ROYAL AUSTRALIAN CHEMICAL INSTITUTE

The D.R. Stranks Memorial Lecture, 2026

Next Generation Solar Cells

Tuesday 26th May, 4:30 – 5:30 pm

FREE event: for chemistry teachers and SACE Stage 2 Chemistry students.

Location: Adelaide University, Napier Building LG28 Lecture Room.

Map: https://studentvip.com.au/adelaide-uni/north-terrace/maps/115555

Booking: https://www.trybooking.com/DLPKC

AND via Zoom- *Link available upon request*- email: **asampson@walford.asn.au**

The Lecture:

The Stranks Memorial Lecture is designed for senior secondary Chemistry students and their teachers.

This presentation aligns with **Topic 1 – Monitoring the Environment** and **Topic 4 – Managing Resources** in the SACE Stage 2 Chemistry subject outline. It explores the next generation of solar cells, with a focus on renewable energy, global warming, and climate change. The discussion also examines the materials used in these technologies, including nanomaterials and polymers, and links these to key chemical concepts such as ionic bonding, hydrogen bonding, and oxidation.

Professor Sam Stranks will share his research, which focuses on the optical and electronic properties of emerging semiconductors including halide perovskites, carbon allotropes and organic semiconductors for low-cost electronics applications such as photovoltaics, lighting and detectors.

About the Lecturer:

This lecture will be presented by **Professor Sam Stranks**- the grandson of the D.M. Stranks- the individual the lecture is named in honour of. Sam is a Professor of Energy Materials and Optoelectronics and Royal Society University Research Fellow in the Department of Chemical Engineering & Biotechnology and a Cavendish Joint Member in the Cavendish Laboratory, University of Cambridge.

Sam graduated from the University of Adelaide in 2007 with a BA, BSc Hons (Physics and Physical Chemistry) and a University Medal. He completed his PhD as a Rhodes Scholar at Oxford University, receiving the 2012 Institute of Physics Roy Thesis Prize. From 2012-2014, he was a Junior Research Fellow at Oxford University and Worcester College, Oxford, before holding a Marie Curie Fellowship at the Massachusetts Institute of Technology (2014-2016). Sam established his research group Strankslab in Cambridge in 2017.

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He is a TED Fellow and in 2017 was listed by the MIT Technology Review as one of the 35 under 35 innovators in Europe. Sam is a co-founder of Swift Solar, a startup developing high-performance perovskite PV panels, Clarity Sensors, a startup developing next-generation X-ray detectors for medical imaging, and Sustain/Ed, a not-for-profit developing education for school-age children around climate change solutions.