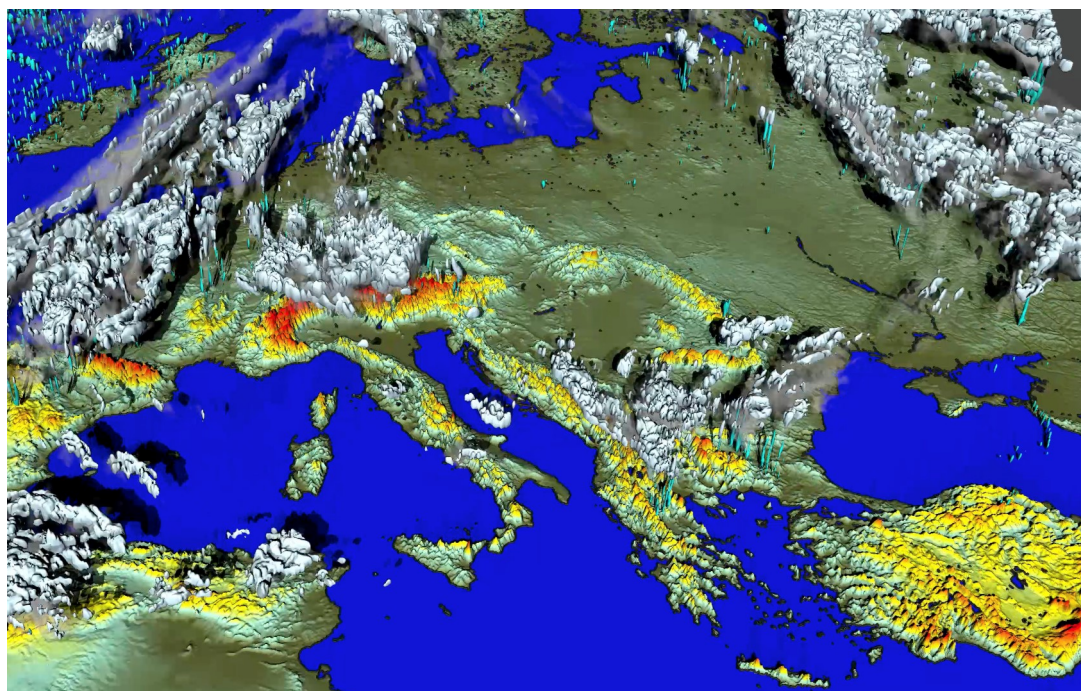




Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

At the Institute of Climate and Energy Systems - Troposphere (ICE-3) we explore the chemistry of the troposphere through atmospheric observations and simulation experiments, perform global observations, and simulate atmospheric chemistry and transport processes with numerical models. As a Postdoc, you will join our research team "Atmospheric Chemistry in the Earth System" in the Atmospheric Modelling group (<https://www.fz-juelich.de/en/ice/ice-3/research/atmospheric-modelling>).

Join our team from 01.01.2026 as

Postdoc Position - Global Modelling of Light Absorbing Carbon

Your Job:

Light absorbing carbon (LAC) comprise organic compounds which affect climate by efficiently absorbing light in aerosols. Its main atmospheric source, both direct and indirect, is the combustion of a variety of fuels. LAC is made of black and brown carbon. The latter comprises a plethora of toxic, typically aromatic, compounds. Their modelling has been so far highly simplified and its impact on climate has not been assessed by the IPCC yet.

Within the ACTUATE project, the impact of LAC on past and future extreme events will be investigated. The work will build upon the storyline simulations of air pollution recently developed in the Modular Earth Submodel System (MESSy). In this framework the role of black and brown carbon for land-atmosphere and aerosol-cloud interactions will be studied by using the supercomputers available in Jülich. The final goal of the project is to investigate emission reduction strategies aimed at mitigating regional climate change while still ensuring a reduction of the air pollution burden.

The core tasks of the successful applicant will be:

- Refine the model representation of LAC emissions, chemistry and optical properties
- Assess the role of LAC on extreme events and pollution
- Explore climate change mitigation scenarios

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email. www.fz-juelich.de

PROJECTS

ACTUATE: <https://earthenvironment.helmholtz.de/changing-earth/innopool-projects/>

MESSy : www.messy-interface.org

Your Profile:

- A Masters degree with subsequent PhD in chemistry, physics, environmental science, atmospheric science, meteorology, or a related discipline
- Strong software skills and good knowledge of the programming languages Fortran and Python.
- Experience in modelling atmospheric aerosols on supercomputers
- Excellent communication skills in English, both written and spoken
- Ability to work independently and as part of a collaborative team

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- Comprehensive training courses and individual opportunities for personal and professional further development
- Extensive company health management
- Ideal conditions for balancing work and private life, as well as a family-friendly corporate policy
- Flexible working hours, the option of slightly reduced working hours (<https://go.fzj.de/near-full-time>), and 30 days of annual leave
- A large research campus with green spaces, offering the best possible means for networking with colleagues and pursuing sports alongside work
- Targeted services for international employees, e.g. through our International Advisory Service
- Exploration and preparation of next career opportunities supported by our Career Center & Postdoc Office (<https://www.fz-juelich.de/careercenter>)

We offer you an exciting and varied role in an international and interdisciplinary working environment. The position is for a fixed term of 2 years. Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD). Depending on the applicant's qualifications and the precise nature of the tasks, salary grade 13 TVöD-Bund. All information about the Collective Agreement for the Public Service (TVöD-Bund) can be found on the BMI website: <https://go.fzj.de/bmi.tvloed> The monthly salaries in euro can be found here: <https://go.fzj.de/bmi.tvloed.entgelt>

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: <https://go.fzj.de/benefits>

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: <https://go.fzj.de/equality>