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<i>Robert T Bell, Sarah Shulda, Johanna Nelson Weker, Hanping Ding, Jamie Allyce Trindell, Josh Sugar, Philip Parilla, Dong Ding, Gary S Groenewold, David Ginley</i>	
Prediction of Degradation Phenomena in Solid Oxide Cells Informed by Post-Mortem Energy-Dispersive X-Ray Fluorescence Spectroscopy	1852
<i>Luca Mastropasqua, Jacob Bouwer</i>	
(Invited) Understanding Electrocatalytic Pathways in Complex Organic and Inorganic Composites in Aqueous and Non Aqueous Environments.....	1854
<i>Sanjeev Mukerjee, Qingying Jia</i>	

(Invited) High-Throughput Synthesis and Characterization of Fe-Based Oxygen Reduction Reaction Electrocatalysts and Perovskite Oxide Oxygen Evolution Electrocatalysts	1855
<i>Deborah J. Myers, Magali Ferrandon, Ahmed A Farghaly, Xiaoping Wang, Jaehyung Park, A. Jeremy Kropf, Evan C. Wegener</i>	
(Invited) Integrating High Throughput Synthesis with Characterization and Computation for Accelerated Discovery of Energy Conversion Materials.....	1857
<i>John M/ Gregoire</i>	
Uniting Experiment and Computational Modeling to Elucidate Structure-Property Relationships of Water Splitting Materials	1858
<i>Jamie Allyce Trindell, Sarah Shulda, Robert T Bell, James Eujin Park, Eric Coker, Subhayan Roychoudhury, David Prendergast, David Ginley, Anthony McDaniel, Josh Sugar</i>	

I04 -Integrated Materials Synthesis, Characterization, and Theory 2

(Invited) Development and Understanding of Advanced Materials for Hydrogen Storage and Delivery	1859
<i>David Prendergast</i>	
(Invited) Multiscale Modeling and Theory Experiment Integration for Understanding Complex Interfaces in Materials for Hydrogen Production and Storage	1860
<i>Brandon C. Wood, Tadashi Ogitsu</i>	
Crosscutting Multiscale Modeling of Electrolysis Cells for Accelerating Materials R&D.....	1861
<i>Jacob A Wrubel, Todd G Deutsch, Kenneth C. Neyerlin, Guido Bender, Zhiwen Ma</i>	
Durability Constraints in the Design of Materials for Energy Storage and Conversion: Support from Theory and Computations	1863
<i>Ivana Matanovic, Albert S Lee, Angelica Benavidez, Shanti Kiran Nayak, Yu Seung Kim, Fernando H Garzon</i>	
Design of Materials for Energy Storage and Conversion in High Temperature Environment	1864
<i>Kannan Ramaiyan, Luke H Denoyer, Angelica Benavidez, Ivana Matanovic, Fernando H Garzon</i>	
Analysis of High-Throughput Electrochemical Impedance Spectroscopy via Hierarchical Bayesian Models.....	1865
<i>Jake Huang, Meagan Papac, Andriy Zakutayev, Ryan O'Hayre</i>	
A New Class of High Entropy Perovskite Oxides with Increased Reducibility and Stability for Solar Thermochemical Hydrogen Production	1866
<i>Hector Alexis De Santiago, Dawei Zhang, Jiyun Park, Wei Li, Anthony McDaniel, Eric Coker, Josh Sugar, Stephan Lany, Yue Qi, Jian Luo, Xingbo Liu</i>	
Boosting Proton-Conducting Ceramic Electrochemical Performance Through Mixed Ionic and Electronic Conducting Cathode Functional Layers.....	1868
<i>Charlie Meisel, Long Le, Carolina Herradon, Jake Huang, Youdong Kim, Ryan O'Hayre, Neal P. Sullivan</i>	
Highly Efficient, Stable, and Scalable Integrated Hybrid Perovskite Photoelectrochemical Cells with STH>12.4% for Water Splitting.....	1870
<i>Austin Fehr, Ayush Agrawal, Siraj Sidhik, Isaac Metcalf, Chris Botello, Faiz Mandani, Chris Conrad, Michael Wong, Aditya Mohite</i>	
(Invited) Applying Machine Learning to Electrochemical Materials Design.....	1872
<i>Bryce Meredig</i>	

I04 - Materials to Market 1

(Invited) Conducting an International Benchmarking Effort – An Example of the IEA Annex 30 for Low Temperature Electrolysis.....	1873
<i>Meital Shviro, Zhenye Kang, Stefanie Fischer, Thomas Lickert, Chang Liu, Jason Zack, Sebastian Metz, Tom Smolinka, Marcelo Carmo, Guido Bender</i>	

(Invited) Importance of Benchmarking and Protocol Development As Part of the Hydrogen Energy Materials Network in Advanced Water Splitting	1874
<i>Katherine E. Ayers, Chengxiang("cx") Xiang, Ellen Stechel, Olga A Marina</i>	
Cathode Catalyst Layer Design to Enable Operation Beyond 1.5 W/cm ² Power Density	1875
<i>Alejandro M. Bonastre</i>	
(Invited) Technoeconomic Analysis of Transformational Energy Technologies	1876
<i>Cassidy Houchins, Jennie Huya-Kouadio, Brian James</i>	
(Invited) Techno-Economic Analysis of Utilizing Electricity to Produce Intermediates from CO ₂	1877
<i>Ling Tao, Alex Badgett</i>	
(Invited) Techno-Economic Analysis of Electrochemical Systems for Electrification of Transportation and Aviation.....	1878
<i>Venkatasubramanian Viswanathan</i>	

I04 - Materials to Market 2

(Invited) Towards Addressing Fundamental Scale-up Questions for Low-Temperature Electrolysis Electrodes	1879
<i>Michael Ulsh, Scott A Mauger, Sunilkumar Khandavalli, Janghoon Park, Carlos Baez-Cotto, Jason Pfeilsticker, Zhenye Kang, Guido Bender</i>	
(Invited) High-Throughput, In-line Quality Control of Fuel Cell Materials	1880
<i>Andrew Wagner, Thomas Lasko, Philip Cox</i>	
(Invited) Fuel Cell Membrane Defect Analysis and Durability Testing.....	1881
<i>Michael Yandrasits, Dan Meehan, Dan Pierpont</i>	
(Invited) Advances in Composite Membranes Design and Scale Up for Proton Exchange Membrane Water Electrolysis	1882
<i>Alexander Agapov, Amr Kobaisy, Christin Wilbert, Thomas Berta, Paul Kiernan</i>	
(Invited) Commercialization of Catalytic Materials for Chemical and Electrochemical Energy Conversion Technologies	1883
<i>Barr Zulevi, Webb Johnson, Thomas Stephenson</i>	
(Invited) Bringing Advanced Energy Materials to Diverse Markets.....	1884
<i>Emory Sayre De Castro</i>	

I05-ADVANCED MANUFACTURING FOR HIGH-TEMPERATURE MATERIALS AND DEVICES

I05 - High-T Fuel Cells

(Invited) Stack Development and Scale-up for Protonic Ceramic Fuel Cells	1885
<i>Ryan O'Hayre, Neal P. Sullivan, Rob J Braun, Robert J. Kee, Long Le, Carolina Herradon, Huayang Zhu, Sandrine Ricote, Kyle Ferguson, Amogh Thatte, Jake Huang, Charlie Meisel, Youdong Kim, Hossein Ghezel-Ayagh, Anthony Wood, Michael Pastula, Eric Tang</i>	
Evaluation of Fundamental Characteristics of High Functional Direct Carbon Fuel Cell Using Wood Pellet as Fuel.....	1886
<i>Katsutoshi Michihata, Kimihiko Sugiura</i>	
Enhancing Water-Splitting on Pr ₂ NiO _{4+δ} Anodes with Ba(ZrYPr)O _{3-δ} Overlayers.....	1888
<i>Mayuri Madhukar Kushare, Sandrine Ricote, Jesse Fosheim, Su Jeong Heo, Andriy Zakutayev, Greg Jackson</i>	
Determination of Au and Pt Current Collector Activity to Avoid Interference in the Screening of Metal Oxide Catalyst Activity in SOECs	1890
<i>Mykhailo Pidburtnyi, Haris Masood Ansari, Viola Ingrid Birss</i>	
(Invited) Facile Synthesis of Spherical and Highly Sinterable SDC Particles by Using Molten Salts.....	1892
<i>Hibiki Ishijima, Akihiro Ishii, Itaru Oikawa, Hitoshi Takamura</i>	

Solid Oxide Cell Materials Development at Pacific Northwest National Laboratory	1893
<i>John S Hardy, Yeong-Shyung Chou, Jung Pyung Choi, Brent Kirby, Kerry D Meinhardt, Greg A Whyatt, James M Davis, Chris M Fischer, Caleb A Lowrey, Christopher Coyle, Jeff Bonnett, Nathan L Canfield, Tim Droubay</i>	
Examination of T-MCFC Stack with a Socket Type	1894
<i>Shinnosuke Ishida, Kimihiko Sugiura</i>	
Ag/Ce _{0.9} Gd _{0.1} O _{2-δ} Based Vertically Aligned Nanocomposite Thin Film Electrodes for Low-Temperature Solid Oxide Cells	1896
<i>Ozden Celikbilek, Matthew Wells, Judith L. Driscoll, Stephen Skinner</i>	
Three-Dimensionally Architected Solid Oxide Fuel Cells for Low-Temperature Operation.....	1897
<i>Sung Soo Shin, Mansoo Choi, Hyoungchul Kim</i>	

I05 - Manufacturing

(Invited) Additive Manufacturing of Mixed Potential Gas Sensors for Natural Gas Emissions Monitoring.....	1899
<i>Lok-Kun Tsui, Sleight Halley, Kamil Agi, Fernando H Garzon</i>	
Ultrahigh Temperature Manufacturing Toward Extreme Materials	1901
<i>Liangbing Hu</i>	
High-Performance Tubular Protonic Ceramic Electrochemical Cells Manufactured by Laser 3D Printing Technique	1902
<i>Minda Zou, Hua Huang, Shenglong Mu, Zeyu Zhao, Tianyi Zhou, Aaron Santomauro, Jianhua Tong</i>	
Progress and Opportunities in the Application of Cold Sintering to Solid-State, Electrochemical, and Ceramic Devices	1903
<i>Zane Grady, Arnaud Ndayishimiye, Thomasina Zaengle, Clive Randall</i>	
(Invited) Additive Manufacturing of Energy Devices	1905
<i>Jin Xuan</i>	
Picosecond Laser Cutting-Assisted Rapid Laser Reactive Sintering for the Fabrication of Crack-Free Protonic Ceramic Electrochemical Cells	1906
<i>Tianyi Zhou, Hua Huang, Minda Zou, Xiao Geng, Fei Peng, Hai Xiao, Jianhua Tong</i>	
Additive Manufacturing of Polyaniline Electrodes	1907
<i>Valentin Christian Menzel, Ignacio Tudela</i>	

I05 Poster Session

Optimization of La _{0.6} Sr _{0.4} CoO _{3-δ} (LSC) Cathode Layer for the High Electrochemical Performance.....	1908
<i>Dong Woo Joh, Amjad Hussain, Rak-Hyun Song, Jong-Eun Hong, Seung-Bok Lee, Tak-Hyoung Lim</i>	
High-Performance Cu-Doped (Mn, Co) ₃ O ₄ Spinel Based Composite Cathodes for Intermediate Temperature Solid Oxide Fuel Cells	1909
<i>Kyeong Joon Kim, Imdadullah Thaheem, Jong Jun Lee, Dong Woo Joh, Incheol Jung, Kang Taek Lee</i>	
Importance of Solid-Liquid Interface on Electrochemical Performance of Doped Ceria-Carbonate Composite Electrolyte for High Temperature Fuel Cells	1910
<i>Kuan-Zong Fung, Ting-You Chang, Shu-Yi Tsai, Jih Yu Tang</i>	

I05 - Batteries and Others

(Invited) Laser Processing of Solid-state Electrolytes for All-Solid-state Lithium Batteries.....	1911
<i>Allison Browar, Jean-Baptiste Forien, Aiden Martin, Erika Paola Guzman, John Roehling, Aaron Santomauro, Rongpei Shi, Jianhua Tong, Marissa Wood, Jianchao Ye, Jae Hyuck Yoo</i>	
Rapid Laser Reactive Sintering of Li ₇ La ₃ Zr ₂ O ₁₂ -Based Solid State Battery Electrolytes	1912
<i>Aaron Santomauro, Hua Huang, Minda Zou, Jianchao Ye, Jianhua Tong</i>	

Assessment of Novel MgCe ₄ P ₆ O ₂₄ Ceramic Electrolyte in Fabricating Mg-Sensors: Focus on Structure and Electrochemical Impedance Spectroscopy	1913
<i>Mohammed Adamu, Girish M Kale</i>	
(Invited) Role of Lithium Doping in Layered Transition Metal Oxide Electrodes for Sodium Ion Batteries.....	1915
<i>Claire Xiong</i>	
Challenges of Developing Ductile and Lighter Refractory High Entropy Alloys	1916
<i>Prasad Rao Kalvala, Krishnan Raja, Indrajit Charit, Vaidyanathan Subramanian</i>	
Finite Element Analysis of Miniature Thermoelectric Cooler for the Thermal Management of Si-Based Photonic Integrated Circuits	1917
<i>Amit Tanwar, Rajvinder Kaur, Swatchith Lal, Kafil M. Razeeb</i>	

K01-ADVANCES IN ORGANIC AND BIOLOGICAL ELECTROCHEMISTRY

K01 - Physical and Synthetic Organic Electrochemistry

Electrochemical and Spectroscopic Studies of Bismuth-Cysteine Interactions.....	1919
<i>Graham Cheek, Dominik Pena</i>	
Electrochemistry Under Microscope: Measuring the Thickness of Diffusion Layer in Thin Layer Electrochemical Cells with Optical Microscope	1920
<i>Lida Khalafi, Mohammad Rafiee, Alexandra Summers</i>	
Inconsistent Electrochemical Impedance Spectroscopy Measurements Due to Signal Drift in the Presence of Surfactants.....	1921
<i>Emily Ziino, Zahra Panahi, Sabrina Marnoto, Jeffrey M Halpern</i>	
Unrevealing the Mechanism of Aminoxyl Catalyzed Electrochemical Oxidation of Alcohols By Unpolished Glassy Carbon Electrode.....	1922
<i>Mohammad Rafiee</i>	
Progress In The Development of an Electrochemically-Reversible Hydride Transfer Mediator for Organic Synthesis.....	1924
<i>Diane Smith, Dylan Karr, Kiyeol Baek</i>	
EIS Investigation of Redox Reactions (Quinone/Hydroquinone Couple) - Relevant to Organic Redox Flow Batteries	1925
<i>Miji E Joy, Manoj Neergat</i>	
Electrochemical Reduction of Acetonitrile to Ethylamine	1927
<i>Rong Xia, Dong Tian, Shyam Kattel, Bjorn Hasa, Haeun Shin, Xinbin Ma, Jingguang Chen, Feng Jiao</i>	
Selective Electro-reforming of Saccharides on Pt ₉ Bi ₁ /C and Effect of Temperature, Concentration and Ultrasonic Irradiations	1929
<i>Neha Neha, M. H. Islam, Stève Baranton, Bruno Georges Pollet, Christophe Coutanceau</i>	
Nanometals Templated by Tobacco Mosaic Virus Coat Protein with Enhanced Catalytic Activity.....	1930
<i>Janine Mauzeroll</i>	

K01 - Medicinal and Biological Electrochemistry

Electrochemical Characterization and Detection of the Antibiotic Compounds Over Modified Working Electrode.....	1931
<i>Vikram Singh, Rafiqul Islam, Melak Yossief, Sabine Kuss</i>	
Electrochemical Detection of Antibiotic Resistance in Pathogens.....	1932
<i>Sabine Kuss, Luma Lopes, Dustin Maydaniuk, Silvia Cardona, Frank Schweizer, Ayush Kumar</i>	

Smart Flexible Electrochemical Biosensors to be Integrated in Face Masks for Personalized Detection of Coronavirus (COVID-19).....	1933
<i>Adeel Muhammad, Md. Mahbubur Rahman, Vincenzo Canzonieri, Flavio Rizzolio, Salvatore Daniele</i>	
Copper-Based Alloys as Anti-Viral High-Touch Surfaces: An Investigation of Kill Efficiency and Mechanism in a Simulated Hospital Environment	1934
<i>Carol Glover, John R Scully, Stephen McDonnell, Tsuyoshi Miyake, Daniel Engel</i>	
1-D Titanium Dioxide Nanotubes Aided by UVC Radiation for Inactivation of Human Coronavirus	1935
<i>Nikhil Dhabarde, Svetlana Khaiboullina, Subhash Verma, Vaidyanathan Subramanian</i>	
Assessment of Experimental Parameters during Scanning Electrochemical Microscopy Imaging of Living Cells	1936
<i>Nikita Thomas, Sabine Kuss</i>	
DNA ‘Velcro’ to Interface Electron Transfer-Competent Cells with Electrodes	1937
<i>Ariel L Furst</i>	
Predicting Biophotovoltaic Current Output and Photoresponse Using Machine Learning	1938
<i>Tonny Ipaël Okedi, Adrian C Fisher</i>	

K01 Poster Session

Electrochemical Detection of Antibiotic Resistance in Pseudomonas Aeruginosa	1940
<i>Luma Lopes, Sabine Kuss</i>	
An Economic Electrochemical Hypochlorous Acid Maker for Covid-19 Control	1941
<i>Liyu Li, Qingtao Luo</i>	

L01-PHYSICAL AND ANALYTICAL ELECTROCHEMISTRY, ELECTROCATALYSIS, AND PHOTOELECTROCHEMISTRY GENERAL SESSION

L01 - Physical and Analytical General Session 1

Development of Bimetallic Film with Electrocatalytic Activity in Non-Enzymatic Glucose Oxidation.....	1942
<i>Rashmi Ghosh, Matthew Z. Yates</i>	
Unraveling the Link between Catalytic Activity and Agglomeration State with SECM and AFM	1944
<i>Alice Boudet, Olivier Henrotte, Ndrina Limani, Fatima El Orf, Frédéric Oswald, Bruno Joussemme, Renaud Cornut</i>	
Microenvironment Effects on Electrocatalytic Oxygen Reduction: The Role of Acid Electrolyte Anions	1946
<i>Jose Andres Zamora Zeledon, Gaurav Ashish Kamat, G. T. Kasun Kalhara Gunasooriya, Michaela Burke Stevens, Jens Norskov, Thomas F Jaramillo</i>	
Vanadium Copper Hydroxy Carbonate Hydrate Towards the Electrocatalytic Oxygen Evolution Reaction.....	1947
<i>Piyush Kumar, Wujian Miao</i>	
Utilizing Hydrogen Underpotential Deposition for Carbon Monoxide Reduction to Formaldehyde.....	1949
<i>Libo Yao, Yanbo Pan, Xiaochen Shen, Dezhen Wu, Zhenmeng Peng</i>	
Developed Nanomaterials with a Pd _{core} -Fe-Pd _{skin} Structure for Efficient Electrocatalytic Performance in Oxygen Reduction and Glycerol Oxidation Reactions in Alkaline Electrolytes.....	1950
<i>Yaovi Holade, Hazar Guesmi, Sophie Tingry, David Cornu</i>	
3D CVD N-Doped Graphene Coated Cu Foam As Electro-Catalyst Towards CO ₂ Reduction Reaction (CO ₂ RR)	1952
<i>Krisara Srimanon, Montree Sawangphruk</i>	
Rational Design of Catalytic Surfaces for Fuel Cell Technologies by Selective Molecular Patterning	1953
<i>Andrii Koverga, Ana María Gómez Marín, Elizabeth Florez Yepes</i>	

Electro Oxidation of Methane Under Ambient Conditions	1955
<i>Jialu Li, Libo Yao, Dezhen Wu, Zhenmeng Peng</i>	
Kinetics of Hydrogen Evolution Reaction (HER) on MoS ₂ Catalyst with Electrochemical Impedance Spectroscopy	1957
<i>Debittree Choudhury, Manoj Neergat</i>	
Photoluminescence and Crystal Structure of Eu Doped Silicon Oxide Prepared By Hybrid Sputtering and ECR-PECVD.....	1959
<i>Rashin Basiri Namin, Felipe Chibante, Peter Mascher, Zahra Khatami</i>	
Luminescence of Mn ⁴⁺ in Double Perovskites, Ba ₂ InNbO ₆ (Ln= Y, Gd, La).....	1961
<i>Mikhail G. Brik, Alok Srivastava, William Beers, William Cohen</i>	

L01 - Physical and Analytical General Session 2

Ultrathin SnS ₂ Nanosheet Decorated B-TiO ₂ / TiO ₂ Core Shell Nanorods for Photoelectrochemical Water Splitting	1962
<i>Soumyajit Maitra, Somoprova Halder, Touluk Maitra, Subhasis Roy</i>	
Shinning a Light on the Future of Precision Medicine: Feasibility of ECL As Diagnostic Point-of-Care Sensors	1963
<i>Kelly Brown, Lynn Dennany</i>	
Metal Filled Light Emitting Porous Silicon as Platform for Tunable Optical and Magnetic Properties.....	1965
<i>Petra Granitzer, Klemens Rumpf, Michael Reissner, Herwig Michor</i>	
Precursor-Based 3D Indium Tin Oxide Coated with Photosystem I and Cytochrome C for High Performing Photobioelectrodes	1967
<i>Dmitri Ciornii, Sascha Morlock, Adrian Kölsch, Athina Zouni, Fred Lisdat</i>	
Electrospun PVDF/ZnO- Based Composite Fibers for Oil Absorption and Photocatalytic Degradation of Organic Dyes from Waste Water.....	1969
<i>Hemalatha Parangusan, Jolly Bhadra, Zubair Ahmed, Noora Al-Thani</i>	
Photocatalytic Fuel Cells-Based Self-Powered Electrochemical Sensors for Pollutants Detection	1971
<i>Kai Yan</i>	
Electrochemical Investigation of Light-Induced Plating of Nickel on Si Solar Cells and Study of Nickel Silicide Formation.....	1973
<i>Divya Priyadarshani, Anil Kottantharayil, Manoj Neergat</i>	
Anodic TiO ₂ Nanotube Layers: Efficient Photocatalyst.....	1975
<i>Jan M. Macak, Hanna Sopha, Raul Zazpe</i>	
Tungsten Trioxide Photoanode-Palladium Cathode Cell for Solar Seawater Splitting	1976
<i>Katarzyna Jakubow-Piotrowska, Michal Jadwiszczak, Jan Augustynski</i>	
Theory of Nonradiative Energy Transfer between Two Optical Ions Using the Proper Adiabatic Approximation.....	1979
<i>Kailash C Mishra, John Collins</i>	

L01 Poster Session

Novel Electrochemical Sensor Based on Cu(II) for Detecting Methanol in Alkaline Media.....	1980
<i>Jesús Antonio Cruz-Navarro, Luis Humberto Mendoza Huizar, Veronica Salazar Pereda, Jose Angel Cobos Murcia, Giaan Arturo Alvarez Romero</i>	
Intermediate Evaporation Controlled SnO ₂ /Mo Doped BiVO ₄ photoanode for Enhanced Photoelectrochemical Performance	1981
<i>Soojin Kahng, Jung Hyeun Kim</i>	
In Situ Raman Spectroelectrochemical Doping of Monolayer Graphene at Micro-Scale	1982
<i>Ghulam Abbas, Farjana J. Sonia, Matej Velický, Martin Kalbac, Ghulam Abbas</i>	

DFT Study of NiO@Graphene Composite for Electrochemical Oxidation of Urea in Alkaline Electrolyte	1983
<i>Shun Lu, Zhengrong Gu</i>	
Effect of Electrolyte Contaminants and Surface Roughness on the Constant Phase Element.....	1987
<i>Rajan Maurya, Manoj Neergat</i>	
An Electrochemical Nitrite Sensor Based on Two-Dimensional Conductive Phthalocyanine-Based Metal-Organic Frameworks.....	1988
<i>Shun Lu, Hongxing Jia, Zhengrong Gu</i>	
Breaking the Limitation of Scaling Relationship By Dual Functions of Adsorbed O Atom on Non-Metal-Element-Doped Single Atom Catalyst.....	1990
<i>Cehuang Fu, Liuxuan Luo, Lijun Yang, Shuiyun Shen, Guanghua Wei, Junliang Zhang</i>	
2D Phthalocyanine-Based MOF for Electrochemical Nitrite Sensing.....	1991
<i>Shun Lu, Hongxing Jia, Zhengrong Gu</i>	
Defect Engineering for High-Performance Microscale Light-Emitting Diode Devices By Surface Passivation.....	1993
<i>Kyung Rock Son, Seok Hee Hong, Tae Geun Kim</i>	
Opto-Electrically Engineered Low Haze IZO/Ag/IZO Nanomesh Electrode for Highly Flexible Blue OLED.....	1994
<i>Hojin Lee, Tae Hoon Park, Kyung Rock Son, Wanqi Ren, Il Gyu Jang, Nahyun Kim, Tae Geun Kim</i>	
Highly Efficient Blue Thermally Activated Delayed Fluorescence Top-Emitting OLEDs Achieved Via Combination of Multilayered Emissive Layer and Ag/WO ₃ /Ag Transparent Cathode	1996
<i>Il Gyu Jang, Tae Hoon Park, Kyung Rock Son, Hojin Lee, Wanqi Ren, Nahyun Kim, Tae Geun Kim</i>	

L01 - Physical and Analytical General Session 3

Quantum and Classical Characteristics of the Capacitance of Electrode-Electrolyte Interfaces from Joint Density Functional Theory	1997
<i>Tobias Binninger</i>	
A Machine-Learning Approach to Correcting Non-Ideal Background Currents in Disordered Self-Assembled Monolayers	1998
<i>Robert Bonsall, III, Charles McCrory</i>	
Highly Efficient Preconcentration of Per- and Polyfluoroalkyl Substances (PFAS) by Anodically Generated Shrinking Gas Bubbles.....	1999
<i>Ruchiranga Ranaweera, Long Luo</i>	
Viologen Derivatives in Deep Eutectic Solvents for Energy Storage	2001
<i>Raziyeh Ghahremani, Burcu E Gurkan</i>	
Assessment of Novel Magnetic/Semiconducting Composites - FePt Nanoparticles Grown within Porous Silicon and Silicon Nanotubes.....	2002
<i>Klemens Rumpf, Petra Granitzer, Roberto Gonzalez-Rodriguez, Jeffery Coffey, Michael Reissner</i>	
3D Printed Symmetric Supercapacitors Based on Aqueous Inks of TMDs.....	2004
<i>Apostolos Panagiotopoulos, Stefano Tagliaferri, Maria Sokolikova, Nagaraju Goli, Cecilia Mattevi</i>	
In Situ Studies of the Oxide Structure and Oxide Growth on Single Crystal Platinum Surfaces	2005
<i>Timo Fuchs, Jakub Drnec, Federico Calle-Vallejo, Natalie Stubb, Daniel Sandbeck, Martin Ruge, Serhiy Cherevko, David Harrington, Olaf M. Magnussen</i>	
Modular, Fabrication Free, Three-Dimensional Micro-Electrode Based Electrochemical Platform.....	2006
<i>Zhenglong Li, Yu-Hsuan Cheng, Charmi Chande, Sagnik Basuray</i>	

Physical and Analytical Electrochemistry Division Max Bredig Award Address In Molten Salt and Ionic Liquid Chemistry

(Physical and Analytical Electrochemistry Division Max Bredig Award Address In Molten Salt and Ionic Liquid Chemistry) Electrochemical Graphitization via Molten Salts..... 2008
Bishnu Thapaliya, Huimin Luo, Sheng Dai

L01 - Physical and Analytical General Session 4

Challenges of Investigating Redox Reactions in Room Temperature Ionic Liquids 2009
Jonathan Reynolds, Jerzy Chlistunoff, Tommy Rockward, Landon Onyebueke, Lizhi Ouyang, Charles McCurry, S. K. Hargrove

Surface Corrugations and Layer Thickness Dependent Frictional Behavior of MoS₂ – A Computational Study 2010
Jatin Kashyap, Dibakar Datta

The Role of Cation Hydrophobicity on Ion Transport Selectivity in Nanopore Membranes 2011
Stevie N Bush, Thomas T Volta, Charles R Martin

Capacitive Behavior Study of Free Standing Titanium Carbide (Mxene) Film Under External Pressure 2012
Qing Zhang

Pristine Graphene Inks for 3D Printed Supercapacitors with High Capacitance 2014
Stefano Tagliaferri, Nagaraju Goli, Apostolos Panagiotopoulos, Mauro Och, Gang Cheng, Cecilia Mattevi

Hexaammineruthenium (II)/(III) and Hexacyanoferrate (II)/(III) Redox-Probes for Graphene-Based Inkjet-Printed Electrodes: Benchmarking with Gold and Glassy Carbon Screen Printed Electrodes 2015
Thiba Nagaraja, Wenjun Xiang, Suprem Das

L01 Digital Session

The Bandgap of TiO₂ Nanoparticles from Photo- and Electrochemical Properties – a Theoretical Study..... 2016
Gergely Juhasz

The Structure of Ionic Liquids at Electrified Interfaces a Continuum Theory Based Approach..... 2017
Max Schammer, Birger Horstmann, Arnulf Latz

PL, TL and Persistent Luminescence Characterization of Undoped and Eu Doped Nanostructured Hydroxyapatite 2019
Rodolfo Ruiz Torres, Valery Chernov, Umopada Pal, Sudip Mondal, Nancy Jovaana Zúñiga-Rivera, R. Meléndrez, M. Barboza-Flores

Effect of Reducing and Oxidizing Atmosphere on Photoluminescence of Undoped, Eu Doped and Dy Doped Nanostructured CaAl₂O₄ 2020
Rodolfo Ruiz Torres, Valery Chernov, P. Salas-Castillo, Nancy Jovaana Zúñiga-Rivera, R. Meléndrez, M. Barboza-Flores

L02-ADVANCED TECHNIQUES FOR IN SITU ELECTROCHEMICAL SYSTEMS 4

L02 - Electrocatalysis and Surface Reactions 1

(Invited) Identifying the Rate-Determining Step in the Electrochemical CO Reduction Reaction 2021
Bingjun Xu

Towards in Operando XAS Investigation of CO₂ Electrolysis in Solid Oxide Cells: Synchrotron Studies of La_{0.3}Ca_{0.7}Fe_{0.7}Cr_{0.3}O_{3-δ} Perovskites 2022
Oliver Calderon, Viola Ingrid Birss, Simon Trudel, Haris Masood Ansari, Katelynn Daly, Yongfeng Hu, Martin A. W. Schoen, Nicholas Randell

In Situ Differential Reflectance Spectroscopy Monitoring the Asynchronous Transient Response at the Edge and Center of the Disk Electrode..... 2024
Eric S. Tuala, Qi Han, Pedro Vasquez, Zhange Feng

L02 - Electrocatalysis and Surface Reactions 2

(Invited) In-Situ Probing Electrochemical Interfaces Using Core-Shell Nanostructure-Enhanced Raman Spectroscopy 2027
Jian-Feng Li

Evidence for the Lack of Caffeine Specific Adsorption and Its Impact on Water Structure to Increase HOR/HER Activity on Pt..... 2028
Nicholas J Oliveira, Bingjun Xu, Yushan Yan

Electrochemical Tip-Enhanced Raman Spectroscopy for the In Situ Characterization of Functional Materials..... 2030
Alice Fiocco, Aja Ana Pavlic, Laure Fillaud, Emmanuel Maisonhaute, Jean-Marc Noel, Ivan T. Lucas

L02 - Electrocatalysis and Surface Reactions 3

(Invited) In Situ Electron Microscopy Methods for Understanding Activity and Degradation in Fuel Cell Electrocatalysts 2032
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