FERNANDO PRADO ARAUJO

Geologist, MSc, 30

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EDUCATIONAL BACKGROUND

Doctor of Science, PhD KU Leuven

Oct 2018 - ongoing

- Thesis: "The influence of Li, P, B and Cl on the evolution of LCT pegmatites and rare-metal mineralization processes: insights from the Buranga pegmatite, Rwanda".
- I am investigating the melt-crystal-fluid geochemical evolution of P-rich rare-element pegmatites during the late magmatic and magmatic-hydrothermal crystallization stages.
- I use multiple in situ micro-analytical techniques, such as optical microscopy, electron microscopy (SEM), electron microprobe (EPMA), microthermometry, laser ablation mass spectrometry (LA-ICP-MS), and especially Raman spectroscopy to identify of mineral and fluid phases in the samples, assess their spatial relation, and quantify their composition.
- Research is supervised by Prof. Philippe Muchez and Dr. Niels Hulsbosch, as part of the project "Granite-related versus orogenic mineralization: insight from the W, Sn and Au mineralization in Rwanda".

Master of Science University of São Paulo

Feb 2016 - Jul 2018

São Paulo, Brazil

Mineralogy and Petrology concentration area - CNPg scholarship

 Dissertation: "The Inhandjara Leucogranite: An example of the magmatic-hydrothermal evolution in the Itu Granitic Province, Brazil". Supervised by Profs. Lucelene Martins and Valdecir Janasi, as part of the project "Generation and Evolution of granitic magmas and tectonic implications: A contribution of Sr-Nd-Pb isotopic geochemistry and in situ geochemistry of zircons in granites from SE Brazil".

Bachelor of Geology University of São Paulo

₩ Feb 2010 - Dec 2015

São Paulo, Brazil

- Graduation Thesis: "Petrogenesis of gneissic metatexites from Jundiaí region, SP, Brazil". Supervised by Prof. Lucelene Martins and Prof. Renato Moraes as part of the project "Metamorphism and partial melting in ancient Orogens".
- 2012 Research Project: Characterization of the magmatic and hydrothermal mineralogy of the Itaqui granite at the Polimix Quarry, Barueri (SP). Superised by Prof. Lucelene Martins. RUSP Scholarship.

Undergraduate educational exchange Australian National University

₩ Jul 2013 - Jun 2014

Canberra, Australia

EXPERIENCE

KUL Raman Microscope Lab

Dedicated researcher

2019 - ongoing

♀ Leuven, BE

• Responsible for training new users, instrument calibration and basic maintenance.

Teaching Assistant

Responsible for practical sessions

2014 - ongoing

São Paulo, BR and Leuven, BE

- 2019 ongoing: Advanced Igneous and Metamorphic Petrology. KU Leuven graduate course.
- 2017: Geological Mapping. University of São Paulo - undergraduate course.
- 2014 2015: General Geology Earth System. University of São Paulo - undergraduate course.

PUBLICATIONS

- 2022 Araujo FP., Hulsbosch N., and Muchez Ph. Paragenesis and precipitation stages of Nb-Ta-oxide minerals in phosphorus-rich rare-element pegmatites (Buranga dike, Rwanda). *Am. Mineral*, in press. DOI: 10.2138/am-2022-8201
- 2021 Alves, A., Janasi, VA., Pereira, G., Araujo, FP., and Munoz, PR. Unravelling the hidden evidences of magma mixing processes via combination of in situ Sr isotopes and trace elements analyses on plagioclase crystals. *Lithos*, 404, 106435. DOI: 10.1016/j.lithos.2021.106435
- 2021 Araujo, FP., Hulsbosch, N., and Muchez, Ph. High spatial resolution Raman mapping of complex mineral assemblages: Application on phosphate mineral sequences in pegmatites. *J. Raman Spec.*, 52(3), 690-708. DOI: 10.1002/jrs.6040
- 2020 Araujo FP., Martins L., Pereira G., and Janasi VA. Inhandjara topaz leucogranite: A late rare metal-mineralized stock within the A-type Itu batholith, SE Brazil. *J. South Am. Earth Sci.*, 101, 102623. DOI: 10.1016/j.jsames.2020.102623

LANGUAGES

Portuguese English Spanish Italian Dutch

