

## **Post-Doctoral Researcher, Department of Physics and Environmental Research Institute**

Fixed-term, Whole-time Post

### ***Position summary***

A position is available for a Post-Doctoral Researcher to work in the Physics Department and Center for Research into Atmospheric Chemistry (Environmental Research Institute) at UCC. The successful applicant will work in a project under the direction of Prof. Andy Ruth (the Principal Investigator) and Prof. John Wenger (Co-Investigator) to develop new instrumentation for trace gas and radical detection using approaches related to cavity enhanced and cavity ring-down absorption spectroscopy. The new setups are to be custom-designed for the Irish Atmospheric Simulation Chamber (IASC), a national research facility for the investigation of chemical and physical processes that affect air quality and climate.

The successful candidate will be expected to drive the development, testing, validation, and optimization of proto-type cavity-based absorption instruments and operate them in (international) campaigns at IASC where time-dependent concentrations are to be measured for several tropospheric oxidation scenarios and particle formation involving diurnal cycles. Several planned simulation experiments are to be performed in collaboration with partners at the *Institute of Energy and Climate Research (Troposphere) at Forschungszentrum Jülich (FZJ)*, Germany.

To help address gender under-representation in science, applications from female applicants are strongly encouraged, as are those from other under-represented groups. This reflects each of the supervisory institutions commitment to providing a diverse and open environment for students and faculty.

### ***Expected Skill Set***

We are seeking an enthusiastic, motivated person with a high level of initiative, capable of working independently and within a team. The candidate should have fluent English and excellent communication, organization, planning and interpersonal skills.

Ideally, the candidate will have know-how in instrument development for atmospheric research applications, outstanding experimental and engineering skills with substantial experience in (cavity-enhanced) absorption spectroscopy and optics. Proficiencies in device interfacing, electronics, gas-handling and analytical research, as well as in experimental data retrieval and IT management are highly desirable. Previous experience in industrial research in the area of sensing is desirable but not essential. Applicants should have a strong interest in atmospheric chemistry, air quality and climate research and ideally have good background knowledge in these areas.

Post Duration: 2 years

Salary: €39,130 - €46,442 p.a. (IUA Salary Scale)

Project: Ultra-sensitive cavity-enhanced trace gas detection for new atmospheric science and socio-economic impacts

For an information package including further details of the post see <https://ore.ucc.ie/>.

Informal enquiries can be made in confidence to Professor Andy Ruth, Email address: [a.ruth@ucc.ie](mailto:a.ruth@ucc.ie), Telephone: +353 (0) 21 4902057.

**Applications must be submitted online via the University College Cork vacancy portal (<https://ore.ucc.ie/>). A guide for applicants and a Candidate Information Pack can also be found there.** Queries relating to the online application process should be referred to [recruitment@ucc.ie](mailto:recruitment@ucc.ie), quoting the job-title and project name.

Candidates should apply, in confidence, **before 12 noon (Irish Local Time) on Friday, 29 October 2021**. No late applications will be accepted.

Please note that an appointment to posts advertised will be dependent on University approval, together with the terms of the employment control framework for the higher education sector.

UCC is committed to creating and fully embracing an inclusive environment where diversity is celebrated. As a University we strive to create a workplace that reflects the diversity of our student population where people from a wide variety of backgrounds learn from one another, share ideas, and work collaboratively. UCC is committed to being an employer that recognises the value of diversity amongst its staff. We encourage applicants to consult our policies at <https://www.ucc.ie/en/edi/policies/> and initiatives at <https://www.ucc.ie/en/edi/implementation/> and we welcome applications from everyone, including those who are underrepresented in the protected characteristics set out in our Equal Opportunities & Diversity Policy.

UNIVERSITY COLLEGE CORK IS AN EQUAL OPPORTUNITIES EMPLOYER

Contact Person :	Professor Andy Ruth	Contact Email :	<a href="mailto:a.ruth@ucc.ie">a.ruth @ ucc.ie</a>
Job ID :	050332		
Close Date :	29-Oct-2021 12:00		