



Lichfield Science & Engineering Society

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Theatre & Studio

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ADVANCED MATERIALS: TOWARDS A MORE SUSTAINABLE SOCIETY

**Philip J Withers, FRS, FEng.
Regius Professor of Materials at the
University of Manchester
Chief Scientist of the
Henry Royce Institute for Advanced Materials**

**8:00 pm on Tuesday, 4th October 2022
In the Studio Theatre of the Lichfield Garrick**

Philip Withers is the first Regius Professor of Materials, a Foreign Member of the Chinese Academy of Engineering and is the Chief Scientist of the Henry Royce Institute for advanced materials. The Royce focusses particularly on the transition to net zero, sustainable manufacture, digital and communications, circular economy and health and well-being. His personal research concentrates on advanced characterisation techniques, looking especially at the behaviour of engineering materials under demanding environments.

There has never been a more important time to be a materials scientist. Advanced materials shape the world in which we live. Today we face the global challenge of climate change and the need to move towards net zero carbon emissions. We need also to recognise that materials are a finite resource. The carbon footprint of the majority of manufactured products is dominated by that associated with the raw materials and their processing, while the development of new and refined materials systems are critical if we are to develop technologies that takes us towards net zero, whether that be improved batteries, lightweight materials for transport or low energy technologies for data storage.

Professor Withers' talk will consider the drivers for the materials of tomorrow and the opportunities for transformative change. Given the time it takes to develop new materials if we are to develop the new materials needed for tomorrow we need to start today and we need to accelerate the rate of maturation of new materials technologies. This presents a tremendous and timely challenge for materials scientists everywhere.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £7.00. Tickets are not issued in advance, please pay at the door.

Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.

This lecture is expected to finish by 9.30 pm.