

PROJECT DETAILS

Project Title:

Tackling Climate Change: Unravelling the complexity of atmospheric chemical reactions.

Project Summary:

Detailed models of the chemistry of our atmosphere are essential for understanding the fate of chemical compounds emitted through human activities, which can impact climate change. This project will apply state-of-the-art laser spectroscopy techniques to disentangle the complex chemistry of our atmosphere by targeting gas phase species formed between anions and molecular partners, thereby providing a snapshot of chemical reactions. The gas-phase experimental work is complemented by high level computational chemistry, and through collaborations with world leading atmospheric chemist Professor Dudley Shallcross (Bristol University) to employ large scale atmospheric models.

The project will be undertaken in the recently established Spectroscopy and Surface Science Research Facility (SSSRF).

Preferred Applicant Skillset:

- A completed Honours, Master's degree, or equivalent in Physical or Analytical Chemistry is essential.
- Completion of undergraduate mathematics and physics units is highly desirable.
- Experience with mass spectrometry, spectroscopic techniques, and/or computational chemistry (i.e. ab initio calculations) is desirable, however not essential.

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