

Photo-switchable molecular systems: from UV to visible light activation

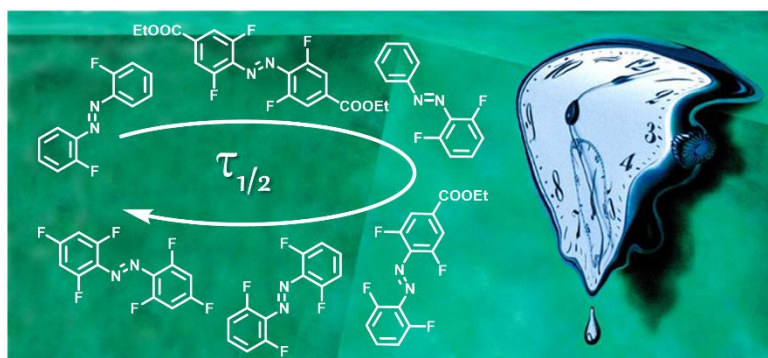
David Bléger

Department of Chemistry, Humboldt-Universität zu Berlin

Brook-Taylor-Str. 2, 12489 Berlin - Germany

E-mail: david.bleger@chemie.hu-berlin.de

Operating molecular switches in the visible region is critical for *in-vivo* applications, but not only! Visible-light switches^[1] are key elements for the future of photoresponsive materials,^[2] allowing for increasing penetration length, enhancing fatigue and selectivity, harvesting sunlight, and developing biocompatible materials. Our research activities on the design of red-shifted *ortho*-fluoroazobenzenes^[3] (see Figure) and their integration into various polymeric networks (hydrogels, liquid crystalline elastomers,^[4] metal-organic frameworks^[5]), leading to improved performances and unprecedented properties, will be presented.



As time passes, Z-fluoroazobenzenes persist

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