

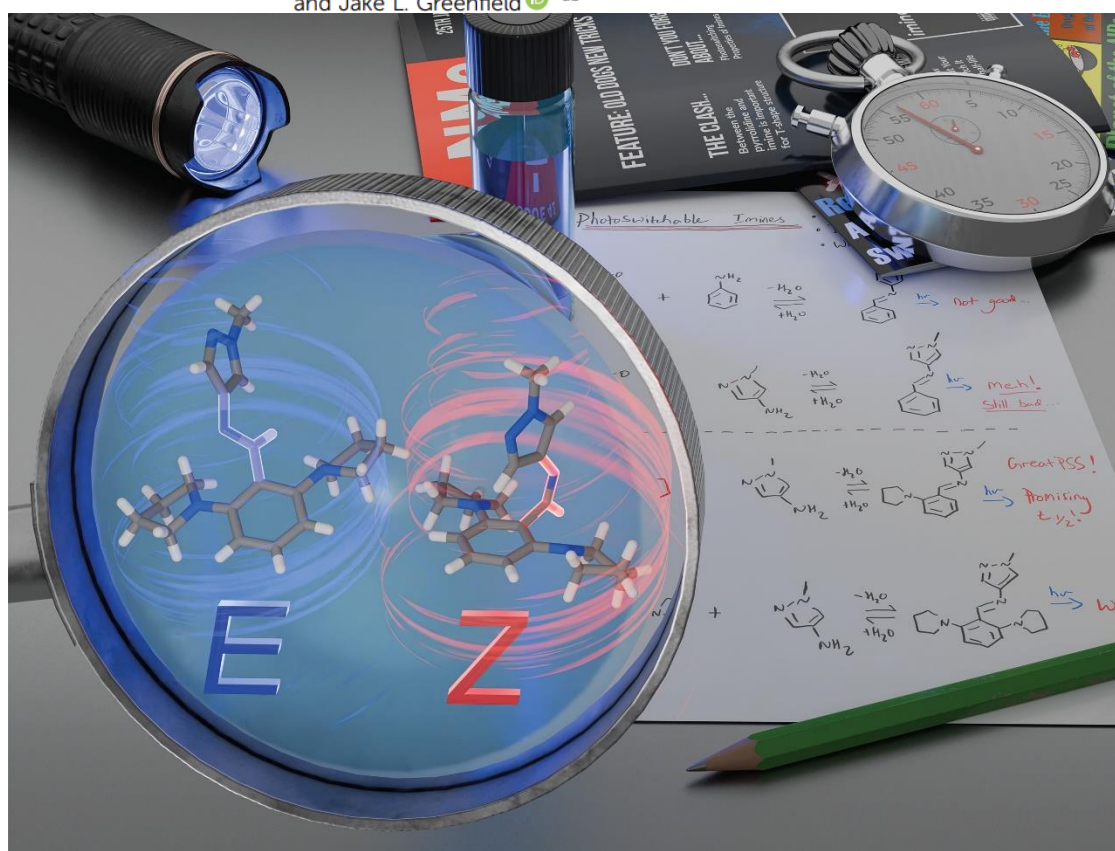


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Photoswitchable imines: aryliminopyrazoles quantitatively convert to long-lived Z-isomers with visible light†

Jiarong Wu,^{b,ab} Lasse Kreimendahl,^a Suyuan Tao,^{ab} Olga Anhalt^b and Jake L. Greenfield^{b,*ab}



- Who are the corresponding authors and what are their research areas?

Dr. Jake Greenfield

Group Leader: 2023 to date.

Institute of Organic Chemistry, University of Würzburg, Germany

Ph.D. with **Jonathan R. Nitschke**, Department of Chemistry, Uni of Cambridge, Feb. 2020

Postdoctoral Fellow with **Matthew J. Fuchter**, Imperial College London, July 2019 - June 2022

Postdoctoral Fellow with **Frank Würthner**, Julius-Maximilians-Universität Würzburg, Jul 22 – Oct 22

Alexander von Humboldt Fellow with **Frank Würthner**, Julius-Maximilians-Universität Würzburg, Würzburg (DE), November 2022 - March 2023

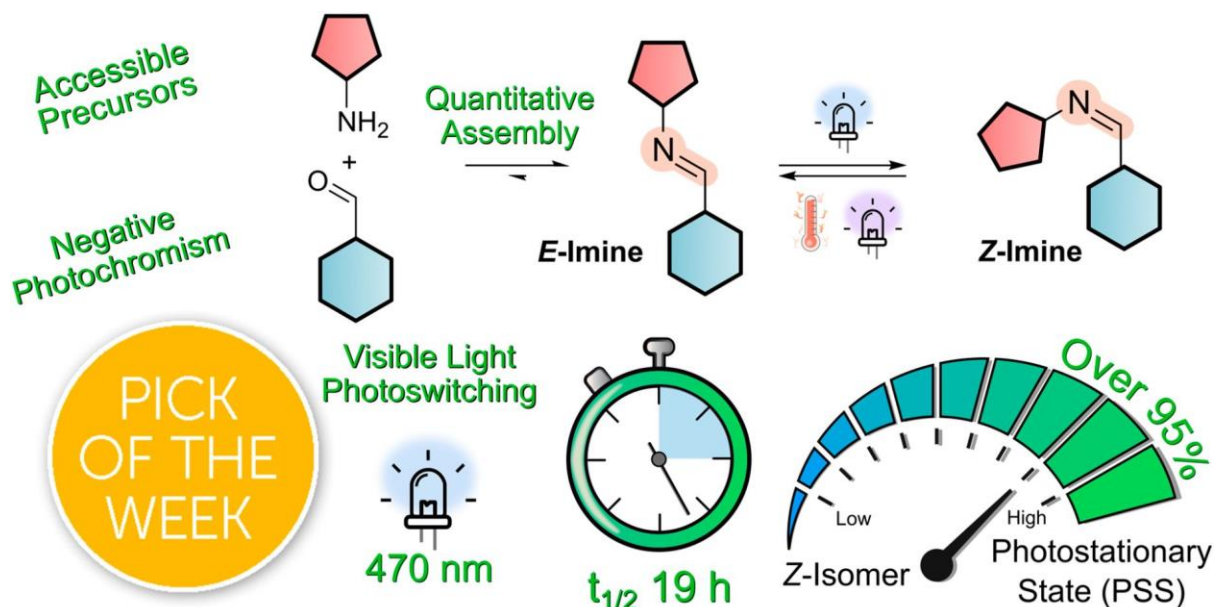
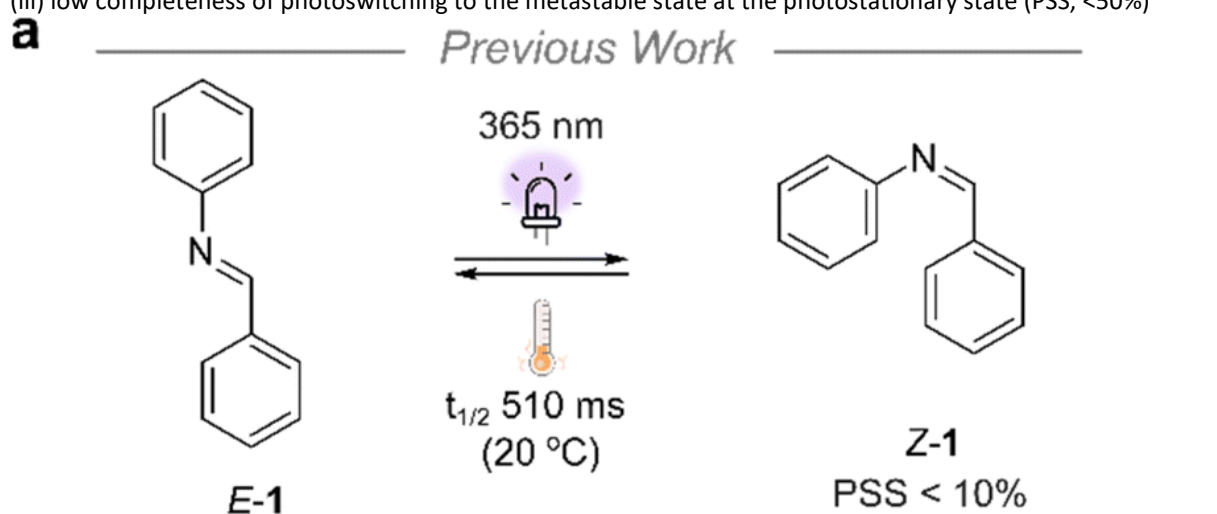
Molecular Exploration: Adding to the variety of switchable molecules already reported, they are keen on designing novel stimuli-responsive motifs that grant new properties and functionality. Other areas include **Controlled Assembly** and **Achieving Function**

- **What is the main claim of the article?**

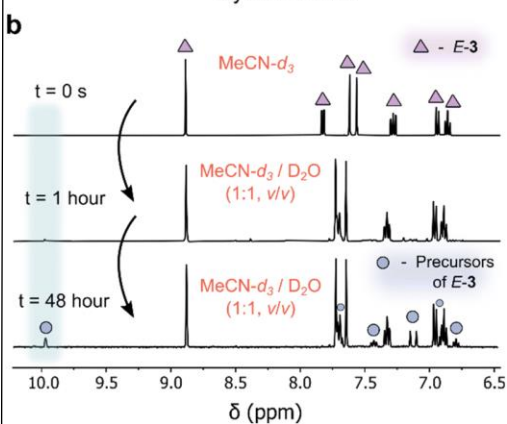
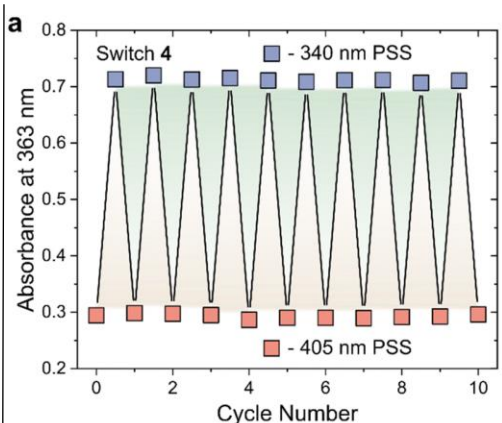
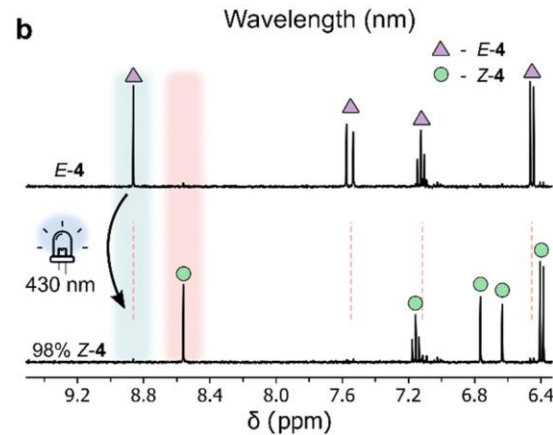
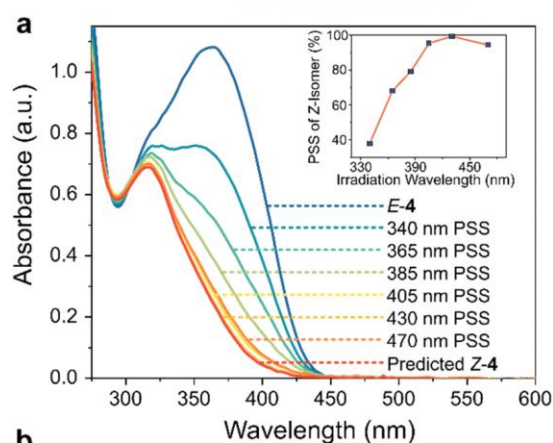
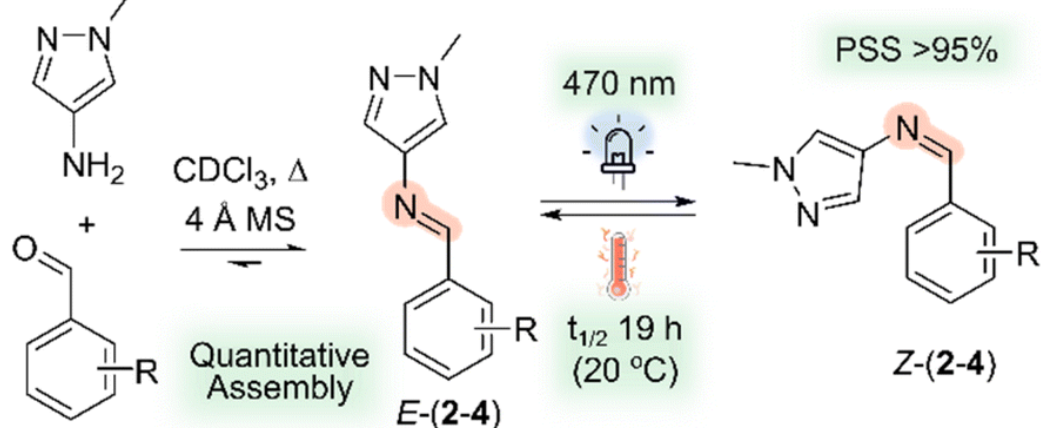
This article tackles the constraints associated with light-triggered E/Z isomerization of arylimines. It introduces a new category of imine photoswitch called aryliminopyrazoles (AIPs) to address the challenges that have hindered the widespread interest in arylimines photoswitching.

- **How is it demonstrated?**

- (i) The need for high-energy UV light to induce photoisomerism.
- (ii) short thermal half-lives ($t_{1/2}$) that typically range from 10^{-3} to 10^1 s at room temperature.
- (iii) low completeness of photoswitching to the metastable state at the photostationary state (PSS, <50%)



- What are the typical experimental conditions?



- Which are the key related papers?

L. Greb, G. Vantomme and J. Lehn, in *Molecular Photoswitches*, Wiley, 2022, pp. 325–349.
 M. Hammerich, T. Rusch, N. R. Krekieln, A. Bloedorn, O. M. Magnussen, and R. Herges, *ChemPhysChem*, 2016, 17, 1870–1874

- Additional comments, including additional elements of interest.

Research similarity, Yield efficiency, and Negative photochromism.