

Speaker: Dr. Yu-Te Alan Hsieh ( Assistant Professor, Institute of Oceanography, National Taiwan University )

Date: 8/2 (Tue) 14 : 30

Title: Barium isotopes in ocean studies: new tracers of marine biogeochemical cycles

Host: Yun-Yuan Chang / Assistant Research Fellow

### <Abstract>

Seawater barium (Ba) concentrations have been widely used in tracing continental runoff, upwelling and marine biogeochemical cycles in the oceans. However, changes of Ba concentrations are often driven by multiple effects which may complicate the results. Recently, Ba stable isotopes have been developed as new tracers in ocean studies, which hold great potential for better understanding the barium and carbon cycles in the ocean. In my talk, I will share the recent development of Ba isotopes in ocean research. I will also present some of my recent work on the applications of Ba isotopes in mid-ocean ridge hydrothermal vent fluids, coastal seawater, and coral skeletons for paleo-proxy development.