Post-doctoral researcher position in isotope geochemistry focusing on the role of phytoplankton in reducing/fractionating dissolved Cr

The paleoceanography and marine biogeochemistry group hosted at the Institute of Geological Sciences, University of Bern is seeking a post-doctoral research associate (PDRA) to help develop a novel tracer to better understand carbon export from the productive surface ocean into the ocean interior. The approach, based on the stable isotopic composition of transition metal Chromium (Cr), will help better quantifying the strength of the marine biological carbon pump.

The open position is fully funded for 24-30 months (approx. 90-100k CHF per annum), within the framework of the Horizon 2020 ERC CoG project SCrIPT. The project involves close collaboration with Prof. M. Maldonado’s lab at the University of British Columbia, Vancouver, Canada.

The main objectives of this project aim at addressing the mechanisms by which phytoplankton control the oxidation state of Cr in seawater using model diatom and prymnesiophyte species and commercially available radioisotopes ($^{51}$Cr and $^{55}$Fe). Using sterile, trace metal clean culturing techniques, a series of culture experiments will be performed to investigate: (a) the mechanisms regulating the reduction and isotope fractionation of Cr under controlled laboratory conditions; (b) investigate the effect of ambient Fe concentrations and light availability on Cr reduction/isotope fractionation kinetics.

We are seeking a motivated, independent candidate familiar with trace-metal clean techniques. Ideally, the candidate should have experience with double-spike isotopic methods and MC-ICP-MS analytical procedures.

Candidates should send their inquiries and applications, including a detailed CV (including complete list of publications and the names and contact information of 2-3 referees) and letter of motivation to Prof. Samuel Jaccard (samuel.jaccard@geo.unibe.ch) no later than June, 30th 2019. The successful candidate should be able to start their appointment by fall 2019.