

# Kolloquium

Am Donnerstag, den **06. Juni 2019**, um **10:00 Uhr** hält

**Dr. Svetlana Jovanović Vučetić**

**Associate Research Professor at Vinča Institute of Nuclear Sciences, Belgrade, Serbia**

einen Vortrag zum Thema

## **Synthesis, modification and possible application of carbon based and other nanomaterials produced in INN Vinca**

**Der Vortrag findet im Raum A1 3-330 statt.**

### **Abstract:**

Graphene, monolayer of  $sp^2$  carbon atoms, has emerged as a rapidly rising star in fields of engineering and material science. Discovery of single layer graphene in 2004 was followed by an expansion of research focused on graphene applications in electronics, energy storage and sensors due to unique physical, chemical, and mechanical properties. After establishing the structure of graphene, other graphene based nanostructures have been tailored such as graphene nanoribbons, the strips of graphene with width below 50 nm and graphene quantum dots, disk shaped graphene fragments with diameter below 30 nm.

Our group in Vinca Institute of Nuclear Sciences is working on a synthesis of graphene in form of colloid and thin film, graphene oxide, graphene nanoribbons, graphene quantum dots, carbon quantum dots, fullerenol. Also, we are preparing other nanomaterials such as Au nanoparticles, Ag nanowires, as well as composites based on these materials. In this lecture the structure, morphology and studied properties of these materials will be presented.

### **Bio:**

Dr. Svetlana Jovanović Vučetić is an Associate Research Professor at the Vinča Institute of Nuclear Sciences, at the Laboratory for Radiation Chemistry and Physics. She obtained her BSc (in 2007) and MSc degree (in 2008) in Biochemistry at the Faculty of Natural Sciences and Mathematics, University of Novi Sad, Serbia and Ph.D. degree (in 2011) in physical chemistry at the Faculty of Physical Chemistry, University of Belgrade, Serbia. She was awarded the best young scientist for the year 2011 by the Vinča Institute of Nuclear Sciences. In 2012/2013 she worked as a postdoctoral fellow at the Faculty of Pharmacy, University of Trieste, Italy in a Carbon Nanotechnology Group under supervision of Prof. Dr. Tatiana Da Ros.

Her research interests include the development of novel and innovative routes for graphene and graphene nanoribbon synthesis, structural modification of carbon nanotubes, graphene nanoribbons and application of gamma irradiation in nanotechnology.

Up to today, Ph.D. Svetlana Jovanović Vučetić has been a co-author of 36 papers and 5 book chapters, her papers are cited 918 times according to the SCOPUS base.

She was the principal investigator of the bilateral collaboration project between the Vinča Institute (Serbia) and Institut d'Electronique de Microélectronique et de Nanotechnologie, Lille (France) during 2014 – 2015, and of the on-going project "Fabrication and Manipulation of Low Dimensional Carbon-Based Nanomaterials towards Nanoelectronic Devices" between the Vinča Institute (Serbia) and the Division Microrobotics and Control Engineering, Carl von Ossietzky Universität, Oldenburg during 2018 – 2019.

**Eingeladen von: Prof. Dr.-Ing. habil. Sergej Fatikow**

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