



MAX-PLANCK-GESELLSCHAFT

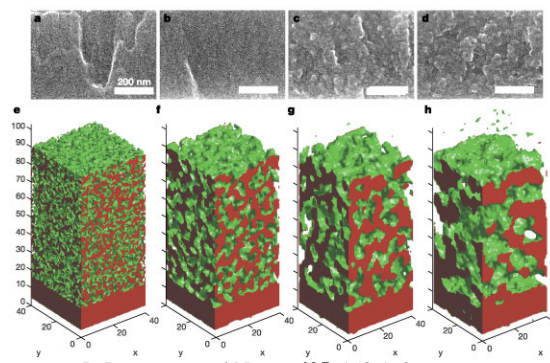
Diplomarbeit



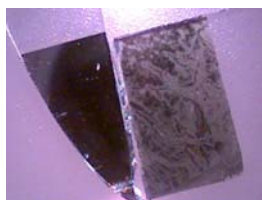
Project: Tailoring bulk organic heterojunctions in organic optoelectronics

In order to produce the next generation organic photovoltaic (solar) cells, understanding and optimization of interfaces is crucial. The Organic Thin Films Group is looking for talented, highly motivated students to pursue a project on the *growth and structure of small molecule bulk-heterojunction solar cells*.

Using a multi-technique approach incorporating scanning probe microscopies (AFM, STM, KPM), x-ray scattering techniques (XRR, GIXRD), and electronic characterization, the project will assess the growth of model semiconducting organic molecules on the surface of archetypal electrode materials, such as conducting transparent oxides. The formation and modification of organic/organic heterojunctions through controlled growth of mixed layers of p- and n-type semiconducting molecules will be the major focus.



P. Peumans, et al. Nature **425**, 158-162



This project offers an opportunity to work at the interface between growth, characterization and functionality of organic thin films, linking fundamental research and device fabrication.

Mostly conducted at the Max Planck Institute for Metals Research in Stuttgart, the research will also have access to outstanding European research facilities such as the European Synchrotron Research Facility (ESRF) and ANKA, the synchrotron light source of the Karlsruhe Research Centre.

If you are interested in pursuing this project please contact us: **Dr. Ayse Turak** (turak@mf.mpg.de), visit us online at www.mf.mpg.de/de/abteilungen/dosch/, or best of all, come and see what we are currently working on:



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