

Seminario

Università degli Studi di Padova
Dipartimento di Scienze Chimiche

Ciclo di Seminari 'Frontiers in Chemistry'

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*Self-assembly of photoresponsive
supramolecular soft matter*

Giovedì 28 Maggio, ore 16.30

Aula H

Self-assembly is emerging as a superior method to prepare responsive and adaptive nanomaterials. The structure and function of these materials is entirely determined by the dynamic and weak interactions of the constituent molecular "building blocks" of the material. Since the inherent interactions are weak, these versatile materials readily respond to even small changes and stimuli in their environment.

This lecture will highlight our recent work on self-assembled supramolecular nanomaterials that respond and adapt to light. In all these nanomaterials, molecular photoswitches are key components. The improved molecular design of photoswitches enables the bottom-up self-assembly of tailor-made functional materials and interfaces that can be manipulated with light. Amongst others, light-responsive surfactants, liquid crystals, adhesives and molecular solids will be discussed. Also, the optical manipulation of cell shape with light will be addressed.

Reference

1. A. Mukherjee, M. D. Seyfried, and B. J. Ravoo "Azoheteroarene and Diazocine Molecular Photoswitches: Self-Assembly, Responsive Materials and Photopharmacology" *Angew. Chem. Int. Ed.* 2023, 25, e202304437. <https://doi.org/10.1002/anie.202304437>

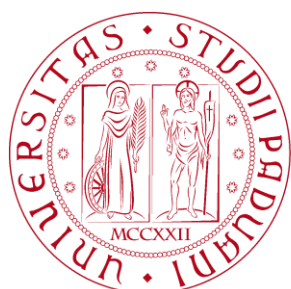
La presenza della S. V. sarà molto gradita.

Prof. Leonard Prins

*Dipartimento
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Prof. Stefano Mammi

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