

## EDUCATION

- 2008 – 2014** B.Sc., Chemistry. **Project:** *Influence of temperature in the oscillatory dynamics of the Bromate-Oxalic Acid-Acetone-Manganese(II) batch reaction.* **Advisor:** Roberto de Barros Faria, D.Sc.  
**Federal University of Rio de Janeiro (UFRJ)**, Rio de Janeiro/RJ, Brazil
- 2014 – Present** Ph.D. in Geochemistry. **Project:** *Oxide formation and instrumental mass bias in MC-ICP-MS.* **Advisors:** Dr. Dominique Weis and Dr. Karla Newman  
**University of British Columbia (UBC)**, Vancouver/BC, Canada

## LANGUAGES

Fluent English, Native Portuguese, Intermediate French

## WORK EXPERIENCE

### 1. Centre for Mineral Technology (CETEM) – Mineral Analysis Coordination

#### Research Assistant

- 2008 – 2009** **Project:** Faster Extraction of Heavy Metals from Soils Using Vacuum and Ultrasonic Energy
- 2009 – 2010** **Project:** Determination of total Hg in crude oil using high pressure and high temperature digestion and ICP-MS quantification
- 2010 – 2011** **Project:** A new on-line version of the gold amalgamation trap for interference-free determination of Hg(0) in crude oil and related products by Zeeman CV-AAS
- 2011 – 2012** **Project:** Synthesis and characterization of organomercury compounds using GC-ICP-MS
- 2012 – 2013** **Project:** Trace metals determination in geological samples using LA-ICP-MS

### 2. Federal University of Rio de Janeiro – Institute of Chemistry

#### Teaching Assistant

- 2009 – 2012** Teaching Assistant for the Department of Inorganic Chemistry for: Experimental General Chemistry II, Experimental Inorganic Chemistry I, and Experimental Inorganic Chemistry II
- 2012 – 2012** Teaching Assistant for the Department of Physical-Chemistry for Experimental Physical-Chemistry I

### 3. University of British Columbia

#### Teaching Assistant

- 2014 – Present** Teaching Assistant for the Department of Earth, Ocean and Atmospheric Sciences for: EOSC 111 – Laboratory Exploration of the Planet Earth (2014-2015), EOSC 110 – The Solid Earth: A Dynamic Planet (2015), EOSC 340 – Global Climate Change (2016)

#### Research Assistant

- 2014 – Present** Research Assistant at the **Pacific Centre for Isotopic and Geochemical Research (PCIGR)** under the supervision of Dr. Dominique Weis and Dr. Karla Newman with the project entitled “Oxide Formation and Instrumental Mass Bias for MC-ICP-MS”.
- The responsibilities of the position involve clean laboratory procedures, sample preparation, analytical methods development and operation of MC-ICP-MS instruments.

#### MAGNET Trainee

- 2014 – Present** **Trainee and intern** at the Multidisciplinary Applied Geochemistry Network (MAGNET), a NSERC funded program that connects trainees with leading scientists and state-of-the-art analytical laboratories across

Canada to address challenges in geochemistry.

An industry internship at the **Nu Instruments** factory in Wrexham, Wales, U.K. in collaboration with the Water Quality Center at **Trent University**, Peterborough, Ontario, Canada was performed as a part of the MAGNET program.

## AWARDS AND HONOURS

<b>2016-Present</b>	Faculty of Science PhD Tuition Award
<b>2016</b>	Granted a MAGNET Research Award to develop the project entitled "Oxide Formation and Instrumental Mass Bias in MC-ICP-MS: A Cerium Case Study" at Trent University, Peterborough, ON, Canada
<b>2015</b>	Commended by Dean Simon Peacock (Faculty of Science, UBC) for receiving outstanding teaching evaluations in the Spring Term of 2015 for the course EOSC111 – Laboratory Exploration of Planet Earth
<b>2014-Present</b>	UBC International Partial Tuition Scholarship
<b>2012</b>	Spotlight student on the XX Scientific Initiation Journey, for outstanding presentation of work entitled: <i>Synthesis and characterization of organomercury compounds using GC-ICP-MS</i> , Centre for Mineral Technology – CETEM
<b>2011</b>	Spotlight student on the XIX Scientific Initiation Journey, for outstanding presentation of work entitled: <i>Determination of Hg<sup>0</sup> in crude oil and related products</i> , Centre for Mineral Technology - CETEM
<b>2009</b>	Spotlight student on the XVII Scientific Initiation Journey, for outstanding presentation of work entitled: <i>Faster Extraction of heavy metals from soils using vacuum and ultrasonic energy</i> , Centre for Mineral Technology - CETEM

## PEER-REVIEWED PUBLICATIONS

1. PONTES, F. V. M., Carneiro, Manuel C., Vaitsman, Delmo S., Monteiro, Maria I.C., Neto, Arnaldo A., **SOUZA, E. M. F.**, TRISTÃO, M. L. B. *A new on-line version of the gold amalgamation trap for interference-free determination of Hg<sup>0</sup> in crude oil and related products by Zeeman CV-AAS.* **Journal of Analytical Atomic Spectrometry (Print)**, v.27, p.1794-1798, 2012
2. PONTES, F. V. M., Carneiro, Manuel C., Vaitsman, Delmo S., Monteiro, Maria I.C., SILVA, L. I. D., **SOUZA, E. M. F.**, Neto, Arnaldo A. *Fast and simultaneous ultrasound-assisted extraction of exchangeable-NH<sub>4</sub><sup>+</sup>, NO<sub>3</sub><sup>-</sup> and NO<sub>2</sub><sup>-</sup> species from soils followed by ion chromatography determination.* **Chemical Speciation and Bioavailability**, v. 24, p. 227-233, 2012
3. Pontes, Fernanda V.M., Mendes, Bruna A. de O., **de Souza, Evelyn M. F.**, Ferreira, Fernanda N., da Silva, Lílian I.D., Carneiro, Manuel C., Monteiro, Maria I.C., de Almeida, Marcelo D., Neto, Arnaldo A., Vaitsman, Delmo S. *Determination of metals in coal fly ashes using ultrasound-assisted digestion followed by inductively coupled plasma optical emission spectrometry.* **Analytica Chimica Acta (Print)**, v.659, p.55-59, 2010
4. PONTES, F. V. M., Carneiro, Manuel C., **de Souza, Evelyn M. F.**, Monteiro, Maria I.C., Silva, Lílian I. D., Neto, Arnaldo A. *Faster extraction of heavy metals from soils using vacuum and ultrasonic energy.* **Journal of AOAC International**, v. 96, p. 1109-1113, 2013

## INTERNATIONAL ABSTRACTS

1. PONTES, F. V. M., Carneiro, Manuel C., Vaitsman, Delmo S., Monteiro, Maria I.C., Neto, Arnaldo A., **SOUZA, E. M. F.**, TRISTÃO, M. L. B. *A new on-line version of the gold amalgamation trap for interference-free determination of Hg(0) in crude oil and related products by atomic absorption spectrometry* in: 12th Rio Symposium on Atomic Spectrometry, 2012, Foz do Iguaçu, Brazil. **Book of Abstracts & Scientific Program**, 2012. p.94
2. **E. FRÈRES**, D. WEIS, K. NEWMAN, M. AMINI, and K. GORDON. [Effect of oxide formation on the accuracy of Nd isotopic ratios measurements in MC-ICP-MS](#) in: Goldschmidt Yokohama 2016, Yokohama, Japan, 2016.

## PRESENTATION AND/OR PARTICIPATION IN EVENTS

1. Oral presentation at **Goldschmidt 2016**, Yokohama, Japan, 2016. *Effect of oxide formation on the accuracy of Nd isotopic ratios measurements in MC-ICP-MS*
2. **2014 Geological Society of America Meeting**, Vancouver – BC, Canada, 2014
3. Oral presentation on **XX CETEM's Scientific Initiation Journey**, Rio de Janeiro – RJ, Brazil, 2012. *Synthesis and characterization of organo-mercury compounds using GC-ICP-MS*

4. **67<sup>th</sup> ABM International Congress**, Rio de Janeiro – RJ, Brazil, 2012
5. **8th International Conference on the Analysis of Geological and Environmental Materials (GEOANALYSIS)**, Armação de Búzios – RJ, Brazil, 2012
6. Poster presentation on **34<sup>th</sup> Annual Meeting of the Brazilian Society of Chemistry**, Florianópolis, SC, Brazil, 2011. *Determination of total Hg in oil using high-pressure and high-temperature digestion and quantification by ICP-MS*
7. Oral presentation on **XIX CETEM's Scientific Initiation Journey**, Rio de Janeiro – RJ, Brazil, 2011. *Determination of dissolved Hg(0) in oil and related products*
8. **XXIV National Meeting for Ore Extraction and Extractive Metallurgy**, Salvador, BA, Brazil, 2011
9. Oral presentation on **XVIII CETEM's Scientific Initiation Journey**, Rio de Janeiro – RJ, Brazil, 2010. *Determination of total Hg in oil using high-pressure and high-temperature digestion and quantification by ICP-MS*
10. Oral presentation on **XVII CETEM's Scientific Initiation Journey**, Rio de Janeiro – RJ, Brazil, 2009. *Acid extraction of heavy metals from soils using vacuum and ultrasonic energy*