BIRA-IASB recruits

Research assistant (h/f/x)

(Non-permanent mission - SW00027)

This is a translation about the vacancy available in French and Dutch on our websites https://www.aeronomie.be/fr/vacancy and https://www.aeronomie.be/nl/vacancy, resp.

Hereinafter, the masculine form is used to refer to all persons regardless of gender.

Context

You work within the group D21 'Infrared observations' of the Scientific Division 'Sources and losses of atmospheric constituents'. The group's specialty is the acquisition and exploitation of infrared spectrometric measurements, in-situ or by remote sensing, for determining the concentrations of trace gases and aerosols in the atmosphere. The observational data thus obtained are exploited to study changes in the atmospheric composition caused by natural processes and human activities, such as the recovery of the stratospheric ozone layer, climate changes due to emissions of the so-called greenhouse gases, the impact of biomass burning, etc. The measurements are carried out with Fourier-transform infrared spectrometers (FTIR) from the ground, in the framework of international networks and research infrastructures or measurement campaigns, and onboard satellites. The data obtained are also compared and exploited with numerical models of the atmosphere. The group D21 works in close collaboration with other teams within the institute and national and foreign partners.

Objectives of the function – responsibilities of the researcher.

The researcher to be recruited will contribute to experimental work (i.e., development and maintenance of the observational infrastructures, operations, automation) and to the data quality assessment for use in various applications. He will work in close collaboration with the other members of the team and to some extent with the engineering department at BIRA-IASB.

More specifically, the researcher will contribute to:

- the development of the ground-based experiments, in collaboration with the engineering department of the Institute and with the scientists of the Infrared Observations Team. This development includes contributions to IT work related to the automation of the experiments, data acquisition and transfer.

More about BIRA-IASB

The Royal Belgian Institute for Space Aeronomy (BIRA-IASB) is a Belgian Federal Scientific Institution. Since its foundation in 1964, BIRA carries out research and provides public services in the field of space aeronomy, i.e. the physics and chemistry of the Earth's atmosphere and of other planets, and of interplanetary space.

Our scientists use instruments on the ground, in the air (e.g., onboard aircraft) or in space, and numerical models.

www.aeronomie.be

Ringlaan 3 – 1180 Ukkel (Brussel)

This task also includes some more administrative work like market studies, ordering of components, preparing tenders for acquiring large equipment, …;

– setting up, carrying out and following up the infrared observations from the ground including quality control of the acquired raw data in view of the scientific applications;

– participating in the network activities and/or observational campaigns to which these measurements contribute. This task may include some administrative and logistics work related to shipping instruments abroad (customs documents, packaging, …).

– Developing or testing new observational concepts.

The researcher shall be available for regular short-duration stays abroad, on the purpose of participating to campaigns, or installing or maintaining the ground-based experiments.

Depending on the specific interests and expertise of the researcher, the researcher can be more or less involved in the tasks involving engineering aspects.

Diploma requirements

Diploma of master or doctor in sciences or applied sciences, preferentially orientation physics or chemistry, or physical engineering.

Would you like to apply but your diploma is not in French or Dutch?

We invite you to contact the HR department: hr-select@aeronomie.be to find out whether you need to take a language test article 7 - level 1/A. The selection commission is responsible for the verification of the diploma.

If it appears that a language test must be taken, you can register by clicking on the following link https://werkenvoor.be/nl/testen-en-certificaten/taal/inschrijven or www.travaillerpour.be/fr/tests-et-certificats/linguistique/inscription.

In such case, passing the language certificate is a prerequisite for selection. Therefore it is recommended to register for the language test as soon as possible.

Generic Skills

The candidate must be able to demonstrate the following competences:

- **Team Spirit**: Ability to collaborate effectively with other team members.
- **Working in an International Context**: Ability to work easily with international teams and in multicultural environments.

Technical Skills

The candidate must be able to demonstrate the following competences:

- **Experimental Skills**: Practical experience in the laboratory, including setting up and conducting measurements.
- **Computer Skills**: Proficiency in mixed software environments (Microsoft, UNIX, Linux) and associated computer tools.
- **Automation of Experiments**: Experience with the automation of experiments, including control of and communication with instruments, use of microcontroller boards, and design of experimental setups.

- **Technological Skills**: Basic skills in technological areas such as electronics, mechanics, and 3D printing, facilitating collaboration with the engineering department.
- **Knowledge of Spectroscopy and Optics**: Basic knowledge of spectroscopy and optics, necessary for understanding the experiments.
- **Project Management**: basic knowledge about project management, particularly projects related to the development of instruments and automation.
- **Technical/Scientific Report Writing**: Experience in writing technical reports, particularly for documenting software and operating procedures.

Assets

- Basic knowledge of aeronomy;
- Knowledge of Fourier-transform infrared spectrometry;
- Experience with optical remote sensing techniques for probing the Earth or planetary atmospheres;
- Experience with international projects, especially projects funded by EU, EUMETSAT or ESA;
- Knowledge of python (numpy, scipy,…);
- Knowledge of one of the two national languages.

We offer

Type of contract and salary scale:

You will be employed on a fixed-term contract, in Activity Group I 'Scientific Research and Experimental Development' with the corresponding salary scale SW1.

All relevant professional experience (public and private sector) will be taken into account in determining seniority.

The selected candidate will be appointed

- in salary scale SW10 or SW11 (SW11 if at least 2 years of recognized scientific seniority) if he has a master's degree;
- in salary scale SW11 if he has a doctoral degree.

Minimum remuneration (gross yearly amounts, at current index, regulatory allowances not included):

- SW10 (0 years of seniority): 46.436€ per year (3870€ per month)
- SW11 (0 years of seniority): 54 925 € per year (4577 € per month))
- SW11 (2 years of seniority): 57 357 € per year (4779 € per month)

Additional advantages

- Opportunity to obtain a bilingual bonus (French/Dutch) or training (possibly taken during working hours).
- Pleasant and dynamic working atmosphere in a scientific environment located in green surroundings.
- Opportunity to establish international contacts.
- Free travel to and from work by public transport and/or the possibility of a bicycle allowance.
- Attractive holiday scheme (minimum 26 days per year) and various possibilities to combine private and work life.
- Flexible working hours of 38 hours per week and/or the possibility of teleworking.
- Access to various socio-cultural benefits: museum card, hospital insurance, discounts via the Fed+ card, etc.

- Meal vouchers
- Childcare available during the long school holidays (July - August).
- Dynamic work environment with a strong international focus

Selection Procedure

Notification

You will receive a notification containing the result of your application, after each stage of the selection procedure

If you are unsuccessful at a particular stage, the procedure will be ended and you will not be invited to any subsequent stages of the same selection. At the end of the selection process, a group of successful candidates, who are not ranked among them, will be formed. This group consists of the candidates who have been found most suitable for the vacant position according to the conditions of participation. The list of successful candidates remains valid during 18 months.
For further information, please read the Annex to the job offer.

Recruitment requirements
If you have passed this selection, you can be recruited only if you meet all following conditions on the appointment date:

- enjoy civil and political rights,
- comply with the conscription laws
- have a conduct consistent with the requirements of the intended job
- be holder of the required diploma(s)
- meet the special skills and requirements set out in the job profile

Contact

For more information on this position, please contact:
Bavo Langerock – workleader in the team D21 'Infrared observations'
Email : bavo.langerock@aeronomie.be; tel : 02/37.36.768

Interested ?

Would you like to apply? Please send your application by e-mail to bavo.langerock@aeronomie.be with a copy to: hr-select@aeronomie.be, quoting reference: **'D21_FTIR_2025'.**

Deadline for submission of applications: 30/04/2025

Your application file should include the following
- your CV (we recommend using the model available below)
- a motivation letter
- a copy of the required diploma(s) with all attachments. If one or more of these diplomas are not in French, Dutch, German or English, a translation in French or Dutch of the diploma(s) in question must also be attached.
- any other document proving your relevant experience

Annex to the job offer

Additional information

Selection procedure

Stage 1: Checking the conditions for participation

You will be admitted to the selection procedure if you meet all the conditions for participation. The selection committee will check this on the basis of the application files you have submitted. The committee will decide whether the qualifications, merits and experience you present correspond to the requirements of the function for which you apply. If so, you will be invited to the next stage.

Depending on the number of applications received, the selection committee reserves the right to limit the number of candidates going on to the next stage by determining those it considers most suitable for the function.

Stage 2: Audition

The audition will be held at the Royal Belgian Institute for Space Aeronomy. If the audition cannot be held on site, auditions can be held online (via Teams). For practical details, you will receive an email from one of our staffmembers.

The selection committee will assess to what extent the qualifications, merits and experience you present in your application match the requirements of the job.

Equal opportunities and reasonable accommodation

The federal administration has an active diversity policy.

If you are a person with a disability, a learning disability or an illness? you can inform us when you apply so that we can prepare reasonable accommodation for you when you arrive for the audition.

In case of absence

If you don't show up for the audition, you are automatically excluded from the rest of the selection procedure unless you can demonstrate, within three days, that your absence was justified by one of the following reasons:

- illness
- emergency concerning a member of the household (= any person living with the candidate) or family (= the candidate's spouse or the person with whom the candidate is legally cohabiting, the candidate's first- or second-degree relatives)
- essential presence at work
- interruption or delay of public transport by at least thirty minutes
- force majeure.

If necessary, you may ask to be heard by the committee within ten days of the date of the above-mentioned audition. You will then be offered a new date.

CV – Scientific Functions

Please indicate the position you are applying for:
Click or tap here to enter text.
This CV must be accompanied by a cover letter.

Personal Information

First Name: Click or tap here to enter text.
Last Name: Click or tap here to enter text.
Gender : Choisissez un élément.
Current Nationality: Click or tap here to enter text.
Date of Birth: Click or tap here to enter text.
Address: Click or tap here to enter text.
Postal Code: Click or tap here to enter text.
City or Town: Click or tap here to enter text.
Country*:* Click or tap here to enter text.
Phone: Click or tap here to enter text.
Mobile*:* Click or tap here to enter text.
E-mail address: Click or tap here to enter text.

Degrees

Please list all the degrees you have obtained. For each degree mentioned, you must attach a copy with its annexes to your application.
Click or tap here to enter text.

Certifications

Please specify the certifications you have obtained. For each certification mentioned, you must attach a copy with its annexes to your application.

Click or tap here to enter text.

Language Skills

Please specify your level of proficiency.

- French: Click or tap here to enter text.
- Dutch: Click or tap here to enter text.
- Engels: Click or tap here to enter text.
- Other languages (specify): Click or tap here to enter text.

Professional Experience

Please mention all your professional experiences and describe your mains tasks. For each experience, you must mention the start and end dates of your contracts and attach employment certificates to your application.
Click or tap here to enter text.

Scientific Work

List your scientific work that may have been published.
Click or tap here to enter text.

Strengths

Mention your strenghts.
Click or tap here to enter text.