



Education

- > MSci with Prof. Richard Cooper – University of Oxford including a 4 month placement at the University of Sydney
- > DPhil with Prof. Bill David – University of Oxford with research at the Rutherford Appleton Lab

DPhil research

Researching ammonia as a zero-carbon fuel, effective long-term energy carrier and a means to reversibly and sustainably store and transport hydrogen. I developed, accurately characterised and analysed novel catalysts for the low temperature decomposition of ammonia to produce hydrogen on demand.

Questions

> I chose to study chemistry because it is so fundamental to understanding and improving the world. Chemistry and chemical reactions play a role in everyone's daily lives and touches almost every aspect of our existence in some way. Our knowledge of chemistry is essential for meeting our needs of food, clothing, health, energy, clean air & water.

> The main piece of advice I would give to someone considering a DPhil is to use the flexibility it gives you to make the most of being able to enjoy your hobbies and life outside of work. I enjoyed being part of the 7 Rifles Army Reserve Infantry Battalion and trained with the Army and Oxford University triathlon teams which would have been much harder to do alongside a graduate job.

> In the future I hope to work in the renewables space to ensure affordable, clean energy is accessible to all, whilst overcoming the challenges of decarbonising the energy supply but keeping pace with total energy growth.

> I'm waiting for the day when someone will discover apparition so you can instantly get from one place to another, without having to travel.

> The biggest challenge facing scientists is to ensure we have the resources to meet the needs and human rights of everyone, but within the means of the planet and without destroying the environment.

> Outside my work I am passionate about endurance sport/triathlon. Before Christmas I completed a 5300km self-sufficient bike-packing expedition cycling the length of New Zealand. I have also competed in the Ironman Wales triathlon where I finished 14th.

