

# SECOND SYMPOSIUM FOR YOUNG CHEMISTS SYNC2024 – Rome, June 24-28 2024

Sapienza University of Rome  
Department of Chemistry

## Full program



La Ginestra Room					
	from	to			
	14:00	14:15	Welcome and opening remarks		
			Plenary Speaker	Affiliation	Title
	14:15	14:55	Maurizio Prato	University of Trieste, Italy	Synergies between Chemistry and Nanotechnology: possible solutions to impossible challenges
La Ginestra Room					
Theme	from	to	Presenter	Affiliation	Title
G	15:10	15:30	<b>Keynote</b> - Dina Maniar	University of Groningen	Revolutionizing Sustainability in Biobased Furan Polymers through Enzymatic Polymerization
G	15:30	15:45	Rosaceleste Zumpano	Sapienza University of Rome	A Methylene Blue@AuNPs- Modified Electrochemical Platform for the Early Warning of Anionic Surfactants and PFAS in Water Matrices
G	15:45	16:00	Anna Scettri	University of Padova	Activation of Vegetable Oils by Reaction with Maleic Anhydride as a Renewable Source in Chemical Processes
	16:15	16:45	Coffee break		
G	16:45	17:00	Marco Resitano	Water Research Institute (IRSA-CNR) / University of Rome "La Sapienza"	Enhancing the Anaerobic Degradation of Aromatic Hydrocarbons under Sulfate-Reducing Conditions with Electrically Conductive Particles
G	17:00	17:15	Geremia Sassetto	Sapienza University of Rome	Bioelectrochemical removal of Trichloroethylene from contaminated groundwater: process optimization in the presence of competitive reactions.
G	17:15	17:30	Thomas Rodrigues	NOVA School of Science and Technology	Microbial valorization of eucalyptus bark enzymatic hydrolysate for polyhydroxyalkanoates production
G	17:30	17:45	Eugenio Sandrucci	Sapienza University of Rome	Using of Chemometrics to study the health of Lithium batteries
A Room					
Theme	from	to	Presenter	Affiliation	Title
A	15:10	15:30	<b>Keynote</b> - Jesus Sanjose-Orduna	Van't Hoff Institute for Molecular Sciences	Flow Chemistry as Enabling Technology in Organic Chemistry
A	15:30	15:45	Luca Nicchio	Università di Pavia	Transition-metal free one-pot synthesis of 1-aryl-1,2,4-triazoles via arylazo sulfones under visible light irradiation.
A	15:45	16:00	Alessandro Fagnano	Sapienza University of Rome	Proximity Effects on the Reactivity of Nonheme Fe(IV)=O complex in C-H Oxidation
A	16:00	16:15	Lorenzo Rizzo	Università di Padova	Radical strain-release photocatalysis for the synthesis of azetidines
	16:15	16:45	Coffee break		
E	16:45	17:00	Miran Baricic	Université Paris Cité	Unraveling the polyol synthesis mechanism of CoO and CoFe <sub>2</sub> O <sub>4</sub> with in-situ synchrotron light experiments
A	17:00	17:15	Vyali Georgian Moldoveanu	Sapienza University of Rome	Stereoselective Synthesis of Crucial Fragments for the Total Synthesis of Voratin C
A	17:15	17:30	Antonio Di Sabato	Sapienza University of Rome	Enantioselective $\alpha$ -Alkylation of Aldehydes by Photoexcitation of Carbon Dots
A	17:30	17:45	Francesca Arrighi	Sapienza University of Rome	Photochemical Late-stage Functionalization of Peptides in Batch and in Flow
C Room					
Theme	from	to	Presenter	Affiliation	Title
C	15:10	15:30	<b>Keynote</b> - Isabelle Navizet	University Gustave Eiffel	Modelling absorption and emission spectra of firefly's light emitter
C	15:30	15:45	Adriano Pierini	Sapienza University of Rome	Polarizable force field development and MD simulations of novel electrolytes for Li-ion batteries
C	15:45	16:00	Simone Di Muzio	Sapienza University of Rome	Tetrabutylammonium based Deep Eutectic Solvents: effects of counter-anion and HBD in the formation of liquid phases
C	16:00	16:15	Francesco Tavani	Sapienza University of Rome	Unveiling collective oscillatory behaviour in the Belousov-Zhabotinsky reaction by X-ray Absorption Spectroscopy
	16:15	16:45	Coffee break		
C	16:45	17:00	Maria Laura De Sciscio	Sapienza University of Rome	Deciphering the Kinetics of Methionine Oxidation by Hydrogen Peroxide in Proteins
C	17:00	17:15	Stefano Russo	Sapienza University of Rome	Simulations of Model Biological Molecules in Choline Amino Acid Ionic Liquids
C	17:15	17:30	Vishat Kumar Jaiswal	University of Bologna	A dark charge-transfer state mediates vibronically coherent energy transfer in NADH (nicotinamide adenine dinucleotide) dimer
C	17:30	17:45	Nicole Mancini	Humboldt University of Berlin	Ab initio Prediction of Isotherms for Water Adsorption in the Metal-Organic Framework Mg-MOF-74
B Room					
Theme	from	to	Presenter	Affiliation	Title
I	15:10	15:30	<b>Keynote</b> - Kouki Oka	Institute of Multidisciplinary Research for Advanced Materials	Organic Energy Materials towards a Sustainable Society
I	15:30	15:45	Rosa Barranco García	Universidad Complutense de Madrid	Study of PLA Fibers obtained by Melt Electrowriting using rotation collector
I	15:45	16:00	Lorena Di Zazzo	Tor Vergata	Conductometric polycorrole sensor array for sensing applications
I	16:00	16:15	Gianluca Forcina	CNRS/Université Grenoble Alpes	Nano-lithography with high-chi block copolymers: inter-relation between self-organization and dewetting kinetics
	16:15	16:45	Coffee break		
I	16:45	17:00	Brandhon Francisco Flores Ibarra	CICbiomaGUNE	Targeted Drug Delivery by Electrically Conductive Gelatin-Based Hydrogels
I	17:00	17:15	Luca Caponecchia	Université de Bordeaux	Synthesis of Metal-Free Semiconducting Polymers via Organocatalysis: Sustainable Materials for Renewable Energies
I	17:15	17:30	Erica Quagliarini	Sapienza University of Rome	The personalized nanoparticle-protein corona as an effective tool for early cancer detection

TUESDAY, June 25th 2024

La Ginestra Room

	from	to	Presenter	Affiliation	Title
	09:00	09:10	<b>Plenary Speaker</b> Leana Travaglini	Wiley VCH GmbH	<b>SYNC2024 ChemPlusChem Special Collection</b>
	09:10:00	09:50	<b>Benedetta Mennucci</b>	University of Pisa, Italy	Light-driven processes in biology: what we can learn from an atomistic modeling

La Ginestra Room

Theme	from	to	Presenter	Affiliation	Title
G	10:00	10:20	<b>Keynote</b> - Miriam Cerrillo Moreno	Institute of Agrifood Research and Technology (IRTA), Spain	Ammonium recovery from pig slurry storage pits using modular submerged microbial electrolysis cells
G	10:20	10:35	Lorenza Romagnoli	Sapienza University of Rome	Thermal decomposition of formamidineum tin triiodide (CN <sub>2</sub> H <sub>5</sub> SnI <sub>3</sub> ) and sublimation of tin(IV) iodide investigated by effusion techniques
G	10:35	10:50	Matteo Tucci	Istituto di Ricerca sulle Acque (IRSA), CNR	Enhancing the kinetics of hydrogenophilic methanogenesis through magnetite nanoparticle and electroactive microorganism supplementation
G	10:50	11:05	Kassa Belay Ibrahim	Ca'Foscari University of Venice	Frontiers in 2D Materials for water splitting derived Green Energy: A Focus on Current Challenges and Opportunities
	11:05	11:35			Coffee break
G	11:35	11:55	<b>Keynote</b> - Hamideh Darjazi	Politecnico di Torino	Closing the loop on battery manufacturing, the use of recycled material for advanced Li-ion and Na-ion batteries
G	11:55	12:10	Micaela Abruzzese	Sapienza University of Rome	Combined processes in the remediation of trichloroethylene-contaminated groundwater: Reductive Biological Dechlorination coupled with adsorption on biochar and supported by alternative materials from organic wastes
G	12:10	12:30	Dario Bozzo	Alfatest	Material Characterization of Battery components through orthogonal techniques
G	12:30	12:45	Maria Cristina Arena	Università degli studi di Pavia	Recuperation systems for fluorinated gas at the CERN LHC Experiments
	12:35	14:00			Lunch break

A Room

Theme	from	to	Presenter	Affiliation	Title
B	10:00	10:20	<b>Keynote</b> - Beatrice Simonis	CNR-Institute for Biological Systems (ISB)	Liposomes for the delivery of antimicrobial peptides (AMPs)
B	10:20	10:35	Sara Alfano	Sapienza University of Rome	Sustainable self-surfactant Poly-hydroxyalkanoates (PHAs) systems for hydrophobic drug encapsulation
B	10:35	10:50	Claudia Marconi	Sapienza University of Rome	Innovative antimicrobials from facial steroidal surfactants
B	10:50	11:05	Benedetta Brugnoli	Sapienza University of Rome	Chitosan-sodium usnate nanosystems: Preparation, characterization, and biocompatibility
	11:05	11:35			Coffee break
B	11:35	11:50	Mariangela Clemente	CNR-Institute for Biological Systems (ISB)	Resveratrol-based liposomes as model to study drug delivery across Blood Brain Barrier
B	11:50	12:05	Eleni Axioti	University of Nottingham	Glycerol- and diglycerol-based polyesters: Evaluation of backbone alterations upon nano-formulation performance
B	12:05	12:20	Carmela Ilaria Pierro	Università degli studi di Bari "Aldo Moro"	Hybrid biomaterial for in situ oxygen generation against hypoxia-reperfusion injury
B	12:20	12:35	Federico Luchi	University of Verona	Synthesis and evaluation of Polyglycerol-based polymers as an alternative to PEG-based coatings
	12:35	14:00			Lunch break

C Room

Theme	from	to	Presenter	Affiliation	Title
F	10:00	10:20	<b>Keynote</b> - Matilde Tancredi	University of Naples Federico II	Multifunctional biosurfactants: Self-aggregation and antioxidant activity of rhamnolipids
F	10:20	10:35	Leonardo Ariodante	Sapienza University of Rome	Exploring Bile Salt Aggregation: Insights from Deep Eutectic Solvents
F	10:35	10:50	Michael Casale	Università di Genova	Aqueous co-precipitation of iron oxide nanoparticle in the presence of amino acids
F	10:50	11:05	Sara Cerra	Sapienza University of Rome	Gold nanoparticles: tailoring plasmonic properties for SERS-based sensing applications
	11:05	11:35			Coffee break
F	11:35	11:50	Valerio La Gambina	Sapienza University of Rome	CTAB and a thermoresponsive bile acid derivative form catanionic tubules: sorting out an unexpected composition ratio
F	11:50	12:05	JeongHyun Han	Seoul National Univerisy	Enhancement of Enantioselective Light-matter Interaction by Chiral Plasmonics
F	12:05	12:20	Lucrezia Desiderio	Sapienza University of Rome	Determination of the optimal pH for doxorubicin encapsulation in polymeric micelles
	12:35	14:00			Lunch break

B Room

Theme	from	to	Presenter	Affiliation	Title
D	10:00	10:20	<b>Keynote</b> - Panagiota Kalligostyri	University of Naples Federico II, Naples, Italy	A universal paper-based origami device towards multi-fold analyte preconcentration
D	10:20	10:40	Alessandro Fabiani	Perkin Elmer Scientifica Italia Srl	Enhancing Productivity and Flexibility in LC-MS/MS using PerkinElmer QSiight 420 with Dual ESI-APCI Source Capability
D	10:40	10:55	Wanda Cimmino	University of Naples Federico II	Design of experiments for optimizing electrochemical biosensor towards miRNA detection on chip
D	10:55	11:10	Neda Bagheri	University of Rome Tor Vergata	PAM-Engineered Toehold Switches as Input-Responsive Activators of CRISPR-Cas12a for Sensing Applications
	11:05	11:35			Coffee break
D	11:35	11:50	Laura Leoni	University of Turin	Urinary steroids analysis by dilute & shoot LC-MS/MS: the case of Pregnenediol-3-Glucuronide and future perspectives
D	11:50	12:05	Sara Elsa Aita	Sapienza University of Rome	One-phase extraction coupled with aza-Paternò-Büchi reaction allows the in-depth lipid characterization of hempseeds by untargeted lipidomics
D	12:05	12:20	Michele De Rosa	Sapienza University of Rome	Multiplatform targeted/untargeted approaches for the identification of possible biomarkers of occupational exposure
D	12:20	12:35	Greta Petrella	University of Rome "Tor Vergata"	Advanced Chemometric Approaches to Study Metabolic Crosstalk in Patients with Multiple Health Conditions
	12:35	14:00			Lunch break

TUESDAY, June 25th 2024

**La Ginestra Room**

	from	to	Presenter	Affiliation	Title
	14:00	14:40	<b>Plenary Speaker</b> Aitziber L. Cortajarena	Center for Cooperative Research in Biomaterials – CIC biomaGUNE, Spain	Engineered protein-nanomaterial composites: versatile tools for biocatalysis, bioelectronics, sensing, imaging, and therapy

**La Ginestra Room**

Theme	from	to	Presenter	Affiliation	Title
G	14:55	15:15	<b>Keynote</b> - Arianna Sinibaldi	University of Pisa	HMF: A Responsive Bio-Based Building Block for Diels-Alder Reaction
G	15:15	15:30	Berardino Barbati	Sapienza University of Rome	Surfactant enhanced mobilization of polycyclic aromatic hydrocarbons from marine sediment by washing and flushing processes
	16:00	16:30	Coffee break		
G	16:30	16:45	Lionel Nguemna Tayou	Sapienza University of Rome	Novel continuous-flow process for biopolymers production
G	16:45	17:00	Angelica Petrongari	Sapienza University of Rome	Optimization of Li-O <sub>2</sub> aprotic batteries' formulation: from singlet oxygen suppression to lithium metal protection
G	17:00	17:15	Matteo Palluzzi	Sapienza University of Rome	Developing eco-friendly methods to produce ionic liquids for a novel use in high-voltage lithium-ion batteries
G	17:15	17:30	Roya Binaymotlagh	Sapienza University of Rome	Self-Assembling Peptide-Based Magnetogels for the Removal of Heavy Metals from Water

**A Room**

Theme	from	to	Presenter	Affiliation	Title
A	14:55	15:10	Leonardo Gelati	Università degli Studi di Milano/Università degli Studi della Campania Luigi Vanvitelli	Enzyme adsorption on hydroxyapatite to enable continuous flow biocatalysis
E	15:10	15:25	Valentina Iannace	Universitat de Girona	Regioswitchable Bingel bis-functionalization of fullerene C70 via supramolecular masks
A	15:25	15:40	Andrea Casagrande	University of Montpellier/Tallinn University of Technology	Mechanochemical Synthesis of Agrochemicals
A	15:40	15:55	Fabrizio Olivito	Università della Calabria	The role of catalysis in the conversion of carbohydrates
	16:00	16:30	Coffee break		
A	16:30	16:50	<b>Keynote</b> - Marco Galeotti	Universitat de Girona	Catalyst and Medium Control Over Rebound Pathways in Manganese-Catalyzed Methylenic C-H Oxidation
A	16:50	17:05	Venanzio Raglione	Istituto di Struttura della Materia (ISM) - Consiglio Nazionale delle Ricerche	Greener Light: Triarylamine-Based Materials for Sustainable Optoelectronics
A	17:05	17:20	Martina Bortolami	Sapienza University of Rome	Chiral carbon dots from L-proline: electrochemical synthesis and application as recyclable nano-organocatalysts
A	17:20	17:35	Lorenzo Celio	Sapienza University of Rome	Total synthesis of kinamycin F and its analogues through transition metal-catalyzed domino reaction

**C Room**

Theme	from	to	Presenter	Affiliation	Title
I	14:55	15:15	<b>Keynote</b> - Luka Dordevic	University of Padova	Supramolecular Chromophores: From Assembly to Photocatalysis
I	15:15	15:30	Shani Ligati Schleifer	Ben Gurion University of the Negev	Additive Manufacturing of Polymer Composites with Printing-Direction-Independent Properties
I	15:30	15:45	Luigi Gamberini	Università di Bologna	Polymer mixtures of polylactic acid with biobased, chemically recyclable, and self-healing thermosetting materials
I	15:45	16:00	Elisa Sturabotti	CICbiomaGUNE	Tailoring the fluorescence of novel nitrogen doped carbon nanodots for imaging and biological applications
	16:00	16:30	Coffee break		
I	16:30	16:45	Cinzia Michenzi	Sapienza University of Rome	Fluorescent biomass Carbon Dots: a convenient method for detecting nitrobenzene in water
I	16:45	17:00	Muhammed Alkali	University of Bucharest	Design of Emissive Liquid Crystals based on Copper (I) complexes with Benzoyl thiourea, having a Cyano or Fluoro group peripherally connected
I	17:00	17:15	Leonardo Giaccari	Sapienza University of Rome	Tuning the properties of graphene oxide by chemical functionalization

**B Room**

Theme	from	to	Presenter	Affiliation	Title
H	14:55	15:15	<b>Keynote</b> - Davide Corinti	Sapienza University of Rome	Univocal determination of the binding sites of a cytotoxic dinuclear Cu(II) complex to nucleotides by IR ion spectroscopy and calculations
H	15:15	15:30	Donatella Ambroselli	Sapienza University of Rome	Plant-Based Food : From Nutritional Value to Health Benefits
H	15:30	15:45	Simone Giovannuzzi	Università di Firenze	Oxazolidinone-based carbonic anhydrase: a promising strategy to discover antibiotics against gram-positive bacteria?
H	15:45	16:00	Paolo Guglielmi	Sapienza University of Rome	Design, synthesis, and biological activity of benzo[b]thiophene-based inhibitors of human monoamine oxidase
	16:00	16:30	Coffee break		
H	16:30	16:45	Michela Guida	Sapienza University of Rome	Exploring the mechanism of C55-P translocation in bacterial cell walls: a native mass spectrometry approach
H	16:45	17:00	Andrea Angelucci	Sapienza University of Rome	Porphyrazines carrying externally o-carboranedithiolate groups as potential bimodal PDT/BNCT anticancer agents
H	17:00	17:15	Giuseppe Lembo	University of Milano-Bicocca	Biotechnological flow chemistry approach for lignin valorization

**Outside Chemistry Department**

	from	to			
	17:30	19:00	POSTER SESSION		
	18:30	23:00	Conference Concert and Cocktail		

WEDNESDAY, June 26th 2024

**La Ginestra Room**

	from	to	Plenary Speaker	Affiliation	Title
	09:00	09:40	<b>Frederic Coulon</b>	<b>Cranfield University, UK</b>	<b>Quantitative and Qualitative Comparison of Field-based Analytical Technologies for Petroleum Hydrocarbons Determination in Soils</b>

**La Ginestra Room**

Theme	from	to	Presenter	Affiliation	Title
B	09:55	10:15	<b>Keynote - Valerio Di Lisio</b>	Donostia International Physics Center, San Sebastian, Spain	The sequential relaxations of poly(L-lactide) from glass to crystal
B	10:15	10:30	Margherita Vit	University of Udine	From molecularly docked aptamer design to detection: E-aptasensor for okadaic acid (OA)
B	10:30	10:45	Clarissa Ciarlantini	Sapienza University of Rome	3,4-Hydroxycinnamic acid-containing antimicrobial DRESSINGS based on functionalized chitosan for applications in tissue regeneration
B	10:45	11:00	Laura Di Muzio	Sapienza University of Rome	Gelatin methacryloyl in tissue engineering: from an innovative synthesis to its use for 3D scaffolds fabrication
	11:00	11:30	Coffee break		
B	11:30	11:45	Gaia Salvatori	Sapienza University of Rome	Linking biopolymers production with Microbial Electrochemical Technologies
B	11:45	12:00	Susanna Romano	Università Roma Tre	Active starch-based films for food packaging applications: choline chloride plasticizer and self-polymerized polydopamine with antioxidant and UV barrier properties
B	12:00	12:15	Luana Di Lisa	University of Bologna	Tailoring toughness: frontal polymerization of hydrogels with controlled mechanical properties
B	12:15	12:30	Asiyah Esmail	NOVA School of Science and Technology	Novel hydrogel dressings based on bacterial cellulose and FucoPol for advanced wound treatment
	12:30	14:00	Lunch break		

**A Room**

Theme	from	to	Presenter	Affiliation	Title
C	09:55	10:15	<b>Keynote - Josephine Alba</b>	University of Fribourg	A Coarse-Grained membrane probe to monitor tension changes in flat and curved membranes
C	10:15	10:30	Federica Simonetti	Sapienza University of Rome	Investigating the Interaction between PFAS and Nanoplastics: An Ab Initio Computational Study
C	10:30	10:45	Vincenzo Vigna	Università della Calabria	Selection of Transition Metal Complexes as potential Photosensitizers based on UV-vis absorption wavelength with Machine Learning Classification Algorithms
C	10:45	11:00	Nikola Stamenković	Biotechnical Faculty, University of Ljubljana	Bond Decomposition Analysis: Can acidity be correlated to bond identity?
	11:00	11:30	Coffee break		
C	11:30	11:45	Nico Di Fonte	University of L'Aquila	A graph theory-based order parameter for the structural and dynamic characterization of supercooled water
C	11:45	12:00	Giorgia Mannucci	Sapienza University of Rome	How deep is your DES? Unveiling the Driving Forces Behind a Deep Eutectic Solvent Formation
C	12:00	12:15	Giulia Adriana Bracchini	ISM - Consiglio Nazionale delle Ricerche	Revealing the structural organisation of 5-hydroxymethylfurfural (HMF) through X-ray scattering and Molecular Dynamics.
C	12:15	12:30	Giulia Ciattaglia	Sapienza University of Rome	Exploring the Effect of a Quencher on the Fluorescence Decay of Tryptophan in Water: a Computational and Experimental Study
	12:30	14:00	Lunch break		

**C Room**

Theme	from	to	Presenter	Affiliation	Title
H	09:55	10:15	<b>Keynote - Luca Pellegrino</b>	Humanitas University	Reduction of bacterial adhesion on wrinkled surfaces under fluid shear
H	10:15	10:30	Virginia Pontecorvi	Sapienza University of Rome	The pyran-2-one core: a novel scaffold for potent and selective inhibition of tumor-related carbonic anhydrase isoforms IX and XII
H	10:30	10:45	Fabrizio Masciulli	Sapienza University of Rome	Chemical and biological profile of "Sulmona Red Garlic" ecotype's aerial bulbils
H	10:45	11:00	Luca Pisano	Sapienza University of Rome	Design of hypermodified NIR-responsive RNA conjugates for a spatio-temporal delivery of therapeutic oligonucleotides
	11:00	11:30	Coffee break		
H	11:30	11:45	Francesco Mattii	European Laboratory for Non-linear Spectroscopy (LENs), UNIFI	Novel hybrid magneto-plasmonic nanoclusters for ultrasensitive detection through SERS effect
H	11:45	12:00	Silvia Pezzola	Università di Tor Vergata Roma	Computational insight on drug-like natural and tailored monoterpenoids
H	12:00	12:15	Bruna Matturro	IRSA-CNR	Metagenomics of a column reactor promoting reductive biological dechlorination by coupling TCE biodegradation and adsorption with bio-based materials
H	12:15	12:30	Alessio Nocentini	University of Florence	Are carbonic anhydrase modulators suited for designing multitargeting ligands to treat multifactorial pathologies?
	12:30	14:00	Lunch break		

**B Room**

Theme	from	to	Presenter	Affiliation	Title
D	09:55	10:15	<b>Keynote - Martina Foschi</b>	University of L'Aquila	Optimization of water-based extraction of Chamomile ( Matricaria Chamomilla L.) by Analytical and Chemometric Approach
D	10:15	10:30	Claudia Scappaticci	University of L'Aquila	Traceability of high-quality Italian rice cultivars through chemometric approaches
D	10:30	10:45	Maria Chiara Frondaroli	University Campus Bio-Medico of Rome	PLA-based nanocomposite microbeads for magnetic solid phase extraction of xenobiotics from urine samples
D	10:45	11:00	Giacomo Di Matteo	Sapienza University of Rome	Kombucha: From High-Field NMR to Benchtop NMR to monitor the complex fermentation process
	11:00	11:30	Coffee break		
D	11:30	11:45	Rosangela Elliani	Università della Calabria	A new analytical method based on solid phase microextraction-gas chromatography tandem mass spectrometry for the assay of polycyclic aromatic hydrocarbons in human saliva
D	11:45	12:00	Candida Moffa	Sapienza University of Rome	Terahertz spectroscopy: a selective approach for diagnostic and preventive conservation in the Cultural Heritage field
D	12:00	12:15	Andrea Fricano	Sapienza University of Rome	GC-MS/MS analytical solution for challenging volatile compounds
D	12:15	12:30	Enrico Romano	Sapienza University of Rome	Influence of pedoclimatic conditions on Arctium lappa. L polyphenolic profile: development of hydroalcoholic roots extractions and chemical-biological characterization processes
	12:30	14:00	Lunch break		

WEDNESDAY, June 26th 2024

La Ginestra Room

	from	to	Plenary Speaker	Affiliation	Title
	14:00	14:40	<b>Loic Jierry</b>	Université de Strasbourg, CNRS, Institut Charles Sadron, France	<b>Enzyme-Assisted Self-Assembly of Peptide Nanofibers: From Nanostructure Resolution to Supramolecular Hydrogel Applications</b>
	14:40	15:05	Chiara Biagini and Matteo Capone	Il Chimico Sulla Tavola	<b>Data does NOT speak for itself: why it is important to communicate science</b>
	15:05	15:30		Mada Advances	<b>Communicate wisely: a guide for combating "washing" practices in science</b>

La Ginestra Room

Theme	from	to	Presenter	Affiliation	Title
C	15:45	16:05	<b>Keynote</b> - Flavia Aleotti	Università di Bologna	Transient spectroscopy simulations from first principles: decoding ultrafast TRPES signals in acetylacetone
C	16:05	16:20	Emanuela Mangiacapre	Sapienza University of Rome	Sustainable aroma entrapment: exploring the potentiality of the $\beta$ -CD-lactic acid SUPRADES
C	16:20	16:35	Alessio Olivieri	Sapienza University of Rome	Finding Collective Variables from Molecular Transition Paths
C	16:35	16:50	Lorenzo Augusto Rocchi	Sapienza University of Rome	Rethinking Physical Aging: Unveiling an Additional Molecular Mechanism in Poly-4-Chlorostyrene and Other Polymeric Glasses
	16:50	17:20			Coffee break
C	17:20	17:35	Daniele Belletto	Università della Calabria	Computational study on the photodissociation mechanism of ruthenium complexes for photoactivated chemotherapy
C	17:35	17:50	Alessandro Loreti	University of Bologna	WFOT: a WaveFunction Overlap Tool Between Single- and Multi-Reference Electronic Structure Methods for Spectroscopy Simulation
C	17:50	18:05	Francesca Nicolanti	Sapienza University of Rome	Development of Interaction Models for Simulating the Effects of Cosmic Rays on Ion-Molecule Reactions in the Atmosphere.
C	18:05	18:20	Sara Boi	Università degli Studi di Cagliari	Implementing osmosis into a simulation model for passive permeation through lipid bilayers

A Room

Theme	from	to	Presenter	Affiliation	Title
B	15:45	16:00	Elisabetta Lacolla	Sapienza University of Rome	Synthesis and characterization of cyclodextrin/Chitosan systems containing curcumin for biomedical applications
B	16:00	16:15	Carolina Muñoz	ICTP, Madrid	Antimicrobial and antioxidant scaffolds obtained from chemically modified chitosan with imidazole groups
B	16:15	16:30	Siwanut Pummarin	Centro de Investigación Cooperativa en Biomateriales (CICbiomaGUNE)	Characterization of BSA coated- and uncoated hemoglobin nanoparticles (HbNPs) prepared by Co-precipitation-crosslink-dissolution method (CCD) in different concentration of glutaraldehyde (GA)
	16:50	17:20			Coffee break
B	17:20	17:35	Gloria Saorin	Ca' Foscari University of Venice	Microfluidic production of amiodarone loaded nanoparticles and application in drug repositioning in ovarian cancer
B	17:35	17:50	Jacopo Forte	Sapienza University of Rome	Advances in scalable manufacturing of niosomes using microfluidic technique
B	17:50	18:05	Vito Cosimo Carriero	Sapienza University of Rome	Biomaterials-based cryogels for bone tissue engineering
B	18:05	18:20	Camillo Morano	University of Milan	Biopolymers from waste-deriving $\alpha$ -OH fatty acids for marble coating

C Room

Theme	from	to	Presenter	Affiliation	Title
I	15:45	16:05	<b>Keynote</b> - Couturaud Benoit	ICMPE-CNRS, France	Block Copolymer Nanocarriers Made by PISA for Controlled Drug Delivery: From In Situ Encapsulation to Stimuli-Responsive Release and Degradation
I	16:05	16:20	Daniele Natali	Università di Bologna	Sustainable polymers with reversible shape-memory properties
I	16:20	16:35	Ibtissame Sidane	Università degli Studi di Genova	Design of Novel PDMS-based Magnetic Nanocomposites
I	16:35	16:50	Samet Varol	Università di Bologna	Ligand-binding directed cationic transport in nanoporous polymer membranes
	16:50	17:20			Coffee break
I	17:20	17:35	Chiara Fratello	CNR-ISMN & Sapienza, University of Rome	Sustainable corrosion inhibitors and carrier systems for the preservation of concrete heritage
I	17:35	17:50	Francesco Gabriele	University of L'Aquila	Development of novel strategies for conserving stone monuments: application of biocidal hydrogels and hydrophobic coatings
I	17:50	18:05	Marcello Messi	Sapienza University of Rome	Evaluation of element accumulation and oxidative stress in bees due to a landfill waste fire event

B Room

Theme	from	to	Presenter	Affiliation	Title
F	15:45	16:05	<b>Keynote</b> - Giuseppe Vitiello	University of Naples Federico II	Designing bioinspired eumelanin-like hybrid nanomaterials for regenerative medicine
F	16:05	16:20	Akshay Kumar Kumar	Sardar Patel University Mandi	Investigating Temperature-Dependent Carrier Transport and Persistent Photoconductivity in WSe <sub>2</sub> /MoS <sub>2</sub> Nanocomposite Thin Films
F	16:20	16:35	Valerio Napoleone	Sapienza University of Rome	Linoleic acid-based covalent adaptable networks (CANs) with recyclability and self-healing properties
F	16:35	16:50	Martina Mercurio	Sapienza University of Rome	Multifunctional inorganic nanomaterials: synthesis, characterization and surface functionalization for advanced applications
	16:50	17:20			Coffee break
F	17:20	17:35	Valeria D'Annibale	Sapienza University of Rome	The supramolecular dance of Porphyrins and Bile Salts towards chiral sensing devices
F	17:35	17:50	Beatrice Pennacchi	Sapienza University of Rome	Network assembly of Gold Nanoparticles
F	17:50	18:05	Davide Piccinino	University of Tuscia	Green synthesis of Pummerer's Ketones by heterogeneous photo-biocatalysis

THURSDAY, June 27th 2024

La Ginestra Room

	from	to	Plenary Speaker	Affiliation	Title
	09:00	09:40	Luisa Torsi	Università degli Studi di Bari Aldo Moro, Italy	Point-Of-Care Ultra-Portable Single-Molecule Bioassays for One-Health
	09:40	10:20	Steve Howdle	School of Chemistry, University of Nottingham, UK	Clean and Green - new approaches to the polymers society needs

La Ginestra Room

Theme	from	to	Presenter	Affiliation	Title
G	10:35	10:50	Francesca Perra	University of Cagliari	Mesostructured silica-based materials as sorbents and catalysts for pollutant removal and CCU technologies
G	10:50	11:05	Serena Monaco	Sapienza University of Rome	Arsenic and sulfadiazine adsorption by Fe-hydrochar produced from olive pomace
G	11:05	11:20	Andrea Ceppetelli	Sapienza/ ICGM, University of Montpellier	Calcium-zinc alloys as anodes for rechargeable non-aqueous calcium-ion batteries at room temperature
G	11:20	11:35	Viviana Chiappini	Sapienza University of Rome	Impact of Support Material on Candida rugosa Lipase Immobilization Performance
	11:35	12:10			Coffee break
G	12:10	12:30	<b>Keynote</b> - Fausto Secci	Università degli Studi di Cagliari	Combining the acid and the redox function to design mesostructured catalysts for DME production from CO <sub>2</sub>
G	12:30	12:45	Marco Facchino	Università Campus Bio-Medico di Roma	Shifting towards sustainable coagulants for the removal of microplastics
G	12:45	13:00	Jorge Montero	Sapienza University of Rome	Development of New Materials for High Performance Seawater Batteries
G	13:00	13:15	Donato Pasculli	Università di Torino	Colorless And Transparent Dye Sensitized Solar Cells For Building Integration Photovoltaic Based On NIR Dyes And Transparent Electrolytes
	13:15	14:45			Lunch break

A Room

Theme	from	to	Presenter	Affiliation	Title
C	10:35	10:50	Pierraffaele Barretta	Università della Calabria	Mechanism of Action of a Ru-based Photosensitizer for Photoactivated Chemotherapy
C	10:50	11:05	Gianluca Dell'Orletta	University of L'Aquila	Multiscale Modeling of the Photoinduced Enantioselective Radical Cyclization of $\alpha$ -Chloroamides in Flavin-Dependent Ene-Reductases
C	11:05	11:20	José Miguel Silva Ferraz	Sapienza University of Rome	Sublimation Study of Four 2-Methyl-n-Nitro Benzoic Acids
C	11:20	11:35	Matteo Farina	Sapienza University of Rome	Unveiling the Catalytic Mechanism of Horse-Liver Alcohol Dehydrogenase in reduction reactions through a computational approach
	11:35	12:10			Coffee break
C	12:10	12:30	<b>Keynote</b> - Marco Sanna Angotzi	University of Cagliari	Neutron Scattering to Understand the Complex Magnetic Properties in Co-Mn Ferrite Nanoparticles
C	12:30	12:45	Daniele Motta	University of Turin	Cost-effective and eco-friendly polyols-DESS for supercapacitors
C	12:45	13:00	Eva Pietropaoli	Sapienza University of Rome	Exploring the depth of type V deep eutectic solvents
C	13:00	13:15	Michele De Angelis	University of Rome Tor Vergata	On the thermodynamics of Barium Oxyfluoride precursor in YBCO growth via MOD process
	13:15	14:45			Lunch break

C Room

Theme	from	to	Presenter	Affiliation	Title
A	10:35	10:50	Debora Schirotti	Università di Parma	Palladium-Catalysed Additive Carbonylation of Propargyl Urea Enables Modular Synthesis of $\alpha,\beta$ -Unsaturated- $\gamma$ -Lactams
A	10:50	11:05	Maria Chiara Cabua	Università degli Studi di Cagliari	Low Environmental Impact Synthesis of $\gamma$ -Lactones through Photoinduced Baeyer-Villiger Oxidation of Cyclic Ketones
A	11:05	11:20	Thaynan Aparecida Bueno Chagas	University of Campinas	Asymmetric organocatalyzed Morita-Baylis-Hillman reaction of isatins with 5-vinyl-1,2,4-oxadiazoles
E	11:20	11:35	Alessandro Tofoni	Sapienza University of Rome	Unraveling the molecular oxygen-based methane to methanol oxidation over the MIL-100(Fe) metal-organic framework
	11:35	12:10			Coffee break
F	12:10	12:30	<b>Keynote</b> - Reham Abu Ghoush	The Hebrew University of Jerusalem	Delivery of hydrophilic molecule via intranasal route using nanotechnology- a novel approach for optimizing antipsychotic-like activity while minimizing peripheral exposure
F	12:30	12:45	Luca Piccirillo	Sapienza University of Rome	Formation of supramolecular structures of chiral porphyrin-bile salt conjugates
F	12:45	13:00	Nicoletta Rusta	Università degli Studi di Cagliari	Nanostructured Cerium Oxide-based catalysts for direct synthesis of dimethyl carbonate from methanol and CO <sub>2</sub>
F	13:00	13:15	Riccardo Sergi	Sapienza University of Rome	Intercalated polymeric hybrid structures designed for the removal of dyes from wastewater
	13:15	14:45			Lunch break

B Room

Theme	from	to	Presenter	Affiliation	Title
H	10:35	10:50	Tommaso A. Salamone	Sapienza University of Rome	Hydrophilic gold nanoparticles as multimodal agents for plasmonic nanomedicine
H	10:50	11:05	Francesco Vallini	Sapienza University of Rome	Novel pyrazole- based compounds active against Mycobacterium tuberculosis
H	11:05	11:20	Chiara Tammaro	Sapienza University of Rome	Hit optimization of new potent inhibitors of Cocksackievirus A9
H	11:20	11:35	Giacomo Proietti Tocco	Polytechnic of Turin	From CO <sub>2</sub> to proteins and fatty acids: a novel approach for valorizing acetate-rich gas fermentation stream using microalgae through a two-step process
	11:35	12:10			Coffee break
B	12:10	12:30	<b>Keynote</b> - Vincenzo Taresco	University of Nottingham	Glycerol-based sustainably sourced resin for volumetric printing
B	12:30	12:45	Ester Butera	Università degli studi di Catania	In Situ Labeling of the Aqueous Compartment of Extracellular Vesicles with Luminescent Gold Nanoclusters
B	12:45	13:00	Rachele Rampazzo	University Ca Foscari di Venezia	Enhanced antibacterial activity of Vancomycin loaded on functionalized polyketones
B	13:00	13:15	Federica Daus	University of Bologna	Bacterial cellulose from Kombucha tea as a promising green material
	13:15	14:45			Lunch break

Social Event and Conference Dinner

FRIDAY, June 28th 2024

## La Ginestra Room

from to  
09:30 09:50

Rome Technopole Spoke 6 Young Researcher Workshop - opening remarks

## La Ginestra Room

Theme	from	to	Presenter	Affiliation	Title
	10:00	10:12	Rome Technopole event		TBA
	10:12	10:24	Rome Technopole event		TBA
	10:24	10:36	Rome Technopole event		TBA
	10:36	10:48	Rome Technopole event		TBA
	10:48	11:00	Rome Technopole event		TBA
	11:05	11:35	Coffee break		
	11:35	11:47	Rome Technopole event		TBA
	11:47	11:59	Rome Technopole event		TBA
	11:59	12:11	Rome Technopole event		TBA
	12:11	12:23	Rome Technopole event		TBA
	12:23	12:35	Rome Technopole event		TBA
	12:35	14:05	Lunch break		

## A Room

Theme	from	to	Presenter	Affiliation	Title
G	10:00	10:15	Paolo Casu	Sapienza University of Rome	On the composition and isomerism effect in the thermal and structural properties of choline chloride/hydroxyphenol deep eutectic solvents
G	10:15	10:30	Andrea Cioffi	Sapienza University of Rome	Influence of different synthetic routes in the structure and properties of lithium rich materials with high content of nickel for lithium batteries
G	10:30	10:45	Farid Hajareh Haghighi	Sapienza University of Rome	Supercritical carbon dioxide-based approach for recovery and purification of polyhydroxyalkanoates from crops-mixed microbial cultures
G	10:45	11:00	Roberta Giorgione	Sapienza University of Rome	Effect of air quality on oxidative stress and elemental levels in hair and urine of Italian and Chilean students
	11:05	11:35	Coffee break		
G	11:35	11:50	Martina Marsotto	University of Tor Vergata	Synthesis and characterization of 5- and 10-oxocorroles from $\beta$ -octaalkylcorroles
G	11:50	12:05	Alessandro Milani	Sapienza University of Rome	A novel approach for industrial lipases immobilization on graphene oxide nanosheets for Biodiesel production
G	12:05	12:20	Fulvio De Paola	Università degli Studi di Napoli "Federico II"	Hybrid geopolymer materials and Neapolitan Yellow Tuff for Cs(I) ions removal from aqueous solution
G	12:20	12:35	Matteo Melegari	University of Parma	Beyond the Bin: Investigating the Recovery of Rare Earth Elements from Multimetal Mixtures
	12:35	14:05	Lunch break		

## C Room

Theme	from	to	Presenter	Affiliation	Title
G	10:00	10:15	Marta Senofonte	Sapienza University of Rome	Biosorption enhancement by the use of surfactants for PFAS removal from waters
G	10:15	10:30	Alessia De Cataldo	Polytechnic of Bari	Methanol - based fuel gels
G	10:30	10:45	Angela Marchetti	Sapienza University of Rome	Valorisation of Reground Pasta by-product through a multi-stage process for polyhydroxyalkanoates production
G	10:45	11:05	<b>Keynote</b> - Martina Nardi	Italian Institute of Technology	Sustainable adhesives: exploring boronic ester vitrimer composites containing lignin microparticles
	11:05	11:35	Coffee break		
G	11:35	11:50	Ludovica D'Annibale	Sapienza University of Rome	Combined electrochemical and hydrometallurgical approach for direct synthesis of Li-Mn-rich cathode material from end-of-life Li-ion batteries
G	11:50	12:05	Clara Marandola	Sapienza University of Rome	Steering bioelectrochemical methane production with biochar
G	12:05	12:20	Flavia Marzulli	Sapienza University of Rome	Exploring the recycling potential of mixed plastic waste through combined thermochemical and biological processes
G	12:20	12:35	Jacopo Ferretti	Sapienza University of Rome	Microbial electrosynthesis from CO <sub>2</sub> with a mixotrophic stage to reduce methanogenesis and the start-up phase
	12:35	14:05	Lunch break		

## B Room

Theme	from	to	Presenter	Affiliation	Title
A	10:00	10:20	<b>Keynote</b> - Young In Jo	Seoul National University	Epoxy and Isocyanate Free Synthesis of Polyurethane Foam from Glycerol and CO <sub>2</sub>
C	10:20	10:35	Anastasiya Duchenko	University of Roma Tre	Analysis of the Effect of Alivalent Substitutions in Ca/K-1144 Iron Based
F	10:35	10:50	Leonardo Severini	Institute for Complex Systems, National Research Council (CNR-ISC) and Sapienza University of Rome	Gellan-chitosan polyelectrolyte complexation: from experiments to numerical simulations
	11:05	11:35	Coffee break		
G	11:35	11:50	Alessia Pantaleoni	Sapienza University of Rome	Natural fiber covalent coating with bioinspired gallic acid-iron phenylphosphonate complex for biocomposite flame retardancy application
G	11:50	12:05	Silvia Iacobelli	Sapienza University of Rome	Evaluation of two electrodeposition methods for the synthesis of Zn-based CO <sub>2</sub> electroreduction catalysts
G	12:05	12:20	Nicholas Carboni	Sapienza University of Rome	Composite Anion Exchange Membranes Based on Graphene Oxide for Water Electrolyzer Applications
	12:35	14:05	Lunch break		

## La Ginestra Room

from to  
14:15 18:00

Rome Technopole Spoke 6 Young Researcher Workshop

## La Ginestra Room

from to  
18:00 18:30

SYNC 2024 - Closing remarks

End of conference