernier-Latmani, R.**, Descostes, M., de Boissezon, H., Guillon, S., and P. Rossi. (2022) **Science of the total environment**, doi: 10.1016/j.scitotenv.2022.153597

17. Chromiková, Z., Kalianková Chovanová, R., Tamindžija, D., Bártová, B., Radnović, D., **Bernier-Latmani, R.** and I. Barák. Implantation of *Bacillus pseudomycoides* chromate transporter increases chromate tolerance in *Bacillus subtilis*. (2021) **Frontiers in Microbiology**, doi: 10.3389/fmicb.2022.842623

18. Pan, Z., Roebbert, Y., Beck, A., Bartova, B., Vitova, T., Weyer, S., and **R. Bernier-Latmani** (2022) Persistence of the isotopic signature of pentavalent uranium in magnetite. **Environmental Science and Technology,** doi: 10.1021/acs.est.1c06865

2021

19. Mehrshad, M., Lopez-Fernandez, M., Sundh, J., Bell, E., Simone, D., Buck, M., **Bernier-Latmani, R**., Bertilsson, S., and M. Dopson. (2021). Energy efficiency and biological interactions define the core microbiome of deep oligotrophic groundwater. **Nature Communications**, doi: 10.1038/s41467-021-24549-z

20. Sato, A., **Bernier-Latmani, R**., Masahiko, H. and M. Abe. (2021) Ab initio and steady-state models for uranium isotope fractionation in multi-step biotic and abiotic reduction. **Geochimica et Cosmochimica Acta**, doi: 10.1016/j.gca.2021.05.044

21. Roebbert, Y., Rosendahl, C.D., Brown, A., Schippers, A., **Bernier-Latmani, R**., and S. Weyer. (2021) Uranium isotope fractionation during the anoxic mobilization of noncrystaline U(IV) by ligand complexation. **Environmental Science and Technology,** doi: 10.1021/acs.est.0c08623

22. Molinas, M., Faizova, R., Brown, A. Galanzew, J., Schacherl, B., Bartova, B., Meibom, K.L., Vitova, T., Mazzanti, M., and **R. Bernier-Latmani**. (2021) Biological reduction

of a U(V)-organic ligand complex. **Environmental Science and Technology,** doi: 10.1021/acs.est.0c06633

23. Reid, M.C., Asta, M.P., Falks, L., Maguffin, S.C., Con Pham, V.H., Le H.A., **Bernier-Latmani, R**., and P. Le Vo. (2021) Associations between inorganic arsenic in rice and groundwater arsenic in the Mekong Delta. **Chemosphere**. doi: 10.1016/j.chemosphere.2020.129092

2020

24. Viacava, K., Lederballe Meibom, K., Ortega, D., Dyer, S., Gelb, A., Falquet, L., Minton, N.P., Mestrot, A., and **R. Bernier-Latmani**. (2020) Variability in arsenic methylation efficiency across aerobic and anaerobic microorganisms. **Environmental Science and Technology,** v54, 14343-14351, doi: 10.1021/acs.est.0c03908

25. Nazarova, T., Alessi, D.S., Janssen, D.J., **Bernier-Latmani, R**., and C. Wanner. (2020) In situ biostimulation of Cr(VI) reduction in a fast-flowing oxic aquifer. **ACS Earth&Space Chemistry**, doi: 10.1021/acsearthspaceschem.0c00200

26. Pan, Z., Bartova, B., LaGrange, T., Butorin, S.M., Hyatt, N.C., Stennett, M.C., Kvashinina, K.O., and **R. Bernier-Latmani**. (2020) Nanoscale mechanism of UO_2 formation through uranium reduction by magnetite. **Nature Communications**, v11, 4001 doi: 10.1038/s41467-020-17795-0

27. Marion, S., Desharnais, L., Studer, N., Dong, Y., Notter, M.D., Poudel, S., Menin, L., Janowczyk, A. Hettich, R.L., Hapfelmeier, S., and **R. Bernier-Latmani**. (2020) Biogeography of microbial bile acid transformation along the murine gut. **Journal of Lipid Research**, v61 (9), doi: 10.1194/jlr.RA120001021

28. Faisova, R., Fadaei-Tirani, F., **Bernier-Latmani, R**., and M. Mazzanti. (2020) Ligand supported facile conversion of uranyl(V) to uranium(IV) in organic and aqueous media. **Angewandte Chemie International Edition** v59, 1-6. doi: 10.1002/anie.201916334

29. Loreggian, L., Sorwat, J., Byrne, J.M., Kappler, A., and **R. Bernier-Latmani**. (2020) Role of iron sulfide phases in the stability of noncrystalline tetravalent uranium in sediments. **Environmental Science and Technology,** v54, 4840-4846. doi: 10.1021/acs.est.9b07186

30. Bell, E., Lamminmäki, T., Alneberg, J., Andersson, A.F., Qian, C., Xiong, W., Hettich, R.L., Frutschi, M., and **R. Bernier-Latmani**. (2020) Active sulfur cycling in the terrestrial deep subsurface. **The ISME Journal** v14, 1260-1272. doi: 10.1038/s41396-020-0602-x

2019

31. Loreggian, L., Novotny, A., Bretagne, S., Bartova, B., Wang, Y., and **R. Bernier-Latmani**. (2019) The effect of aging on the stability of microbially-reduced uranium in natural sediments. **Environmental Science and Technology,** doi:10.1021/acs.est.8b07023.

32. Asta, M.P., Wang, Y., Frutschi, M., Viacava, K., Loreggian, L., Le Pape, P., Vo, P.L., Fernández, A.M., Morin, G., and **R. Bernier-Latmani**. (2019) Microbially mediated release of As from Mekong Delta peat sediments. **Environmental Science and Technology**, v53, 10208-10217, doi: 10.1021/acs.est.9b02887.

33. Dublet, G., Worms, I.A.M., Frutschi, M., Brown, A., Zünd, G.C., Bartova, B., Slaveykova, V.I., and **R. Bernier-Latmani**. (2019) Colloidal size and redox state of uranium species in the porewater of a pristine mountain wetland. **Environmental Science and Technology**, v53, 9361-9369, doi:10.1021/acs.est.9b01417.

34. List, C., Hosseini, Z., Meibom, K.L., Hatzimanikatis, V., and **R. Bernier-Latmani**. (2019) Impact of iron reduction on the metabolism of *Clostridium acetobutylicum*. **Environmental Microbiology**, 14640, doi:10.1111/1462-2920.14640.

35. Boylan, A.A., Perez-Mon. C., Guillard, L., Burzan, N., Loreggian, L., Maisch, M., Kappler, A., Byrne, J.M., and **R. Bernier-Latmani**. (2019) H_2-fuelled microbial metabolism in Opalinus Clay. **Applied Clay Science**, v174, 69-76. doi:10.1016/j.clay.2019.03.020

36. Tamindžija, D., Chromikova, Z., Spaić, A., Barak, I., **Bernier-Latmani, R**., and D. Radnović. (2019) Chromate tolerance and removal of bacterial strains isolated from uncontaminated and chromium-polluted environments. **World Journal of Microbiology and Biotechnology**, v35, 56. doi: 10.1007/s11274-019-2638-5

37. Phan, V.T.H., Bardelli, F., Le Pape, P., Couture, R.-M., Fernandez-Martinez, A., Tisserand, D., **Bernier-Latmani, R**., and L. Charlet. (2019) Interplay of S and As in Mekong Delta sediments during redox oscillations. **Geosciences Frontiers**, v10, 5, 1715-1729. doi: 10.1016/j.gsf.2018.03.008

38. Phan, V.T.H., **Bernier-Latmani, R**., Tisserand, D., Bardelli, F., Le Pape. P., Frutschi, M., Gehin, A., Couture, R.-M., and L. Charlet. (2019) As release under the microbial sulfate reduction during redox oscillations in the upper Mekong delta aquifers, Vietnam: A mechanistic study. **Science of the Total Environment**, v663, 718-730. doi:10.1016//j.scitotenv.2019.01.219

2018

39. Marion, S., Studer, N., Desharnais, L., Menin, L., Escrig, S., Meibom, A., Hapfelmeier, S., and **R. Bernier-Latmani**. (2018) *In vitro* and *in vivo* characterization of *Clostridium scindens* bile acid transformations. **Gut Microbes**. doi: 10.1080/19490976.2018.1549420.

40. Bell, E., Lamminmäki, T., Alneberg. J., Andersson, A.F., Qian, C., Xiong, W., Hettich, R.L., Balmer, L., Frutschi, M., Sommer, G., and **R. Bernier-Latmani**. (2018) Biogeochemical cycling by a low-diversity microbial community in deep groundwater. **Frontiers in Microbiology**, v9, p 2129. doi:10.3389/fmicb.2018.02129

41. Meibom, K.L., Cabello, E., and **R. Bernier-Latmani.** (2018) The Small RNA RyhB is a regulator of cytochrome expression in *Shewanella oneidensis*. **Frontiers in Microbiology**, v9, p 268. doi: 10.3389/fmicb.2018.00268

42. Wang, Y., Le Pape, P., Moring, G., Asta, M.P., King, G., Bartova, B., Suvorova, E., Frutschi, M., Ikogou, M., Pham, V.H.C., Vo, P.L., Herman, F., Charlet, L. and **R. Bernier-Latmani. (**2018) Arsenic speciation in Mekong Delta sediments depends on their depositional environment. **Environmental Science and Technology**, v52, 3431-3439. doi: 10.1021/acs.est.7b05177

43. Coral, T., Descostes, M., De Boissezon, H., **Bernier-Latmani, R**., de Alencastro, L.F., and P. Rossi. (2018) Microbial communities associated with uranium in-situ recovery

mining process are related to acid mine drainage assemblages. **Science of the Total Environment**, v628-629, p26-35. doi: 10.1016/j.scitotenv.2018.01.321

44. Sturm, G., Brunner, S., Suvorova, E., Dempwolff, F., Renier, J., Graumann, P., **Bernier-Latmani, R**., Majzlan, J., and J. Gescher. (2018) Chromate resistance mechanisms in *Leucobacter chromiiresistens*. **Applied and Environmental Microbiology**, V84, 23, e2208-18. doi: 10.1128/AEM.02208-18

2017

45. Reid, M., Maillard, J., Bagnoud, A., Falquet, L., Le Vo P., and **R. Bernier-Latmani**. (2017) Arsenic methylation dynamics in a rice paddy soil anaerobic enrichment culture. **Environmental Science and Technology**, v 51, 10546-10554. doi: 10.1021/acs.est.7b02970

46. Smart, N. R., Reddy, B., Rance, A. P., Nixon, D. J., Frutschi, M., **Bernier-Latmani, R.,** and N. Diomidis (2017) The anaerobic corrosion of carbon steel in compacted bentonite exposed to natural Opalinus Clay porewater containing native microbial populations. **Corrosion Engineering, Science and Technology**., v52:sup1, p101-112. doi:10.1080/1478422X.2017.1316088

47. Bhattacharyya, A., Campbell. K., Kelly, S., Roebbert, Y., Weyer, S., **Bernier-Latmani, R**. and T. Borch (2017) Biogenic non-crystalline U(IV) revealed as major component in uranium ore deposits. **Nature Communications**, v8, 15538. doi:10.1038/ncomms15538

48. Leupin, O.X., **Bernier-Latmani**, **R.**, Bagnoud, A., Moors, H., Leys, N., Wouters, K, and S. Stroes-Gascoyne (2017) Fifteen years of microbiological investigation in Opalinus Clay: a potential host rock for geologic radioactive waste depository. **Swiss Journal of Geosciences**, v110, p. 343-354. doi:10.1007/s00015-016-0255-y

2016

49. Studer, N., Desharnais, L., Beutler, M., Brurigoux, S., Terrazos, M., Menin, L., Schurch, C.M., McCoy, K.D., Kuehe, S., Minton, N.P., Stecher, B., **Bernier-Latmani, R**., and S. Hapfelmeier (2016) Functional intestinal bile acid 7alpha-dehydroxylation by *Clostridium scindens* associated with protection from *C. difficile* infection in a gnotobiotic mouse model. **Frontiers in Microbiology,** v6, 191.

50. Jamroskovic, J., Chromikova, Z., List, C., Bartova, B., Barak, I., and **R. Bernier-Latmani**. (2016) Variability in DPA and calcium content in the spores of Clostridium species. **Frontiers in Microbiology**, v7, p. 1791.

51. Wang, Y., von Gunten, K., Bartova, B., Meisser, N., Astner. M., Burger, M., and **R. Bernier-Latmani**. (2016) Products of *in situ* corrosion of depleted uranium ammunition in Bosnia and Herzegovina soils. **Environmental Science and Technology**, v50, 12266-12274.
[According to Web of Science this paper has been cited 7 times]

52. Visser, M., Stams, A. J. M., Frutschi, M. and **R. Bernier-Latmani**. (2016) Phylogenetic comparison of *Desulfotomaculum* species of subgroup 1a and description of *Desulfotomaculum reducens* sp.nov. **International Journal of Systematic and Evolutionary Microbiology,** v66, p. 762-767.

53. Bagnoud, A., Chourey, K., Hettich, R.L., de Bruijn, I., Andersson, A.F., Leupin, O.X., Schwyn, B., and **R. Bernier-Latmani.** (2016a) Reconstructing a hydrogen-driven

microbial metabolic network in Opalinus Clay rock. **Nature Communications**, v7, p12770.

54. Bagnoud, A., Leupin O.X., Schwynn, B., and **R. Bernier-Latmani.** (2016b) Rates of microbial hydrogen oxidation and sulfate reduction in Opalinus Clay rock. **Applied Geochemistry**, v72, 42-50.

55. Bi, Y., Stylo, M., **Bernier-Latmani, R.,** and K. F. Hayes. (2016) Rapid mobilization of noncrystalline U(IV) coupled with FeS oxidation. **Environmental Science and Technology**, v 50, 3, 1403-1411.

56. Terzis, D., **Bernier-Latmani, R**., and L. Laloui. (2016) Fabric characteristics and mechanical response of bio-improved sand to various treatment conditions. **Géotechnique Letters**, v 6, 1.

57. Bagnoud, A., I. De Bruijn, I., Andersson, A. F., Diomidis, N., Leupin, O. X. Schwyn, B., and **R. Bernier-Latmani** (2016c) A minimalistic microbial food web in an excavated deep subsurface clay rock. **FEMS Microbiology Ecology**, v 92, 1, p. fiv138.

2015

58. Stylo, M., Neubert, N., Wang, Y., Monga, N., Romaniello, S.J., Weyer, S., and **R. Bernier-Latmani**. (2015b) Uranium isotopes fingerprint biotic reduction. **Proceedings of the National Academy of Sciences of the United States of America**, v112, 18, 5619-5624.

59. Lezama Pacheco, J., Cerrato, J., Veeramani, H., Alessi,D., Suvorova, E., **Bernier-Latmani, R.**, Giammar, D. Long, P., Williams, K., and J. Bargar. (2015) Long-term in-situ oxidation of biogenic uraninite in an alluvial aquifer: impact of dissolved oxygen and calcium. **Environmental Science and Technology**, v49, 7340-7347.

60. Stylo, M., Neubert, N., Roebbert, Y., Weyer, S., and **R. Bernier-Latmani**. (2015a) Mechanism of uranium reduction and immobilization in *Desulfovibrio vulgaris* biofilms. **Environmental Science and Technology,** v49, 17, 10553–10561.

2014

61. Alessi, D.S., Lezama-Pacheco, J.S., Janot, N., Suvorova, E.I., Cerrato, J.M., Giammar, D.E., Davis, J.A., Fox, P.M., Williams, K.H., Long, P.E., Handley, K.M., Wrighton, K.W., Banfield, J.F., **Bernier-Latmani, R**. and J.R. Bargar. (2014) Speciation and reactivity of uranium products formed during *in situ* bioremediation in the Old Rifle, CO aquifer. **Environmental Science and Technology**, v48, 12842-12850. doi:10.1021/es502701u.

62. Dalla Vecchia, E.C., P. P. Shao, Suvorova E.I., Chiappe D., Hamelin, R. and **R. Bernier-Latmani**. (2014) Characterization of the surfaceome of the metal-reducing bacterium *Desulfotomaculum reducens*. **Frontiers in Microbiology,** v5, 432.

63. Dalla Vecchia, E.C., Visser, M., Stams, A. and **R. Bernier-Latmani**. (2014) Investigation of sporulation in the *Desulfotomaculum* genus: a genomic comparison with the genera *Bacillus* and *Clostridium*. **Environmental Microbiology Reports,** doi: 10.1111/1758-2229.12200.

64. Wang, Y., Bagnoud, A., Suvorova Buffat, E., McGivney, E., Chesaux, L. Phrommavanh, V., Descostes, M., and **R. Bernier-Latmani.** (2014) Geochemical control on uranium(IV) mobility in a mining-impacted wetland. **Environmental Science and Technology,** v48, 10062-10070. doi: 10.1021/es501556d.

65. *Jamroskovic, J., Shao, P. P., Suvorova Buffat, E., Barak, I. and **R. Bernier-Latmani**. (2014) Combined scanning transmission X-ray and electron microscopy for the characterization of bacterial endospores. **FEMS Microbiology Letters,** v358, 188-193. doi: 10.1111/1574-6968.12539. *on the cover

66. Shao, P.P, Comolli, L. R. and **R. Bernier-Latmani**. (2014) Membrane vesicles as a novel strategy for shedding encrusted cell surfaces. **Minerals**, v4, 74-88.

67. Alessi, D.S., Lezama-Pacheco, J.S., Stubbs, J.E., Janousch, M., Bargar, J.R., Persson, P. and **R. Bernier-Latmani**. (2014) The product of microbial uranium reduction includes multiple species with U(IV)-phosphate coordination. **Geochimica et Cosmochimica Acta**, v131, 115-127.

68. Dalla Vecchia, E.C., Suvorova E.I., Maillard J. and **R. Bernier-Latmani**. (2014) Fe(III) reduction during pyruvate fermentation by *Desulfotomaculum reducens* strain MI-1. **Geobiology**, v12, 48-61.

2013

69. Wang. Y., Frutschi, M., Suvorova, E., Phrommavnah, V., Descostes, M., Alfatih, A.A.O., Geipel, G. and **R. Bernier-Latmani**. (2013) Mobile uranium(IV)-bearing colloids in a mining-impacted wetland. **Nature Communications**, v4, 2942. doi: 10.1038/ncomms3942.

70. Stylo, M., Alessi, D.S., Shao, P.P, Lezama-Pacheco, J.S., Bargar, J.R. and **R. Bernier-Latmani**. (2013) Biogeochemical controls on the product of microbial U(VI) reduction. **Environmental Science and Technology**, v47, 12351-12358.

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2.2. Book chapters

B1. **Bernier-Latmani, R**. and B.M. Tebo, B.M. (**2011**) Direct and indirect processed leading to Uranium (IV) oxidation. In Microbial metal and metalloid metabolism: advances and applications. John F. Stolz and Ronald S. Oremland Eds. Chapter 8, pp 139-156. ASM Press, Washington. D.C.

2.3. Reviews

R1. Bargar, J. R., **Bernier-Latmani, R.**, Giammar, D.E. and B. M. Tebo (**2008**) Biogenic uraninite nanoparticles and their importance for uranium remediation. **Elements**, v4, 6, 407-412.

R2. Calas, G., McMillan, P. F., and **R. Bernier-Latmani.** (**2015**) Environmental Mineralogy: New challenges, new materials. **Elements**, v11, 4, 247-252.

3. Other professional activities

3.1. Meetings organized

1. **2024-2025**: Science committee Member for Goldschmidt 2025, Prague, Czech Republic.

2. **2022-2023**: Theme co-chair for Theme 11 for Goldschmidt 2023, Lyon, France.

3. **June 20-26, 2020**: Theme chair for Theme 11 for Goldschmidt 2020, Virtual (originally to take place in Hawaii).

4. **October 21-26, 2018**: Workshop on 'Uranium biogeochemistry: transformations, isotopes and applications' at Monte Verita in Ascona, Ticino (Switzerland) with Stefan Weyer, and Stephan Kraemer (http://uranium-biogeo.epfl.ch).

5. **May 7-9, 2018**: MIND (Microbes in Nuclear Disposal) meeting in Lausanne, Switzerland.

6. **August 13-18, 2017:** Help organize a session at Goldschmidt 2017 (session 3j: isotopic approaches to unravel the early evolution of oceans, the atmosphere, and life on Earth).

7. **July 16-20, 2017**: National Scientific Organizing Committee for ICOBTE 2017 (14th International Conference on the Biogeochemistry of Trace Elements) in Zurich.

8. **August 25-30, 2013**: Co-theme chair (with Thomas Borch) for Theme 16 'Geochemical impacts of human activity' for Goldschmidt 2013.

9. **November 17, 2012**: Symposium at the 2012 Swiss Geosciences Meeting in Bern, Switzerland with Jasquelin Peña from University of Lausanne.

10. **June 24-29, 2012**: Symposium at the 2012 Goldschmidt meting in Montreal, Canada: 'Microbial transformations of radionuclides' with Jon Lloyd.

11. **March 25-29, 2012**: Symposium at the 243rd American Chemical Society meeting in San Diego, CA, on 'Coupled microbial-chemical processes and their impact on mineral formation and metal transformation' with Danielle Fortin.

12. **March 11-16, 2012**: Workshop on 'Uranium biogeochemistry: transformations and applications' at Monte Verita in Ascona, Ticino with Stephan Kraemer (http://www.univie.ac.at/uranium_biogeochemistry/home.html).

13. **June 23-28, 2010**: Symposium at the 2010 Goldschmidt meeting in Knoxville, TN, 'Microbial Biominerals: Structure, Formation and Applications' with Danielle Fortin and Vernon Phoenix.

14. **May 20-21, 2010**: COST conference for working group 2 of Action D43 'Colloid and Interface Chemistry for Nanotechnology' in Lausanne.

15. **July 13-18, 2008**: Symposium at the 2008 Goldschmidt meeting in Vancouver, Canada: 'Molecular-Scale Chemical and Biogeochemical Processes Affecting the Mobility of Metal and Radionuclide Contaminants in the Subsurface' with John Bargar, Dan Giammar and Brad Tebo.

16. **Since 2008:** help to organize a bi-annual a joint EPFL-UNIL seminar in microbiology

geared to allowing Ph.D. students and post-docs an opportunity to present their work.

3.2. Positions of trust

Since 2006, I have refereed papers for the following journals:

- Proceedings of the National Academy of Science of the USA
- Science
- Environmental Science and Technology
- Geochimica et Cosmochimica Acta
- Geobiology
- Geomicrobiology Journal
- Canadian Journal of Microbiology
- Microbial Biotechnology
- Journal of Environmental Quality
- Chemical Geology
- Journal of Synchrotron Radiation
- Applied and Environmental Microbiology
- Aquatic Microbial Ecology
- Chemosphere
- Environmental Science and Pollution Research
- Biodegradation
- Microbiology
- ISME Journal
- Applied Microbiology
- Applied Geochemistry
- Ecotoxicology
- Gut Microbes
- ACS Sustainable Chemistry Review
- Journal Water Process Engineering
- Computational and Structural Biotechnology Journal
- Nature Communications
- ACS Earth and Space Chemistry
- Environmental Microbiology

Since 2006, I have referred grant applications from:

- Swiss National Science Foundation
- US National Science Foundation
- Stanford Synchrotron Radiation Laboratory beamtime
- The AXA research Fund
- The French Nuclear Safety and Radioprotection Institute (IRSN)

I serve as an editor for the following journals:

- Frontiers in Microbiological Chemistry (Associate editor) since 2010
- Journal of Hydrology (Associate editor) since 2013 (May 2013- Dec 2015)
- Geo-Bio Interfaces (Founding Associate editor) since 2023

Since 2012, I was invited to:

- Serve on a review board for U.S. DOE review of a National Laboratory's Subsurface Biogeochemical Research Scientific Focus Area (I was unable to participate due to prior commitments).
- Serve as a reviewer for the Helmholtz Young Investigator Award (in 2012).

- Review tenure packages for ETHZ (2017 and 2019)
- Review tenure case at Colorado State University (2022)

External committee membership:

- I served on the Diamond Light Source Peer Review Panel from Sept 2014-May 2018.
- I served on the Swedish Vetenskapsrådet (i.e., the Swedish Research Council) panel NT-8 (Soil, Air and Water Processes) in 2015.

Participation to scientific workshops on specific topics:

- ThermoChimie "redox' workshop: October 16th, 2019 in Manchester, UK.
- NAGRA workshop April 2019 on "The limits of life in bentonite" at EPFL.
- NAGRA workshop June 2017 on "Near-field microbial activity and the implications for canister corrosion" in Villigen, Switzerland.
- NAGRA workshop November 2012 on "The long-term degradation of organic polymers in a cement-based repository for low and intermediate level waste" in Villigen, Switzerland.
- NAGRA workshop August 2012 on "The assessment of potential adverse effects of fungal growth in a repository" in Villigen, Switzerland.
- Presentation at the Federal Nuclear Safety Commission (NSC), June 2021 in Brugg, Switzerland.

Faculty Search Committees (external)

- University of Vienna as an external referee (2012)
- University of Vienna, Faculty position in Environmental Contaminants (2022)
- ETHZ position in Environmental Microbiology (2022)

4. Administrative activities

- Ad hoc member of the Evaluation Commission for the MINT Division (SNSF): December 2023-present
- Faculty supporting the MAKE project Sailowtech (2022-present)
- Ad hoc member of the Evaluation Commission STEM-N for the Postdoc.Mobility program (SNSF): February 2022-present
- Member of the EPFL Academic Promotion Committee (CEAE): 2023-present
- Member of the EPFL Harassment A-Z task Force: 2021-2022
- Member of the CLIMACT Executive Committee :2021-present
- Member of the ENAC Diversity Office: January 2023-present
- Chair of the ENAC Diversity Office: April 2021-Dcember 2022
- School of Life Science Dean search committee, 2020
- School of Basic Sciences Dean search committee, 2020
- Commission on the Status of Women professors at EPFL: January 2019-July 2020 (report)
- President of the ETH WPF (Women Professors Forum): March 2020-March 2021 (report)
- CLIMACT Center *ad hoc* committee: 2019-2021
- School of Architecture, Civil and Environmental Engineering Dean search committee: 2019
- Extreme Environments Faculty Search Committee: 2018
- Terrestrial Ecology Faculty Search Committee: 2018
- European Association of Geochemistry (EAG) Councillor: 2017-2020
- Environmental Engineering Faculty Search Committee: 2017
- Co-vice chair for the ETH WPF (women professors forum): March 2016-March 2020
- Member of the CIME Executive Committee: 2016- present
- Member of the Advisory Committee for EPFL's Gender Equality Office: 2015-present
- Mobiliére Chair Faculty Search Committee: 2015
- Chair of ENAC Gender Equality Working group (ENGW): 2014-present
- Member of the Bureau of the EPFL WISH foundation: 2014-2019
- Advisory board to the CUSO Microbiology Doctoral School: 2011-2016.
- PATT initiative committee at EPFL: October 2009-2013 (report)
- EDCE doctoral committee: April 2009-present
- CEAL (Central Environmental Laboratory) committee: March 2007-present.
- SSIE teaching committee: April 2006-2014
- Swiss representative for COST action CM0902: November 2009-2013
- Workgroup 4 leader for COST action CM0902: November 2009-2013
- Geo-engineering search committee: June 2010-July 2010.
- Soil complexity search committee: September-November 2009
- Oversight of the design and implementation of the IIE website (along with A. Berne): January 2008-April 2009.
- ENAC media commission. March 2006-Dec 2007
- ISTE faculty search committee. April 2007-June 2007
- ENAC dean search committee. April 2007-Sept 2007