Shigehiro Yamaguchi, Nagoya University, Japan Main-Group-Rich π-Electron Materials: Design and Application

Siegfried Eigler, FU Berlin, Germany Functionalized Graphene Hybride Materials

COFFEE BREAK 15:40

16:10 Bernd Mever, SFB 953 C1 Electronic and Chemical Properties of Functionalized Single- and Bilayer Graphene

16:45 Kiril Bolotin, FU Berlin, Germany Generating and Exploring the Effects of Ultrastrong Electric Field in 2D Materials via Molecular Gating

17:20 CLOSING REMARKS





SFB 953:

Prof. Dr. Andreas Hirsch (Spokesperson) Prof. Dr. Heiko Weber (Vize Spokesperson) Dr. Frank Hauke (Executive Director)

Contact:

Carmen Kraus Administrative Office SFB 953

ZMP - Center of Advanced Materials and Processes

Dr.-Mack-Str. 81 90762 Fürth

Phone: +49 (0)911 650 78 650 10

E-Mail: SFB953@fau.de www.sfb953.fau.de

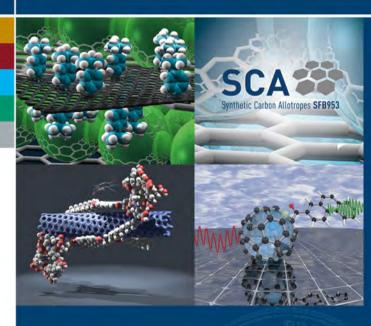
Support of this symposium by the German Science Foundation (DFG) is gratefully acknowledged.





6th Erlangen Symposium on Synthetic Carbon Allotropes

October 8th -10th, 2023



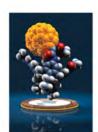
Program Information

Chemikum Nikolaus-Fiebiger-Str. 10 91058 Erlangen

Synthetic carbon allotropes such as fullerenes, carbon nanotubes and graphene currently represent one of the most promising materials families with enormous potential for high-performance applications in the fields of nanoelectronics, optoelectonics, hydrogen storage, sensors and reinforcements of polymers based on their unprecedented electronic, optical, mechanical and chemical properties.



At the same time, they are ideal targets for investigating fundamental chemical and physical questions such as shape- and charge-dependent binding and release of molecules, charge transport in confined spaces, and superior sensing of supramolecular interactions.



Tapping these exciting possibilities fully, however, still requires overcoming a number of significant hurdles such as high-yield production methods, sorting and separation, developing synthesis protocols for new carbon allotropes, controlled doping with heteroelements, solubilization, chemical functionalization,

hierarchically ordered architectures, and layer (single and multiple) formation.

Sunday, October 8th

15:00 REGISTRATION

Program

17:00 Andreas **Hirsch**, Speaker SFB 953 Welcome and Opening Remarks

17:15 Claudia **Backes**, Universität Kassel, Germany Fundamental Insights into Crushing Down Rocks through Liquid Phase Exfoliation

17:50 Thomas **Heine**, TU Dresden, Germany *Magnetic Carbon*

18:25 Nazario **Martín**, Universidad Comp. Madrid, Spain Stereoselective Synthesis of Bilayer Molecular Nanographenes

19:30 GET-TOGETHER PARTY

Monday, October 9th

9:00 Aurelio **Mateo-Alonso**, University of the Basque Country, Spain Synthesis of Giant Molecular Graphene Nanoribbons

9:35 Evgeny **Kataev**, SFB 953 **A10**Construction of Molecular Hosts from Aromatic
Building Blocks: Synthetic Challenges and
Potential Applications

10:10 Jishan **Wu**, National University of Singapore Synthesis of Some Topological Molecular Carbons

10:45 COFFEE BREAK

11:15 Eugenia **Perez-Ojeda**, SFB 953 **A9**Carbon Cyclophanes and Cages for Supramolecular Interactions

11:50 Klaas **Tielrooij**, Eindhoven
University of Technology, Netherlands
The Surprising Thermodynamics of Graphene and
Related Quantum Materials

12:30 Lunch / Poster Session

14:30 Michal **Juricek**, University of Zurich, Switzerland *Taming and Unleashing the Reactivity of Nanographene π-Radicals*



15:05 Tao **Wei**, SFB 953 **A1**Covalent 2D/3D-Patterning of Graphene

15:40 COFFEE BREAK

Program

16:10 Dimitri **Efetov**, LMU München, Germany
Topological Properties of Magic Angle Twisted
Bilayer Graphene Devices

16:45 Sabine Maier, SFB 953 B4
On-Surface Synthesis: A Bottom-Up Strategy to
Atomically-Precise Carbon Structures

19:00 SPEAKERS DINNER

Tuesday, October 10th

9:00 Davide **Bonifazi**, Universität Wien, Austria Lodging Heteroatoms in Molecular Graphenoids

9:35 Christian **Papp**, SFB 953 **B7**Covalent Chemistry of Small Molecules on Supported 2D Materials

10:10 Igor **Alabugin**, Florida State University, USA
Localizing Aromaticity for Breaking Bonds Localizing Antiaromaticity for Making Bonds:
Classic Electronic Effects in Control of Function
and Reactivity

10:45 COFFEE BREAK

11:15 Janina **Maultzsch**, SFB 953 **B13**Raman Spectroscopy of Functionalized

Graphene and Related Materials

11:50 J. D. **Tovar**, Johns Hopkins University, USA Peptide-Driven π-Electron Assemblies: From Understanding to Prediction and Control

12:30 **LUNCH**