



Assignment internship background student Chemistry

Living Lab Biobased Brazil

The Living Lab Biobased Brazil is a transnational Living Lab in the field of Biobased Economy, created in 2014 by a consortium of Dutch Universities of Applied Sciences in collaboration with several Brazilian universities. The Living Lab helps students with internships and graduation projects in Brazil with the focus on Biobased Economy. We also help students finding accommodation, and offer buddy support, Portuguese classes, a bye-bye meeting and an introduction weekend in Brazil

In return the Living Lab expects you contribute to the Living Lab blog. You have to blog about your personal and internship experiences during your stay in Brazil. We also expect you to participate in the mini symposium at the end of each semester.

These events help you to increase your personal network and is focused on your personal development! For more information please visit <https://www.biobasedbrazil.org/student/brazil/>.

Company/University information:

The Universidade Federal de Minas Gerais (UFMG) offers public education to 35,000 students on the two main campus areas and several off-side units, all found in the city of Belo Horizonte. In total the university offers 76 undergraduate, 72 master and 62 PhD programs. Its programs covers all main education areas: social-, human- and basic sciences, among others.

- UFMG is the **10th** best university in **Latin America** (QS World University Rankings);
- UFMG is the **second** best university in **Brazil** (QS World University Rankings);

For more information please see the promotional YouTube video:

<https://www.youtube.com/watch?v=fd-fdOe4Szw>

Research Project:

Removal of strontium by precipitation with carbon dioxide.

General background:

Chemistry, thermodynamics of solutions, precipitation.

Goal of internship:

To establish the best conditions in process designed to remove strontium from a EDR (electrodialysis concentrate) stream, produced in a petroleum industry wastewater pilot plant. It is also important the evaluation of using CO₂, which contributes to its mineralization.

Activities:

The Project involves:

- Precipitation tests, chemical analysis by atomic absorption spectrometry, solids characterization by XRD, IR, SEM. Mass balances and thermodynamics modeling using softwares, such as OLI and Phreeqc.



Starting date

February 01st, 2018.

The intern will be part of a research team lead by the adviser and supervised by Prof Sônia Rocha (UFMG).

Desirable skills/qualities of the student

- Good knowledge of the English (and preferably Portuguese) language is required. Innovation, Creativity, appreciation of lab work.

Information of the company:

Contact person concerning this assignment	: Erik Lammers
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Interested?

Please send your CV and motivation letter to Erik Lammers (Coordinator Living Lab Biobased Brazil). For further questions you can contact: +316 101 83 092 or ekf.lammers@avans.nl.

PLEASE BE AWARE THAT THE PROCES SUBSCRIBE AT <https://www.biobasedbrazil.org/student/brazil/> APPLIES!