

# CV - Omri Tau

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## **Education**

**PhD in Physical Chemistry**

**University College London | Sept 2018 – Present**

*Writing up thesis for completion by end of Sept 2022*

Developed and used ultraviolet liquid-microjet photoelectron spectroscopy to study the electronic structure of biologically-relevant molecules in solution under the supervision of Prof. Helen Fielding.

Publications:

[Liquid-microjet photoelectron spectroscopy of the green fluorescent protein chromophore](#), Nat.

Comms., 2022. – First author publication.

[Accurate Vertical Ionization Energy of Water and Retrieval of True Ultraviolet Photoelectron Spectra of Aqueous Solutions](#), J. Phys. Chem. Lett., 2022.

**MSci Chemistry (First Class Honours)**

**University of Bristol | Sept 2014 – July 2018**

Included a summer project with Prof. Andrew Orr-Ewing to study the possible synthesis of Criegee intermediates, an important source of OH radicals in the troposphere, from perfluorocarbons using transient absorption spectroscopy.

Publication:

[Picosecond to millisecond tracking of a photocatalytic decarboxylation reaction provides direct mechanistic insights](#), Nat. Comms., 2019.

**A Levels**

**St. Martin's School | Sept 2007 – Sept 2014**

Chemistry – A\*; Maths – A\*; Geology – A; Music – A

## **Skills**

### **Complex problem solving**

- Continuous improvement and refinement of scientific instruments in order to maximise quality of data collected.
- Led and managed one of the instruments within the research group to ensure continuous functionality, which included tasks such as breaking down and isolating any problems and generating solutions as and when required.
- Constant evaluation of the quality of the data collected using on-the-fly analysis to establish if pre-existing hypotheses match, and continuous comparison with literature to ensure corroboration between the data collected and published work. Further to this, detailed evaluation of literature before undertaking experiments was required to critically analyse previous work.

### **Teamwork and Leadership**

- Co-founded a departmental seminar series that grew to have a weekly attendance of at least 30 people.
- Collaborated with people within my research group and in other research groups to produce peer-reviewed science publications.
- Participated in designing and running an online laboratory module for first year undergraduates named The Lab\_14 Collaboration due to the COVID-19 pandemic, which was subsequently awarded the 2021 RSC Horizon Prize for Education.

### **Communication**

- Demonstrated and tutored undergraduate science students, explaining and breaking down scientific theories and practical skills into simple and easy-to-digest pieces of information.
- Led and participated in regular in-person and online seminar talks within and outside my institution, which involved presenting a wide variety of topics from my own personal research, the research within my research group, and various experimental techniques, all with the aim of providing insightful context to listeners of various backgrounds.
- Published multiple peer-reviewed scientific articles in different journals, including Nature Communications.

### **Project Management**

- Worked and communicated with my supervisor to generate a clear schedule of experiments to ensure priority projects are completed in good time, while also ensuring everyone involved in the instrument I caretake has a fair chance to learn and record data.
- Successfully run and grow a departmental seminar series for four years that features speakers from within our institution, nationally, and internationally to present their research.

- Helped design and organise a laboratory move to a new space within the same institution, which involved liaising with different contractors and creating numerous plans to fulfil the need for a fully-functional laser facility.
- Co-organised and facilitated an opening event for a new, multi-million pound laboratory space that hosted about 150 delegates.

### **Adaptability**

- Accustomed to working and adapting to fast-paced change, as well as being confident working independently with limited supervision. Throughout my PhD, I have required to alter my project many times to accommodate problems as they arise, from unforeseen events such as equipment breaking to the COVID-19 pandemic, to managing the research carried out to meet requirements from external users or collaborators. As a result, I have a high adaptability towards change and am open-minded to new ways of working.

## **Work Experience**

### **Freelance Musician**

**2010 – Present**

Freelance musician, which involves liaising with both players and employers, and working within and leading a musical section. Responsible for both acquiring and maintaining instruments for a number of orchestras. Further notable examples in Other Experiences section.

### **Chemistry and Maths Tutor**

**2015 – Present**

Responsible for teaching students taking AS/A Level Chemistry and Maths. Involved planning lessons before each tutorial and timetabling students, as well as delivering clear and understandable content to a variety of people.

### **Welfare Staff Member**

**National Youth Arts Wales | Jul 2022 – Aug 2022**

Accountable for the welfare and safeguarding of 40 members of the National Youth Brass Band of Wales during a residency course. Required to manage disputes and/or problems as they arose, organise evening events, and assist with the smooth operating of a multiple concert tour throughout Wales.

### **Postgraduate Teaching Associate**

**University College London | Jan 2019 – Jun 2022**

Responsible for delivering undergraduate laboratory sessions, workshops, and tutorials alongside academic staff, both in-person and more recently online to up to 40 undergraduates at a time.

## **Other experiences**

### **Member of the Royal Society of Chemistry**

May 2022 - Present

### **Member of the Chemistry, Light and Dynamics Seminar organisation committee**

Communications Manager

Sept 2020 – July 2022

Rotating Chair

Jan 2019 – July 2022

Speaker Organiser

Jan 2019 – Sept 2020

Founding Member

Jan 2019

### **Member, National Youth Orchestra of Wales**

Percussionist/Timpanist

Jul 2012 – Aug 2017

Principal Percussionist

Jul 2016 – Aug 2016

**Full, clean UK driving licence**

## **References**

Prof. Helen H. Fielding  
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