

2013 Fellow, Geological Society of America



Marta Torres

Professor

Marta Torres, Professor in Ocean Ecology and Biogeochemistry was named 2013 Fellow of the Geological Society of America.

Fellows of the GSA are honored for their distinguished contributions to the geosciences. Torres is recognized for her seminal contribution to the study of convergent and transform margins, utilizing geochemistry as a tool for discerning fluid flow, authigenic mineral formation, gas hydrate processes, and global geochemical fluxes.

Over the past two decades, Torres has concentrated her research along the Pacific Rim, where she has used mapping techniques, benthic instrumentation and chemical analysis of fluids and minerals to enhance our understanding of cold seepage at convergent and transform margins off the western U.S., Peru, and Chile. She

has used chemical and isotopic characterization of pore fluids and associated products collected by scientific ocean drilling offshore Oregon, Costa Rica, Japan, India and Korea, to understand the sources, pathways and mechanisms of present and past fluid circulation and their impact on gas hydrate dynamics.

In 2013, Torres was also named Fellow of Hanse-Wissenschaftskollg (HWK), in Delmenhorst, Germany. The HWK fellowship is for ten months, which Torres will take in segments over several years, working on a project on fluid migration through the oceanic lithosphere and working to develop ideas for new research projects and future research cooperation.

After a BS in Chemistry at Universidad de Costa Rica (1976), Torres came to Oregon State University to take an MS in Chemical Oceanography (1983) and a PhD in Marine Geochemistry (1988).



Marta Torres in the chemistry lab onboard the Joides Resolution studies a gas-hydrate bearing core recovered from the Andaman Sea, along the continental margin of India. Chemical analyses of the pore water squeezed out of this sample can be used to quantify the gas hydrate content of the sediment.

“The opportunity of looking for answers to the world around us is a privilege few get to enjoy. But the most valuable aspect of my career as a geochemist is the collaboration I have been fortunate to forge with a broad range of researchers who I respect enormously as scientists and human beings. To be recognized by these colleagues is a real honor.” — Marta Torres