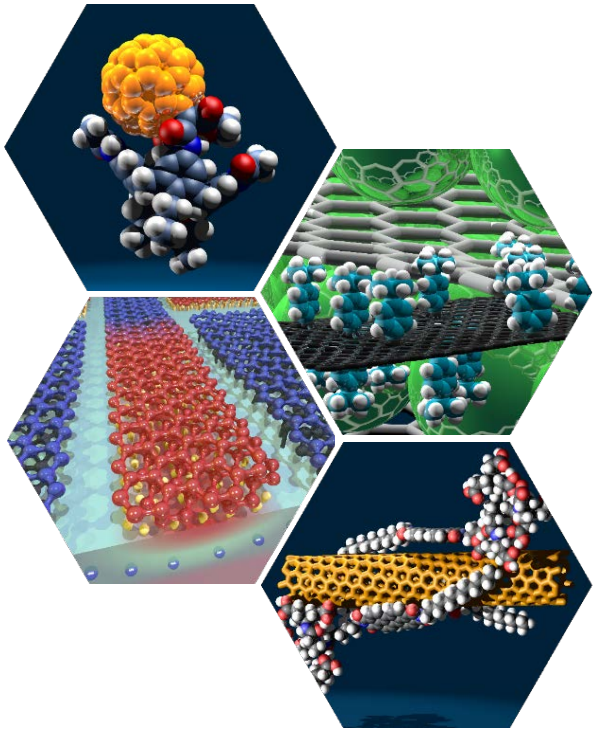
SCA
Synthetic Carbon Allotropes SFB953

Lecture series of the Collaborative Research Centre (SFB) 953 «Synthetic Carbon Allotropes»



Defect modulated optical response of carbon nanotubes and carbyne hybrids

Prof. Thomas Pichler

Faculty of Physics, University of Vienna, Austria

13 February 2018

5:15 pm

Lecture Hall C3 – Chemikum
Nikolaus-Fiebiger Straße 10

Contact:
SFB 953 Geschäftsstelle
e-Mail: sfb954@fau.de

Friedrich-Alexander
Universität Erlangen-Nürnberg

Dr.-Mack-Str. 81
90762 Fürth

www.sfb953.fau.de

Thomas Pichler will talk about his recent progress in the synthesis of novel 1D carbyne materials based on filled double walled carbon nanotubes followed by nanochemical reactions. In the focus of his research is the influence of the charge transfer, local strain, and hybridization on the electronic transport properties of the carbine chains. These stabilized systems with more than 6000 carbon atoms length exhibit novel electronic and optical properties such as a huge resonance Raman signal as well as an energy gap and act as functional elements enhancing the photoluminescence of the inner tubes.

DFG Deutsche Forschungsgemeinschaft

GSMS Graduate School Molecular Science

FAU FRIEDRICH-ALEXANDER UNIVERSITÄT ERLANGEN-NÜRNBERG