



# CHIMICA SUPRAMOLECOLARE

## Giornata dei Dottorandi

# Programme



Rome  
CNR – Aula Marconi  
24-25 May 2018



### INVITED SPEAKERS

Alessandro Sorrenti  
Josè Augusto Berrocal

### CONFERENCE CHAIRPERSONS

Cecilia Bombelli  
Stefano Di Stefano

### Organized by



Istituto di  
Metodologie Chimiche



SAPIENZA  
UNIVERSITÀ DI ROMA

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Società Chimica Italiana



Dipartimento Scienze Chimiche e  
Tecnologie dei Materiali



Consiglio Nazionale delle  
Ricerche



Società Chimica Italiana  
SEZIONE LAZIO

- 11.00 Registration  
 14.30 Opening Ceremony

**Chairperson: Antonella Dalla Cort**

Invited lectures

- 14.45 - 15.15 *“Beyond equilibrium self-assembly”*  
**Alessandro Sorrenti** (ETH-Zurich)

Oral Presentations

- 15.15 – 15.35 *“(Hyper)branched highly fluorinated compounds for more sustainable self-assembled functional material”*  
**Marta Rosati** (Politecnico di Milano)
- 15.35 – 15.55 *“Controlling Chemical Reactivity Through Self-Assembly”*  
**Maria A. Cardona** (Università di Padova)
- 15.55 – 16.15 *“Selective methylene oxidation of linear alkyl amines with H<sub>2</sub>O<sub>2</sub> catalyzed by a Mn-nonheme complex guided by supramolecular recognition”*  
**Alessia Barbieri** (Università di Roma La Sapienza)
- 16.15-16.35 *Coffee break*

**Chairperson: Riccardo Salvio**

Flash Presentations

- 16.35 – 17.00 *“Reversible energy transfer to lanthanoid ions mediated by calixarenes”*  
**Federica Faroldi** (Università di Parma – Curtin University, Perth)
- “Direct hydroxylation of benzene and aromatics with H<sub>2</sub>O<sub>2</sub> catalyzed by a self-assembled iron complex: evidence for a metal-based mechanism”*  
**Giorgio Capocasa** (Università di Roma La Sapienza)
- “Synthesis and Investigation of Croconates as Smart Organic Coating for Noble Metals Nanoparticles”*  
**Beatrice Cogliati** (Università di Parma)
- “Synthesis and characterization of a paramagnetic [2]-rotaxane based on a crown ether-like wheel incorporating a nitroxide motif”*  
**Cecilia Poderi** (Università di Bologna)
- “Investigating the Polarity of Silica Nanoparticles”*  
**Elahe Haddadi** (Università di Bologna - Shiraz University, Shiraz, Iran)

**Chairperson: Luigi Mandolini**

Oral Presentations

- 17.00 – 17.20 “*Trifunctional calix[4]arene as mimic of DNA topoisomerase I for the promotion of phosphoryl transfer processes*”  
**Stefano Volpi** (Università di Parma)
- 17.20 – 17.40 “*Dodecylcalix[n]arenes: new highly lipophilic members of the calixarene family*”  
**Andrea Magini** (Università di Parma)
- 17.40 – 18.00 “*Effect of a non-innocent redox ligand on the reactivity of a [FeFe] hydrogenases mimic*”  
**Andrea Mele** (CNRS - CEMCA, Brest)
- 18.00– 18.20 “*Uranyl-salophen complexes: useful platforms to investigate halide- $\pi$  interactions in solution and in the solid state*”  
**Luca Leoni** (Università di Roma La Sapienza)
- 20.00 *Social Dinner*

**FRIDAY MAY 25**

**Chairperson: Stefano Di Stefano**

Invited lecture

- 9.00 – 9.30 “*Can we use supramolecular architectures as CHEMICAL INFRASTRUCTURES ?*”  
**Josè Augusto Berrocal** (University of Groningen and Eindhoven University of Technology)

Oral Presentations

- 9.30 – 9.50 “*Use of active template approach to the preparation of novel spin-labelled [2]rotaxanes*”  
**Lorenzo Gualandi** (Università di Bologna)
- 9.50 – 10.10 “*Efficient active-template synthesis of calix[6]arene-based oriented rotaxanes and pseudorotaxanes*”  
**Margherita Bazzoni** (Università di Parma)
- 10.10 – 10.30 “*Light-powered artificial molecular pumps*”  
**Martina Canton** (Università di Bologna)
- 10.30 – 11.00 *Coffee break*

**Chairperson: Osvaldo Lanzalunga**

Oral Presentations

- 11.00 – 11.20 “*Light Harvesting Antennae Based on Silicon Nanocrystals*”  
**Sara Angeloni** (Università di Bologna)
- 11.20 – 11.40 “*Porphyrinoids as multicomponent light-harvesting systems*”  
**Beatrice Berionni Berna** (Università di Roma Tor Vergata)
- 11.40 – 12.00 “*Gold nanoparticles as designer drugs NMR detectors*”  
**Daniele Rosa-Gastaldo** (Università di Padova)
- 12.00 – 12.20 “*Formation of Imidazo[1,5 - a]pyridine Derivatives Due to the Action of Fe<sup>2+</sup> on Dynamic Libraries of Imines*”  
**Simone Albano** (Università di Roma La Sapienza)
- 12.45 *Lunch*

**Chairperson: Francesca Ceccacci**

Flash Presentations

- 14.30 – 15.05 “*Protein stabilized nanoformulation of a superfluorinated <sup>19</sup>F-MRI contrast agent*”  
**Nazeeha Ayaz** (Politecnico di Milano)
- “*Luminescent nanoparticles release from biocompatible polymeric fibers*”  
**Liviana Mummolo** (Università di Bologna)
- “*Nanoemulsion: a versatile formulation*”  
**Anna Imbriano** (Università di Roma La Sapienza)
- “*Catanionic mixtures of bile salt derivatives*”  
**Emilia Severoni** (Università di Roma La Sapienza)
- “*Glycosylated liposomes for targeting bacteria*”  
**Stefano Aiello** (Università di Roma La Sapienza)
- “*Self-assembling supramolecular structures as stimuli-responsive systems for sensing pH and anions in water*”  
**Valeria Caponetti** (Università di Bologna)

**Chairperson: Cecilia Bombelli**

Oral Presentations

- 15.10 – 15.30 “*Antibacterial activity of (+)-usnic acid included in mixed liposomes containing structurally related L- prolinol derivatives*”  
**Sara Battista** (Università dell’ Aquila)
- 15.30 – 15.50 “*Luminescent chemosensors for oxygen*”  
**Benedetta Del Secco** (Università di Bologna)
- 15.50 – 16.10 “*Functional liposomes and multi-stimuli responsive polymers encompassing the versatile 2-(hydroxyimino)aldehyde group*”  
**Martina Nardi** (Università di Roma La Sapienza)
- 16.10 – 16.40 *Coffee break*

**Chairperson: Giovanna Mancini**

Oral Presentations

- 16.40 – 17.00 *“New transparent colloidal TiO<sub>2</sub> nano-systems as efficient photocatalysts for environmental remediation”*  
**Arianna Menichetti** (Università di Bologna)
- 17.00 – 17.20 *“Novel CuI-based Metal Organic Frameworks for sensing applications”*  
**Khaled Hassenein** (CNR-ISOF Bologna)
- 17.20 – 17.40 *“Carboxylic Acids as Chemical Fuels for a Catenane Based Molecular Switch: Tuning the Motion Rate”*  
**Chiara Biagini** (Università di Roma La Sapienza)
- 17.45 – 18.00 *Closing Remarks*