



Showcasing research from Professor Schmidt's and Professor Adams' laboratories, Institute of Organic Chemistry and Institute of Physical Chemistry, Clausthal University of Technology, Germany.

Stabilities of bis(thienyl)ethenes in polymethyl methacrylate (PMMA) coatings as absorbance modulation layers for nanoscale imaging

Absorption modulation layers for nanoscale imaging require polymer films containing switchable molecules such as bis(thienyl)ethenes (BTEs). Therefore, a series of BTEs were examined in this regard. Our studies show that the fatigue resistancies in PMMA films cannot be derived from results in solution. A BTE with cross-conjugated 3,3-connectivity of a pyridin-3-yl and a 3-methoxyphenyl group in the thiophene's  $\alpha/\alpha'$ -positions without  $\beta$ -methyl groups was shown to achieve one of the best fatigue resistancies.

### As featured in:



See Andreas Schmidt *et al.*,  
*Mater. Adv.*, 2024, 5, 159.