DETAILED DAILY PROGRAM

Afternoon Session

10:45-14:30: Registration
14:30: Opening Ceremony
15:00: Electrochemical Division Awards Ceremony

Master's Thesis Awards

15:15	A01	**Daniele Motta** *Premio di Laurea Photo Analytical*	*Sodium chloride-glycerol deep eutectic solvent: a green electrolyte for high-voltage electrochemical double layer capacitors*
15:30	A02	**Antonella Rosati** *Premio di Laurea Metrohm Italiana*	*Morphological Control Over Cu Nanowires Towards Highly Efficient CO_2 Electrocatalysts*
15:45	A03	**Stefano Gianvittorio** *Premio di Laurea Thasar*	*Development of Reagentless Alkaline Phosphatase-based Electrochemical Biosensors for Antioxidants and Biomolecules Detection*

PhD Thesis Awards

16:00	A04	**Roberto Baretta** *Premio di Dottorato Fondazione Oronzio e Niccolò De Nora*	*Electrochemically driven dissipative hydrogel networks*
16:15	A05	**Sara Ferrara** *Premio di Dottorato Fondazione Oronzio e Niccolò De Nora*	*Application of Artificial Fluorescent Proteins in Bio-Hybrid White Light Emitting Diodes*
16:30	A06	**Mohsin Muhyuddin** *Premio di Dottorato Engitec Technologies*	*Low-Cost Platinum Group Metal-Free Electrocatalyst for Hydrogen Evolution Reaction and Oxygen Reduction Reaction*
16:45	A07	**Claudio Maria Pecoraro** *Premio di Dottorato in memoria del Prof. Bruno Scrosati*	*Combined biomass valorization and hydrogen production in (photo)electrochemical cells*
17:00	A08	**Paolo Bollella** *Premio "Luisa Peraldo Bicelli"*	*Next-Generation Enzyme Biosensors and Biomaterials for Medical Applications*

17:30: Poster Session 1

18:30: Welcome party

Morning Session

Plenary Lecture

8:45	PL1	**Prof. Maximilian Fichtner** *Helmholtz-Institute Ulm*	*Recent progress in the field of post-Li systems*

Oral Presentation Session 1

9:30	O01	**Valentino Gabriel Martello**	*A MOF-based solid-state chloride ion-battery*
9:45	O02	**Ivan Claudio Pellini**	*Development of new electrode materials for water-based sodium-ion batteries*
10:00	O03	**Tommaso Filippo Lupatelli**	*Modeling the limited mass transport kinetics of polysulfides and their effects on irreversible capacity losses*
10:15	O04	**Valeria Sperati**	*O3-type Layered $NaFe_{0.17}Ni_{0.33}Mn_{0.5}O_2$ Cathodes for Sodium-Ion Batteries: New Hints on Cation Migration and Phase Stability from First-Principles*
10:30	O05	**Luca Mesina**	*Zeolite-Templated Carbon as a Support Material for Sodium-Ion Battery Anodes*

10:45-11:15: Coffee Break

Keynote Lecture

11:15	KN1	**Dr. Nagore Ortiz Vitoriano** *CIC EnergiGUNE*	*Electrically Rechargeable Zn–Air Batteries Enabled by Naturally-Derived Biopolymer Electrolytes*

Oral Presentation Session 2

11:45	O06	**Sabrina Trano**	*Organic Potassium Batteries to Face K-ion Challenges*
12:00	O07	**Alice Mirone**	*Electrochemical Supercapacitors performances of doped WO_3 nanoparticles*
12:15	O08	**Irene Ostroman**	*Oxidized Ti_3Al/SnC_2 MAX phases-based nanocomposites for alkaline-ion electrodes*
12:30	O09	**Claudio Mele**	*Development of PEDOT:PSS-based nanocomposite inks for supercapacitors*

12:45-14:00: Lunch

Afternoon Session

Keynote Lecture

14:00	KN2	**Prof. Lorenzo Stievano** *University of Montpellier*	*Calcium batteries: a beautiful, complicated playground for energy storage research*

Oral Presentation Session 3

14:30	O10	**Andrea Cioffi**	*Synchrotron ex-situ characterization of Li-rich Ni-rich layered oxides materials for application in lithium ion batteries*
14:45	O11	**Alessandro Gregucci**	*Effect of Surface-Area Estimation Techniques on Measured Lithium-Ion Diffusivity in Graphite Electrodes*
15:00	O12	**Alessia Pollice**	*In Situ Electrochemical Raman Spectroscopy Study of Ionomer Effects on the CO_2 Reduction Reaction (CO_2RR)*
15:15	O13	**Mattia Parnigotto**	*Unveiling Catalyst Degradation Mechanisms in GDE Devices Through DRT Analysis and Realistic Testing Protocols*
15:30	O14	**Enrico Verlato**	*Electrochemical impedance spectroscopy on archaeological items: two novel "non-invasive" methods*
15:45	O15	**Marco Malferrari**	*Scanning Electrochemical Microscopy Investigation of Cellular Differentiation and Photodynamic Therapy*

16:00: Social Event

Morning Session

Plenary Lecture

8:45	PL2	**Prof. Danilo Dini** *Sapienza University of Rome*	*The electrochemically induced effect of electrochromism: materials, configurations and potentialities*

Oral Presentation Session 4

9:30	O16	**Marco Pagliai**	*Toward Sustainable Acid Copper Electroplating: A Computational and Experimental Study*
9:45	O17	**Claudia Giovani**	*From Pollutants to Process Modifiers: Nylon-based Microplastics in Copper Electroplating Baths*
10:00	O18	**Daniel Morales-Martinez**	*Electrografting by long-chain carboxylate oxidation: highly oriented hydrophobic films for $Au_{25}(SC_8)_{18}$ absorption*
10:15	O19	**Marco Fantin**	*Electro-photo-catalysis: Merging One Electron and One Photon in the Same Reaction Pathway*
10:30	O20	**Francesco Cazzadori**	*Cyclic Triimidazoles self-assembling on Au(111) single crystal monitored by EC-STM, toward a model system for carbon nitride electrocatalysts*

10:45-11:15: Coffee Break

Keynote Lecture

11:15	KN3	**Prof. Federico Tasca** *Universidad de Santiago de Chile*	*High Fe(III) Content in MN4 Molecular Electrocatalysts. Implication for Bifunctional Electrocatalysis*

Oral Presentation Session 5

11:45	O21	**Andrea Antonello**	*Development of Porous Tin-Based Foam Electrodes for Enhanced CO_2 Electroreduction to Formic Acid*
12:00	O22	**Eleonora Astolfi**	*Nanostructured and multi-functional catalysts for the electrochemical reduction of CO_2*
12:15	O23	**Anna Testolin**	*X-SEED Project: eXperimental Supercritical ElEctrolyzer Development for H_2 production*
12:30	O24	**Riccardo Brandiele**	*New applications and Electrochemistry Set-up: The Era of the Hyphenated Techniques*

12:45-14:00: Lunch

Afternoon Session

Keynote Lecture

14:00	KN4	**Dr. Francesca De Giorgio** *National Research Council*	*Secondary Raw Materials and Green Strategies for Sustainable Energy Conversion and Storage Systems*

Oral Presentation Session 6

14:30	O25	**Tommaso Caielli**	*Degradation of Poly(Terphenyl Piperidinium) Hydroxide Exchange Membranes For Water Electrolysis*
14:45	O26	**Elyes Bel Hadj Jrad**	*Study and Development of Proton-Exchange Membranes Enhanced with Nanofiber Composites*
15:00	O27	**Nicholas Carboni**	*Composite Anion Exchange Membranes Added with Quaternized Graphene Oxide for Water Electrolyzer Applications*
15:15	O28	**Jorge Montero**	*LDH Nanodots Embedded in Fe–N–C Frameworks as Efficient OER/ORR Bifunctional Electrocatalysts*
15:30	O29	**Jean Marie Vianney Nsanzimana**	*Modulation of Iron-triad Materials for Efficient Water Electrocatalysis in Alkaline Water Electrolysis*
15:45	O30	**Muhammad Habib Ur Rehman**	*Development of poly(terphenyl piperidinium) (PTP)-based Composite Anion Exchange Membranes (AEMs) for Electrochemical Devices*

16:00-16:30: Coffee Break

Oral Presentation Session 7

16:30	O31	**Esenina Stroka**	*Development and Characterization of Transition Metal-Coated Electrodes via Atomic Layer Deposition (ALD) for Electrochemical Water Splitting Applications*
16:45	O32	**Luisa Stella Dolci**	*Enhancing bifunctional NiFe-LDH catalysts for water splitting reaction: influence of PtNPs on performance and stability*
17:00	O33	**Enrico Negro**	*Interplay Between Synthetic Parameters, Physicochemical Properties and PEMFC performance for PtNix "Core-Shell" Carbon Nitride Electrocatalysts for the Oxygen Reduction Reaction*
17:15	O34	**Soufiane Boudjelida**	*"Spinel-Structured High-Entropy (Cr, Mn, Fe, Ni, Sn) Oxides as Electrocatalysts for Enhanced Alkaline Water Electrolysis*
17:30	O35	**Alessandro Lavacchi**	*Development of Ultra-Low PGM Anodic Catalysts Ir-TiO_{2-x} for water electrolysis*
17:45	O36	**Daniele Moraschini**	*Oxygen Evolution Reaction on Porous Iridium Oxide / Titanium Dioxide electrodes obtained by Plasma Electrolytic Oxidation*

18:00: Poster Session 2

Morning Session

Plenary Lecture

8:45	PL3	**Prof. Iryna Zenyuk** *University of California Irvine*	*Performance and Durability of Iridium Oxide Catalysts to Enable Large Scale Deployment of Proton Exchange Membrane Water Electrolyzers*

Oral Presentation Session 8

9:30	O37	**Marco Bonechi**	*Oxygen Reduction Reaction Electrocatalysts from industrial Wastewater Recovery*
9:45	O38	**Federico Verdicchio**	*DES-Extracted Lignin as Sustainable Binder for LIBs and SIBs Electrodes*
10:00	O39	**Elisa Ravesio**	*Evaluating The Impact Of Natural Polysaccharides On The Production Process Of Silicon-Dominant Anodes*
10:15	O40	**Giampaolo Lacarbonara**	*Green aqueous binders for high voltage $LiNi_{0.5}Mn_{1.5}O_4$ cathodes*
10:30	O41	**Andrea Jouve**	*Sustainable Block Copolymer Electrolytes for Next-Generation Batteries*

10:45-11:15: Coffee Break

Keynote Lecture

11:15	KN5	**Prof. Andrea Idili** *University of Rome Tor Vergata*	*Real-time, continuous monitoring of clinically relevant molecules via electrochemical DNA-based (eDNA) sensors*

Oral Presentation Session 9

11:45	O42	**Luca Surace**	*3D-Printed Electrochemical Immunosensor for Atrazine Detection*
12:00	O43	**Andreas Lesch**	*Boosting Point-Of-Care bacteria identification using inkjet-printed electroanalytical sensors*
12:15	O44	**Nicholas Vallana**	*Sn@MXene as Hybrid Scaffolds for Lithium Metal Deposition in Lithium Batteries*
12:30	O45	**Stefano Chiavegato** *Midac*	*Recovery and Regeneration of Active Materials from End-of-Life Batteries: Focus on LFP Cathode*

12:45-14:00: Lunch

Afternoon Session

Keynote Lecture

14:00	KN6	**Prof. Antonio Ranieri** *University of Modena and Reggio Emilia*	*Encapsulation of Atomically Precise Nanoclusters for Electrochemical and Biocatalytical Applications*

Oral Presentation Session 10

14:30	O46	**Caterina Momoli**	*Electrochemical Activation of C–S Bond: A tunable tool for selective molecular diversification*
14:45	O47	**Lorenzo Sibella**	*Unraveling NiO Nanostructures for Nitrate Electroreduction into Ammonia*
15:00	O48	**Ekaterina Skolotneva**	*Critical Analysis on Efficiency in Photoelectrochemical System for Organic Oxidation*
15:15	O49	**Andrea Solida**	*Electrochemical Approach for the ICMs Synthesis*
15:30	O50	**Giovanni Zuccante**	*Lignin-Derived Materials for Hydrogen Peroxide Electrosynthesis*
15:45	O51	**Luca Maria Cavinato**	*Maltodextrin-based nanosponges at work in aqueous Dye-sensitized Solar Cells*

16:00-16:30: Coffee Break

Oral Presentation Session 11

16:30	O52	**Marco Cattelan**	*Effects of High Concentration of Nanostructured-Carbon Materials in the Positive Active Mass Performances of 2V AGM Lead Acid Battery*
16:45	O53	**Alessio Cosenza**	*Unraveling Support Effects: Experimental Study of Nitrogen-Modified Carbons in Pt-Based Fuel Cell Catalysts*
17:00	O54	**Siro Saronni**	*Cerium Oxide Functionalized Nanoparticles as HF Scavenger in PVdF-HFP quasi-solid-state Electrolytes*
17:15	O55	**Diego Stucchi**	*Perfluoroalkylic decoration of the surface of CeO_2 NPs and their implementation as radical scavenging in Aquivion® PEMFC*
17:30	O56	**Federico Capotondo**	*Monolithic Stacks: Unleashing the Potential of Solid Oxide Fuel / Electrolysis Cell Technology*
17:45	O57	**Elisabetta Petri**	*Optimized Biochar Electrodes from Agricultural Waste for Vanadium Redox Flow Battery Applications*

18:00: Divisional Assembly
20:30: Social Dinner

Morning Session

Plenary Lecture

8:45	PL4	**Prof. Stephen Paddison** *University of Tennessee*	*Structure/Transport Relations in Electrolytes: What have we learned from modelling in the past Quarter Century?*

Oral Presentation Session 12

9:30	O58	**Francesco Gambino**	*Novel single-ion conducting polymer electrolytes for advanced lithium solid-state batteries*
9:45	O59	**Mattia Longo**	*In-situ UV cured deep eutectic solvent-based gel polymer electrolyte for Li metal batteries*
10:00	O60	**Federico Pagliarini**	*The Use of Additives in Polysiloxane-Based Single-Ion Conducting Polymer Electrolytes for Lithium-Metal Battery Application*
10:15	O61	**Asia Patriarchi**	*Sustainable Polymer Electrolyte Blend Based on PEO and Xanthan gum for Solid-State Lithium Batteries*
10:30	O62	**Leonardo Balducci**	*Enhancing Interfacial Stability and Performance in PVDF-HFP-based Polymer Electrolytes: The Role of Crosslinking*

10:45-11:15: Coffee Break

Keynote Lecture

11:15	KN7	**Prof. Livia Giordano** *University of Milano-Bicocca*	*Reactivity descriptors and mitigation strategies for cathode-electrolyte reactivity in Li-ion batteries*

Oral Presentation Session 13

11:45	O63	**Alessandro Fracassa**	*Overcoming Kinetic Barriers of Remote Electrochemiluminescence via Ir(III)-driven Catalytic Coreactant Oxidation*
12:00	O64	**Gabriele Giagu**	*Electrochemiluminescence imaging with Nanostructured electrode: A Platform for Enhanced Performance*
12:15	O65	**Chiara Mariani**	*Singling Out the Electrochemiluminescence Profile in Microelectrode Arrays*
12:30	O66	**Federico Polo**	*Heterobimetallic Ir(III)-M(I) complexes: structural and energetic requirements for a bright and efficient electrochemiluminescence*

12:45: Closing Ceremony

POSTER CONTRIBUTIONS

1st Session - 15 September

Julia Amici	P01	*Study of the influence of new Li-O_2 cells components on the discharge mechanism and overall cell performance*
Rijul Bajaj	P02	*Influence of Cyclic Carbonates on UV-Cured PEO–PEC Polymer Electrolytes for Room Temperature Li Metal Batteries*
Gualtiero Conte	P03	*Investigation into the Optimization of Electrolyte Formulations for Low-Temperature Operation of Lithium-Ion Batteries*
Cristina Gatti	P04	*Obtaining Synthesis Precursors from Spent Lithium-Ion Batteries Layered Cathodes: strategies and perspectives*
Alyssa Mancini	P05	*Effect of synthesis parameters on the structural and electrochemical properties of Li-rich cathode materials*
Carla Palladini	P06	*Exploring Silicon-based MAX-phase Nanocomposites Oxides as Negative Electrode Materials for Lithium-Ion Batteries*
Milosz Piechocki	P07	*Electrospun Carbon Nanofiber Scaffolds Functionalized with Silicon and Tin for High-Capacity Li-ion and Na-ion Battery Anodes*
Williane Freitas	P08	*Mesoporous Fe-N-C Catalysts from MOF Self-Templates for High-Performance ORR in Anion Exchange Membrane Fuel Cells*
Eleonora Carena	P09	*Battery Recycling meets Electrodialysis: Lithium Recovery from CRMs-rich Matrices*
Eleonora Carena	P10	*LiFePO4 Relithiation as a Strategy for the Recycling of Spent Lithium-Ion Batteries Cathodes with Low Content of Critical Raw Materials*
Andrea Cioffi	P11	*Investigating Aging Mechanisms in Nickel-Rich Cathodes for Lithium-Ion Batteries*
Hamideh Darjazi	P12	*Recycled Polymer Binders/Electrolytes for Next-Generation Sustainable Batteries, from Lab to Industrial Scale*
Vito Di Noto	P13	*Advances in Polymer-Based Electrolytes: From Lithium Batteries to Novel Chemistries*
Chiara Ferrara	P14	*Into the future of batteries: recycling of sodium-ion batteries and metals recovery from cathodic materials*

Hiba Ali	P15	*Influence of synthesis conditions on the structure and electrochemical performance of Prussian White KMnHCF*
Daniela Ariaudo	P16	*Innovative ionic liquid-based electrolytes for sodium ion batteries*
Soufiane Boudjelida	P17	*Modular Synthesis Approach of Tin-Based Bimetallic Electrocatalysts on Carbon Supports for Sustainable and Affordable Metal–Air Batteries*
Gidey Bahre Desta	P18	*δ-NaCl-Modified Sodium Halide Solid Electrolytes for High-Performance and Cost-Effective All-Solid-State Sodium Batteries*
Muhammad Ali Raza Malik	P19	*Development and Integration of Composite Electrolytes for Sodium-Ion Batteries*
Pietro Zaccagnini	P20	*Hydroxypropyl Cellulose as Fluorine-Free Alternative Binder for Supercapacitors Application*
Luca Bottoni	P21	*A sustainable anode for Na-ion batteries based on Holm Oak Waste-derived Hard Carbon and Lignin Binder*
Pantaleone Bruni	P22	*SCALECAP : Scaling-up the Production of Graphene-Metal Oxides Nanocomposites for Supercapacitors*
Danilo Dini	P23	*Dye-sensitized solar cells of p-type: last developments and perspectives*
Alessandro Piovano	P24	*UV-cured Methacrylate-based Gel Polymer Electrolytes for Electric Double Layer Capacitors*
Shahid Khalid	P25	*Thermodynamic Effects of Temperature on Graphite/LFP Electrodes in Lithium-Ion Batteries*
Alessandro Tos	P26	*Disodium Terephthalate ($Na_2C_8H_4O_4$) as organic Anode Material for Low-Cost sustainable Sodium-Ion Battery*
Barbara Vercelli	P27	*Blue-Emitting Carbon Quantum Dots Post-Functionalization: a Spectroscopic and Electrochemical Insight*
Maria Assunta Navarra	P28	*Composite electrolytes for anion exchange membrane electrolyzers*
Muhammad Arslan	P29	*Doping Strategies to enhance the structural stability of layered NMF Cathode material for Na-Ion Batteries*

POSTER CONTRIBUTIONS

2nd Session - 17 September

Claudia Martínez Asenjo	P30	*Enhanced Electrochemiluminescence via Dual-Coreactants system for Bead-based Immunoassays*
Mengzhen Xi	P31	*Immuno-affinity electrochemiluminescence detection of viral infections*
Francesco Cazzadori	P32	*Python-based Automated Image Analysis for Electrochemical Scanning Tunneling Microscopy tested on the FeOEP@Au(111) model heterogeneous molecular electrocatalyst*
Sabrina Trano	P33	*Electrolytes for Ammonia Production in the SuN2rise ERC-StG Project*
Tobia Pullano	P34	*Modified LiMPO4 Cathodes for high energy Lithium-ion Batteries Applications*
Massimo Innocenti	P35	*Sustainable Innovation in Electroplating: Alkaline Cyanide-Free Pulsed Copper Deposition*
Alessandro Minguzzi	P36	*An Electrochemical Solution to the Mystery of Life's Origin*
Massimo Innocenti	P37	*New perspectives in the electrodeposition of metal alloys in the field of "Made in Italy"*
Marco Pagliai	P38	*Optimizing Acid Copper Electroplating: A Multidisciplinary Approach to Additive Mechanisms*
Francesca Bruno	P39	*Biosensor-Based Inhibition Strategy For Early Mycotoxin Detection*
Eleonora Pargoletti	P40	*Advancing Gas Sensing Through Innovative Composite Chemiresistors*
Francesca Polli	P41	*Systematic Study and Optimization of Multiple Gold Electrodeposition Procedures on 3D-Printed Electrodes for Improved Electrochemical Sensing*
Vincenzo Baglio	P42	*Progress in AEM Water Electrolysis: Novel Component Development and MEA Integration*
Isabella Nicotera	P43	*From Quaternized Polysulfones to Terphenyl-Based Polymers: Next-Generation Anion Exchange Membranes for Durable AEM Water Electrolysis*
Carlo Santoro	P44	*Plastic Waste to Electrocatalysts for Oxygen Reduction Reaction: the case of Acrylonitrile-Butadiene-Styrene (ABS)*
Alessandro Raffaele Ferrari	P45	*Poly(biphenyl piperidinium) composite Anion Exchange Membrane: ZrO_2 effect on functional properties*

Davide Gramigni	P46	*pH-dependent study of Ni-based graphene-supported nanoparticles for the Oxygen Evolution Reaction*
Manuela Montalto	P47	*Ir-doped NiFe alloys for the Oxygen Evolution Reaction Electrocatalysis in Acidic and Alkaline media*
Giovanni Zuccante	P48	*Oxygen Reduction Reaction Platinum Group Metal-free Electrocatalysts Derived from Spent Coffee Grounds*
Claudia Giovani	P49	*From waste to clean energy. Oxygen reduction reaction (ORR) in alkaline medium catalyzed by an atomically precise Pd (II) catalyst, prepared trough selective extraction of Pd (II) from wastewater*
Maria Bottari	P50	*Comparative Analysis of Anion Exchange Membranes for Alkaline Water Electrolysis*
Enrico Negro	P51	*Heterocyclic Ammonium Functionalized Poly(ethylene pyrrole/ketone)–Based Anion Exchange Membranes for the Conversion and Storage of Energy*
Assunta Patti	P52	*Effect of Pt Loading at the Cathode on the Performance of Anion Exchange Membrane Water Electrolysis*
Giampaolo Lacarbonara	P53	*Spray phase inversion: a new approach to sustainable separator production*
Andrea Antonello	P54	*Tailoring Nitrogen-Doped Mesoporous Carbons via Block Copolymer Self-Assembly for Enhanced CO_2 Electroreduction to Formic Acid*
Jacopo Isopi	P55	*Advanced Synthesis of BGLC Double Perovskite for Oxygen Electrode Applications*
Marco Bonechi	P56	*Electrodeposition-Enabled Fabrication of Enhanced Silicon Nanowires via Metal-Assisted Chemical Etching (MACE)*
Stefano Visentini	P57	*Mechanistic Insights Into the Stability of Anthracene and Quinone-Based Radical Anions Towards Effective Electrophotocatalysis*
Alessandro Lavacchi	P58	*Probing Electrocatalysts in Action: Operando XAS for Energy Conversion Technologies*