

B E S

The Bioelectrochemical Society

PROGRAMME

XXVIITH

International Symposium
on Bioelectrochemistry
and Bioenergetics

APRIL 3-7, 2022
ANTWERP



Universiteit
Antwerpen



Research Foundation
Flanders
Opening new horizons

Organising Committee

Lo Gorton

Lund University, Sweden (Former President BES)

Fred Lisdat

University of Applied Sciences Wilday, Germany (President BES)

Karolien De Wael

Antwerp University, Belgium (Chair BES2022)

Thomas Doneux

ULB, Belgium

Deepak Pant

VITO, Belgium

Local Organising Committee

Karolien De Wael

Olivier Voet

Rocío Cánovas Martínez

Elise Daems

Amelia Langley

Marc Parrilla Pons

Andrea Marchetti

Sponsored by

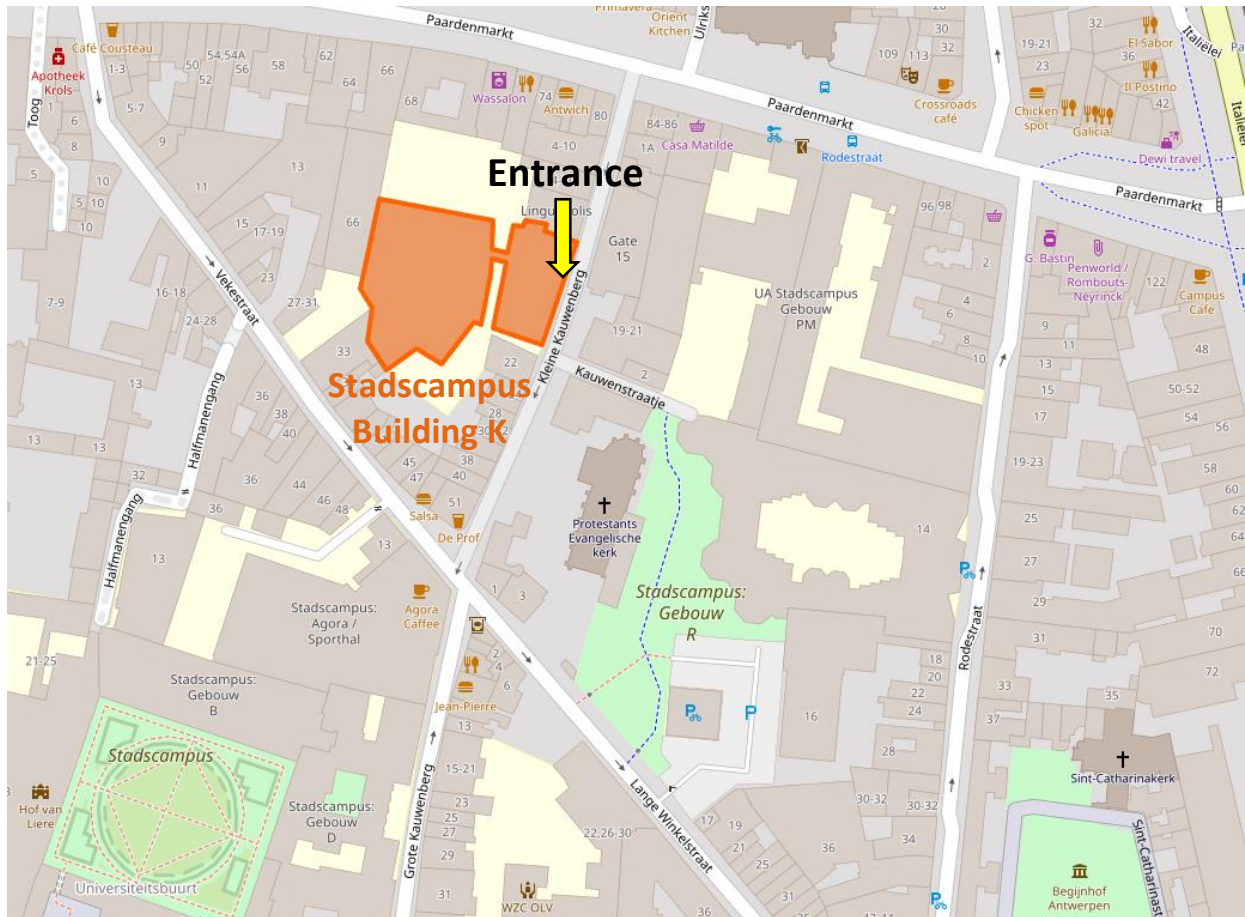


Research Foundation
Flanders
Opening new horizons



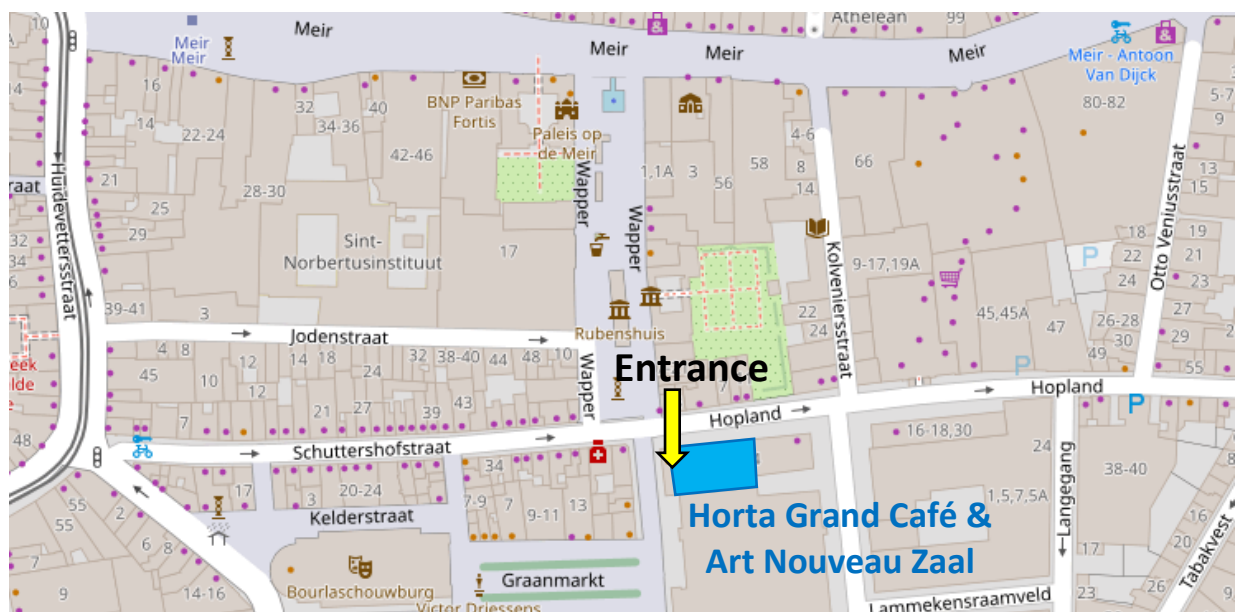
Venue

Building K, Stadscampus, University of Antwerp
Address: Kleine Kauwenberg 14, 2000 Antwerpen

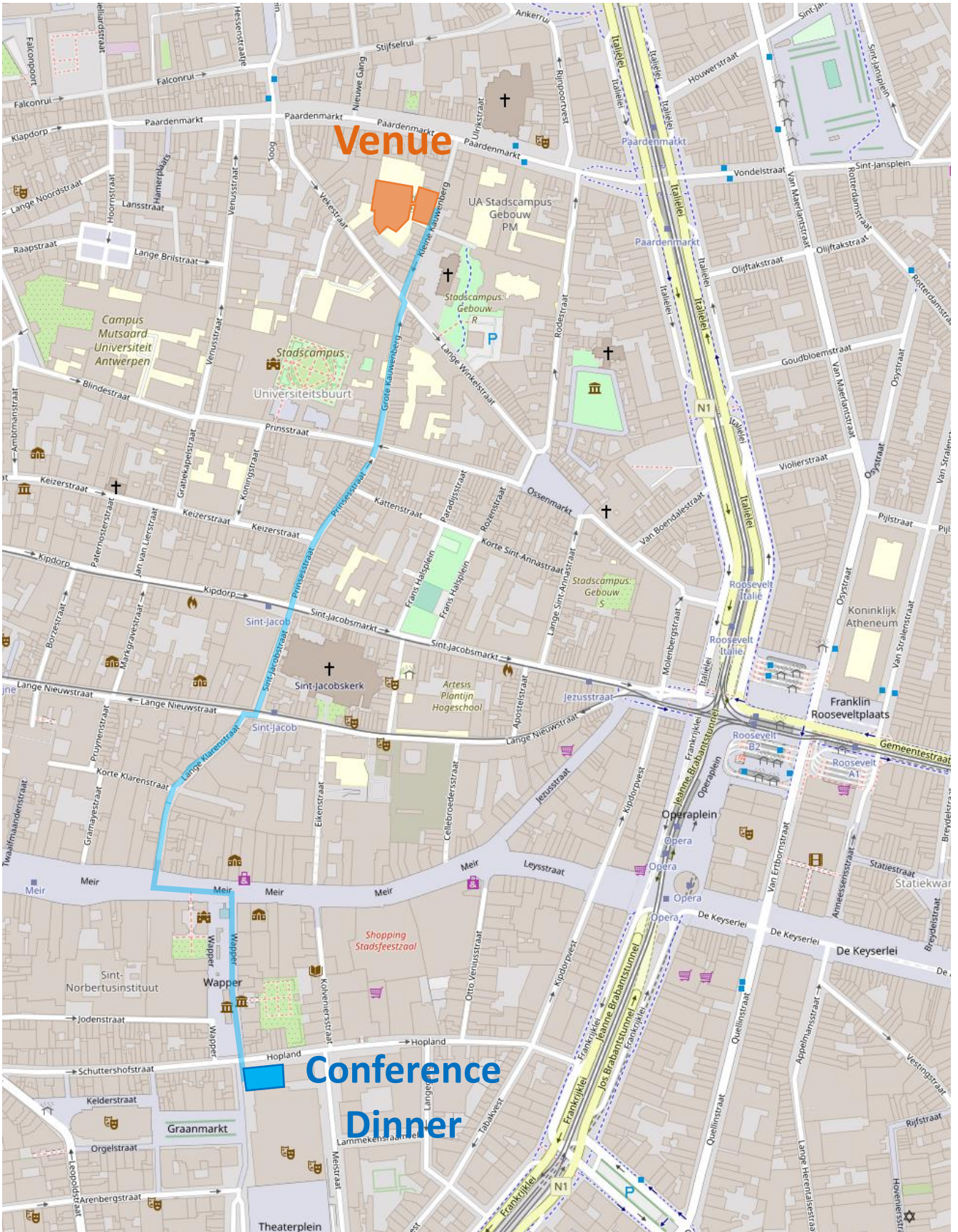


Conference dinner

Horta Grand Café & Art Nouveau Zaal
Address: Hopland 2, 2000 Antwerpen



Walking distance approximately 1 km



Symposium 1 (S1):	Bio(inspired) sensors & diagnostics
Symposium 2 (S2):	Microbial electrochemical technologies and electron transport system
Symposium 3 (S3):	Bio-electrosynthesis
Symposium 4 (S4):	Electroporation & biomembrane electrochemistry
Symposium 5 (S5):	Nano technologies & architectures for bio-electrochemistry
Symposium 6 (S6):	Bio(photo)electrochemistry & bio-energetics

Sunday, April 3rd 2022

<u>Time</u>	
from 15.00	Registration , Building K – Entrance Hall
17.30 - 18.00	Opening Ceremony , Room S.K.001
18.00 - 18.50	Giulio Milazzo Prize lecture , Room S.K.001 Lo Gorton <i>Chaired by F. Lisdat</i>
18.50 - 19.30	Luigi Galvani Prize lecture , Room S.K.001 Erwin Reisner <i>Chaired by F. Lisdat</i>
19.30 - 22.00	Welcome Reception , Building K – Entrance Hall



CLEAN WATER ?

HTDS

Hi-Tech Detection Systems

Find it out with our
electrochemical solutions



Potentiostats /
Galvanostats



Battery testers
and analyzers



Local
electrochemistry



Portables solutions,
electrodes and accessoires

Reliable and cost-saving solutions for your most
demanding electrochemical applications

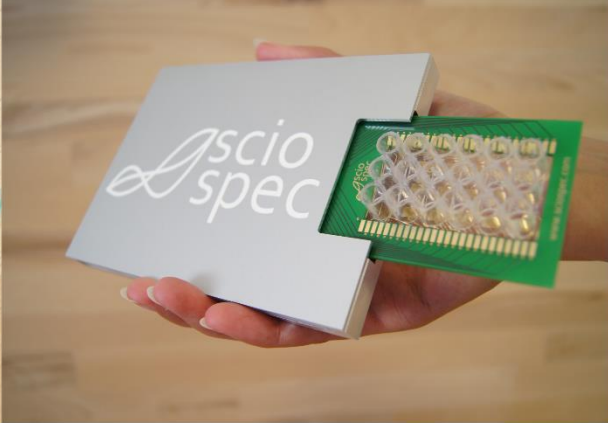
Follow-
us



www.htds.fr
info@htds.fr

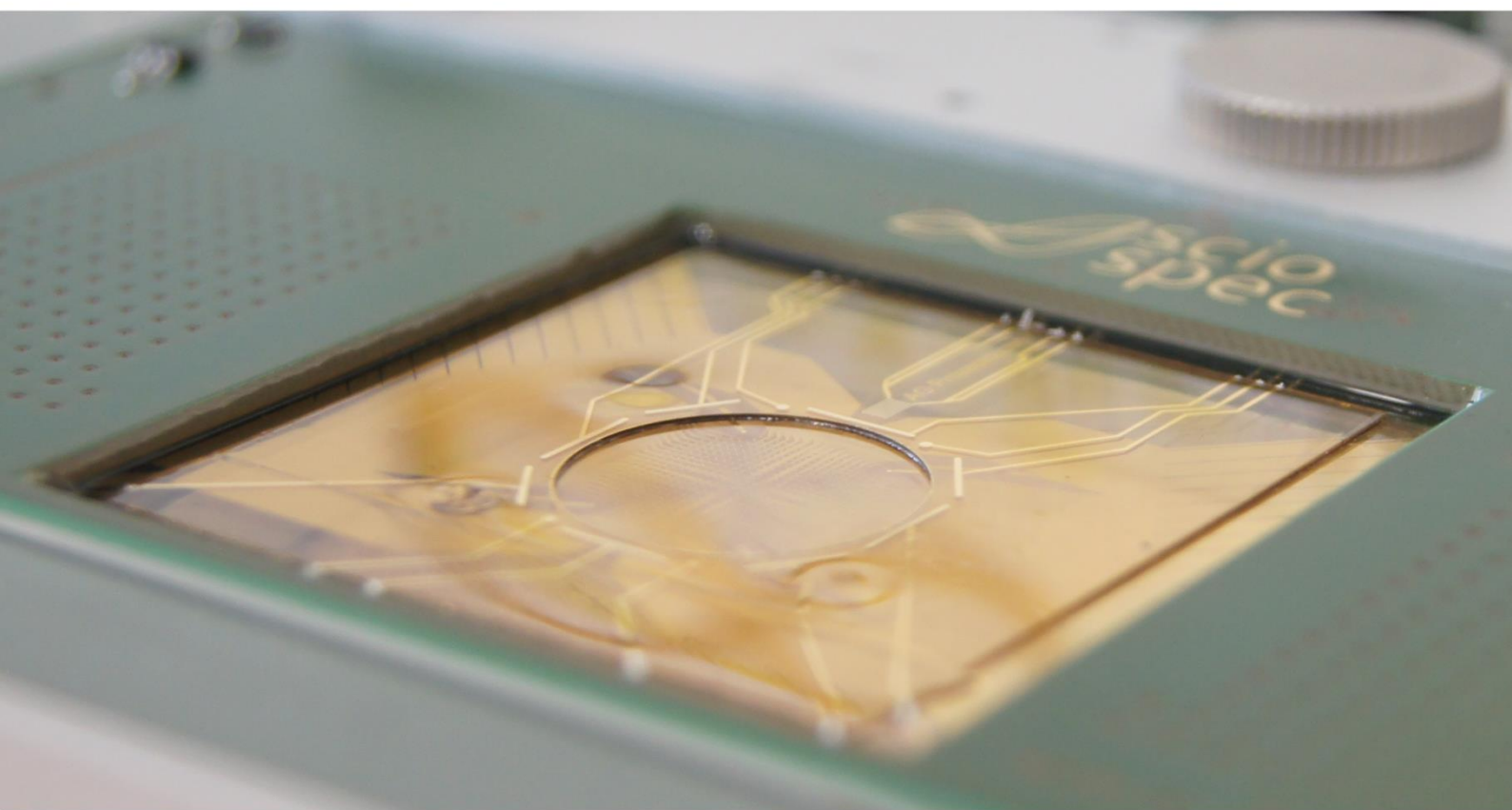
Monday, April 4th 2022

Time	Main lecture room (S.K.001)		Break-out room (S.K.201)	
	<i>Chaired by Thomas Doneux</i>			
9.00 - 9.40	Plenary lecture by Kylie Vincent	P1		
9.40 - 9.45	5-minute break			
	<i>Chaired by Nicolas Plumeré and Giulia Moro</i>		<i>Chaired by Julea Butt and Antonin PrévotEAU</i>	
9.45 - 10.15	Keynote by Inês Cardoso Pereira	S6K1	Keynote by Abraham Esteve-Núñez	S2K1
10.15 - 10.35	Victoria Davis	S6O1	Joanna Roginska	S2O1
10.35 - 11.00	Coffee break			
11.00 - 11.20	Hiu Mun Man	S6O2	Christine Kranz	S2O2
11.20 - 11.40	Felipe Conzuelo	S6O3	Jeanine Geelhoed	S2O3
11.40 - 12.00	Oren Bachar	S6O4	Jasper Van Der Veen	S2O4
12.00 - 12.20	Matan Meirovich	S6O5	Joshua Atkinson	S2O5
12.20 - 14.20	Lunch break - Poster session 1 (Entrance Hall Building K)			
	<i>Chaired by Edmond Magner</i>			
14.20 - 15.00	Plenary lecture by Lital Alfonta	P2		
15.00 - 15.05	5-minute break			
	<i>Chaired by Ilaria Palchetti and Rocío Cánovas Martínez</i>		<i>Chaired by Inês Cardoso Pereira and Jo Philips</i>	
15.05 - 15.35	Keynote by Johan Bobacka	S1K1	Keynote by Jason Ren	S3K1
15.35 - 15.55	Invited speaker Fabiana Arduini	S1I1	Invited speaker Buz Barstow	S3I1
15.55 - 16.20	Coffee break			
16.20 - 16.40	Stephane Marinesco	S1O1	Edmond Magner	S3O1
16.40 - 17.00	Tanushree Mandal	S1O2	Antonio López De Lacey	S3O2
17.00 - 17.20	Bastien Darmau	S1O3	Stephane Arbault	S6O6
17.20 - 17.40	Ana Díaz-Fernández	S1O4	Mina Aleksanyan	S6O7



electroanalytical methods for bioanalytical applications

impedance spectroscopy & EIT
electrophysiology & electrochemistry
small form factor
massive multichannel
custom OEM options



for more information visit
www.sciospec.com



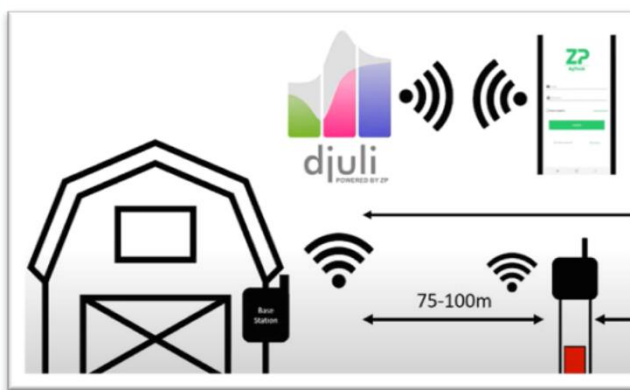
Tuesday, April 5th 2022

Time	Main lecture room (S.K.001)		Break-out room (S.K.201)	
	<i>Chaired by Deepak Pant</i>			
9.00 - 9.40	Plenary lecture by Moh El-Naggar	P3		
9.40 - 9.45	5-minute break			
	<i>Chaired by Amelia Langley</i>		<i>Chaired by Renata Bilewicz</i>	
9.45 - 10.15	Keynote by Arnaud Chovin	S5K1	Keynote by Véronique Pr�at	S4K1
10.15 - 10.35	Invited speaker Nicolas Plumer�	S5I1	Invited speaker Michal Cifra	S4I1
10.35 - 11.00	Coffee break			
11.00 - 11.20	Marc Parrilla	S5O1	Dorota Matyszewska	S4O1
11.20 - 11.40	Serena Arnaboldi	S5O2	Nadica Ivošević DeNardis	S4O2
11.40 - 12.40	BES - General Assembly			
12.40 - 14.00	Lunch break			
14.00 - 17.00	Excursion Antwerp			
19.00 - 3.00	Conference dinner			

ZP's continuous innovation has led to a range of products including **sensors, necessary hardware, customer specific Android and iOS applications, IP generation, scalable manufacturing** and our very own **cloud storage solution** for electrochemical data



DJULI- CLOUD STORAGE SOLUTION FOR ELECTROCHEMICAL DATA



Statistical analysis of both electrochemical and biosensor data

Easy plotting and manipulation of data from data processing

Storage, reporting and communication of data

Easy visualisation of data

Collaborative data management

SENSOR DEVELOPMENT & MANUFACTURING



Sensor Manufacturing and Custom design & manufacture of Screen Printed Electrodes (SPE)

APPLICATION, ELECTRONICS & HARDWARE



Develop and manufacture your sensors, your electromechanical hardware and the build and distribute the necessary iOS and Android apps.

For more information, visit

www.zimmerpeacock.com



Wednesday, April 6th 2022

Time	Main lecture room (S.K.001)		Break-out room (S.K.201)	
	<i>Chaired by Marie Pierre-Rols</i>			
9.00 - 9.40	Plenary lecture by Julie Gehl	P4		
9.40 - 9.45	5-minute break			
	<i>Chaired by Cecilia Cristea and Galina Pankratova</i>		<i>Chaired by Arnaud Chovin and Marc Parrilla</i>	
9.45 - 10.15	Keynote by Elena Ferapontova	S1K2	Keynote by Susana Campuzano	S5K2
10.15 - 10.35	Roy Cohen	S105	Ilaria Palchetti	S503
10.35 - 11.00	Coffee break - Group picture			
11.00 - 11.20	Sara Grecchi	S106	Tatjana Safarik	S504
11.20 - 11.40	Anna Lielpetere	S107	Monica Brachi	S505
11.40 - 12.00	Kavita Jayakumar	S108	Anastasiia Berezovska	S506
12.00 - 12.20	Giulia Moro	S109		
12.20 - 14.20	Lunch break - Poster session 2 (Entrance Hall Building K)			
	<i>Chaired by Marcos Pita</i>		<i>Chaired by Fabiana Arduini</i>	
14.20 - 14.40	Invited speaker Lars Lauterbach	S6I1	Thibaut Cohu	S1010
14.40 - 15.00	Fred Lisdat	S6O8	Melisa Del Barrio	S1011
15.00 - 15.20	Alina Sekretereva	S6O9	Estelle Lebègue	S1012
15.20 - 15.50	Coffee break			
	<i>Chaired by Lars Lauterbach</i>		<i>Chaired by Christine Kranz</i>	
15.50 - 16.10	Petra Hellwig	S6O10	Invited speaker Julea Butt	S2I1
16.10 - 16.30	Ievgen Mazurenko	S6O11	Christine Lewis	S2O6
16.30 - 16.50	Marcos Pita	S6O12	Song Wang	S2O7
16.50 - 17.10	Panpan Wang	S6O13	Marisela Velez	S2O8

IVIUM TECHNOLOGIES

Precision instruments for single and multi-electrode measurements



pocketSTAT2:

- Portable/USB powered
- $\pm 30\text{mA}/\pm 10\text{V}/10\mu\text{Hz} - 1\text{MHz}$ EIS integrated



MultiWE32:

- Measure up to 32 WEs vs. a single CE/RE
- Stackable to 256 channels

www.ivium.com

Ivium Technologies • The Netherlands



innovative solutions for electrochemical research

Thursday, April 7th 2022

Time	Main lecture room (S.K.001)		Break-out room (S.K.201)	
	<i>Chaired by Karolien De Wael</i>			
9.00 - 9.40	Plenary lecture by Alexander Kuhn	P5		
9.40 - 9.45	5-minute break			
	<i>Chaired by Buz Barstow and Paolo Dessi</i>		<i>Chaired by Michal Cifra and Peter Kramar</i>	
9.45 - 10.15	Keynote by Miriam Rosenbaum	S3K2	Keynote by Gintaras Valincius	S4K2
10.15 - 10.35	Invited speaker Jo Philips	S3I2	Invited speaker Slawomir Sek	S4I2
10.35 - 11.00	Coffee break			
11.00 - 11.20	Paolo Dessi	S3O3	Renata Bilewicz	S4O3
11.20 - 11.40	Johanna Radomski	S3O4	Martina Zatloukalova	S4O4
11.40 - 12.00	Igor Vassilev	S3O5	Michalina Zaborowska	S4O5
12.00 - 12.20	Closing ceremony			
12.20 – 13.00	Take Away Lunch			

EmStat4S™

Desktop performance in
the Palm of your Hand

Potentiostat, Galvanostat, Impedance Analyzer



EmStat4S *LR*

DC-potential **±3V**

Max current **±30mA**

FRA / EIS: from 10 μ Hz to **200 kHz**

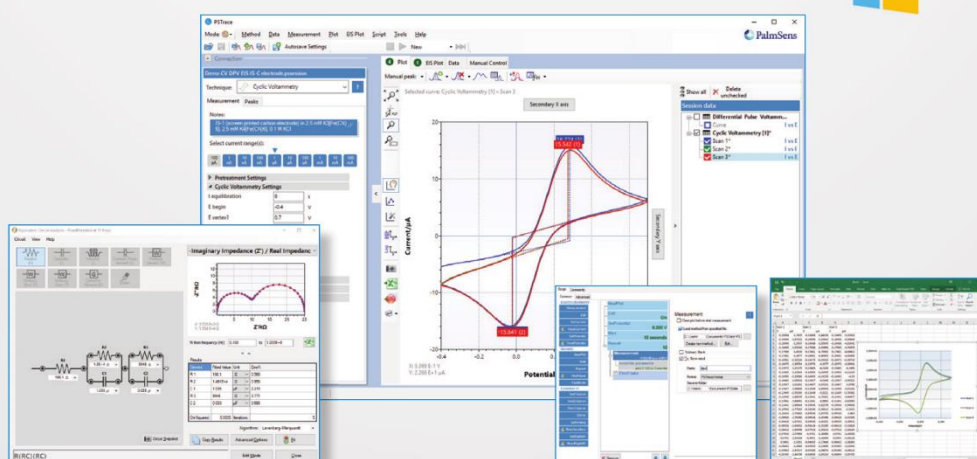
EmStat4S *HR*

DC-potential **±6V**

Max current **±200mA**

PSTrace 5 (included):

software for windows



Equivalent Circuit Fitting

Scripting


Open in Excel or Origin

www.palmsens.com

Poster Presentations

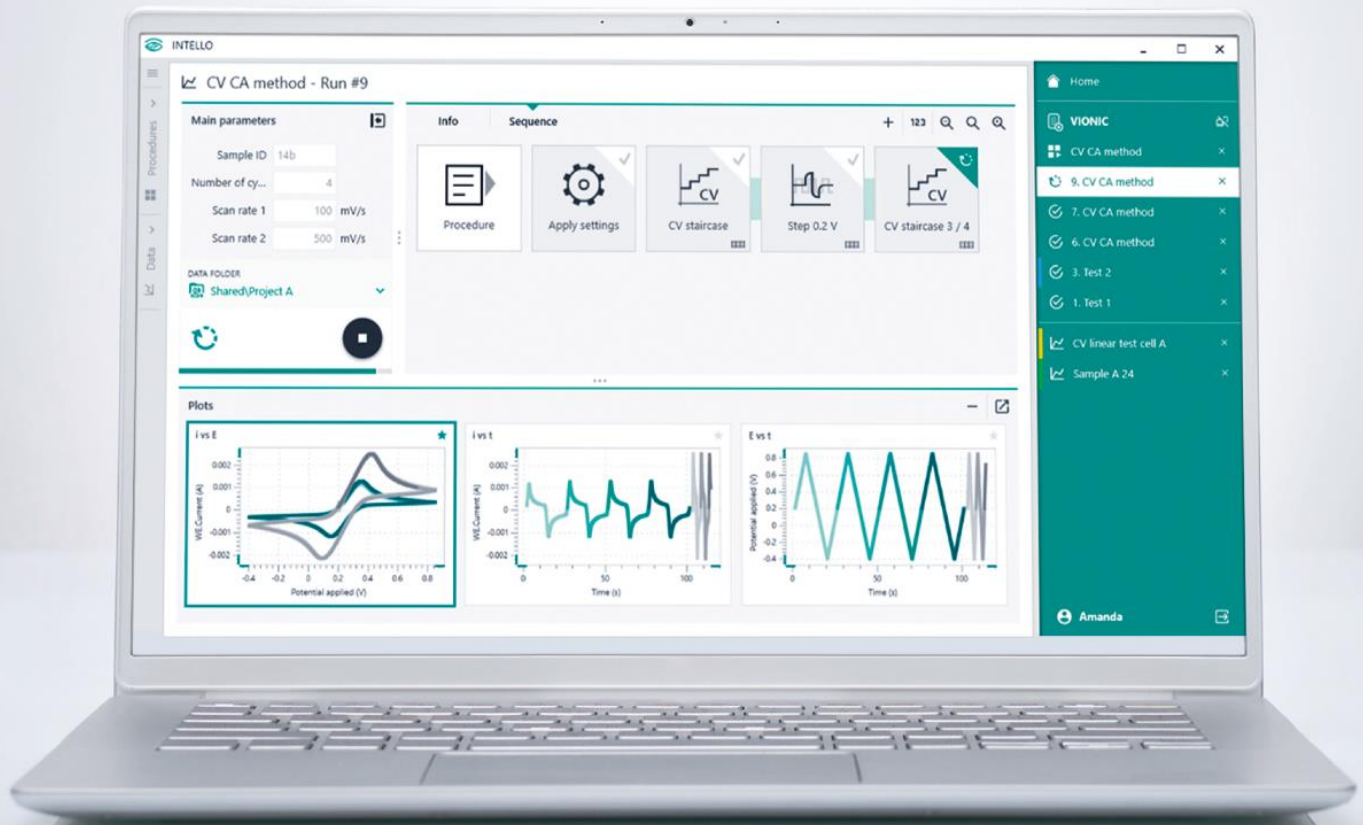
The posters will remain available for consultation in the Entrance Hall of Building K for the entire duration of the conference.

The evaluation by the Poster Prize Committee, on the other hand, will take place in two different sessions. The presenters are expected to be available during their respective session to defend and discuss their work.

Session 1 	
Monday, April 4 th	
S1P1	Hanan Barich
S1P2	Essohanam Beke
S1P3	Alexandra Canciu
S1P4	Rocío Cánovas
S1P5	Denisa-Elena Căpățînă
S1P6	Cecilia Cristea
S1P7	Nicolas Delprat
S1P8	Ana-Maria Dragan
S1P9	Mario Mitov
S2P1	Olatunde Akinbuja
S2P2	Jiji Alingapoyil Choyikutty
S2P3	Joshua Atkinson
S2P4	Hannah Bird
S2P5	Thessa Van Limbergen
S3P1	Simin Arshi
S5P1	Jessica Crivelaro Pacheco
S5P2	Galina Pankratova
S5P3	Alexandra Pusta
S6P1	Jana M. Becker
S6P2	Giada Bedendi
S6P3	Thiago Bertaglia
S6P4	Rachel Egan
S6P5	Yolina Hubenova
S6P6	Fred Lisdat

Session 2 	
Wednesday, April 6 th	
S1P10	Carina Figueiredo
S1P11	Rainier-Numa Georges
S1P12	Rimsha Binte Jamal
S1P13	Florine Joosten
S1P14	Issa Fall
S1P15	Ilaria Palchetti
S1P16	Marc Parrilla
S1P17	Carolin Psotta
S1P18	Franziska Schachinger
S2P6	Mario Mitov
S2P7	Dmitrii Pankratov
S2P8	Yolina Hubenova
S2P9	Thessa Van Limbergen
S2P10	Toni Vitasovic
S4P1	Peter Kramar
S4P2	Nives Novosel
S5P4	Jack Reeder
S5P5	Malgorzata Skorupa
S5P6	Sophie Webb
S6P7	Selmihan Sahin
S6P8	Aleksandra Stefanowska
S6P9	Jitka Urbánková
S6P10	Evan Wroe
S6P11	Xinxin Xiao
S6P12	Omer Yehezkeli

VIONIC powered by INTELLO offers pure efficiency



NEW

- Exploratory and routine measurements
- Easy delegation with Main Parameters
- Ethernet connection

Overview of contributions

Code	Presenter	Title
Plenary Lectures		
P1	Kylie Vincent	Electrochemical Control over Metalloprotein Single Crystals: Linking Structure, Function and Spectroscopy to Elucidate Mechanism for NiFe Hydrogenases
P2	Lital Alfonta	Expanding the Genetic Code of Bioelectrochemical Systems
P3	Moh El-Naggar	From Single Molecules to Living Electronics: Unraveling Mechanisms of Microbial Electron Transport
P4	Julie Gehl	Treating Cancer Using Electroporation – Understanding Mechanisms and Implementing Clinical Applications
P5	Alexander Kuhn	Bipolar Bioelectrochemistry
Symposium 1 (S1): Bio(inspired) sensors & diagnostics		
Keynote lectures		
S1K1	Johan Bobacka	Magneto-Hydrodynamic Extraction of Interstitial Fluid for Noninvasive Wearable Biosensing
S1K2	Elena Ferapontova	DNA Electrochemistry and Electrochemical DNA Biosensors for Clinical Diagnostics
Invited lectures		
S1I1	Fabiana Arduini	Paper-based (bio)sensors as smart and sustainable point-of-care devices
Oral presentations		
S1O1	Stephane Marinesco	Brain tissue oxygen pressure monitoring using polyphenylenediamine-polyurethane-coated carbon fiber microelectrodes
S1O2	Tanushree Mandal	Peroxidase-based sensors using mediated electrochemistry and in-situ area normalization
S1O3	Bastien Darmau	Cross-linked dextran-methacrylate enzymatic biosensors for transdermal glucose monitoring
S1O4	Ana Díaz-Fernández	Sandwich Sensor Based on Electrocatalytic Reduction of Oxygen by G4-Hemin-Aptamer Complex for the Femtomolar Detection of HER2/neu in Human Serum.
S1O5	Roy Cohen	Construction of an enzymatic, oxygen-insensitive L-lactate sensor using soluble or grafted redox mediators
S1O6	Sara Grecchi	Deep Eutectic Solvents with Bio-Based Chiral HBD or HBA: a New Electroanalytical Approach for the Enantiodiscrimination of Chiral Probes
S1O7	Anna Lielpetere	Novel polymers for bioelectrochemical applications with unusual properties and varied redox potentials
S1O8	Kavita Jayakumar	The Effect Of Polymer Shields On Mediated Enzymatic Glucose Biosensors

S1O9	Giulia Moro	PFAS Sensing: Concept design of electrochemical and optical biostrategies
S1O10	Thibaut Cohu	Electrochemical monitoring of metabolites for detection and label-free identification of microorganisms
S1O11	Melisa Del Barrio	A Cholesterol Biosensor Based on Modified Carbon Nanodots and a Dehydrogenase Enzyme
S1O12	Estelle Lebègue	Detection of Bacterial Rhamnolipid Toxin by Redox Liposome Single Impact Electrochemistry
Poster presentations		
S1P1	Hanan Barich	Development of a Combi-electrosensor for the Detection of Phenol by Combining Photoelectrochemistry and Square Wave Voltammetry
S1P2	Essohanam Beke	An electrochemical aptamer-based biosensor for arginin-vasopressin
S1P3	Alexandra Canciu	Simultaneous detection of Escherichia coli and Pseudomonas aeruginosa from microbiological samples
S1P4	Rocío Cánovas	Novel electrochemiluminescent assay for the aptamer-based detection of testosterone
S1P5	Denisa-Elena Căpățînă	Electrochemical aptasensor for the detection of quorum sensing molecules in Pseudomonas aeruginosa
S1P6	Cecilia Cristea	Electrochemical Detection of Amphetamine in Street Samples Using an innovative nanoMIPs-based Sensor
S1P7	Nicolas Delprat	Electrochemical journey towards glyphosate detection
S1P8	Ana-Maria Dragan	Electrochemical Detection of Methamphetamine in Confiscated Samples Using a Portable Device
S1P9	Mario Mitov	Development of a Microbial Fuel Cell – Based Biosensor for BOD and COD
S1P10	Carina Figueiredo	Amperometric biosensor for galactose detection using engineered Galactose Oxidase
S1P11	Rainier-Numa Georges	Electrochemical screening of a chemical library of transketolases inhibitors
S1P12	Rimsha Binte Jamal	Electrocatalytic Detection of Escherichia coli at DNA Beacon Modified Gold Screen-Printed Electrodes
S1P13	Florine Joosten	Electrochemical Detection of Drug Use in Oral Fluid for Roadside Drug Testing
S1P14	Issa Fall	Intermittent Pulsed Amperometry and new paper-based electrodes as a tool for characterization of ligninases
S1P15	Ilaria Palchetti	Characterisation of a Ru(II) Complex for PEC sensing of Phenolic Compounds and Alkaline Phosphatase activity
S1P16	Marc Parrilla	Wearable wristband-based electrochemical sensor for the detection of phenylalanine in biofluids
S1P17	Carolyn Psotta	Biosensors operating in physiological fluids under homeostatic conditions

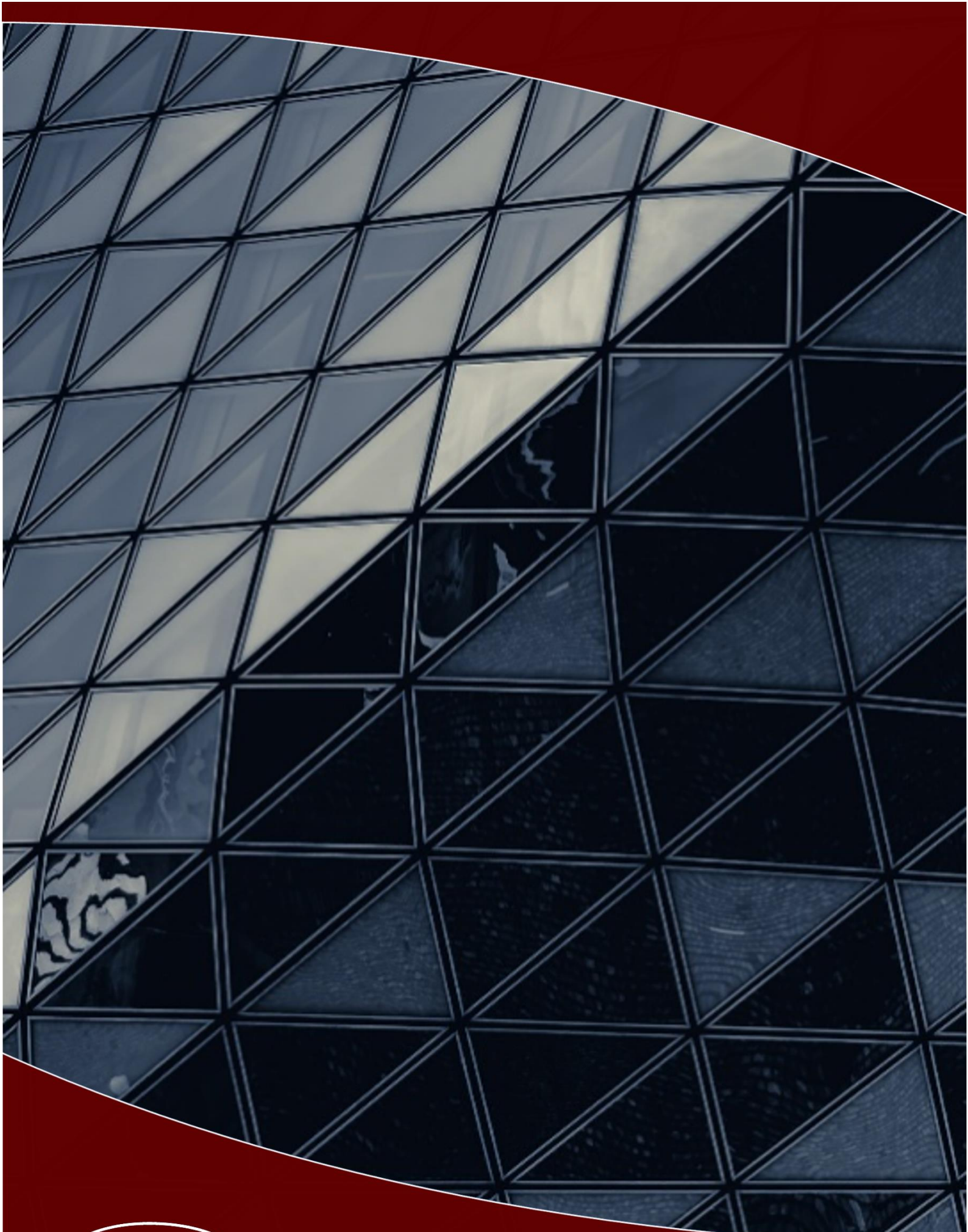
S1P18	Franziska Schachinger	Cytochromes fused to enzymes create electron transferring biorecognition elements – a study of direct electron transfer on MWCNT/GC electrodes
Symposium 2 (S2): Microbial electrochemical technologies and electron transport system		
Keynote lectures		
S2K1	Abraham Esteve-Núñez	Microbial Electrochemical Technologies (MET) already grew up to play a promising role in the water sector: case studies
Invited lectures		
S2I1	Julea Butt	Biomolecular Wires for Electromicrobiology and Liposome Microreactors
Oral presentations		
S2O1	Joanna Roginska	Increased nitrate reduction with microbial electrochemical snorkel
S2O2	Christine Kranz	Investigating the role surface charge of polydopamine as antimicrobial coating via scanning probe microscopy
S2O3	Jeanine Geelhoed	Genome Analysis of Cable Bacteria Reveals Unique Proteins Involved in the Metabolism of Long-Distance Electron Transport
S2O4	Jasper Van Der Veen	Temperature dependence of conductivity in cable bacteria
S2O5	Joshua Atkinson	Real-time bioelectronic sensing of environmental contaminants
S2O6	Christine Lewis	Small molecule mediated exogenous electron flow into live cyanobacteria that lack the ability to split water
S2O7	Song Wang	Electrochemical and Microbiological Response of Exoelectrogenic Biofilm to Polyethylene Microplastics
S2O8	Marisela Velez	Electrochemical Characterization of Mammalian Respiratory Complex I and III in Intact Mitochondrial Membranes
Poster presentations		
S2P1	Olatunde Akinbuja	Chlorella biocathodes in microbial fuel cells
S2P2	Jiji Alingapoyil Choyikutty	Unraveling the Conductive Structures of Cable Bacteria
S2P3	Joshua Atkinson	Controlling the conductivity of light-patterned biofilms
S2P4	Hannah Bird	Understanding the Effects of Kinetic Limitations on Degradation Rates for Different Substrates in MFCs
S2P5	Thessa Van Limbergen	A self-sustainable sensor platform to monitor the water quality with the use of a sediment microbial fuel cell
S2P6	Mario Mitov	A Novel Bioelectrochemical Approach for Gold and Silver Recovery from Their Dithiosulfate Complexes
S2P7	Dmitrii Pankratov	Electrochemical impedance spectroscopy analysis of highly conductive fiber networks in cable bacteria
S2P8	Yolina Hubenova	Electrochemical characterization of precious-metal-free catalysts in neutral medium
S2P9	Thessa Van Limbergen	Plant microbial fuel cells from a photovoltaic perspective

S2P10	Toni Vitasovic	Inhibition of E. coli Growth by Zn ²⁺ through the in situ and in vivo formation of ZnO/OH Nanocomposites
Symposium 3 (S3): Bio-electrosynthesis		
Keynote lectures		
S3K1	Jason Ren	Can we produce tunable products from microbial electrochemical systems?
S3K2	Miriam Rosenbaum	Tuning microbial extracellular electron transfer for biotechnology
Invited lectures		
S3I1	Buz Barstow	What could the efficiency of electromicrobial production be?
S3I2	Jo Philips	Insights Into The Interactions Of Acetogenic Bacteria With Cathodes During Microbial Electrosynthesis
Oral presentations		
S3O1	Paolo Dessi	CO ₂ conversion in 3-D printed microbial electrosynthesis cells under moderate saline conditions
S3O2	Antonio López De Lacey	Electro-enzymatic ATP regeneration system for phosphorylation reactions based on co-immobilization of membrane enzymes on a floating phospholipid bilayer
S3O3	Edmond Magner	Electrochemical Immobilisation of Enzymes for Biocatalysis
S3O4	Johanna Radomski	The development of a redox-hydrogel bioanode for the bioelectrosynthesis of gluconate
S3O5	Igor Vassilev	Fluidized and fixed granular activated carbon bed cathodes for microbial electrosynthesis of carboxylates from CO ₂
Poster presentations		
S3P1	Simin Arshi	Electrochemical immobilization of glucose oxidase for the controlled production of H ₂ O ₂ in a biocatalytic flow reactor
Symposium 4 (S4): Electroporation & biomembrane electrochemistry		
Keynote lectures		
S4K1	Véronique Prétat	Electroporation for the delivery of DNA vaccine
S4K2	Gintaras Valincius	Electrochemical Impedance Spectroscopy: A Tool for Structure and Function Studies of Bilayers Populated with Ion-Conducting Pores
Invited lectures		
S4I1	Michal Cifra	Effects of Intense Electric Field on Structure and Function of Proteins
S4I2	Slawomir Sek	Water structure in the sub-membrane region of a floating bilayer
Oral presentations		

S4O1	Dorota Matyszewska	The Effect of Drug Lipophilicity on the Interactions with Model Cell Membranes – Surface and Electrochemical Studies of Anthracyclines and Statins
S4O2	Nadica Ivošević DeNardis	Tailoring Algae-Based Vesicles for Drug Delivery
S4O3	Renata Bilewicz	The EcCLC Antiporter Embedded in the Lipidic Liquid Crystalline Films Electrochemistry and Molecular Dynamics Simulations
S4O4	Martina Zatloukalova	Isolation, Characterization and Redox Properties of Lipid Rafts from HeLa Cells
S4O5	Michalina Zaborowska	Activity of reconstituted HMG-CoA reductase in lipid rafts model
Poster presentations		
S4P1	Peter Kramar	Effect of the cholesterol on electroporation of planar lipid bilayer
S4P2	Nives Novosel	Electrochemical adhesion-based differentiation of algal cells
Symposium 5 (S5): Nano technologies & architectures for bio-electrochemistry		
Keynote lectures		
S5K1	Arnaud Chovin	Nanoscale Imaging of Bioelectrocatalytic Viral Particles
S5K2	Susana Campuzano	Bioelectroanalytical (nano)tools: new horizons for detecting immunity, predisposition and triggering of prevalent and unexpected diseases
Invited lectures		
S5I1	Nicolas Plumeré	Bioelectrocatalytic Films for H ₂ Evolution and CO ₂ Fixation
Oral presentations		
S5O1	Marc Parrilla	3D-printed Microneedles-based Potentiometric Sensors for pH Monitoring in Skin
S5O2	Serena Arnaboldi	Enzyme-Driven Autonomous Swimmers for the Direct Detection and Quantification of Enantiomeric Excess
S5O3	Ilaria Palchetti	Au Nanoparticles decorated Nano-Graphene Oxide based Hybrid Nanocomposite electrochemical sensor for estrone determination
S5O4	Tatjana Safarik	Redox cycling in bottom-up designed porous coaxial twin-electrodes for efficient bioelectroanalysis
S5O5	Monica Brachi	Functionalized carbon nanotubes and glyconanoparticles for glucose oxidation in enzymatic biofuel cells and biosensors
S5O6	Anastasiia Berezovska	Biofuel cell based on hollow bioelectrodes containing enzymes in solution
Poster presentations		
S5P1	Jessica Crivelaro Pacheco	Infrared spectroscopy of the Old Yellow enzyme from Leishmania braziliensis under electrochemical control

S5P2	Galina Pankratova	Impact of Plasma-induced Surface Functionalization on Performance of Microfabricated Pyrolytic Carbon as Electrode Material: An Electrochemical Study
S5P3	Alexandra Pusta	Innovative targeted drug delivery systems based on magnetic and gold nanoparticles
S5P4	Jack Reeder	Bacterial Imprinting with Electro-active Bacteria for Next Generation Microbial Electrochemical Technologies
S5P5	Malgorzata Skorupa	Biofunctionalization of neural electrodes with electroactive organic monolayers
S5P6	Sophie Webb	Facile Modification of Carbon Electrodes with ITO Nanoparticles for H ₂ Production by [FeFe]-Hydrogenase
Symposium 6 (S6): Bio(photo)electrochemistry & bio-energetics		
Keynote lectures		
S6K1	Inês Cardoso Pereira	Whole cell and enzymatic catalysis for production of biofuels
Invited lectures		
S6I1	Lars Lauterbach	Electro-driven production of substituted N-heterocycles via an artificial enzymatic cascade
Oral presentations		
S6O1	Victoria Davis	Spectroelectrochemical Studies of Oxygen-Tolerant [NiFe] Hydrogenase Immobilized on Transparent Conducting Oxides for Hydrogen Oxidation
S6O2	Hiu Mun Man	Studying Enzymatic Catalysis by Fluorescence Microscopy – Electrochemistry Coupling
S6O3	Felipe Conzuelo	Rational Design and Optimization of a Photosystem I-Based Light-Driven Bioanode
S6O4	Oren Bachar	Instilling New Characteristics in Whole-cell Biohybrids Using Novel Inorganic Nano-Organelles
S6O5	Matan Meirovich	Nitrogenase Based Nano-Bio-Hybrid Systems for Photobiocatalytic Processes
S6O6	Stephane Arbault	Electrochemical Analysis of the Redox State of Mitochondrial Quinones to Study the Warburg Effect
S6O7	Mina Aleksanyan	Using electric fields to manipulate and assess the mechanics of photoswitchable membranes
S6O8	Fred Lisdat	3D ITO as electrode material for DET of photosystem I
S6O9	Alina Sekreteva	Bridging Homogeneous and Electro- Catalysis: A Story of High-Potential Multicopper Oxidases
S6O10	Petra Hellwig	Electrocatalytic Studies on Cytochrome bd Oxidase, a Bacterial Defense Factor
S6O11	Ievgen Mazurenko	Electrochemical Investigation of Cu ⁺ Oxidation by Multicopper Oxidases
S6O12	Marcos Pita	Photobio-Electrocatalytic Production of H ₂ Using Fluorine-doped Tin Oxide (FTO) Electrodes Covered With CuGaS ₂ Semiconductor and NiFeSe Hydrogenase

S6O13	Panpan Wang	A Foldable Assembly of Photosystem I Monolayers Enables Improved Incident-Photon-to-Electron Conversion Efficiency in Biophotovoltaic Devices
Poster presentations		
S6P1	Jana M. Becker	Bioelectrochemical CO ₂ conversion using carbon monoxide dehydrogenase on gas-diffusion electrodes
S6P2	Giada Bedendi	Spectroelectrochemistry of the Nitrogenase-like Dark-Operative Protochlorophyllide Oxidoreductase (DPOR)
S6P3	Thiago Bertaglia	Hydrogel-Based Bioinspired Wearable Battery
S6P4	Rachel Egan	How do Redox Polymers Enhance Photocurrents from Cyanobacteria?
S6P5	Yolina Hubenova	Draft Genome Sequence of <i>Paenibacillus profundus</i> YoMME, a new Gram-positive bacteria with exoelectrogenic properties
S6P6	Fred Lisdat	A photobioelectrochemical cell fed by light and sugar with rather high open cell voltage
S6P7	Selmihan Sahin	Bioelectrocatalytic CO ₂ Reduction by Formylmethanofuran Dehydrogenase
S6P8	Aleksandra Stefanowska	Ion potassium channel ROMK2 - studies of protein electrochemical properties
S6P9	Jitka Urbánková	Carbon nanoglass electrodes for miniaturized microbial solar cells
S6P10	Evan Wroe	Can NADPH serve as an electron shuttle in extracellular electron transport in <i>Synechocystis</i> PCC6803?
S6P11	Xinxin Xiao	On the improvement of the cathode for enzymatic biofuel cells
S6P12	Omer Yehezkeli	Biotic/Abiotic Interfaced Systems for Biosensing and Enhanced (Bio)Catalysis



B E S

The Bioelectrochemical Society