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**Novel spectroscopic technique for exciton diffusion studies in organic semiconductors** VITALY PODZOROV, HIKMET NAJAFOV, Rutgers University — Organic semiconductors are very promising for future opto-electronics. One of the poorly explored issues in this area is the nature of electronic defects and their influence on performance of organic devices. Until recently defects have been mostly studied in polycrystalline and amorphous organic films, where disorder is typically very significant, leading to a complete domination over the intrinsic excitonic and polaronic properties. In this work, we present novel optical spectroscopic technique for characterization of impurities and defects relevant to exciton diffusion in highly ordered organic semiconductors with relatively small density of defects that allows observation of intrinsic properties and their evolution with disorder.

Vitaly Podzorov  
Rutgers University

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