

SYOE 10: Contact Properties (further abstracts see DS 17.2-6)

Time: Wednesday 16:45–18:45

Location: H32

Invited Talk

SYOE 10.1 Wed 16:45 H32

Single grain contacts — •GREGOR WITTE — Physikalische Chemie I, Ruhr-Universität Bochum, 44801 Bochum

Because of attractive features such as low-temperature processing and flexibility organic electronics is presently attracting significant attention. Of particular interest of current research is a detailed understanding and optimization of intrinsic charge transport mechanism present in these materials. Besides their technological relevance organic thin film transistors (OFETs) are frequently used to characterize the electronic properties of such organic semiconductors. However, due to structural imperfections like grain or domain boundaries within the films as well as contact related problems the intrinsic transport prop-

erties are masked and typically only effective parameters are obtained. While these problems can be avoided by investigating organic single crystals they are difficult to grow and frequently are not available in the required purity and perfection. An alternative strategy is based upon investigation of films containing large single crystalline grains as compared to the channel length of the used OFET device thus allowing single grain studies. In this talk I will give an overview of experimental approaches to realize single grain devices and to deal with proper contacts.

Joined session with DS: Further abstracts are listed under DS 17.2-6