

Università degli Studi di Padova
Dipartimento di Scienze Chimiche

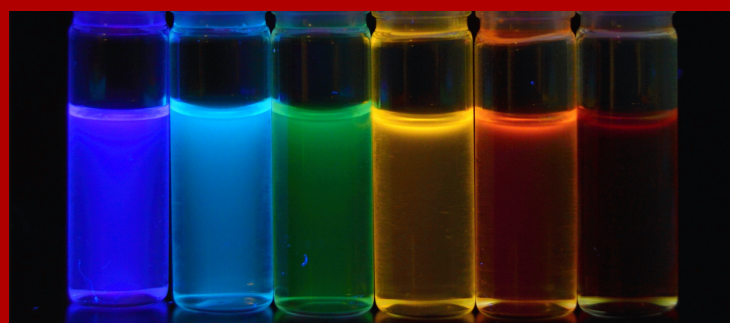
Ciclo di Seminari 'Frontiers in Chemistry'

Prof. Eli Zysman-Colman

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New Frontiers in Photocatalyst Design and Photocatalysis

Martedì 10 Settembre 2024, ore 10.30
Aula I, Dipartimento di Scienze Chimiche
Via Marzolo 1 – Padova



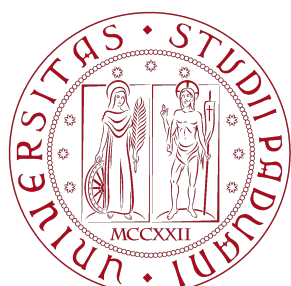
Photocatalysis, utilising visible light to drive single electron transfer or energy transfer reactions, has seen an exponential growth in research over the past decade, and the field is flourishing into a powerful tool for synthetic organic chemistry. Organometallic photocatalysts based on iridium(III) and ruthenium(II) remain the most widely used; however, the scarcity, cost and toxicity of the noble metals are detracting features.

In this talk, Prof. Zysman-Colman will highlight some of his recent work in sustainable photocatalyst design, covering photocatalysts using Earth-abundant metals and those based on organic dyes. He will also discuss new innovations in photoreactor design.

For selected references, see:

- 1 M. Amy Bryden, E. Zysman-Colman, *Chem. Soc. Rev.*, **2021**, 50, 7587-7680.
- 2 L. Hämmerling, E. Zysman-Colman, *Chem. Catal.*, **2024**, 4, 101061.
- 3 M. Amy Bryden et al., *Angew. Chemie Int. Ed.*, **2024**, e20240508.
- 4 F. Millward, E. Zysman-Colman, *Angew. Chemie Int. Ed.*, **2024**, e202316169.
- 5 C. Prentice et al., *Chem. Eur. J.*, **2022**, e202202998.
- 6 M. Amy Bryden et al., *J. Org. Chem.*, **2022**, 88, 6364-6373.

Prof. Stefano Mammi
Direttore del Dipartimento
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