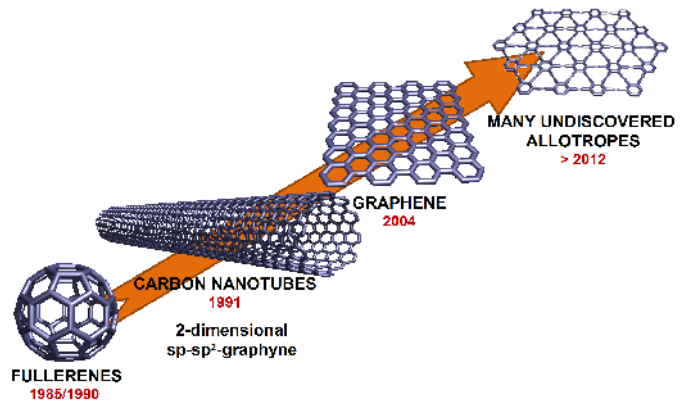


**i-MEET** ([www.i-meet.wv.uni-erlangen.de](http://www.i-meet.wv.uni-erlangen.de)) announces **2 PhD positions:**

**“Controlling the microstructure of organic and hybrid semiconductor composites for the development of highly efficient solar cells “**



The institute of materials for electronics and energy technology (*i-MEET*) at the material science of the Friedrich-Alexander-Universität Erlangen-Nürnberg develops jointly with the *ZAE Bayern e.V* and within the energy campus Nürnberg (*EnCN*) materials and processes for the production of printed semiconductor devices with relevance for renewable energies (e.g. photovoltaics or lighting).

The CRC 953 (*Synthetic Carbon Allotropes - SCA*) synergetically combines the unique research competencies at the FAU to develop novel carbon based semiconductors and conductors. Novel carbon allotropes will be developed, synthesized and simulated at the department of chemistry, high resolution nanomorphology investigations will be carried out at the center for electron microscopy, and nanofunctional layers will be investigated by the department of physics and the department for material science.

Within CRC-953, *i-MEET* concentrates on the exploration and development of novel concepts to design and manipulate the microstructure of organic bulk heterojunction composites.

The first PhD thesis will develop methods to control and adjust the microstructure by formulation and drying concepts.

The second PhD thesis will develop concepts and design rules to control and adjust the microstructure by exploring smarter design rules for the chemical building blocks of novel SCAs.

Both concepts are essential to continue the performance improvement of organic solar cells.

We are looking for motivated researcher with interest in fundamental science and the application of fundamental science in an interdisciplinary research environment.

- (i) Solubility, formulation, printing and drying of organic semiconductors
- (ii) Microstructure and nanomorphology of organic heterojunction composites
- (iii) Carbon based solar cells and organic electronics (graphene, nanotubes, fullerenes)

**Your Profile:**

- Master degree in either discipline: physics, chemistry, material science, nanotechnology, electronics
- First experience in either of these topics is desired:
  - Organic semiconductors or printed electronics
  - Coating and / or printing methods
  - Processing and characterization of organics solar cells / organic LEDs

For scientific questions, please contact Prof. Dr. Christoph J. Brabec oder **Dr. Tayebbeh Ameri**.

Please send your application documents electronically to : **Ulrike Knerr** ([ulrike.knerr@ww.uni-erlangen.de](mailto:ulrike.knerr@ww.uni-erlangen.de))