



SFB/TRR 21 - Seminar

15. December 2014, Stuttgart

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Investigation of the morphology of organic solar cells using Raman spectroscopy

The efficiency of organic solar cells crucially depends on their active layer morphology and donor:acceptor phase separation. In this study the nondestructive scattering technique Raman spectroscopy is used for the investigation of the PCDTBT:PC70BM blend. The Raman spectra reveal the vibrational modes of the conjugated polymer and fullerene. For the assignment of these vibrational modes also theoretical spectra were calculated using the DFT method. The theoretical basics and the experimental findings including the results for different donor:acceptor blend ratios will be presented.

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