



Program of the 4th ESECS

THURSDAY, DECEMBER 7 TH		
Chaired by:	Roberto M. Torresi - IQUSP	
08:30 – 08:35 h – Workshop presentation		
08:35 – 09:10 h		
Keynote lecture	Ana Flávia Nogueira - IQ-Unicamp	Challenges in perovskite solar cells research: from fundamentals to upscaling
09:10 – 09:45 h		
Keynote lecture	Luiz Henrique Dall'Antonia - DQ - Universidade Estadual de Londrina	Photoelectrochemistry applied to energy and analysis: new insights about vanadates
09:45 – 10:05		
Invited Lecture	Lucia Mascaro - DQ-UFSCar	Catalysts for a Sustainable Future: Green Hydrogen, CO ₂ and Nitrogen electroreduction
10:05 – 10:25		
Invited Lecture	Raphael Nagao – IQ - UNICAMP	Unraveling the Catalytic Property of Copper-Based Materials for High Electrochemical Conversion of Nitrate Ions to Ammonia
10:25 – 10:45 h Break		
Chaired by:	Mauro Bertotti - IQUSP	
10:45 – 11:20 h		
Keynote Lecture	Fabio H. B. de Lima - IQSC-USP	Fundamental and applied aspects for the development of electrocatalysts for carbon dioxide and molecular oxygen reduction
11:20 – 11:35 h		
Lecture	Rainy Alves de Sousa - Universidade Federal Do Rio Grande Do Norte	Photovoltaic-powered series electrochemical reactor arrangement for the conversion of methyl orange to organic acids and green hydrogen
11:35 – 12:10 h		
Keynote Lecture	Leonardo J. A. Siqueira - UNIFESP	Performance of Supercapacitors and Dual Carbon Batteries by Molecular Dynamics Simulations
12:10 – 13:20 h Lunch		
Poster section		
13:20 – 14:25 h	01- Breno Luiz de Souza	Lithium-Sulfur Batteries: Gaining New Insights through Multifaceted In-Situ and Operando Techniques
	02 - Carlos Sant Ana Vasconcellos	Combining Cu ²⁺ /Cu ⁰ clusters on Cu-N-C for CO ₂ Electrocatalytic Reduction: Stability Study via in situ ICP-MS
	03- Eduardo de Oliveira Prates Fantini Parma	Increasing the amplitude of voltage oscillations in Li-ion battery simulations
	04- Gabriel Floriano Costa	Identifying the Active Site of Cu/Cu ₂ O for Electrocatalytic Nitrate Reduction Reaction
	05- Higor de Oliveira Alves	Evaluation of copper nanocube synthesis methodologies
	06- Isabel Amaral da Silva	Molecular Dynamics of Water-in-Salt electrolytes between MXenes
	07- Lázara Hernández Ferrer	Electrocatalytic N ₂ reduction for the NH ₃ obtention using a water in salt electrolyte
	08- Leonardo Domenico De Angelis	Study of Plasmon-assisted CO ₂ Electroreduction on Cu ₂ O-Au Nanostructures Towards C ₂ Compounds Synthesis



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13:20 – 14:25 h	09- Leonardo Marques Alves Ribeiro	A Low-Cost Laser-Induced Graphene Microband Electrode
	10- Maria Paula de Souza Rodrigues	MnO ₂ Nanowires as Positive Electrode in Sodium-Ion Battery with Water-in-Salt Electrolyte
	11- Maria Rodrigues Pinto	Effect of electrolyte in CO ₂ ER to formic acid on metallic Sn
	12- Primaggio Silva Mantovi	Controlling the Role of Water with Ionic Liquids in CO ₂ RR Aiming C ₂ + Products
	13- Sofia Tsunoda	Viability of Li-ion battery anodes based on tin compounds electrodeposited in a novel electrolyte
	14- Victor Yoiti Yukuhiro	The effect of alkali cations on the electro-oxidation of glycerol on Pt using ATR-SEIRAS
14:25 – 14:35 h	Group Photograph	
Chaired by:	Paulo F. M. de Oliveira - IQUSP	
14:35 – 15:10 h		
Keynote lecture	Hudson Zanin - Faculdade de Engenharia Elétrica e de Computação - UNICAMP	Science and Engineering Challenges in Electrification: Batteries vs. Hydrogen - Capital Costs, Efficiencies, and Life Cycle Assessment
15:10 – 15:45 h		
Keynote lecture	Germano Tremiliosi Filho - IQSC-USP	Electrolysis for production of green hydrogen assisted by ethanol oxidation
15:45 – 16:05 h	Break	
Chaired by:	Ana Flávia Nogueira - IQ-Unicamp	
16:05 – 16:25 h		
Invited Lecture	Gabriel N. Meloni - IQUSP	Electrochemistry at different length scales: The Macro, the Micro and the Nano
16:25 – 16:45 h		
Invited Lecture	Gustavo Doubek - Faculdade de Engenharia Elétrica e de Computação - UNICAMP	Developing New tools for in situ and operando analysis of Li-O ₂ Batteries
16:45 – 17:05 h		
Invited Lecture	André Dourado - IQ-UNESP	(Electro)catalytic Lignin Oxidation
17:05 – 17:40 h		
Keynote lecture	Susana I. C. de Torresi - IQUSP	Electrocatalysis as a tool for high value chemicals synthesis

FRIDAY, DECEMBER 8 TH		
Chaired by:	Angel Cuesta Ciscar - University of Aberdeen – UK	
08:30 – 09:05 h		
Keynote lecture	Aldo Zarbin - DQ-UFPR	Nanoarchitected thin films for electrochemical application: from preparation to devices
09:05 – 09:40 h		
Keynote lecture	Mauro Bertotti - IQUSP	Advantages of miniaturized electrochemical sensors to get chemical information
09:40 – 10:00 h		
Invited Lecture	Paulo F. M. de Oliveira - IQUSP	Mechanochemistry for energy materials
10:00 – 10:20 h		
Invited Lecture	Vitor L. Martins - IQUSP	Electrolytes for Li metal batteries
10:20 – 10:40 h	Break	



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Chaired by:	Fabio H. B. de Lima - IQSC-USP	
10:40 – 11:00 h		
Invited Lecture	Lais Canniatti Brazaca – IQSC-USP	New electrochemical sensors for clinical diagnosis
11:00 – 11:15 h		
Lecture	Pepe Jordá-Faus - Electrochemistry Institute - University of Alicante	Nitrate Reduction on PtPd Bulk Single Crystals Electrodes: Voltammetric and Kinetic Study
11:15 – 11:30 h		
Lecture	Rafael Alcides Vicente - Universidade Estadual de Campinas	Analyzing electrocatalysts in situ with spatially resolved X-ray absorption spectroscopy
11:30 – 12:05 h		
Keynote lecture	Giovanna Machado - CETENE	Overflowing knowledge in science, technology and social inclusion
12:05 – 13:30 h		
Lunch		
Chaired by:	Aldo Zarbin - DQ-UFPR	
13:30 – 14:05 h		
Keynote lecture	Guy Denuault - University of Southampton – UK	EC prime reactions: challenges and applications in electrosynthesis
14:05 – 14:40 h		
Keynote lecture	Angel Cuesta Ciscar - University of Aberdeen – UK	The structure of interfacial water and double-layer effects on electrocatalytic reactions
14:40 – 15:15 h		
Keynote lecture	Thiago Paixão - IQUSP	New trends for manufacturing low-cost devices for applications outside the laboratory
15:15 – 15:30 h		
Lecture	Marina Moraes Leite - University of Limerick - Ireland	Polyolefin-based separators for Na-ion batteries
15:30 – 15:50 h		
Break		
Chaired by:	Guy Denuault - University of Southampton – UK	
15:50 – 16:25 h		
Keynote lecture	Silvia Serrano - IQUSP	Selective determination of adenosine in presence of phosphate adenylic derivatives using modified carbon paste electrodes
16:25 – 16:40 h		
Lecture	Murilo Machado Amaral - Faculdade de Engenharia Elétrica e de Computação - UNICAMP	A sulfur host based on silicon oxycarbide for advanced lithium-sulfur batteries
16:40 – 17:15 h		
Keynote lecture	Roberto M. Torresi - IQUSP	Powering the Future: Unleashing the Potential of Electrochemical Energy Storage with Cutting-Edge Batteries and Supercaps
17:15 – 17:30 h		
Closing Ceremony		