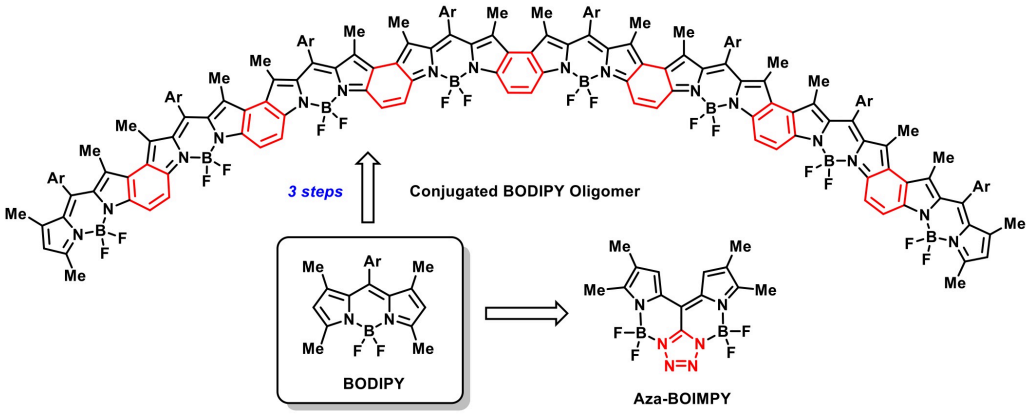
Fluorescent Dyes by Rational Design and Serendipitous Discoveries

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The rich chemistry of the BODIPY motif, together with its beneficial photophysical properties, has markedly boosted the popularity of this user-friendly fluorophore over the last few decades.[1] The diversity of easily incorporated fluorescence modulation modes has set the stage for a variety of sensorically active species.

The talk describes which physical-organic rationalisation led to the development of the (Aza-)BOIMPY motif showing a significant red-shift with respect to the parent BODIPY.[2] In addition, a simple synthetic route to oligomerized ethano-linked BODIPYs (up to an octamer) is presented which can be further oxidized to huge completely conjugated systems.[3] Photophysical properties are discussed by experimental and theoretical means. It is shown that the suprastructure of the oligomeric dyes plays a significant role for their absorption and emission properties and that the conjugated systems are interesting NIR fluorophores.



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[3] a) L. J. Patalag, L. Phong Ho, P. G. Jones, D. B. Werz, J. Am. Chem. Soc. **2017**, 139, 15104; b) A. Patra, L. J. Patalag, P. G. Jones, D. B. Werz, *Angew. Chem. Int. Ed.* **2021**, *60*, 747.