



Organic Optoelectronics: from Understanding Solar Cells to Measuring Muscles

Prof. I.D.W. Samuel

Organic Semiconductor Centre,
School of Physics and Astronomy
University of St Andrews
St Andrews, UK

19. Januar 2015

16:00 Uhr

**Campus Freudenberg
Hörsaal FZH3**

www.ifp.uni-wuppertal.de

Organic semiconductors are of growing importance as optoelectronic materials with a wide range of applications including displays, lighting, solar cells, lasers and sensing. This talk will present two aspects of work at the Organic Semiconductor Centre. The first is the study of exciton diffusion and charge separation in organic solar cell materials and devices. Exciton diffusion is relatively little studied, due in part to a lack of well-established reliable measurement techniques for it. The talk will describe our work to address this issue by developing a range of ways of using time-resolved fluorescence to measure exciton diffusion. The other topic to be presented is our work expanding the range of applications of organic optoelectronics in biology and medicine. This includes a wearable light source for skin cancer treatment and a wearable muscle contraction sensor.

