



VACANCY

**BIRA-IASB is looking for:
FED-TWIN: KU LEUVEN-BIRA-IASB**

POSTDOCTORAL RESEARCHER IN ATMOSPHERIC CHEMISTRY

(M/F/X)

Deadline for application: October 31, 2021

Division, context

In the Group Science, Engineering and Technology of KU Leuven, within the Department of Chemistry, and the Royal Belgian Institute for Space Aeronomy (BIRA-IASB), we seek to recruit a highly motivated and skilled Postdoctoral Researcher. This recruitment is part of the research profile REVOCS "Re-evaluating the role of volatile organic compounds through quantum theoretical and modelling studies" within the framework of FED-tWIN, the Programme of sustainable research cooperation between the federal scientific institutes and the universities. The KU Leuven team has considerable expertise in using quantum chemical and theoretical kinetics methods to predict reaction mechanisms for the oxidation of atmospheric volatile organic compounds (VOCs). BIRA-IASB is a Belgian Federal Scientific Institute conducting research and providing services in space aeronomy, i.e. the physics and chemistry of Earth's atmosphere and other planets, and outer space. BIRA-IASB has strong experience in developing and assessing large-scale numerical models of the chemistry occurring in the atmosphere. The recent collaborative work of the two teams has illustrated the high relevance of theoretical methods for improving our understanding of atmospheric chemistry, in particular for the oxidation and role of biogenic VOCs (e.g. isoprene). With this joint research profile, we wish to deepen this collaboration between the two groups and address critical challenges to our understanding of how VOC emissions influence the composition of the atmosphere. With the guidance and support from both groups, the postdoctoral researcher will pursue innovative and interdisciplinary research using quantum theoretical and statistical rate methods as well as numerical modelling.

[KULeuven unit website](#)

[BIRA tropospheric modeling unit website](#)

More about BIRA-IASB

The Royal Belgian Institute for Space Aeronomy (BIRA-IASB) is a Belgian federal scientific research institute.

Created in 1964, its main tasks are research and public service in space aeronomy, which is the physics and chemistry of the atmosphere of the Earth and other planets, and of outer space. Its scientists rely on ground-based, balloon-, air- or space-borne instruments and computer models.

www.aeronomie.be

Responsibilities

At the KU Leuven unit, you will address major remaining issues related to biogenic VOC oxidation using theoretical means, and you will build a framework within which a large number of complex reactions can be investigated in a time-efficient way. At BIRA-IASB and in collaboration with the KU Leuven team, you will elaborate extensive oxidation mechanisms based on the relevant laboratory and theoretical studies, and you will implement those mechanisms in numerical models at different scales. You will supervise and support PhD students and contribute to the preparation and management of new research projects. You will have a collaborative spirit and liaise with collaborators. You need to be able to organize and troubleshoot your work independently, document it thoroughly and communicate results and experiences with the team in a transparent and professional manner.

Qualifications

We are looking for a highly motivated, well-organized and dynamic candidate with a high level of independence and creative thinking.

- You hold a PhD in Chemistry obtained at the earliest 12 years prior to the submission date of the job application. The 12-year period is extended by one year for each maternity, parental and adoption leave of the candidate and for each long-term sick leave of the candidate or his/her immediate family.
- You have a relevant publication track record with at least one first author publication
- You are eager to learn new techniques and you show a keen interest and curiosity driven approach to scientific questions
- You have demonstrable expertise in physical chemistry, preferentially for the gaseous phase, in theoretical reaction kinetics (including RRKM) and in computational chemistry. Experience in quantum chemistry and programming, as well as knowledge of atmospheric chemistry, are a plus.
- You have experience in working with deadlines and being involved simultaneously in multiple projects
- You are a team player with excellent oral and written English communication skills
- You are able to guide PhD students and coordinate the projects between our teams

Offer and benefits

- A contractual position of indeterminate duration, with simultaneous 50% appointment at KU Leuven and 50% appointment at BIRA-IASB.
- The starting date is negotiable
- Access to state-of-the-art infrastructure at BIRA-IASB and KU Leuven
- A stimulating, research work environment where quality, professionalism and team spirit are encouraged
- Different extra-legal benefits are offered both at KU Leuven and BIRA-IASB
- Flexible schedule and possibility to work occasionally from home
- Refund of commuting expenses when using public transportation or bicycle
- Access to special advantages arranged for employees of the federal scientific institutions (e.g. possibility to follow trainings, free childcare in July/August)
- The opportunity to interact with several world-class investigators at both institutions, as well as in Europe and abroad (through an established network and research consortia)
- For the KU Leuven contract a salary in grade 44 is offered.
- At BIRA-IASB, the salary will follow federal regulations for the scientific career in the SW2 scale, with possibility to acquire a bilingualism bonus.
- All relevant work experience (public + private sector) will be considered when determining seniority

Procedure

After evaluating the submitted applications, the selected candidates will be invited for an interview. Candidates whose diploma is not awarded in Belgium must submit a NARIC certificate of equivalence. If this certificate of equivalence has not yet been obtained, the application must at least have been initiated at the time of the application. More information about the equivalence certificate can be found on the website: www.enic-naric.net/index.aspx?c=Belgium

Place of employment

KU Leuven, Department of Mathematics, Celestijnenlaan 200B, 3001 Leuven, Belgium.

Royal Belgian Institute for Space Aeronomy, Avenue Circulaire 3, 1180 Uccle, Belgium.

Interested

Your application should include

- A detailed CV, including a list of your scientific publications
- An elaborate cover letter describing your motivation
- Contact information of 2 referees

For more information please contact Dr. Jean-François Müller, tel.: +32 2 373 0366, mail: jean-francois.muller@aeronomie.be

You can apply for this job no later than October 31, 2021 via the online application tool of KU Leuven (see below)

Both BIRA-IASB and KU Leuven seek to foster an environment where all talents can flourish, regardless of gender, age, cultural background, nationality or impairments. If you have any questions relating to accessibility or support, please contact us at diversiteit.HR@kuleuven.be and/or hr-ae@aeronomie.be

See below for the application process.



Interested?

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