

# Università degli studi di Messina

Dottorato di Ricerca in Scienze Chimiche



**GIOVEDÌ 13 NOVEMBRE**

**Sessione mattutina - Aula Magna "Vittorio Ricevuto"**

8.30-9.00 *Registrazione*

9.00-10.00 *Saluti Istituzionali*

## **Sessione I**

**Chairs: Salvatore G. M. Raccuia - Roberto Laganà Vinci**

10.10-10.30 **K1 Dott. Pietro Battaglia e Dott.ssa Cristina Pedà**  
*(Stazione Zoologica "Anton Dohrn")*

Microplastics in the Marine Environment - Interactions,  
Effects, and Risks for Marine Organisms

10.30-10.42 **OC1 Giorgia Rinaldi**  
A valve-based solution for the integration of Enantio-  
Selective GC×GC-MS and Low-Pressure GC-MS: a smart  
coupling

10.42-10.54 **OC2 Hafsa Anwar**  
Sustainable Energy Storage through Advanced Vanadium  
Redox Flow Batteries





- 10.54-11.06      **OC3 Gabriele D'Anna**  
Synthesis of fluorinated biocompatible polyesters
- 11.06-11.18      **OC4 Federica Vento**  
Chemical characterization of Mediterranean macroalgae with a focus on antioxidant molecules using liquid and gas chromatographic techniques
- 11.18-11.30      **OC5 Carmine Bellantoni**  
Exploring the formation of pillar[n]arene-based supramolecular deep eutectic solvents
- 11.30-11.50      **Coffee Break**

## Sessione II

***Chairs: Mariachiara Sarà - Federica Vento - Noemi Totaro***

- 12.00-12.20      **K2 CaponeLab**  
Presentazione CaponeLab
- 12.20-12.32      **OC6 Alessandro Lo Presti**  
Molecularly Imprinted Polymers for Environmental Monitoring: A Dopamine-Based Sensor for Levofloxacin Detection in Water
- 12.32-12.44      **OC7 Giuseppe Andrea Screpis**  
Testing of a Novel System for Bacterial Load Detection in Water using ATP Chemiluminescence Reaction
- 12.44-12.56      **OC8 Roberto Lagana' Vinci**  
QSRR Modelling and capillary LC for Phenolic Compounds analysis and their Retention Mechanism Elucidation
- 12.56-13.08      **OC9 Federica Giorgianni**  
Design and synthesis of molecular components for biohybrid water photo-oxidation systems





13.08-13.20

**OC10 Teresa Paviglianiti**

Albumin–Gold Nanocluster Hybrids Control the Disassembly Kinetics of TPPS J-Aggregates

13.30-15.00

**Lunch Break**

## Sessione pomeridiana - Aula Magna "Vittorio Ricevuto"

### Sessione III

**Chairs: Martina Mazzaferro - Salvatore Genovese**

15.10-15.30

**K3 Dott. Michele Calabretta e Dott. Alessandro Tumminia (Vishay Semiconductor)**

La Chimica-Fisica nei semiconduttori di potenza: prospettive ed opportunità in Vishay Semiconductor

15.30-15.42

**OC11 Cristian Reale**

Supercritical Fluid Chromatography to Improve the Sustainability of Analytical Methods for Natural Products

15.42-15.54

**OC12 Noemi Totaro**

Complexation of rutin in a cross-linked  $\beta$ -cyclodextrin/PEG polymer: evaluation of antiangiogenic properties

15.54-16.06

**OC13 Ana Laura Coria Gutiérrez**

Tailored Magnetic Nanoparticles as Theranostic Tools for Osteosarcoma

16.06-16.18

**OC14 Elisa Irrera**

From waste to profit: characterization of orange by-products aiming to a zero waste Citrus processing

16.18-16.30

**OC15 Annarita Borgosano**

From Waste to Worth through CO<sub>2</sub> Mineralization: Harnessing Hypersaline Wastewater for Sustainable Carbon Capture and Critical Metal Recovery





## VENERDÌ 14 NOVEMBRE

### Sessione mattutina - Aula Magna "Vittorio Ricevuto"

#### Sessione IV

**Chairs:** Martina Mazzaferro - Salvatore Genovese - Noemi Totaro

- |             |                                                                                                                                                             |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09.10-09.30 | <b>K4 Dott.ssa Angela Castellano (<i>Medinutrex</i>)</b><br>Medinutrex: Extracting the best from nature                                                     |
| 09.30-09.42 | <b>OC16 Salvatore G. M. Raccuia</b><br>The Sustainable Route: From Citrus Waste to Rare-Earth Recovery                                                      |
| 09.42-09.54 | <b>OC17 Elisabetta Scalone</b><br>Clay-Based Functional Coatings Embedding Stimuli-Responsive Dyes for Smart Textile and Environmental Sensing Applications |
| 09.54-10.06 | <b>OC18 Kochbati Najla</b><br>Copper-Based Electrocatalysts with Molybdenum for the Electroreduction of CO <sub>2</sub> into Acetic Acid                    |
| 10.06-10.18 | <b>OC19 José Starvaggi</b><br>Design, synthesis and biological evaluation of novel antiviral agents for the treatment of dengue and zika virus infections   |
| 10.18-10.30 | <b>OC20 Imen Cherif</b><br>Development of Multilayer Photoelectrodes for Enhanced Photoelectrochemical CO <sub>2</sub> Reduction                            |
| 10.30-10.42 | <b>OC21 Davide Cosio</b><br>From Disorder to Performance: High-Entropy PtCoCuNiMn Alloy Drives Rapid Ammonia Oxidation in Alkaline Media.                   |







- 10.42-10.54      **OC22 Marco D'Alì**  
Molecular basis for the agonist-to-antagonist switching in Kv7 ion channels
- 10.54-11.06      **OC23 Fabio Genovese**  
Optimization and Automation of Data for the Use of Artificial Intelligence in Drug Discovery
- 11.06-11.18      **OC24 Federico Nastasi**  
Restored intensities from customized crops of NMR experiments (RICC-NMR) for the chemometric characterization of sicilian and sardinian evoos
- 11.18-11.30      **OC25 Mariachiara Sarà**  
Synthesis and characterization of supramolecular system for metal ions sensing
- 11.30-11.50      **Coffee Break**

## Sessione V

**Chairs: Salvatore G. M. Raccuia – Mariachiara Sarà**

- 11.55-12.15      **K5    Dott. Alessandro Sinopoli (*Università degli Studi di Messina*)**  
MOF-polymer for solar-assisted atmospheric water harvesting
- 12.15-12.27      **OC26 Claudia Granata**  
Gadolinium Hydrolysis: Beyond the State of the Art
- 12.27-12.39      **OC27 Salvatore Donato**  
Design and computational study of the interface between the surface of modified TiO<sub>2</sub> (anatase) and pure water





- 12.39-12.51      **OC28 Maura Monforte**  
Design and Synthesis of Biocompatible Curcumin-Based Luminescent Systems
- 12.51-13.03      **OC29 Martina Mazzaferro**  
Enantioselective recognition with a new dicarboxyl-pillar[5]arene-based *pseudo*[1]catenane chiroptical sensor
- 13.03-13.15      **OC30 Salvatore Genovese**  
Exploring reversible electron-transfer as a strategy to prolong luminescence lifetime in iron (III) complexes
- 13.15-15.00      **Lunch break**

## Sessione pomeridiana - Aula Magna "Vittorio Ricevuto"

### Sessione VI

**Chairs:** Salvatore G. M. Raccuia - Mariachiara Sarà - Salvatore Genovese - Martina Mazzaferro - Noemi Totaro - Roberto Laganà Vinci - Federica Vento

- 15.10-15.30      **K6 Antonino Cannaò (Birrificio Messina)**  
Presentazione dell'Azienda Birrificio Messina
- 15.30-15.42      **OC31 Saeed Ahmed**  
Advanced GC Approaches for Identification of Unusual Bacterial Fatty acids.
- 15.42-15.54      **OC32 Alessia Mastrolembro Ventura**  
Geochemical modelling of Panarea hydrothermal system: key elements in the design of intelligent marine sensors
- 15.54-16.06      **OC33 Giuseppe Mistretta**  
A Supramolecular Approach involving Polymers based on  $\beta$ -Cyclodextrin and Porphyrins for antimicrobial photodynamic therapy





16.06-16.18

## OC34 Francesca Cannizzaro

Monitoring strategies for indoor air quality assessment in cultural heritage sites

16.18-16.30

## OC35 Antonino Consoli

Emissive and photothermal carbon-Nanodots based on L-proline: optical properties and pH-sensing investigation

16.30-17.30

## Tavola Rotonda

“Il ruolo del tutor: informare ed accompagnare nella crescita. Docenti, dottorandi e studenti a confronto su orientamento in itinere”

17.30-18.00

## Istituzione del Gruppo Alumni del Dottorato in Scienze Chimiche

18.00

## Apericena conclusiva

