

17th **PTAS**chool of Electrochemistry & 4th Workshop on Electrochemistry, from Sensing to Energy Conversion and Storage

3rd to 6th – PTASE 7th to 8th – ESECS December 2023 Instituto de Química , Universidade de São Paulo – São Paulo, Brazil

Program of the 4th ESECS

THURSDAY, DE	CEMBER 7 TH				
Chaired by:					
	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, CO2 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 lons to Ammonia			
10:25 – 10:45 h	Break				
Chaired by:	Mauro Bertotti - IQUSP				
10:45 – 11:20 h					
	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			
		organie dolas ana green nyalogen			
11:35 – 12:10 h					
	Leonardo J. A. Siqueira - UNIFESP	Performance of Supercapacitors and Dual Carbon Batteries by Molecular Dynamics Simulations			
	Leonardo J. A. Siqueira - UNIFESP Lunch	Performance of Supercapacitors and Dual Carbon			
Keynote Lecture		Performance of Supercapacitors and Dual Carbon			
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Keynote Lecture	Lunch 01- Breno Luiz de Souza	Performance of Supercapacitors and Dual Carbon Batteries by Molecular Dynamics Simulations Poster section Lithium-Sulfur Batteries: Gaining New Insights through Multifaceted In-Situ and Operando Techniques Combining Cu2+/Cu0 clusters on Cu-N-C for CO2 Electrocatalytic Reduction: Stability Study via in situ			
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10- María Paula de Souza Rodrigues Rattery with Water-in Solt Electrolyte

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THURSDAY, DE	CEMBER iel Floriano Costa		Syntheying the Active Site of Cu/Cu20 for
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08:30 – 08:35 h - 08:35 – 09:10 h	Montashadareseatationves		MAD2NAA9Wies as Positive Electrode in Sodium-Ion
	10- María Paula de Souza Rodrig	ues	Batter what the state of the sector of the s
•	Ana Flávia Nogueira - IQ-Unicamp 11- Maria Rodrigues Pinto	C I	CHUERENCE STORES TO A CONTROL OF THE STORES
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09:45 - 10:05	Universidade Estadual de Londrir 13- Sofía Tsunoda		viability of Lanon battery anodes based on fin unds Synthesis
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Invited Lecture	1995-129000000000000000000000000000000000000		FIGEFRITEN IPPOSING LATROSELIRAION
14:25 = 14:35 h	Group Photograph		MnO2 Nanowires as Positive Electrode in Sodium-Ion
Chaired by:	Paulo F. M. de Oliveira - IQUSP Rafael Nagao IQ-UNICAMP		JARANENWENTHEACEALENVERIPEDERONVECopper-Based
14.50-r3:401	Hudson Zanin - Faculdade de		Strence and Engineering Challenges in Electrification:
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Chaired by:			Group Bille Asigning Asign better vanadas based on tin
16:40 – 15: <u>2</u> 6 h	13 Sefía Tsuneda Germano Tremiliosi Filho - IQSC-	_	Viability of Li-ion battery anodes based on tin
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15:45 – 16:05 h	Break		awgeral real Patiening ATR-SEIRAS
£ 1 ;29 cd 161;39 fl 16:05€0 10:25 h	Ana Pavia Ngguelra - IQ-Unicam Paulo F. M. de Oliveira - IQUSP		Photovoltaic-powered series electrochemical reactor
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Invited Lecture	Engenharia Elétrica e	Ę	ក្រឲ្យការចុករាអនីតារីជាច្រទាំពាក់ (dnalienges in Electrification: Batteries vs. Hydrogen - Capital Costs, Efficiencies,
16:25 - 16:49 F	0		Performance of Supercurrations and Dual Carbon
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16:45 – 17:05 h			Polyagen activitied by ethanol oxidation
hvited Lecture いれる近空が40 h	Andre Dourado - IQ-UNESP		Electro)catalytic Lignin Oxidation
16:05 – 16:25 h	Susana I. C. de Torresi - IQUSP	fi	Multifaceted In Situ and Operande Techniques Electrocatalysis as a tool for high value chemicals
Keynote lecture Invited Lecture	Gabriel N. Meloni - IQUSP	ł	Slankesbordstext at different length scales: The Wacro,
FR024Y, DECEM	02 - Carlos Sant Ana Vasconcello BER 8 TH		፻፼ዸਔኯራ፻፼ዸ፼ኯቒዸ፟ፙዸኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯ
Chaired by:			Refeasing the amplitude of voltage oscillations in Li-
08:30 – 09:05 h	de Computação - UNICAMP	. · · ·	
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09:05 – 09:40 h			
17:05 – 17:40 h Keynote lecture	Mauro Bertotti - IQUSP	Adv	net des des infaturized electrochemical sensors to get
Keynote lecture	onserver and a site site site site site site site site	cher	Real constitution and the second s
09:40 – 10:00 h		N4	ectrocatalytic N2 reduction for the NH3 obtention
	₽ 801 0Lfaztarat+101ivairaez04d668r	Nec	lectrocatalytic N2 reduction for the NH3 obtention nanochemistry for energy materials using a water in salt electrolyte
10:00 – 10:20 h	/inter IL Martine_ HOLLSR: D_ A	Flee	መሬት የተገለጠበብ መሪካሪያ የርሻ በመሬካሪ የሚያስት የሆኑ የመስከት የሆኑ
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	09- Leonardo Marques Alves Ribe	airo /	A Low-Cost Laser-Induced Graphene Microband
10:40 – 11:00 h			Electrode 2
Invited Lecture	-916-GABNA##ANAZAG2501228 RUGAG	_น ผู้สูง	لسوكت المعاصرية المعامة br>Battery with Water-in-Salt Electrolyte
11:00 – 11:15 h			

08:30 - 09:05 h	17 th PTAS chool of Elec	trachemistru & 4 th Workshop on Electrochemistru
Keynote lecture	Aldo Zarbin - DQ-UFPR from Sens	trochemistry & 4 th Workshop on Electrochemistry, Nanoarchitected thin films for electrochemical application: indo to Energy Conversion and Storage from preparation to devices
09:05 – 09 <mark>:40 h</mark>	3 rd to 6 th - PTASE	
Keynote lecture	Mauro Bertofti ⁸ IQUSECS December :	2Advantages of miniaturized electrochemical sensors to get
09:40 – 10:00 h	Instituto de Química , Univers	ichemicalintermatioalo Paulo, Brazil
Invited Lecture	Paulo F. M. de Oliveira - IQUSP	Mechanochemistry for energy materials
10:00 – 10:20 h	Program of	the 4 th ESECS
Invited Lecture	Vitor L. Martins - IQUSP	Electrolytes for Li metal batteries
FR: 20A-Y1 D: EC EN Chaired by:	Fabio H. B. de Lima - IQSC-USP	
08:40 – 09:06 h		
Invited Lecture Keynote lecture	Laís Canniatti Brazaca – IQSC-USP Aldo Zalbin - DQ-UFPR	Nonconstitution tions for the charten ning has bication:
11:00 – 11:15 h 09:05 – 09:40 h		from preparation to devices
Lecture Keynote lecture	Pepe Jordá-Faus - Electrochemistry MatitudeBettattivertSMJSPAlicante	Ndvaletagesuctioniniatamize Bela Singhe Digetaler Electrocost Volanioal dinformatik Inetic Study
09:46 – 10:60 h	Ratael Alcides Vicente -	
Invited Lecture	Campinas	Mechzing chenter and version situation absorption spectroscopy
11:30 – 12:05 h	Vitor L. Martins IQUSP	Electrolytes for Li metal batterics
Ko:200 <u>te</u> 10:40rfi	Bievanna Machado - CETENE	Overflowing knowledge in science, technology and social inclusion
62:05ed 19:30 h	Fapion B. de Lima - IQSC-USP	
20:40 ed by: 113:300-L1:4:05:h	Aldo Zarbin - DQ-UFPR Laís Canniatti Brazaca – IQSC-USP	New electrochemical sensors for clinical diagnosis
11:00 – 11:15 h Keynote lecture	Guy Denuault - University of	EC prime reactions: challenges and applications in
	Southampton – UK Popo Jordá Faus – Electrochemistry-	electrosynthesis
4405r € 14:40 h	Institute University of Alicante Angel Cuesta Ciscar - University of	Nitrate Reduction on PtPd Bulk Single Crystals Electrodes:
Keyr50te1493brA	Aberdeen – UK Rafael Alcides Vicente -	electroctalytic reactions
<u>14:40 =</u> 15:15 h	Universidade Estadual de	Analyzing electrocatalysts in situ with spatially resolved X-ray
KF:300 <u>te</u> 12935'Fi	Campinas Thiago Paixão - IQUSP	absorption spectroscopy New trends for manufacturing low-cost devices for applications outside the laboratory
<u>k5j1fote1530rb</u>	Giovanna Machado - CETENE	Overflowing knowledge in science, technology and social finctusion
42905 ₽ 13:30 h	Marina Moraes Leite - University of Limenck - Ireland	Polyolefin-based separators for Na-ion batteries
45:30 - 14:05 h	Aldo Zarbin - DQ-UFPR Break	
Chaired by:	Guy Benuault - University of Southar Guy Benuault - University of	npton – UK EC prime reactions: challenges and applications in
15:50 – 16:25 h	Southampton – UK	electrosynthesis
14:05 – 14:40 h Keynote lecture	Silvia Serrano - JOUSP Angel Cuesta Ciscar - University of	Selective determination of adenosine in presence of phosphate adenylic derivatives using modified carbon paste The structure of interfacial water and double-layer effects on ectrodes
Keynote lecture 16:25 – 16:40 h	Aberdeen – UK	electroclasylic reactions
14:40 – 15:15 h	Murilo Machado Amaral - Faculdade	A sulfur host based on silicon oxycarbide for advanced
Lecture Keynote lecture	de Engenharia Elétrica e Thiago Paixão - IQUSE de Computação - UNICAMP	A sulfur host based on silicon oxycarbide for advanced New trends for manufacturing low-cost devices for linium-sulfur batteries applications outside the laboratory
19:49 = 13:35 h		Powering the Future: Unleashing the Potential of
keytwore lecture	Marina Moraes Leite - University of Roberto M, Torresi - IQUSP Limerick - Ireland	Powering the Future: Unleasing the Potential of Enversion and Supercaps
<u>17:15 – 17:30 h</u> Chaired by:	Closing Ceremony Guy Denuault - University of Southar	
15:50 – 16:25 h		
Keynote lecture	Silvia Serrano - IQUSP	Selective determination of adenosine in presence of phosphate adenylic derivatives using modified carbon paste
16:25 – 16:40 h		electrodes
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		3
Keynote lecture	Roberto M. Torresi - IQUSP	Powering the Future: Unleashing the Potential of Electrochemical Energy Storage with Cutting-Edge Batteries and Supercaps