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Exciton dynamics on cold J-aggregates

Presentation of previous work and results of the master thesis at a fs-pump-probe experiment. Arrangement-dependent Frenkel-exciton dynamics on PBI-1 J-aggrgates have been investigated with stationary and time-dependent measurements between 77K and room temperature. Studies have shown that there is a complex relation between temperature-dependent reduction of the dynamic disorder and the mobility of the excitons. An interaggregate transfer of the excitons at 150K and 77K was found and has been explained with an isotropic three-dimensional diffusion model and revealed a partially structural adjustment of the aggregates.

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