

Visiting lecturer programme

Listed below are a selection of the lectures we offer on our visiting lecturer programme. Please [contact us \(mailto:ug-chemistry-admissions@lists.bham.ac.uk\)](mailto:ug-chemistry-admissions@lists.bham.ac.uk) if you are interested in arranging for any of these lectures to be given at your school/college.

Squeaky Clean Transport: How Chemistry Can Help

Professor Peter Slater

In this talk, an overview of new energy technologies for transport applications will be presented, to include fuel cell powered, hybrid, and all electric vehicles. The benefits of these systems will be discussed, along with the challenges that we still have to face.

A Million Million Wires Through the Eye of a Needle

Dr Paul Anderson

The end of the spectacular thirty year long drive toward the production of smaller and smaller electronic components is now widely predicted on account of both the spiralling cost of building and operating production plants capable of producing nanoscale components and the inevitable changes in electronic properties observed as components enter the quantum regime. Conventional manufacturing techniques cannot deliver - this talk addresses the question: 'Can we master metal nanoparticles and nanowires by chemical routes?'

Sex, Lies and Nanotechnology

Professor Jon Preece

A new technology is dawning that is set to change every product that you might use. A new Utopia: Nanotechnology. Well that is what some would have you believe. This lecture will look at the myths surrounding nanotechnology, the inspiration for thinking about nanotechnology, and the reality of nanotechnology.

Discovering New Medicines: The Role of the Chemist

Dr John Snaith

Chemistry is the cornerstone in the continuing search for new medicines. Since the efforts of William Henry Perkin to synthesise the antimalarial quinine in the mid nineteenth century, chemists have used their skills to prepare compounds for the treatment of disease. This talk will start with a brief review of the treatment of ailments through the ages, and from there go on to look at the work of Perkin which led others to the discovery of the sulfonamide antibiotics. The many roles played by chemists in the modern drug discovery process will be considered, looking at how chemical synthesis, natural product isolation, and genome data are used to generate promising lead compounds, and how these are developed into successful drugs.

Atmospheric Chemistry: Myths and Facts

Professor Richard Tuckett

There are many myths, mostly propagated by the media, about the atmospheric chemistry of ozone depletion and climate change. The first myth is that ozone depletion and the greenhouse effect are caused by the same factors. This is simply not true. The second myth is that the greenhouse effect is not real, a view taken, we are told, by the new President of the USA. In this speaker's view, this also is not true. In fact, the photochemistry of atmospheric pollutants and the kinetics of the important gas-phase reactions that cause these two major environmental problems are now remarkably well understood. This talk will summarise the basic science, and suggest (controversial) long-term solutions to these problems.

Further information

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