

Topic: Photoactive Molecules and Materials – Implications from Spectroscopy

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Richard-Willstätter-Str. 11, 12489 Berlin Gebäude 8.05/Lecture Hall (201+202)

Summary:

Photoinduced processes are ubiquious in nature, e.g. in vision or in photosynthesis, and in man-made applications, e.g. in solar-energy conversion or sensing and modern fluorescence microscopy. In all such applications excited-state relaxation bridges the event of absorption of a photon with the chemical / physical reaction outcome. This talk presents various case studies of excited-state relaxation dealing with the photophysics / photochemistry of photoactive drugs for photodynamic therapy, photoactive electrodes for dye-sensitized solar cells or photocatalytic water splitting and an artificial light harvesting antenna. The common theme will be to highlight how various spectroscopic modalities, which are each sensitive to different aspects of excited-state kinetics, can be combined to yield a holistic picture of the relaxation dynamics following photoexcitation in photoactive molecules and materials.





