

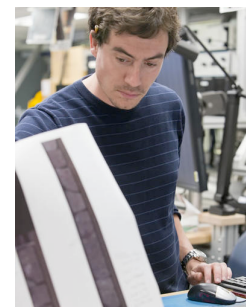
Cédric Hamelin

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**Isotope Geochemistry, Magmatism, Mantle Geodynamic.****EDUCATION:**

- 2014 – Present:** Associate professor in the Department of Earth Science, University of Bergen, Norway.
- 2012 – 2014:** Postdoctoral research at Centre for Geobiology University of Bergen, Norway.
- 2011 Oct.-Dec.:** Invited researcher at Harvard University, Department of Earth and Planetary Sciences.
- 2010 – 2012:** Postdoctoral research at the Institute of Geophysics of Paris (IPGP), France.
- 2009:** Visiting researcher at Caltech Tectonic Observatory.
- 2004 – 2008:** PhD in isotope geochemistry at the University of Brest (France), European Institute for Marine Studies (IUEM). Advisors: [J.-A. Barrat](#), [L. Dosso](#) and [M. Chaussidon](#).
- 2004:** MSc (“DEA”) Marine Geosciences obtained with honors, (Univ. Brest, France).
- 2002:** BSc (“licence”) of sciences obtained with honors (major in Earth Sciences) (Univ. Brest, France).
- 1999:** Baccalauréat in Sciences (Quimper, France).

SCIENTIFIC PROJECTS:

- 2016 – Present:** Accretion processes in ultra-slow and melt-poor ridge environments: the easternmost part of the Southwest Indian Ridge. In collaboration with M. Cannat, IPGP (France).
- 2014 – Present:** Is the mantle composition controlling the development of an Oceanic Core Complex? In collaboration with Javier Escartin, IPGP (France).
- 2012 – Present:** Refractory mantle signature recognized in basalts from Mohns ridge, Arctic Ocean, using Sr, Nd, Pb and Hf isotopes. In collaboration with R. B. Pedersen, UiB (Norway).
- 2011 – Present:** Is there a diagnostic petrological difference in erupted basalts during symmetric and asymmetric spreading? Samples collected between Kane and Atlantis fractures zones, Mid-Atlantic Ridge. In collaboration with C. Langmuir, Harvard Univ. (USA).
- 2010 – 2012:** Fine-scale geochemical variations in basalts from the “Lucky Strike” segment along the Mid-Atlantic Ridge.
- 2009:** Development of a singular value decomposition method applied to isotope geochemistry, at Caltech Tectonic Observatory.
- 2004 – 2008:** PhD “Geochemistry of Li isotopes in basalts - Geochemistry of MORB from the South Pacific”.

TEACHING EXPERIENCE

Students supervised: Marine Paquet (co-advisor. 2011-2012, master, IPGP) ; Jocelyn Fuentes (co-advisor. 2014-2016, PhD, Harvard Uni.) ; Thomas Husebø (co-advisor. 2015-2016, master, UiB) ; Andreas Sæbø (co-advisor. 2016-2017, master, UiB) ; Randi Storeide (co-advisor. 2016-2017, master, UiB) ; Solveig Lie Onstad (co-advisor. 2016-2017, master, UiB).

2015 – Present: Course GEOV242 “Advanced Igneous and Metamorphic Petrology”, UiB, Norway (10 ECTS credits).

2014 – Present: Course GEOV210 “Plate Tectonics”, UiB, Norway (10 ECTS credits).

2013 – Present: Course GEOV342 “Radiogenic and Stable Isotopes in Natural Sciences”, UiB, Norway (10 ECTS credits).

2007 – 2008, Teaching assistant (“Attaché Temporaire d’Enseignement et de Recherche“): 96 hours/year at both graduate and undergraduate levels, University of Brest.

2004 – 2007, Teaching assistant (“moniteur de l’enseignement supérieur“): 192 hours of teaching over 3 years at undergraduate level.

SCIENTIFIC CRUISES

April 2017 (2 weeks): Subsaintes expedition (P.I., Javier Escartin). Onboard the N/O Atalante. Igneous petrologist, conducting ROV dives.

November 2016 (6 weeks): ROVsmooth expedition (P.I., Mathilde Cannat). Onboard the N/O Pourquoi Pas?. Igneous petrologist, conducting dredges and ROV dives.

July 2016 (2 weeks): CGB cruise: Igneous petrologist onboard the G.O. Sars during the GS16 expedition along Knipovich ridge.

July 2015 (3 weeks): CGB cruise: Igneous petrologist onboard the G.O. Sars during the GS15 expedition along Mohns ridge.

July 2014 (2 weeks): CGB cruise: Igneous petrologist onboard the G.O. Sars during the GS14 expedition around Jan Mayen island.

April 2014 (8 weeks): IODP scientific cruise: Igneous petrologist onboard the R/V Joides Resolution during the expedition 350: Izu-Bonin rear arc.

November 2013 (6 weeks): ODEMAR expedition, (P.I., Javier Escartin). Onboard the N/O Pourquoi Pas?. Igneous petrologist, conducting dredges and ROV dives.

May 2012 (5 weeks): Kane-Atlantis expedition, (P.I., Charlie Langmuir). Watch-leader of the night shift onboard the R/V Knorr.

December 2010 (8 weeks): IODP scientific cruise: Igneous petrologist onboard the R/V Joides Resolution during the Louisville Seamounts Trail expedition leg 330.

December 2004 (5 weeks): PACANTARCTIC 2 expedition (P.I. Laure Dosso/Helene Ondreas), onboard the N/O Atalante: joint geophysical survey and geochemical sampling cruise along the Pacific-Antarctic Ridge between 41°15’S and 52°45’S.

PUBLICATIONS (SELECTED)

- C. Hamelin**, L. Dosso, J. Labidi, M. Moreira, B. Hanan, *in prep.* Bypassing the magmatic filter: fissure-controlled seamounts on the flanks of the fast spreading Pacific-Antarctic Ridge. *Geochemistry Geophysics Geosystems*.
- J. Escartín, C. Mével, S. Petersen, D. Bonnemains, M. Cannat, M. Andreani, N. Augustin, A. Bezos, V. Chavagnac, Y. Choi, M. Godard, K. Haaga, **C. Hamelin**, B. Ildefonse, J. Jamieson, B. John, T. Leleu, C. J. MacLeod, M. Massot-Campos, P. Nomikou, J. A. Olive, M. Paquet, C. Rommevaux, M. Rothenbeck, A. Steinfuhrer, M. Tominaga, L. Triebe, R. Campos, N. Gracias, R. Garcia, 2017. Tectonic structure, evolution, and the nature of oceanic core complexes and their detachment fault zones (13°20'N and 13°30'N, Mid Atlantic Ridge). *Geochemistry Geophysics Geosystems*. 18, doi:10.1002/2016GC006775.
- M. Paquet, M. Cannat, D. Brunelli, **C. Hamelin**, E. Humler, 2016. Effect of melt/mantle interactions on MORB chemistry at the easternmost Southwest Indian Ridge (61°–67°E). *Geochem. Geophys. Geosyst.*, 17, 4605–4640, doi:10.1002/2016GC006385.
- R. Bezard, M. Fischer-Gödde, **C. Hamelin**, G. A. Brenneka, T. Kleine., 2016. The effects of magmatic processes and crustal recycling on the molybdenum stable isotopic composition of Mid-Ocean Ridge Basalts. *Earth and Planetary Sciences Letters*, 453, 171-181.
- T. Baumberger, G.L. Früh-Green, I.H. Thorset, M.D. Lilley, **C. Hamelin**, S.M. Bernasconi, I.E. Okland, R.B. Pedersen, 2016. Fluid composition of the sediment-influenced Loki's Castle vent field at the ultra-slow spreading Arctic Mid-Ocean Ridge. *Geochimica et Cosmochimica Acta* 187: 156-178.
- C. Hamelin**, L.J. Elkins, J. Blichert-Toft, S.R. Scott, K.W.W. Sims, I.A. Yeo, C.W. Devey, R.B. Pedersen, 2016. North Atlantic hotspot-ridge interaction near Jan Mayen Island. *Geochem. Persp. Lett.* 2, 55-67.
- V.D. Wanless, A.M. Shaw, M.D. Behn, S.A. Soule, J. Escartin, **C. Hamelin**, 2015. Magmatic plumbing at Lucky Strike volcano based on olivine-hosted melt inclusion compositions. *Geochemistry Geophysics Geosystems*. 16: 126-147. doi: 10.1002/2014GC005517.
- J. Labidi, P. Cartigny, **C. Hamelin**, M. Moreira, L. Dosso, 2014. Non-chondritic sulfur isotope composition of the Pacific-Antarctic ridge mantle: A record of core-mantle differentiation. *Geochimica et Cosmochimica Acta*.
- C. Hamelin**, A. Bezos, L. Dosso, J. Escartin, M. Cannat, C. Mevel., 2013. Atypically depleted upper mantle component revealed by Hf isotopes at Lucky Strike segment. *Chemical Geology*, 341, 128-139.
- A. P. Koppers, T. Yamazaki, J. Geldmacher, J. S. Gee, N. Pressling, H. Hoshi, L. Anderson, C. Beier, D. M. Buchs, L-H. Chen, B. E. Cohen, F. Deschamps, M. J. Dorais, D. Ebuna, S. Ehmann, J. G. Fitton, P. M. Fulton, E. Ganbat, **C. Hamelin**, T. Hanyu, L. Kalnins, J. Kell, S. Machida, J. J. Mahoney, K. Moriya, A. R. L. Nichols, S. Rausch, S-i. Sano, J. B. Sylvan and R. Williams, 2012. Limited latitudinal mantle plume motion for the Louisville hotspot. *Nature Geoscience*, 5, 911–917.
- M. Moreira, J. Escartin, E. Gayer, **C. Hamelin**, A. Bezos, F. Guillon, M. Cannat, 2011. Rare gas systematics on Lucky Strike basalts (37°N, North Atlantic): Evidence for efficient homogenization in a long-lived magma chamber system? *Geophysical Research Letters*, 38, L08304, doi:10.1029/2011GL046794
- C. Hamelin**, L. Dosso, B. Hanan, M. Moreira, A.P. Kositsky, M. Thomas, 2011. Geochemical portray of the Pacific Ridge: New isotopic data and statistical techniques. *Earth and Planetary Sciences Letters*,

302 1-2, 154-162.

- M. Caroff, N. Coint, **C. Hamelin**, E. Hallot, J.-J. Peucat, G. Charreteur, 2011. The mafic-silicic layered intrusions of Saint-Jean-du-Doigt (France) and North-Guernsey (Channel Islands), Armorican Massif: Gabbro-diorite layering and mafic cumulate-pegmatoid association. *Lithos*, 125 1-2, 675-692.
- C. Hamelin**, L. Dosso, B. Hanan, J.-A. Barrat, F. Klingelhöfer and H. Ondréas, 2010. Sr-Nd-Hf isotopes along the Pacific Antarctic Ridge from 41 to 53°S. *Geophysical Research Letters*, 37(10), L10303, doi: 10.1029/2010gl042979.
- C. Hamelin**, H.-M. Seitz, J.-A. Barrat, L. Dosso, R.C. Maury and M. Chaussidon, 2009. A low $\delta^7\text{Li}$ lower crustal component: evidence from an alkalic intraplate volcanic series (Chaîne des Puys, French Massif Central). *Chemical Geology*, 266 3-4, 214-226.

CONFERENCES COMMUNICATIONS (SELECTED)

- C. Hamelin**, R.B. Pedersen, (2014) Homogeneous geochemical signal of Jan Mayen intraplate volcanism and its radial dispersion along adjacent ultra-slow spreading ridges, *AGU fall meeting 2014*, San Francisco (USA). poster.
- C. Hamelin**, R.B. Pedersen, (2014) Geochemical portrait of the sub-Arctic upper mantle: basalts from the ultraslow Mohns and Knipovich ridges, *VMSG 2014*, Edinburgh (England) poster.
- C. Hamelin**, R.B. Pedersen, (2013) The sub-Arctic upper mantle, from Jan Mayen to Molloy Fracture Zone, *23rd Annual Goldschmidt Conference*, Florence (Italy) poster.
- C. Hamelin**, A. Bezos, L. Dosso, J. Escartin, M. Cannat, C. Mevel, R. Pedersen (2012). Atypical depleted mantle components at Mohns Ridge and along the Mid-Atlantic Ridge near the Azores, *22nd Annual Goldschmidt Conference*, Montreal (Canada). oral
- C. Hamelin**, A. Bezos, L. Dosso, J. Escartin, M. Cannat, C. Mevel (2011). A new depleted mantle end-member revealed by high resolution sampling along the Mid-Atlantic Ridge. *21st Annual Goldschmidt Conference*, Prague (Czech Republic). poster
- C. Hamelin**, L. Dosso, M. Moreira, B. Hanan, A.P. Kositsky (2010). Geochemical portray of the Pacific ridge using statistical techniques. *20th Annual Goldschmidt Conference*, Knoxville (USA). oral

VARIOUS RESPONSIBILITIES

- 2006 – 2007**: student board member of the research department of Earth Sciences of Brest University.
- 2005 – 2007**: student board member of the T.A. council of Brittany Universities.
- 2010 – 2012**: responsible of the weekly “Geosciences Marine seminar” at the IPG Paris.
- 2012 – 2013**: responsible of the weekly seminar for the Centre for Geobiology, University of Bergen.

LANGUAGES

French (native), English (fluent), Norsk (basic skills).

HOBBIES & INTERESTS

Piano, hiking, photography (<http://goo.gl/8KV5c>).