The Academy Of Science of South Africa and The Royal Society of South Africa cordially invites you to a public lecture on

**New Materials for the 21st Century**

by Prof Anthony K. Cheetham

(Rutherford Lecturer 2014)

Department of Materials Science, University of Cambridge

**PRETORIA**
Date: 22 September 2014
Venue: University of Pretoria
Engineering 1 Building (Ground Floor)
Time: 16:30 for 17:00
RSVP: renate@assaf.org.za

**CAPE TOWN**
Date: 1 October 2014
Venue: South African Astronomical Observatory (SAAO) Auditorium, Observatory Road
Time: 16:30 for 17:00
No bookings – All welcome

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In the introduction we shall examine some of the major challenges that confront us at the beginning of the 21st century. These include increasing population and the concomitant energy demands, global warming, sustainable food and water supplies, security, and affordable healthcare. We shall then discuss a number of key areas where materials science is expected to play an important role, such as solar energy, rechargeable batteries, fuel cells, and LED lighting. We shall also look at the use of new materials in medicine, for example lasers for surgery and polymers for tissue engineering.

**BIOGRAPHY**

Tony Cheetham obtained his D.Phil. at Oxford in 1971 and did post-doctoral work in the Materials Physics Division at Harwell. He joined the chemistry faculty at Oxford in 1974, and then moved to the University of California at Santa Barbara in 1991 to become Professor in the Materials Department. In 1992 he took up the Directorship of the new Materials Research Laboratory, which he led for 12 years. He became the Director of the new-created International Center for Materials Research at UCSB in 2004, before moving to Cambridge in 2007 to become the Goldsmiths' Professor of Materials Science. Cheetham is a Fellow of the Royal Society, the German Academy of Sciences, the American Academy of Arts and Sciences, TWAS, and several other academies. He has received numerous international awards for his work in the field of inorganic and materials chemistry; these include a Chaire Blaise Pascal, Paris, (1997-9), the Somiya Award of the IUMRS (with C.N.R. Rao, 2004), the Leverhulme Medal of the Royal Society (2008), the Platinum Medal of the IOM3 (2011), and a Chemical Pioneer Award from the American Institute of Chemists (2014). Cheetham holds several honorary doctorates and is currently the Treasurer and Vice-President of the Royal Society.

For more information on both these lectures, contact renate@assaf.org.za