



Matthieu SANCHEZ

Currently in the first year of my Ph.D at CRPG (Nancy, FR). I focus on volatile storage in the deep crust of arcs. I will also develop H and D/H analytical capabilities on the LG-SIMS at CRPG.

Contact



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Address

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Driving licence (for cars)

Languages

- French (mother tongue)
- English (B2 to C1)

Laboratory skills

- Sample preparation
- EPMA
- Raman spectroscopy
- LG-SIMS

Informatic skills

- PeakFit
- Matlab
- QGIS
- R programming language

Professional experiences

○ 2024 : Internship (5 months)

Laboratoire Magmas et Volcans (LMV), Université Clermont-Auvergne, Clermont-Ferrand (FRANCE)

“Primitive, oxidized and metalliferous magmas of the forearc zone of New-Ireland (Papua New-Guinea)”. Supervised by **Antoine BENARD** and **Bertrand MOINE**

- Petrological and geochemical study of melt inclusions in ankaramite of fore-arc zone to constrain the behaviour of sulfur and the implication for the metal transport.
- Characterize the major, volatile and trace composition. Determine the nature of the source and fusion conditions. Results will lead to a research paper.
- Microprobe / Raman spectroscopy / Micro-thermometry heating-freezing stage / LA-ICPMS

○ 2023 : Internship (2 months)

Laboratoire Magmas et Volcans (LMV), Université Clermont-Auvergne, Clermont-Ferrand (FRANCE)

“Dehydration of melt inclusion in magmatic arc : consequences of their silica content”. Supervised by **Muriel LAUBIER**

- Study of melt inclusions in magnesian olivine ($Fo > 80$) from subduction zone to decipher the influence of water on the silica content.
- The result, presented at the Goldschmidt conference in 2023 was that the low Si melt is produced by clinopyroxenites contamination in the source.
- Microprobe / Raman spectroscopy / Sample preparation for analysis

○ 2021-2022 : Internship (18 weeks)

Stratagem 974, Reunion Island (974), FRANCE

“Application of geophysical methods in geology, environmental and civil engineering”. Supervised by **Emilie ROULLEAU**

- Self-Potential (SP) at the Piton de La Fournaise and Electrical Resistivity Tomography (ERT)
- Structural diagnostic / Network detection / Radar
- QGIS and AutoCAD

Education



Master's degree Magmas et Volcans

2022-2024

Université Clermont Auvergne



Bachelor's degree in Earth Science (with high honors)

2019-2022

Université de La Réunion

References

- **Etienne MEDARD**

Master supervisor



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Etienne.MEDARD@uca.fr

- **Muriel LAUBIER**

Internship supervisor



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- **Antoine BENARD**

Internship supervisor



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- **Véronique Le Roux**

PhD supervisor



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Veronique.le-roux@univ-lorraine.fr

- **Laurette Piani**

PhD co-supervisor



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Field experiences

- **2023 : Active volcanoes in Italy**

- Supervised by Andrew HARRIS, Tim DRUITT and Guillaume BOUDOIRE
- Study of Vesuvius / Stromboli / Vulcano / Campi Flegrei during 1 week
- Magmatic process / eruptive style and associated deposits / risks and hazards / hydrothermal system

- **2023 : The oceanic lithosphere in French Alps**

- Supervised by Bertrand MOINE, Valerie BOSSE and Mickael LAUMONNIER
- Study of Chenaillet / Mont Viso / Chamrousse / Lanzo / Queyras during 1 week
- Study of different lithologies (magmatic and metamorphic) to understand the evolution and the establishment of an oceanic lithosphere

- **2022 : Mapping at "Monts-Dores" in Massif Central**

- Supervised by Etienne MEDARD and Andrew HARRIS
- Mapping of volcanic and sedimentary deposits during 1 week
- Creation of a geological map and a field report

- **2022 : Unsupervised mapping at Reunion Island**

- Coworking mapping during free time in the last year of my Bachelor's degree
- Creation of a geological map of the western part of the Reunion Island (in autonomy)

- **2022 : Mapping at "Les Makes" in Reunion Island**

- Supervised by Vincent FAMIN and Loraine GOURBET
- Initiation of the study of volcanic deposits of Piton des Neiges during 1 week
- Creation of a geological map and a field report

- **2021-2022 : Volcanic process in Reunion Island**

- Supervised by Laurent MICHON, Vincent FAMIN, Anthony FINIZOLA and Nicolas VINET
- Study the main characteristics of Piton des Neiges and Piton de la Fournaise
- Mapping, study of volcanic deposits and geophysics for few days