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# Opportunities & Events July 2020

# **Opportunities**

### New scheme to support UK scientists with IODP-related events

We are pleased to announce that the current phase of the UK IODP research programme (2020-2024) includes a new scheme to support UK scientists in the organisation of, or participation in, IODP-related workshops, sand-pits, training, outreach or other events.

Find out more

### PhD position available

Fully Funded Royal Society PhD Project at the School of Ocean and Earth Science, University of Southampton:

# Quantifying Variations in Hydrothermal Contributions to the Oceans: Scaling from drill core observations to global models

Supervisors: Dr Rosalind Coggon and Prof Damon Teagle (Ocean and Earth Science, University of Southampton), and Dr Blair Thornton (Engineering, University of Southampton)

Ocean chemistry reflects a dynamic balance between riverine inputs, biological processing, sediment burial, and hydrothermal exchanges with ocean crust. This project aims to quantify hydrothermal exchange, providing a baseline to investigate vital Earth processes from records of past ocean chemistry. Current models of seawater geochemical evolution generally only consider high temperature hydrothermal venting along ridge axes, ignoring the lower temperature reactions across the vast ridge flanks. Investigating ridge flank exchange requires scientific ocean drilling through thick sediments into the oceanic crust, but our current sampling is biased towards young and very old crust. Dr Coggon is therefore leading an International Ocean Discovery Program experiment to drill an age-transect (7-63 Ma) across the western flank of the Southern Mid-Atlantic ridge (Expeditions 390/393; winter 2020/spring 2021). Core recovery in upper oceanic crust is typically <30%, but careful integration of core observations with continuous downhole logging data allows us to compensate for any resultant sampling bias. Established qualitative approaches that visually match 'unrolled' digital images of core exteriors with downhole logging images are labour intensive, and prone to error. This PhD will develop machine-learning approaches to compensate for incomplete core recovery, enabling global extrapolation of observations of hydrothermal exchange in the recovered cores.





For more details please visit:

https://noc.ac.uk/gsnocs/project/quantifying-variations-hydrothermal-contributions-oceans-scaling-drill-c ore-0 or contact Dr Coggon

### **ECORD Distinguished Lecturers**

If you are interested in hosting an ECORD Distinguished Lecturer at your institution please contact us

### **Events**

### New research seminar initiative

Pal(a)eo PERCS (Paleo EaRly Career Seminars) is a weekly seminar series that promotes and features work by Early Career Researchers who are working in the broad field of "Pal(a)eo" sciences (e.g., -ntology, -ecology, -oceanography, -climate). A PERCS seminar takes place on Zoom, and consists of a live streamed short (~30 min) seminar followed by a Q&A session and an opportunity for small group discussion and networking with other attendees using break-out rooms. Recordings of some seminars may be available for a limited period to PaleoTalks participants unable to attend live seminars. While speakers are limited to ECRs, all are welcome to attend. Talks are (mostly) weekly on Tuesdays at 8am Pacific / 11am Eastern / 4pm UK / 5pm Central Europe time. A zoom link will be emailed to participants via the PaleoPERCS email list prior to the talk.

### UK IODP Annual Meeting, 27th - 28th August 2020, Virtual Conference

Free Registration. Please join us on zoom for exciting talks, posters and lively discussion Visit Website

### GeoUtrecht 2020, 24th - 26th August 2020, Virtual Conference, Utrecht, Netherlands

Free Registration. Includes session 2.1 'Latest Achievements in Scientific Ocean and Continental Drilling'. Visit website



## **Recent Publications**

Hermoso, M., McClelland, H.L.O., Hirst, J.S., Minoletti, F., Bonifacie, M., Rickaby, R.E.M., 2020. Towards the use of the coccolith vital effects in palaeoceanography: A field investigation during the middle Miocene in the SW Pacific Ocean. Deep-Sea Res. Part I-Oceanogr. Res. Pap. 160, 9.

Kubo, Y., Inagaki, F., Tonai, S., Uramoto, G.I., Takano, O., Yamada, Y., Expedition 910 Shipboard Sci, P., 2020. New Chikyu Shallow Core Program (SCORE): exploring mass transport deposits and the subseafloor biosphere off Cape Erimo, northern Japan. Scientific Drilling 27, 25-33.

MacLeod, K.G., White, L.T., Wainman, C.C., Martinez, M., Jones, M.M., Batenburg, S.J., Riquier, L., Haynes, S.J., Watkins, D.K., Bogus, K.A., Brumsack, H.J., Guerra, R.D., Edgar, K.M., Edvardsen, T., Harry, D.L., Hasegawa, T., Hobbs, R.W., Huber, B.T., Jiang, T., Kuroda, J., Lee, E.Y., Li, Y.X., Maritati, A., O'Connor, L.K., Petrizzo, M.R., Quan, T.M., Richter, C., Tejada, M.L.G., Tagliaro, G., Wolfgring, E., Xu, Z., 2020. Late Cretaceous stratigraphy and paleoceanographic evolution in the Great Australian Bight Basin based on results from IODP Site U1512. Gondwana Research 83, 80-95.

McNeill, L., Dugan, B., Petronotis, K., Milliken, K., Francis, J., Expedition, S., 2020. Late Miocene wood recovered in Bengal-Nicobar submarine fan sediments by IODP Expedition 362. Scientific Drilling 27, 49-52.

Pickering, K.T., Carter, A., Andò, S., Garzanti, E., Limonta, M., Vezzoli, G., Milliken, K.L., 2020. Deciphering relationships between the Nicobar and Bengal submarine fans, Indian Ocean. Earth and Planetary Science Letters, 544, Article 116329.

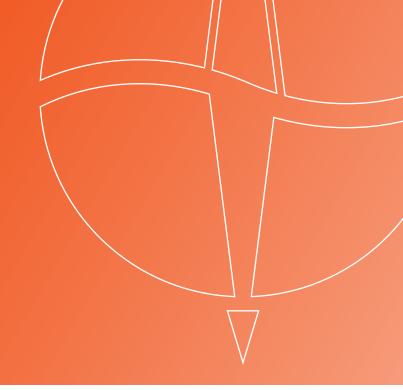
Routledge, C.M., Kulhanek, D.K., Tauxe, L., Scardia, G., Singh, A.D., Steinke, S., Griffith, E.M., Saraswat, R., 2020. A revised chronostratigraphic framework for International Ocean Discovery Program Expedition 355 sites in Laxmi Basin, eastern Arabian Sea. Geol. Mag. 157, 961-978.

Witkowski, J., Harwood, D.M., Wade, B.S., Brylka, K., 2020. Rethinking the chronology of early Paleogene sediments in the western North Atlantic using diatom biostratigraphy. Marine Geology 424, 41.



Yu, X.H., Stow, D., Smillie, Z., Esentia, I., Brackenridge, R., Xie, X.N., Bankole, S., Ducassou, E., Llave, E., 2020. Contourite porosity, grain size and reservoir characteristics. Marine and Petroleum Geology 117, 18.

# UK IODP Annual Meeting August 2020



The digital meeting will be spread over three sessions: 1pm to 3pm, Thursday 27th August 2020 10 am to 12pm Friday 28th August 2020 2.30 pm to 4.30 pm Friday 28th August 2020

Keynote presentations from:

Professor Tina van De Flierdt (Imperial College)
Dr Ake Fagereng (Cardiff University)
Dr Roz Coggon (University of Southampton)



Talks and posters about ICDP and joint IODP-ICDP science are very welcome.

PhD Students and Early Career Researchers are particularly encouraged to submit abstracts.

Prizes will be available for students hosted at UK research institutions

### Deadline for (free) registration: 21st August 2020 at 23:30 BST

Abstracts must be submitted using the template provided on the website. You must register before submitting your abstract. Abstracts will only be considered from registered participants.

### Deadline for abstract submission: 7th August 2020 at 23:30 GMT

The meeting will be hosted on zoom. Links for each session will be sent out in advance to registered participants. Talks will be 12 minutes with 3 minutes for questions and discussion. Posters must be submitted 10 days before the conference as a pdf or powerpoint file (maximum file size 10 MB). These will be hosted on the website in the week prior to the conference. Participants will be sent a link so that they can view the posters in advance and begin to submit questions for the authors. During the live poster session, authors will have 5 minutes each to answer questions and discuss their research with the audience.





Sponsored by The Marine Studies Group & The Geochemistry Group of the Geological Society



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