

Curriculum Vitae – Dr. Christoph Helo

Education/professional experience

- 08/2011 – today *Post-doctoral researcher.* LMU Munich, Germany.
- 11/2011 *Ph.D.* McGill University, Montreal, Canada. “Pyroclastic eruptions in mid-ocean ridge settings: insights from Axial Seamount, Juan de Fuca Ridge, and analogue experiments”
- 12/2005 – 06/2006 *Post-graduate researcher.* LMU Munich, Germany
- 2005 *Diplom* In Geology, University of Munich, Germany. (Diplom thesis: “Geochemical analysis of Palaeozoic accretionary complexes of the Central Asian Mobile Belt of South Mongolia.” Grade: *sehr gut*; Diplom mapping thesis: “Geologische Kartierung im Moldanubikum des Bayerischen Waldes bei Obernzell, Passau
- 1998 *Abitur* Ignaz-Taschner Gymnasium, Dachau, Germany.
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Postgraduate scientific experience

- 08/2011 – today *Post-doctoral research scientist.* Department for Earth and Environmental Sciences, University of Munich, Germany.
- 08/2009 *Research cruise.* “2009 Pacific Northwest Expedition”. With the Monterey Bay Aquarium Research Institute (MBARI); chief scientist Dr. Clague. Volcanism on Axial Seamount, Juan de Fuca ridge.
- 07/2006 *Research cruise.* “2006 Vance Seamount Expedition”. With MBARI; chief scientist Dr. Clague. Volcanism on seamounts within the NE Pacific Ocean.
- 07/2006 – 06/2011 *Post-graduate researcher.* Within a full-time Ph.D. program, Department of Earth and Planetary Sciences, McGill University, Canada; in collaboration with Monterey Bay Aquarium Research Institute (MBARI), California, USA.
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Awards/fellowships

- 2010 William Henry Howard Scholarship
- 2010 J.W. McConnell Memorial Fellowship
- 2009 AGU poster award
- 2009 AGU student travel grant
- 2009 J.W. McConnell Memorial Fellowship
- 2008 J.W. McConnell Memorial Fellowship
- 2008 GEOTOP Graduate Scholarship
- 2008 Howard Scholarship
- 2008 Principal’s Graduate Fellowship
- 2007 Richard H. Tomlinson Fellowship
- 2006 Richard H. Tomlinson Fellowship
- 2006 McGill Recruitment Excellence Fellowship
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Other information

Extensive teaching experience in laboratory classes and field schools.

Spoken foreign languages: English, Arabic (some), French (minor).

Publications

Helo, C., Clague, D. A., and Stix, J. 2012. Pyroclastic eruptions and magma dynamics at Axial Seamount, Juan de Fuca Ridge, northeast Pacific Ocean. *Submitted to Geochemistry, Geophysics, Geosystems*.

Helo, C., Longpré, M.-A., Shimizu, N., Clague, D.A., Stix J., 2011. Explosive eruptions at mid-ocean ridges driven by CO₂-rich magmas. *Nature Geosciences* 4, 260-263.

Helo, C., Hegner E., Kröner, A., Badarch, G., Tomurgotoo, O., Windly, B.F., Dulski, P., 2006. Geochemical signature of Paleozoic accretionary complexes of the Central Asian Orogenic Belt in South Mongolia: Constraints on arc environments and crustal growth. *Chemical Geology* 227, 236-257.

Helo, C., Clague, D.A., Dingwell, D.B., Stix, J. Rapidly quenched basaltic glasses from Axial Seamount: implications for submarine eruption. *In preparation*.

Helo, C., Phillips, J., Stix, J. Eruptions in deep sea environments – insights from analogue modelling using gum rosin-acetone mixtures. *In preparation*.

Abstracts

Helo, C., Flaws, A., Hess, K.-U., Franz, A., Clague, D.A., Dingwell, D.B., 2011. 3D imaging of vesicles in hyaloclastic fragments – clues to syn-eruptive shear conditions. AGU Fall Meeting, Abstract V51F-2570.

Helo, C., Longpré, M.-A., Shimizu, N., Clague, D.A., Stix J., 2009. High CO₂ in MORB – a link to explosive submarine eruptions? *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract V21D-2029.

Zein, D., **Helo, C.**, Richard D., Clague D.A., Dingwell, D.B., Stix J. (2009) Hyperquenched hyaloclastites from Axial Seamount. *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract V51D-1734.

Helo, C., Clague, D., Stix, J., 2008. Pyroclastic eruptions from Axial caldera, Juan de Fuca Ridge, NE Pacific Ocean. *IOP Conf. Ser.: Earth Environ. Sci.* 3 012005 (3pp) doi: 10.1088/1755-1307/3/1/012005.

Helo, C., Phillips, J., Stix, J., 2008. Fragmenting bubbly magma: an experimental investigation using gum rosin-acetone. *IAVCEI General Assembly*, Abstract 3-c P06.

Helo, C.S., Hess, K.-U., Potuzak, M., Dingwell, D.B., 2006. The rheological behavior of multiphase liquids characterized by an advanced dilatometric method. *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract V43A-1781.

Clague, D., Paduan, J., Cousens, B., Cornejo, L., Perfit, M., Wendt, R., Stix, J., **Helo, C.**, 2006. Caldera Formation on the Vance Seamounts. *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract V13A-06.

Helo, C., Hegner, E., Kröner, A., Badarch, G., Tomurgotoo, O., Windley, B.F., Dulski, P., 2005. Geochemical and Nd-isotopic analyses of terranes of the Central Asian Orogenic Belt in South Mongolia. In: E.V. Sklyarov (Editor), Structural and tectonic correlation across the Central Asia Orogenic Collage: north-eastern segment. Guidebook and abstract volume of the Siberian Workshop *IGCP-480*, July 25-26. IEC SB RAS, Irkutsk, pp. 217-220.

Munich, 2012/02/04