EINLADUNG

Im Rahmen der gemeinsamen Kolloquien der Fakultät für Chemie und Chemische Biologie der Technischen Universität Dortmund und des Projektes RAMSES hält

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 einen Vortrag mit dem Thema

"Applications of Novel AIE-Emitters in Biology and Material Sciences"

The need of novel efficient fluorophores for the recognition and labeling of biomolecules such as proteins enzymes and cells is one of the most challenging disciplines in modern bio-supramolecular chemistry. Our group uses a phenomenon called aggregation-induced emission. Molecules with this ability show fluorescence, contrary to normal fluorophores, when aggregated or in the solid state. (1) Recently we found a novel class of facile thioethers with this remarkable characteristic. (3) Currently different compounds were investigated concerning their fluorescence properties. A range of emission in the visible region was found ranging from 430 to 590 nm. Interestingly delayed fluorescence was observed for specific compounds leading to the assumption, that and intersystem crossing to a triplet state occurs leading to a long lived fluorescence state, termed phosphorescence. We were able to use these novel luminophores for the recognition of bacteria, proteins (2) and bioamines. (4) Besides that first examples for their use in material science have been described.

Fig.1: Molecular structures of the investigated molecules, photograph of selected compounds, when dispersed in water under UV-light irradiation and X-ray structures of compounds B, G and L.


Zeit: Dienstag, 17.12.2019, 17.15Uhr
Ort: Campus Nord, Chemiegebäude, HS 1

Für die Dozenten der Chemie

Der Dekan

Betreuer: Prof. Clever (0231/755 8677)