



BIRA-IASB recruits

Research Scientist (h/f/x)

(Non-permanent mission - SW00096)

This is a translation about the vacancy available in French 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 will be working within the D31 'UV-Visible Observations' group of the 'Atmospheric Reactive Gases' Scientific Division. For over 30 years, this group has built up solid expertise in the analysis of ground-based, airborne and satellite measurements of atmospheric composition. This includes instrument design, the development of data processing algorithms and geophysical interpretation.

Building on this, the group has been involved in developing the ground segment for the Sentinel-5 Precursor mission of the Copernicus program and is similarly contributing to the preparation of the future Sentinel-4 and Sentinel-5 missions. It also operates ground-based MAX-DOAS systems at several sites worldwide and co-chairs the UV-Vis working group of the Network for the Detection of Atmospheric Composition Changes (NDACC).

In addition, it designs compact instruments for mobile observations of tropospheric gases (NO₂, SO₂, HCHO, HONO, CHOCHO) using various platforms such as cars, bicycles, drones and small aircraft. These instruments aim to document the spatial variability of tropospheric reactive gases, in particular to support the validation of satellite measurements. Group D31 collaborates closely with other teams within the institute as well as with national and international partners.

Objectives of the function

UV-visible instruments on board satellites monitor the main atmospheric pollutants that affect air quality, the ozone layer and the climate. The new generation of satellite instruments, such as TROPOMI on the Sentinel-5 Precursor platform, has improved spatial resolution, enabling emissions and atmospheric phenomena to be studied in unprecedented detail. Launched in 2025, new instruments such as Sentinel-4 and Sentinel-5 complement each other in terms of temporal sampling and ensure the long-term continuity of observations required for the study of climate change.

The role will primarily involve strengthening the activities of Group D31, particularly regarding the development of new satellite products. Part of the work will involve maintaining and improving the radiative transfer modules required for the analysis of data from current and historical missions. The research will also aim to obtain precise information on clouds and aerosols, as well as their effects on the retrieval of trace gases measured from space.

The researcher will work closely with other team members in an international environment, which involves disseminating results through scientific publications and presentations at conferences and workshops where English is the working language.

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)

Diploma requirements

The selected candidate will hold a PhD in science, with a focus on physics, engineering physics or computational science.

Mandatory administrative requirement:

Would you like to apply but your **Master** 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
<https://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 skills:

- **Information management:** understanding, processing, analyzing and integrating information.
- **Task management:** executing tasks, structuring work, solving problems and making decisions.
- **Interpersonal relationships:** communicating, actively listening, working in a team- and service-oriented way, and advising.
- **Personal functioning:** adapting, being reliable, committing, managing stress, self-developing and achieving goals.

Technical Skills

Profile and required experience

The candidate must have at least four years' relevant research experience in the field of atmospheric sciences, atmospheric remote sensing, or fields directly related to atmospheric physics and/or Earth sciences (physics, engineering physics, computational science), gained during and/or after their PhD.

The candidate must be able to demonstrate the following skills:

- **UV-visible spectrometry and atmospheric remote sensing:** mastery of the principles of UV-visible spectrometry and atmospheric remote sensing techniques applied to atmospheric studies.
- **Radiative transfer modelling:** mastery of the use and improvement of radiative transfer models, including Mie codes, for the analysis of atmospheric observations.
- **Scientific algorithm development:** mastery of the development of scientific algorithms in Python for the retrieval of atmospheric parameters (air mass factors, cloud properties and aerosol properties), as well as the improvement of existing methods.
- **Satellite data analysis and exploitation:** mastery of the analysis and exploitation of satellite data, their associated scientific data formats, and atmospheric remote sensing techniques applied to scientific research.
- **Scientific processing chains:** ability to contribute to the development, adaptation and improvement of scientific data processing chains within an operational research environment.
- **Research leadership and scientific communication:** ability to conduct research autonomously, from study design to implementation and analysis of results, and to disseminate these results through technical reports and peer-reviewed scientific publications as first author or significant contributor, as well as presentations at international scientific conferences.

Assets

- Knowledge of radiative transfer models, in particular (V)LIDORT.
- Knowledge of, or previous work with, the GOME, SCIAMACHY, OMI, GOME-2 and TROPOMI sensors.

We offer

Type of contract and salary scale:

The candidate will be hired on a permanent contract in Activity Group I "Scientific Research and Experimental Development," with the corresponding salary scale SW2.

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

The selected candidate will be remunerated according to salary scale SW2. At the current index, and excluding regulatory allowances, the minimum gross remuneration with 4 years of seniority € 74 292.50 per year (€ 6 191.04 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
- Occupational Pension Plan (second pillar)
- 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 1 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 the 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:

Nicolas Theys – Head of « Observations UV-visible »

Email : theys@aeronomie.be

Or with the Human Resources Department for any other questions via the following email address :

hr-select@aeronomie.be

Interested ?

Would you like to apply? Please send your application by e-mail to : theys@aeronomie.be with a copy to: hr-select@aeronomie.be quoting reference: '**D31_SW2**'.

Deadline for submission of applications: **26 August 2026**

Your application file should include the following:

- your CV (You may find a model below if needed)
- 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 main 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 strengths.

[Click or tap here to enter text.](#)