



# CALL FOR APPLICATIONS

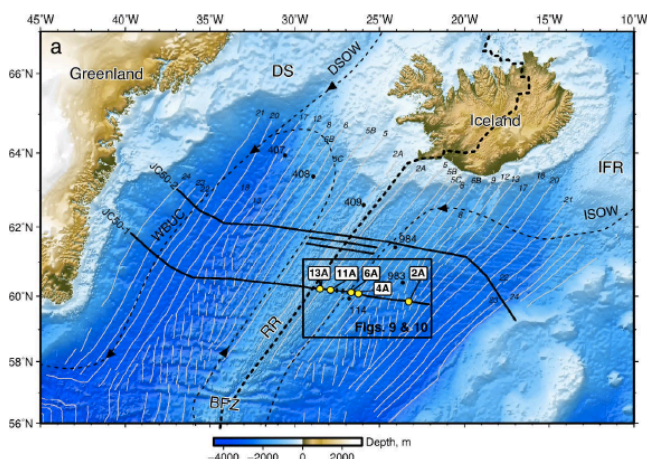
for scientist based in ECORD Member Countries to participate in

## IODP Expedition 395: Reykjanes Mantle Convection and Climate

on-board the *JOIDES Resolution*

**DEADLINE to apply: 30 March 2020**

The European Consortium for Ocean Research Drilling (ECORD) offers you the unique opportunity to sail on Expedition 391 on-board the *JOIDES Resolution* in the framework of the International Ocean Discovery Program (IODP), an international research program for drilling at sea.



### Reykjanes Mantle Convection and Climate Expedition 395 –26 June 26 August 2020

Reykjanes Mantle Convection and Climate Expedition 395 will investigate mantle upwelling beneath Iceland, which supports the regional bathymetry and has led to changes in the height of oceanic gateways that control the strength of deep-water flow over geologic timescales. This drilling program contains three objectives: (1) to test contrasting hypotheses for the formation of V-shaped ridges that are the result of interaction between the Mid-Atlantic Ridge and the Iceland plume; (2) to understand temporal changes in ocean circulation and explore connections with plume activity; and (3) to reconstruct the evolving chemistry of hydrothermal fluids with increasing crustal age, varying sediment thickness, and crustal architecture.

Expedition 395 is based on IODP Proposal 892-Full2 (Mantle Dynamics, Paleoceanography and Climate Evolution in the North Atlantic Ocean) and will target the sediments and 130 m of igneous basement along with downhole logging at five sites east of Reykjanes Ridge. Four sites intersect V-shaped ridges/troughs pairs, one of which coincides with Bjorn Drift. The fifth site is located over 32.4 Ma oceanic crust devoid of V-shaped features, chosen to intersect Oligocene-Miocene sediments of Gardar Drift. Millennial-scale paleoclimate records are contained within rapidly accumulated sediments of contourite drifts in this region. The accumulation rate of the sediments is a proxy for current strength, and the sediments also provide constraints for climatic events including Pliocene warmth, the onset of Northern Hemisphere Glaciation, and abrupt Late Pleistocene climate change. Major, trace and isotope geochemistry of basalts will allow us to observe spatial and temporal variations in mantle melting processes. This combined approach will explore relationships between deep Earth processes, ocean circulation, and climate.



For more information about the expedition science objectives and the *JOIDES Resolution* expedition schedule, please see <http://iodp.tamu.edu/scienceops/> – this site includes links to individual expedition web pages with the original IODP proposal and expedition planning information.

**Application deadline: 30 March 2020**

WHO SHOULD APPLY: Opportunities exist for researchers (including graduate students) in all shipboard specialties, including but not limited to sedimentologists, petrologists, micropaleontologists, paleomagnetists, petrophysicists, borehole geophysicists, igneous geochemists, inorganic geochemists, and organic geochemists.

The **Application Process** is open to scientists in all ECORD member countries. Please download the *Apply to Sail* general application forms from the ESSAC webpage:

<http://www.ecord.org/expeditions/apply-to-sail/>

Please, fill out all applicable fields and send it to the ESSAC office by email ([essac@plymouth.ac.uk](mailto:essac@plymouth.ac.uk)) with the following additional documents by the deadline of **30 March 2020**:

1. **A letter of interest** outlining your specific expertise, previous involvement in DSDP/ ODP/ IODP expeditions, research interests, primary research goals of your proposed participation.
2. **CV and publication list.**
3. **Young researchers** must additionally provide a **letter of support** from their host institution, including information on post-cruise science support.

All applications should state how you intend to achieve your proposed scientific objectives, with information on the funding scheme and support from your institution or national funding agencies. More information can be found under: <http://www.ecord.org/expeditions/apply-to-sail/>

In addition to the ESSAC application, all applicants *must inform their national office or national delegate* and send them a copy of their application documents. The national offices or national delegates can also provide information regarding travel support, post-cruise funding opportunities, etc. See <http://www.ecord.org/about-ecord/about-us/> for a list of the national contact persons.

**For further information or questions, please contact the ESSAC Office:**

**ECORD Science Support & Advisory Committee**

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