Chemistry in ACTION

Midlands

NOV
18
2025

# Chemistry in Action

For A-level, IB, BTEC Level 3 and T Level chemistry students

Join us at Chemistry in Action this autumn where an engaging line-up of experienced scientists from academia and industry are ready to share their passion and insight across a range of exciting topics. From the fundamental building blocks of matter to the cutting-edge technologies that are changing our world, this inspiring day is sure to spark curiosity in your class.

This day also includes a special session on exam success, giving students practical tools and tips to help them excel. With interactive polls, opportunities to put questions directly to the speakers, and some live experiments to keep you on the edge of your seat – Chemistry in Action is a must for all KS5 chemistry students. Book now to secure your places!

Host: Dr Alex Baker (Chemistry Researcher)

Exam Session: Peter Hoare (Newcastle University)

- Poisons: Killer chemicals and deadly doses
- When the Drugs Stop Working: The Uncensored Chemistry of Antibiotics
- Healing Elements: The Role of Metals in Modern Medicine
- Amazing Atoms: Can Nuclear Science Change the World?
- Are microorganisms better chemists than you?

University of Warwick,
Coventry,
CV4 7AL

**Venue: £24 +VAT ***

Plus one COMPLIMENTARY staff ticket per 10 students.

*VAT may be reclaimable. Please check with your finance department

Education in Action is the leading provider of inspirational, informative, Education in Action study days for A-level, IB, BTEC and GCSE students.

Award-winning, world-class speakers
Cutting-edge content
Thought-provoking demos and presentations
Examination hints, tips and guidance
Modestly priced to offer access to all
Complimentary staff ticket for every 10 students booked
**Bookings can be amended up to 28 days before the event day**

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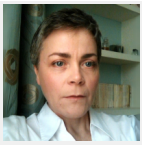
## Poisons: Killer chemicals and deadly doses /
Kathryn Harkup – Author and Science Communicator

Dive into the dark side of the periodic table, exploring the chemistry behind once-trusted treatments now known to be deadly poisons. Discover how these infamous chemicals disrupt the body with sometimes fatal consequences. Equal parts chemistry, crime, and cautionary tale, this talk reveals how deadly science can be — and why understanding it can save lives.

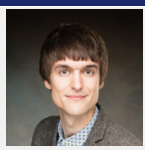
Kathryn Harkup is a former chemist turned writer and science communicator. Her interests are in anything gothic, gory and geeky, and preferably all three. She gives regular public talks on the disgusting and dangerous side of science.



## Amazing Atoms: Can Nuclear Science Change the World? /
Tim Gregory – Nuclear Scientist and Author

Nuclear science is at the heart of tackling some of today's most pressing global challenges, yet it is often met with fear and scepticism. In this inspiring talk, Tim reveals the true potential of nuclear science. From helping us achieve net zero, to curing cancer in new ways, and even exploring outer space — these atoms may be tiny, but they have the power to change the world.

Tim is a nuclear chemist whose lab work takes him to the forefront of clean energy production, nuclear medicine research, and space exploration. With a PhD in meteorite science he has also appeared on BBC4's The Sky at Night and the BBC2 series Astronauts: Do You Have What It Takes?



## When the Drugs Stop Working: The Uncensored Chemistry of Antibiotics /
Alex Baker – University of Warwick

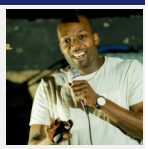
We stand on the brink of the post-antibiotic age. Antimicrobial resistance presents a threat to humanity on the scale of global warming. But how did we get here? Join Alex as he cuts through the myths of the first antibiotics (spoiler it's not penicillin). Together we will interrogate our antibiotic arsenal, the methods used by nature to fight back and what the future holds in our ongoing microbial war.

Alex is an organic chemist with a particular interest in carbohydrates, polymers and nanoparticles. His work is used to design medical diagnostics with a particular focus on the developing world and fighting health inequalities.

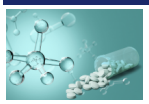
## Are microorganisms better chemists than you? /
Michael Sulu – Lecturer in Biochemical Engineering, University College London

Microorganisms — tiny masters of chemistry, capable of building complex products with incredible precision… but are they better than humans? In this fascinating talk, Michael Sulu explores how microbes are transforming chemical production and the vital role they play in the chemical and biochemical industries.

Michael Sulu is a lecturer and Biochemical engineer; he dabbles in science communication and comedy, and his work is based on growing microorganisms. He focuses on the small (microscopic) stuff, so he doesn't have time to worry about the big stuff!



## Healing Elements: The Role of Metals in Modern Medicine /
Rianne Lord – University of Warwick



Why haven't diseases been cured? What makes a good drug? Join Rianne in a discussion on how metals like platinum, iron, and ruthenium play powerful roles in modern medicine. This talk will explore the chemistry behind metal-based drugs, their biological effects, and how the periodic table contributes to diagnosing, treating, and curing disease.

Rianne is an Associate Professor at the University of Warwick, where she teaches inorganic chemistry and leads a research group on the design of new metal-based drugs for the treatment of cancer.

Education in Action

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