



Programme of the Symposium

Tuesday, 23/01/2024

14:00	14:45	Opening Session	<i>Opening speech</i>	
Chair: Lorenzo Pacini, Michelangelo Fichera				
14.45	15.05	OR01	Valentina Vitali	Bioconjugation of proteins with 19F and nitroxide tags for in vitro and in cell characterization
15.05	15.15	OR02	Margherita Marino	Innovative liquid chromatographic-mass spectrometric technologies to purify and identify glycosylated and glycosylated proteins in biological fluids
15.15	15.30	OR03	Andrea Dali	The metalation process of coproporphyrin III by ferrochelatase from <i>Listeria monocytogenes</i>
15.30	15.40	OR04	Fabio Biffoli	Sustainability in the electroplating industry: from barrier layers to new non-toxic additives
15:40	16:10	Coffee Break		
16.10	16.30	OR05	Kristian Vasa	Design and synthesis of molecular, macromolecular, and nano-supported bio-probes and biosensors
16.30	16.40	OR06	Prem Prakash Sahu	Computation of magnetic exchange interaction on transition metal-based molecular spin Qubits using periodic DFT+U
16.40	16.55	OR07	Alice Cappitti	Biopolymers: from saccharides to new high-performance materials
16:55	17:10	End of day one		

Wednesday, 24/01/2024

09.00	09.10	<i>Opening of day two</i>		
Chair: Laura Sforzi, Lapo Renai, Serena Cabigliera				
09.10	09.30	OR08	Andrea Comparini	Development of aluminium alloys sustainable electroplating processes
09.30	09.40	OR09	Leonardo Querci	NMR of Paramagnetic Proteins: New Routes for ¹³ C Direct Detection in Challenging Iron-Sulphur Proteins



09.40	09.55	OR10	Michael Quagliata	Triazole stapled analogs of ACE2(24-42) and sequences derived from Internal Fusion Peptide (IFP) demonstrate antiviral efficacy against SARS-CoV-2
09.55	10.10	OR11	Riccardo Spena	Washing machine on a chip: design and fabrication of microfluidic devices for investigating industrial formulations
10.10	10.20	OR12	Riccardo Gallorini	Valorization of residual biomasses through thermochemical conversion
10.20	10.30	OR13	Pietro Tordi	A bioinspired and sustainable route for the preparation of Ag-crosslinked alginate fibers decorated with silver nanoparticles
10:30	11:30	Coffee Break & Poster Session		
11:30	13:00	<i>Invited speakers</i>	<i>Benessere nei giovani ricercatori</i>	
13:00	14:00	Lunch Break		
<i>Chair: Andrea Sodini, Francesca Buco</i>				
14.00	14.20	OR14	Gavino Bassu	Once upon a time motility: from active motion to bacteriostasis
14.20	14.30	OR15	Sara Pavone	Synthesis of agrochemicals against canker of kiwifruit
14.30	14.40	OR16	Giulia Bonaccorso	Pressurized hot water extraction coupled with liquid chromatography-tandem mass spectrometry for the automated determination of pharmaceuticals in soil samples
14.40	14.50	OR17	Leonardo Tacconi	Reversible control of the magnetic anisotropy in a lanthanide molecular complex thin film
14.50	15.05	OR18	Marco Bonechi	Electrochemical characterization of Polycyclic Aromatic Hydrocarbons and Metal-organic frameworks for coatings and energy applications
15.05	15.15	OR19	Chiara Baroni	Structural characterization of Carbonic Anhydrase complexes with dual-target inhibitors
15:15	15:35	Coffee Break		
15.35	15.55	OR20	Francesca Porpora	A remediation proposal for the “vinegar syndrome” of cellulose acetate-based motion picture films
15.55	16.10	OR21	Margherita Verrucchi	Electrodeposition of anti-corrosive and barrier layers by using Direct and Pulsed current
16.10	16.25	OR22	Lorenzo Pacini	Green solvents on the PurePep® Chorus® taking advantage of induction heating: synthesis and HPLC-free purification of a 72mer deriving from COVID-19 Spike protein and β -amyloid(1-42)
16:25	16:40	End of day two		



Thursday, 25/01/2024

9:00 9:10 *Opening of day three*

Chair: Yshtar Tecla Simonini Steiner, Michele Casoria

09.10	09.30	OR23	Patrick Severin Sfragano	An electrochemical magneto-assay: from a manual to an automatable microfluidic approach
09.30	09.45	OR24	Lucrezia Cosottini	Ferritin-Au(I) bioconjugates as anticancer agents
09.45	09.55	OR25	Andrea Sodini	Glycolipids synthesis and formulation in biocompatible nanovesicles
09.55	10.10	OR26	Sara Aquilia	Protein-Based Biopolymer Material from Rapeseed Meal: Extraction, Modification, and Peptidomic Characterization for Environmental Sustainability
10.10	10.20	OR27	Laura Conti	Design and characterization of lipid nanoparticles for RNA encapsulation and targeted delivery
10.20	10.30	OR28	Chiara Mangini	An easily customizable glyconanomaterial with biomolecular recognition properties

10:30 11:30

Coffee Break & Poster Session

11.30	11.50	OR29	Davide Ranieri	Development of Porphyrin based two-Qubits Quantum Logic Gates
11.50	12.00	OR30	Francesca Milano	Multivalent iminoglyco-NPs for theranostic applications
12.00	12.15	OR31	Chiara Sarti	Challenges and technological approaches for tackling emerging microcontaminants in wastewater
12.15	12.25	OR32	Ilaria Chiarugi	Development and optimization of nanocarriers for the delivery of Si-RNA
12.25	12.35	OR33	Neri Fuochi	Bridging Smart Materials and Sensing Platforms: Advancements in Liquid Crystalline Elastomers and PDMS Microfluidic Supports
12.35	12.50	OR34	Francesca Buco	Multivalent iminosugars as enhancers of the lysosomal enzyme GCase activity
12.50	13.00	OR35	Elena Mariani	Electrodeposition with modulated currents in optics of a Circular Economy

13:00 14:00

Lunch Break

Chair: Chiara Sarti, Prem Prakash Sahu

14.00	14.20	OR36	Michela Lupi	Thia-Bridged Heterohelicenes: synthesis, resolution, and applications
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14.20	14.35	OR37	Mert Acar	Unusual Behavior of Responsive Peptide Gels
14.35	14.45	OR38	Andrea Geri	Mechanistic studies on antitumor gold compounds
14.45	15.00	OR39	Laura Vespignani	Study of new materials with low environmental impact and their use in the protection of wooden artifacts
15.00	15.15	OR40	Alessandro Veneri	New synthetic pathway to Kesterite nanoparticles with different tin content: an in-depth study of magnetic and optical properties
15:15	15:35			Coffee Break
15.35	15.45	OR41	Laura Sforzi	Evidence of microplastics (MPs) in ground- and well- waters: from sampling to analysis
15.45	16.00	OR42	Daniela Porcu	Bronze disease: synthesis and electrochemical characterization of a new recycled polystyrene-based coating
16.00	16.15	OR43	Alessandro Gerace	Hard/soft magnetic nanocomposites for high energy product permanent magnet
16:15	16:30			End of day three

Friday, 26/01/2024

09.30	09.40	<i>Opening of day four</i>		
			Chair: Patrick S. Sfragano, Andrea Dali	
09.40	10.00	OR44	Saul Santini	Advancing analytical methods for a comprehensive evaluation of emerging and legacy contaminants and their implications on human health following exposure
10.00	10.10	OR45	Benedetta Ciuffi	Study of enzymatic recycling of end-of-life polymers
10.10	10.25	OR46	Fernando Soto Bustamante	Mechanical Rupture of Polyethylene Glycol, Gelatin, Alginate Micro-capsules
10.25	10.35	OR47	Angela Sofia Tino	NMR-based investigation of intrinsically disordered regions of modular proteins for tailored design of peptides
10.35	10.50	OR48	Lorenzo Bracaglia	Characterization of structurally heterogeneous proteins with NMR
10.50	11.00	OR49	Ilaria De Santis	Plasmonic properties of gold nanoparticles interacting with synthetic lipid bilayers
11:00	11:30			Coffee Break
11.30	11.50	OR50	Lorenzo Baldini	Different auxiliary-promoted C(sp ³)-H bond activations on a challenging substrate, the trans-2-aminocyclopentanecarboxylic acid (ACPC)



11.50	12.00	OR51	Mariano Riccardi	Adsorption of molecular magnets on metal surfaces
12.00	12.15	OR52	Serena Cabigliera	Microbial Synergy: Exploring Bioremediation and Microplastic Dynamics in Environmental Resilience
12.15	12.25	OR53	Pietro Gentilesca	Development of materials for the selective coordination of critical elements present in produced waters
12.25	12.40	OR54	Michele Casoria	A Comprehensive Statistical Analysis of the Structural Properties Exhibited by Glycoproteins
12.40	12.50	OR55	Chiara Cianci	Preliminary studies on the formulation of nanostructured composites for the consolidation and protection of Street Art
12.50	13.00	OR56	Giulio Pappaianni	Electrodeposition and modification of surfaces of technological interest with low environmental impact
13.00	14.00	Lunch Break		
<i>Chair: Leonardo Tacconi, Lapo Querci</i>				
14.00	14.20	OR57	Simi M.E. Mangani	Archaeometric study of Montelupo Maiolica
14.20	14.30	OR58	Ilaria Antonia Vitale	Miniaturized Electrochemical Sensor For Dopamine Detection in Biological Fluids
14.30	14.45	OR59	Yshtar Tecla Simonini Steiner	“Recognition of emerging pollutants (EPs) with artificial fluorescence chemical sensors: a supramolecular approach”
14.45	14.55	OR60	Francesca Mancusi	Modified crystalline nanocellulose for the production of hybrid materials for biomedical applications
14.55	15.10	OR61	Michelangelo Fichera	Sewage sludge-derived biochar for the adsorptive removal of antibiotics in wastewater
15.10	15.20	OR62	Stefano Zineddu	Metal-based Antimicrobials to fight Antibiotic Resistance
15:20	15:40	Coffee Break		
15.40	15.55	OR63	Sara Calandra	Optimization of the sample selection procedure of historical mortars for radiocarbon dating
15.55	16.05	OR64	Lorenzo Quadrini	Development of immersion and/or runoff measurement techniques for determining the concentration of Urea in water and organic liquids.
16.05	17.00	<i>Closing Session</i>		PhD Coordinator, Organizing Committee
19.00	Social event at <u>Cartabianca Cafè</u> in Firenze Rifredi Via Panciatichi 49 - 50127 Firenze (FI)			



Poster Presentations

POS01 Giulia Agnoloni
POS02 Marta Albanesi
POS03 Samuele Baldini
POS04 Alice Beni
POS05 Deborah Bonavolontà
POS06 Silvia Bracci
POS07 Luca Campagiorni
POS08 Valentina Ceccherini
POS09 Lapo Gabellini

POS10 Thomas Lulli
POS11 Amina Mumtaz
POS12 Matteo Orlandi
POS13 Valentina Pacciani
POS14 Lapo Querci
POS15 Matilde Rossi
POS16 Martina Tozzetti
POS17 Filippo Turchi
POS18 Simone Ventisette