

SCISOC SPOTLIGHT

BY THE CAMBRIDGE UNIVERSITY SCIENTIFIC SOCIETY

**Dr Sam
Troughton**

KERONITE
INTERNATIONAL



RESEARCH FOCUS:

PLASMA ELECTROLYTIC
OXIDATION (PEO)
COATINGS

PEO coatings are produced on **lightweight metals** in an **aqueous bath of eco-friendly chemicals** under applied potentials of hundreds of volts. This generates **extremely hot, but small and short-lived plasma discharges** on the surface which creates a **super hard protective oxide coating**. Working in an industrial R&D environment means you are usually working on multiple projects simultaneously, so it is hard to summarise everything, but I'm mostly focused on **optimising the process** to achieve **ultra wear or corrosion resistant coatings**.

WHY INDUSTRY?

Having a **variety of projects** and being able to **see the results of your research put directly into use** is one of the main reasons I decided to move into industry after completing my PhD in Materials Science at Cambridge. I **really enjoy having several different projects to work on**, and having **various time scales** for them to run – some can be very short turnaround times of just a few weeks which **allows you to see results put into action very rapidly**, whereas others require years of careful research. Another big draw for me was being **able to interact with many different companies** and being able to **see what ideas are being worked on** at the cutting edge of space, aerospace, automotive, and manufacturing industries.

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ONE PIECE OF ADVICE...

Do something you enjoy and talk to lots of people about it, both in your own department and other departments. Other people can often **give you great ideas** or help you solve a problem from a different perspective, and they may have **suggestions of things to try** that you haven't heard about yet.