



CATERINA BATTIFORA

Ph.D. student in Earth Science

Birthday: :

Address:

E-mail:

Phone:

I am a first-year Ph.D. student in Science and Technologies for the Earth and Environment (curriculum: Earth Science), at the University of Genoa. My research is focused on the study of multiple melt migration events recorded within the lithospheric mantle section best exposed in the southern part of the Oman ophiolite. The main objective of my Ph.D. project is to provide an important contribution about the widely debated geodynamic evolution of the oceanic lithosphere exposed along the coast of Oman, through an innovative multidisciplinary approach combining field work, multiscale structural investigations, and petrological analysis.

EDUCATION AND TRAINING

2022

MSc degree in Geological Science

University of Genova - D.I.S.T.A.V. – Genoa – IT

"Reactive porous-flow and melt impregnation processes in the Depleted Mantle peridotites from Wadi Tayin Massif, Oman ophiolite (Oman Drilling Project)" – 110/110 with honors

Tutors: Prof. Elisabetta Rampone; Prof. Laura Crispini; Doc. Valentin Basch

Co-tutor: Prof. Paola Cianfarra

2019

BSc degree in Geological Science

University of Genova - D.I.S.T.A.V. – Genoa – IT

"Geological mapping and structural analysis of brittle deformation in the metaophiolites of the Voltri Massif: Piancastagna area (Ponzzone-AL)" – 106/110

Tutors: Prof. Laura Crispini; Prof. Laura Federico; Prof. Michele Piazza

ACADEMIC EXPERIENCE

2022 – ONGOING

PhD student in Earth Sciences

University of Genova - D.I.S.T.A.V. – Genoa – IT

"Diffusive reactive percolation and impregnation processes in the Oman peridotites (Samail Ophiolite): a multidisciplinary and multiscale investigation"

Supervisors: Prof. Elisabetta Rampone (UniGE); Prof. Laura Crispini (UniGE); Doc. Carlotta Ferrando (UniGE)

SCIENTIFIC PUBLICATION

Basch, V., Crispini, L., **Battifora, C.** & Rampone, E. (2022)

*"EVIDENCE OF LITHOSPHERIC COOLING PRIOR TO MELT INFILTRATION HISTORY AT THE OMAN PALEO-SPREADING CENTRE (WADI TAYIN MASSIF)". *Ofioliti*, 48(1).*

PUBLISHED ABSTRACTS

- **Battifora, C.**, Basch, V., Crispini, L. & Rampone, E. (2022)
"Melt-rock interactions and evolution of the upper mantle at an Oman paleo-spreading centre (OmanDP, Wadi Tayin)"
SGI-SIMP 2022 "Geosciences for a sustainable future" (Turin 19 – 21 September 2022).
Poster contribution. Abstract book p. 344.
- **Battifora, C.**, Basch, V., Ferrando, C., Crispini, L., Rampone, E. (2023)
"Spinel-facies evolution of the Oman lithospheric mantle (Wadi Tayin Massif)"
GLOM Winter Workshop 2023 "Working Group on Mediterranean Ophiolites" (Milan 8 February 2023). Oral contribution. Abstract book p. 4.

LANGUAGE SKILLS

Italian: Mother tongue

English: Good

ANALYTICAL SKILLS

- Optical Microscope: advanced
- Zeiss Microscope: intermediate
- Electron Micro-Probe Analyzer (**EMPA**): working knowledge
- Scanning Electron Microscope (**SEM**): working knowledge

MEMBERSHIPS IN SCIENTIFIC SOCIETIES

- 27th April 2022 – ongoing: Italian Society of Mineralogy and Petrology (**SIMP**)
- 10th May 2022 – ongoing: Italian Geological Society (**SGI**)

RESEARCH INTERESTS

My research interests revolve around the fields of structural geology, petrology and geochemistry, with specific focus on ophiolitic sequences and mantle rocks from ophiolite association (mantle peridotites, gabbros, basalts) of Oman. I am also interested in the petrological processes including: *i*) melt migration and melt-rock interaction acting in the lithospheric mantle at oceanic condition, *ii*) melt percolation and impregnation at different depth within the shallow oceanic mantle, and *iii*) accretion processes of the oceanic crust.

Genova, 31/07/2023