Roma Tre PhD in Earth Sciences - Education Programme 2024

"Dipersed Organic matter in rocks: an insight on the carbon cycle and past climate shifts" Short Course

Dr. Andrea Schito – Universitat de Barcelona

When

8-9-10 April 2024

Where

Room A3 – Building Lazio Adisu,
Via della Vasca Navale, n. 56,
Dip. Scienze, Università Roma Tre - Roma

How to enroll

send an e-mail to sveva.corrado@uniroma3.it

To whom

*PhD students, young researchers and professionals interested on carbon cycle and C-based materials for the enegy transition**

Attendance certificate will be delivered at the end of the course

Programme

- **Day one**: *Life in sediments*. This part of the course will explore how biological tissues are preserved and transformed in rocks and which information we can gather from the accumulation of carbonaceous material in the oceans at the onset of ecological crises to study the effect of diagenesis and metamorphism on the organic matter's structures and isotopic composition and to understand the perturbations of the carbon cycle during the Earth's history.
- **Day two**: *Methodologies*. These lectures will address at the main techniques used for the analyses of the organic residues dispersed in sedimentary or metamorphic rocks. From the use of Gas Chromatography Mass Spectroscopy for biomarkers identification, through the main tools for organic petrography to isotopic and mineralogical analyses of graphite, an exhaustive overview about the main methodologies will be given.
- **Day three**: *Case history*. The third day will be devoted to application of the new skills acquired by the students to a real case history allowing them to understand how to merge information from different methodologies and disciplines to understand the role of Carbon in the Geological Cycle.