

IPB SEMINAR

U ponedjeljak, 24.07.2017. sa početkom u 12 časova u sali “Dragan Popović” Instituta za fiziku u Beogradu održaće se seminar:

“Large Synchrotron and Neutron Facilities: Access and Functional Materials Research Examples”

Dr Ivana Radosavljevic Evans and Prof. John Evans
Department of Chemistry, Durham University, UK

Understanding structure-property relationships underpins much modern research in materials chemistry and physics. By understanding how materials function one can often optimise their performance or design new enhanced materials. Synchrotron and neutron scattering techniques often lie at the heart of this research, revealing unique detail on the structure and dynamics of functional materials.

In this presentation we will highlight areas of our work that have benefitted from both elastic and inelastic scattering methods. We will highlight examples from energy materials (ionic conductors required for fuel cells), structural materials (for example, negative thermal expansion materials) and materials with novel electronic and magnetic properties. We will also highlight how in-situ and in-operando studies can help in materials synthesis and discovery. We'll outline methods we have developed to optimise the information that can be extracted from complex datasets.

Access routes to large synchrotron and neutron facilities will be discussed, if these are of interest to the audience.