Graduate Research Training Group

INSTITUT FÜR PHYSIK

28th November 2024 at 15:00 in HS1

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Photosensitizer, Ligand-to-Metal Charge Transfer State, Ligand Design

Investigation of Novel Iron(III)-Complexes with Functional Modifications

Conventional photosensitizers for photocatalysis are usually based on precious metals. Therefore, there is a desire to replace them with first-row transition metals. Iron based photosensitizers are promising candidates, but have only short lived charge transfer states. Targeted ligand design is used to address this problem. This talk presents a series of luminescent iron(III)-complexes with modified ligands. The findings are derived from time-resolved techniques, namely femtosecond transient absorption UV-Vis spectroscopy and streak camera measurements. The results are thoroughly examined in the context of electronic relaxation dynamics, shedding light on the intricate processes governing the observed phenomena.

Talk and slide language: English **Location:** Great Lecture Hall, HS1, Institute for Physics, Albert-Einstein Str. 24

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