



The Abdus Salam
International Centre for Theoretical Physics



WORKSHOP ON NEW MATERIALS FOR RENEWABLE ENERGY
17 - 21 October 2011, ICTP, Trieste

CHARGE CARRIER TRANSPORT IN ORGANIC PHOTOVOLTAIC DEVICES

Niyazi Serdar SARICIFTCI

Linz Institute for Organic Solar Cells (LIOS)
Physical Chemistry, Johannes Kepler University Linz
A-4040 Linz, Austria www.lios.at
E-mail address: serdar.sariciftci@jku.at

ABSTRACT II:

Organic photovoltaic diodes (OPVs) and organic solar cells are based on disordered organic semiconductors. The transport is limited due to localization processes. We will give a didactical overview of the different aspects on charge carrier transport, bring the experimental data and theoretical models into a critical discussion. To improve the charge carrier mobility will be important to get the efficiency of organic solar cells up.