



WHY IT MATTERS...

CHEMISTRY



Loughborough
University

Mickella Dawkins

Research Student

My research area is sustainable catalysis.

Catalysts are used to produce many of the things we consume in our daily lives, items like bread and toilet paper. Many reactions rely on catalysts that are 'precious', rare and could be an environmental contaminant if not disposed of properly. Therefore, reduction of the use of these catalysts is vital.



However, development of more sustainable catalysts will not be possible without research. Research is needed to understand the chemistry behind the reactions of the catalyst before they can be used in industry.

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| Post 16 Education A Level Chemistry, Maths, Physics | Higher Education: Master of Chemistry |
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Why did you choose to research catalysis?

I have three, beautiful children, I think about the world that they will inherit, and I am deeply concerned for them. I would like my next job/career to be one that enables me to work towards making the world better (even in a small way).

I believe my research subject has placed me on the right path to do just that.





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Mickella's advice:

Be kind to yourself and to others – treat people the way you'd like to be treated.

Mickella's experience as a student

Expansive – I experienced life in a new city in a much different part of the world from where I grew up. I learned so much, not just chemistry, from the many amazing (and occasionally not so amazing) people I met.

The nights out weren't too bad either.

Undergraduate courses at Loughborough in both Chemistry and Chemical Engineering

Research themes in the Loughborough Chemistry Department:

- Energy: New chemistry for energy-generation, harvesting, demand reduction and storage.
- Health: Development of therapeutically useful compounds, imaging and synthetic methods.
- Security: New methods and technologies to confront criminality
- Sustainability: Novel techniques and technologies for sustainable chemistry and net zero targets.

Research themes in the Loughborough Chemical Engineering Department:

- Pharmaceutical and Bioengineering: to tackle global healthcare challenges
- Nano- and Micro- Scale Engineering: with regard to their manufacture, formulation and dispersion
- Energy and Environmental Engineering: including the development of technology to produce clean fuels
- Catalytic, Separation and Purification Technology: covering both fundamental phenomenon as well as the design and simulation of conventional and new processes