

Welcome



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ANNI



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

**Il Dipartimento di Scienze Chimiche accoglie il
dott. Daniele Rosa-Gastaldo
che terrà un seminario dal titolo:**

**Self-assembly and molecular recognition: from synthetic
receptors to energy applications**

**Giovedì 11 Maggio 2023, ore 17.15 Aula A, Dipartimento di Scienze
Chimiche, Via Marzolo, 1.**

The generation of complex matter in the evolution of the universe has been primarily driven by self-organization. Taking inspiration from nature, a deep understanding of the intermolecular non-covalent interactions that rule the self-assembly processes, and of their manipulation, allows the chemist to shape complex systems with unique functional properties, that range from molecular recognition, transport and catalysis to information-directed self-organization.

With this seminar I will take you on a short journey through the different supramolecular systems that I had the opportunity to study during my career, where the common thread is self-assembly: we will start from the design and use of multifunctional gold nanoparticles as synthetic receptors, passing through recognition-encoded oligoanilines capable of sequence selective duplex formation and template directed synthesis; we will explore the dynamics of the organic monolayer of an atomically precise silver nanocluster, to end with a brief perspective on new self-assembled structures for energy applications.

Il Direttore del Dipartimento
Michele Maggini