

From Natural to Artificial Photosynthesis For Solar Fuel Production

Prof. James Barber

Imperial College London (United Kingdom)

Thursday 08th March, 2012. ICIQ Auditorium, 12 p.m.

Professional Career



Professor James Barber, born 16 July 1940, is the Ernst Chain Professor of Biochemistry at the Imperial College London, Visiting Nanyang Professor to Nanyang Technological University, Singapore and Visiting Professor to the Politecnico di Torino, Italy. He is Fellow of the Royal Society, Fellow of the Royal Society of Chemistry, a member of the European Academy (Accademia Europea) and a foreign member of the Royal Swedish Academy of Sciences. Recently, he served as President of the International Society of Photosynthesis Research.

Professor Barber graduated from the University of Wales with a degree in Chemistry, and later gained a MSc and PhD in Biophysics from the University of East Anglia. After a postdoctoral year in The Netherlands, he joined the academic staff at Imperial College London as a Lecturer in 1968. He was promoted to Full Professor in 1979. In 1988, he served as Dean of the Royal College of Science, and from 1989 to 1999 was Head of the Biochemistry Department at Imperial College. Professor Barber has been awarded honorary doctorates from Stockholm University and the University of East Anglia.

Professor Barber was awarded the Flintoff Medal by the Royal Society of Chemistry in 2002, the Italgas/Eni Prize for Energy and Environment in 2005, the Biochemical Society Novartis medal and prize in 2006, and the Wheland Medal and Prize from the University of Chicago in 2007. In 2008 he gave Daniel Arnon Lecture, University of California, Berkeley, in 2009 Kuan Yew Distinguished Visitors Lectures (Singapore) and the G8 University Summit Energy Lecture (Torino, Italy). Very recently he gave the Sir Ernst Chain Distinguished Lecture, Imperial College London.

Professor Barber primarily works on the molecular processes of Photosynthesis. The focus of his research has been the investigation of photosynthesis and the functional role of the photosystems with emphasis on their structures. Much of his work has focused on Photosystem Two, a biological machine able to use light energy to split water into oxygen and reducing equivalents, and Professor Barber contributed greatly to this subject by elucidating the structure of the catalytic centre for this reaction. To date, he has published over 500 research and review articles and produced 16 books covering various aspects of photosynthesis research.