



71st Annual Meeting

of the
International Society of Electrochemistry

Belgrade, Wednesday 31 August to Friday 4 September 2020

Symposium 1
Oral presentation program

Thursday 3 September 2020

Symposium 1

Membrane-based electrodes: from traditional potentiometry to dynamic electrochemistry

Chair : *Gaston A. Crespo; Maria Cuartero Botia*

08:15 to 08:30

Receiving the participants in Zoom

08:30 to 09:00 Keynote Invited

Hubert Girault (Chemistry, , Lausanne, Switzerland), Grégoire Gschwend
[Soft interfaces polarisation: The Helmholtz model strikes back!](#)

09:00 to 09:20 Invited

Johan Bobacka (Laboratory of Molecular Science and Engineering, Abo Akademi University, TURKU, Finland), Johan Bobacka, Tingting Han, Zekra Mousavi, Ulrika Mattinen
[Coulometric Transduction for Solid-Contact Ion-Selective Electrodes](#)

09:20 to 09:40 Invited

Agata Michalska (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Anna Baranowska-Korczyn, Ewa Jaworska, Marcin Strawski, Bohdan Paterczyk, Krzysztof Maksymiuk
[Ion-selective sensor based on modified electrospun nanofibers - towards 2D sensing layers](#)

09:40 to 10:00

Damien Arrigan (Molecular and Life Sciences, Curtin University, Perth, Australia), Benjamin Viada, Mabel Yudi
[Ion-Transfer Stripping Voltammetry of Perfluorooctane Sulfonate](#)

10:00 to 10:20

Renato Gil (Faculdade de Farmácia da Universidade do Porto, R. Jorge de Viterbo Ferreira 228, Porto, Portugal), Célia Gomes Amorim, Maria Conceição Montenegro, Alberto Araújo
[Determination of ten underivatized biogenic amines by ion pair chromatography using potentiometric detection](#)

10:20 to 10:40

Maria Cuartero (Department of Chemistry, KTH Royal Institute of Technology, Stockholm, Sweden), Yujie Liu, Gaston A. Crespo
[The Role of Poly\(3-octylthiophene\) as Redox Mediator of Ion Fluxes Across Voltammetric Thin Membranes](#)

10:40 to 11:00

Jiawang Ding (Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, Yantai, China), Engung Lv, Wei Qin
[Magnetic Field-Driven Extraction of Peptides for Potentiometric Biosensing](#)

Friday 4 September 2020

Symposium 1

Membrane-based electrodes: from traditional potentiometry to dynamic electrochemistry

Chair : *Gaston A. Crespo; Maria Cuartero Botia; Valentin Mirceski; Maria Assunta Navarra; Guobao XU*

08:15 to 08:30

Receiving the participants in Zoom

08:30 to 09:00 Keynote Invited

Róbert Gyurcsányi (Department of Inorganic and Analytical Chemistry, Budapest University of Technology and Economics, Budapest, Hungary), József Kozma, Soma Papp

[Novel highly lipophilic solid contact materials for ion-selective electrodes with reproducible and preadjustable standard potentials](#)

09:00 to 09:20 Invited

Fabiana Arduini (Department of Chemical Science and Technologies, , Rome, Italy), Vincenzo Mazzaracchio, Aristi Serani, Danila Moscone

[All-solid state ion-selective carbon black-modified printed electrode for sodium detection in sweat](#)

09:20 to 09:40 Invited

Isabella Nicotera (Chemistry and Chemical Technologies, Università della Calabria, Rende (CS), Italy), Cataldo Simari, Ernestino Lufrano

[Toward the definition of new hybrid proton exchange membranes for PEMFC: from NMR molecular dynamic studies to electrochemical performances](#)

09:40 to 10:00

Gaston A. Crespo (Department of Chemistry, KTH Royal Institute of Technology, Stockholm, Sweden)

[Recent Advances on Wearable Platforms for On-body Analysis Using Membrane-Based Sensors](#)

10:00 to 10:20

Vita Nikitina (M.V. Lomonosov Moscow State University, Chemistry Department, Leninskiye Gory, 1-3, Moscow, Russia), Ekaterina Maksimova, Marina Zavolskova, Arkady Karyakin

[Constant Potential Amperometry for Detection of Electroinactive Ions and Molecules with Conducting Polymer-Based Electrodes](#)

10:20 to 10:40

Tsuyoshi Hoshino (Fusion Energy Directorate, National Institutes for Quantum and Technology (QST), Rokkasho-mura, Japan)

[New Lithium Recycling Technique of Used Li-ion Batteries using Li Separation Method by Ionic Conductor: LiSMIC](#)

10:40 to 11:00

Luthando Tshwenya (Chemical Sciences, University of Johannesburg, Johannesburg, South Africa), Omotayo Arotiba, Frank Marken

[Surface Modified Carbon Nanomats Provide Cationic and Anionic Rectifier Membranes in Aqueous Electrolyte Media: A Prospect For Desalination](#)

11:00 to 11:20

Maria Assunta Navarra (Chemistry, Sapienza University of Rome, Rome, Italy), Maria Assunta Navarra, Lucia Mazzapioda, Carmelo Lo Vecchio, Khalid Elamin, Francesco Trequattrini, Annalisa Paolone, Oriele Palumbo, Anna Martinelli, Vincenzo Baglio
[Composite Nafion Membranes with CaTiO₃-δ Additive for Fuel Cell applications](#)

11:20 to 11:40

Yumi Yoshida (Faculty of Molecular Chemistry and Engineering, Kyoto Institute of Technology, Kyoto, Japan), Emi Kusakabe, Kohji Maeda
[Oxidation ratio of conducting polymer in the conducting polymer-coated electrode](#)

11:40 to 12:00

Guobao XU (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, CAS, Changchun, China), Ye Tian, Kaixuan Li, Jianguo Wang, Jianping Li
[Carbon Paste Electrodes as Unique Membrane-Based Electrodes with Unique Performances](#)

12:00 to 12:20

Kenji Sakamaki (Department of Applied Chemistry and Biochemistry, Fukushima College, National Institute of Technology, Iwaki, Japan), Ryusei Ootomo
[Hydrogen Generation Derived from Water Dissociation \(24\)](#)