



University College Dublin
Ireland's Global University



Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann

An Roinn Comhshaoil, Aeráide agus Cumarsáide
Department of the Environment, Climate and Communications

Overview:

The Paleocene–Eocene Thermal Maximum (PETM) was a period of extreme warmth (~56 million years ago) that lasted for ~200,000 years and had profound influence on the global climate and ecosystems. The mean annual global temperature rose by 5–6 °C over a few thousand years at the onset of the PETM resulting from massive carbon release into the ocean and atmosphere. The emplacement of the North Atlantic Igneous Province (NAIP), which ultimately resulted in continental break-up and formation of the North Atlantic Ocean has been implicated as the driver for the PETM.

Recently, **International Ocean Discovery Program (IODP) Expedition 396** set out to elucidate the role of NAIP volcanism in the rapid global warming during the PETM. The project will apply sedimentary geochemical proxies to assess the role of sill intrusions into organic-rich sediments and/or continental flood basalt volcanism as the main trigger of the PETM hyperthermal.

Job description:

We are looking for a research assistant to carry out sample archiving, initial processing (retrieving terrestrial fossil organic matter from the sediments, drying and grounding of sample materials), chemical treatment and analysis (e.g. Hg concentration and carbon isotope analysis).

Start date:

September 2022 or as soon as possible thereafter. It is a three-month full-time project or part-time in equivalent duration.

Salary:

Appointment will be made at IUA Research Assistant Point 1 level (€27,380 per annum).

Requirements/ Person specification:

Applications are invited from students who have obtained a relevant geoscience degree or is in the 3rd or 4th year of their undergraduate study. Pre-existing knowledge and/or interest in sedimentology, stratigraphy, inorganic geochemistry, and/or palaeoclimatology is preferred. Passion for laboratory work, and a keen interest and self-motivation for solving problems is essential.

Application procedure:

If interested, please apply by sending an e-mail containing (in PDF-format): (1) a one- or two-page CV, (2) a cover letter stating why you are interested in this role and your potentially relevant knowledge/background, and (3) the name and contact details of one academic referee, to **Dr Weimu Xu** (weimu.xu1@ucd.ie).

Application deadline:

15th August 2022 (5pm Irish time).