

Poster Programme

Biotechnology

#	Presenting author	Title	Affiliation	Group
P B 01	Tim Peace	Single-Molecule Fingerprinting of Amyloid Fibrils within a Crowded Nanopore	University of Leeds	Monday

Corrosion Science and Engineering

#	Presenting author	Title	Affiliation	Group
P CSE 01	Gareth Jones	The inhibition of smart release organic anion pigments on the cathodic disbondment of organically coated galvanised steel	Swansea University	Monday
P CSE 02	Peter Morgan	Effect of Chloride Concentration on the Localized Corrosion of 55%Al-Zn Coated Steel Using the Scanning Vibrating Electrode Technique	Swansea University	Tuesday
P CSE 03	Raeesa Bhamji	Understanding the corrosion behaviour of deep pits under thick deposit layers in aqueous CO ₂ environments	University of Leeds	Monday
P CSE 04	Rebecca Dewfall	Investigation of High Temperature Oxide Morphology using Rapid Alloy Prototyping	Swansea University	Tuesday
P CSE 05	Harry Bullock	Investigation of molten salt corrosion and oxidation of Ni-based alloy: A combined experimental and numerical approach	University of Leeds	Monday
P CSE 07	Tim Savill	Development of Techniques for the In-Situ Performance Monitoring of Architectural, Organically Coated Steel Cladding	Swansea University	Monday
P CSE 08	Helena M. Ferreira	Evaluation of electrolytic hydrogen permeation in pipeline steel	Swansea University	Tuesday
P CSE 09	Monique H Latty	The Impact of Phosphate dosing in soft water on Ductile Cast Iron	Swansea University	Monday
P CSE 10	Michael Jones	Mathematical Modelling of Aqueous CO ₂ Corrosion and the Impact of Temperature and Pressure on Surface Conditions	University of Leeds	Tuesday
P CSE 11	Alexander Hanson	Understanding the Effect of Strain on Microstructure Properties and Environmental Degradation of AGR Fuel Cladding	University of Manchester	Monday
P CSE 12	Evgeny Barmatov	A new acid-activated (protonatable) environmentally acceptable corrosion inhibitor for matrix acidizing stimulation treatments	Schlumberger Cambridge Research	Tuesday

Electrochem 2022

Edinburgh, 4-6 September 2022

John McIntyre Conference Centre, Pollock Halls, The University of Edinburgh



P CSE 13	Kaivalya Borwankar	Investigating early signs of organic coating failure	University of Manchester	Monday
P CSE 14	Charlotte Merrell	The Role of Slip Mechanism and Environment on Fretting-Corrosion of CoCrMo-Ti6Al4V Material Couples Used in Total Hip Replacements	University of Leeds	Tuesday
P CSE 15	Callum Ayres	Electrochemical mechanisms of coating failure	University of Manchester	Monday
P CSE 16	Kathleen Brook	Organophosphate additives for the improvement of adhesion and anticorrosive performance	University of Manchester	Tuesday
P CSE 17	Ellen L Williams	Understanding Passivated Magnox Prior to Packaging	National Nuclear Laboratory	Monday
P CSE 18	Joseph Thevakumar	Corrosion of carbon steel in highly-acidic geothermal environments	University of Leeds	Tuesday

Energy and Environmental

#	Presenting author	Title	Affiliation	Group
P EE 01	Katja Kress	The Influence of Ammonia Concentration on the Precipitation of LiNiO ₂ Cathode Material for Lithium-Ion Batteries	University of Sheffield	Monday
P EE 02	Obeten Mbnag	Decoupled Electrolysis for the Production of Zero-Carbon Hydrogen	University of Glasgow	Tuesday
P EE 04	Andrzej Sankowski	The Mg electrode cycling mechanism in simple salt glyme electrolytes	University of Nottingham	Tuesday
P EE 05	Dongni Zhao	Real-time manganese dissolution detection in a Li-ion battery cathode	Lancaster University	Monday
P EE 06	Hossam Mohamed Gomaa Amin	Investigation of the annealing temperature of layered tungsten trioxide photocatalyst on the photocatalytic effect in a polyoxometalate-based decoupled electrolysis system	University of Glasgow	Tuesday
P EE 07	Mayra S Tover-Oliva	Electrodeposition of uniformly distributed Cu-based catalysts of gas diffusion electrodes for the electrochemical conversion of CO ₂	University of Edinburgh	Monday
P EE 08	Abdulhai Fageeh	Anion Exchange Membrane Water Electrolysis (AEMWE) Benchmark	University of Glasgow	Tuesday
P EE 09	Mark Potter	Decoupled Electrochemical CO ₂ Reduction Using Redox Mediators	Lancaster University	Monday
P EE 10	Sarah Martin	Advances Toward a Commercial Novel Single Liquid Lithium-Polysulphide Flow Battery	StorTera	Tuesday
P EE 11	Varsha Sasikumar	Effect of Electrochemical Treatment and pH on Electrode Kinetics in Vanadium Flow Batteries	University of Limerick	Monday
P EE 12	Bethan Davies	Mechanisms of electrolyte degradation in lithium-ion batteries (NMC811)	Imperial College London	Tuesday

Sponsors



Exhibitors



Electrochem 2022

Edinburgh, 4-6 September 2022

John McIntyre Conference Centre, Pollock Halls, The University of Edinburgh



		studied by online electrochemistry-mass spectrometry		
P EE 13	Jatuporn Banjong	Electrode fabrication for anion exchange membrane electrolyzers via electrodeposition of nickel and nickel alloy on porous carbon in an electrochemical flow reactor	Imperial College London	Monday
P EE 14	Halilu Sale	Optimizing the Electrochemical Reduction of CO ₂ to Oxalic Acid in Propylene Carbonate	University of Glasgow	Tuesday
P EE 15	Hannah Dickinson	Synthesis of a NiCuAg stack for Electrochemical CO ₂ Reduction	University of Glasgow	Monday
P EE 16	Nathan Reynolds	Investigating the Applicability of Different Materials as Cathodes for Anode-Free Sodium-Ion Batteries	Swansea University	Tuesday
P EE 17	Omotayo A Arotiba	Internal temperature monitoring with embedded thermocouples in commercial lithium-ion cells during nail penetration	University of Johannesburg	Monday
P EE 18	Waqas Malik	Sporopollenin exine capsules as a source of carbon biomass support for nitrogen doped graphene encapsulated Fe ₃ C/Fe nanoparticles for efficient oxygen reduction reaction catalysts for alkaline fuel cells	Queen Mary, University of London	Tuesday
P EE 19	Ganesh Vailaya	Exploring the role of redox-shuttle mediators in lithium-sulfur batteries	University of Nottingham	Monday
P EE 20	Gengyu Tian	The electrochemical view of the solar redox flow batteries	Queen Mary, University of London	Tuesday
P EE 21	Iain Malone	Catalyst coated membrane degradation in anion exchange membrane water electrolysis	University College London	Monday
P EE 22	Jorge P Victoria Tafoya	Nature-inspired free-standing electrodes as efficient oxygen reduction reaction catalysts for alkaline fuel cells	Queen Mary, University of London	Tuesday
P EE 23	Tshiamo Manyepedza	Single entity electrochemistry of MoS ₂ : electrocatalysis and hydrogen generation at low overpotentials	University of Birmingham	Monday
P EE 24	Holly Smith	Characterising ion transport in novel electrolytes for sodium-ion batteries	University of Cambridge	Tuesday
P EE 25	Haroon Khan	Effective stacking of single stream based microfluidic enzymatic biofuel cell	Kyungpook National University	Monday
P EE 26	Anubhav Singh	Root cause analysis of differentially degraded parallel-connected Li-ion cells	University of Warwick	Tuesday
P EE 27	Iwan Sumarlan	Electrochemical Study of AlCl ₃ -Guanidine Hydrochloride Based Ionic Liquid Analogue (ILA) for an Aluminium Battery Application	University of Leicester	Monday

Sponsors



Exhibitors



Electrochem 2022

Edinburgh, 4-6 September 2022

John McIntyre Conference Centre, Pollock Halls, The University of Edinburgh



P EE 28	Hind Almalki	An in situ study of anodic reactions of the iron aqueous redox flow batteries in concentrated electrolytes	University of College London	Tuesday
P EE 29	Güldeniz Tonbul	Development of Battery System Based on Na-S and Characterization Using X-ray Absorption Spectroscopy	Universität Paderborn	Monday
P EE 30	Craig Armstrong	Gaseous-Fed Falling-Film Electrolyser for Pressure-Balanced Electrochemical CO ₂ reduction at copper gas-diffusion electrode	Swansea University	Tuesday
P EE 31	Ruba Hendi	Application of SMA/ MNC for Electrochemical Reactions	University of Birmingham	Monday
P EE 32	Vinod Kumar Puthiyapura	Gas Diffusion Electrode system for the Oxygen Evolution Reaction(OER)Catalyst Testing	Johnson Matthey	Tuesday
P EE 33	Molly E Keal	Recovery of Manganese via Impact Electrochemistry for Energy Storage Applications	University of Birmingham	Monday
P EE 34	Renato Ferreira Gonçalves	Direct ink printed cathodes for high-performance lithium-ion batteries	University of Minho	Tuesday
P EE 35	Daniel E Smith	Electrochemistry-coupled Mass Spectrometry in Studies of the Carbon Dioxide Reduction Reaction	Lancaster University	Monday
P EE 36	Jennifer Hack	In-situ X-ray computed tomography of shape-change during zinc-air battery discharge	University of College London	Tuesday
P EE 37	Marianna Casavola	Fluidised Bed Chemical Vapour Deposition of Tin Dichalcogenides on Hard Carbon Powders	University of Southampton	Monday
P EE 38	Joanne Searle	Performance Enhancing Additives for Lithium Sulfur Batteries	University of Nottingham	Tuesday
P EE 39	Innes McClelland	The role of the reducible dopant in solid electrolyte lithium metal interfaces	University of Sheffield	Monday
P EE 40	George Darikas	Internal temperature monitoring with embedded thermocouples in commercial lithium-ion cells during nail penetration	University of Warwick	Tuesday
P EE 41	Samuel Robertshaw	CO ₂ -Dimensional Electrocatalysis: are MXenes the answer?	Lancaster University	Monday
P EE 42	Suranjana Patowary	Graphene nanoplatelet supported Co ₃ O ₄ @CeO ₂ as bifunctional electrocatalyst for oxygen reduction and evolution reactions in alkaline media	Tezpur University	Tuesday
P EE 43	Sebastian J Altus	Increase in critical current density due to Mn rich secondary phase formation in Li Stuffed Garnets	University of Sheffield	Monday

Sponsors



Exhibitors



Electroanalysis and Sensors

#	Presenting author	Title	Affiliation	Group
P ES 01	Weishuo Li	Chemiresistive polymer percolation network gas sensor created with a nanosphere template	University of Oxford	Tuesday
P ES 02	Rachel Bocking	Functionalised Micro and Nanoelectrodes for Hydrogen Peroxide Sensing	University of Leeds	Monday
P ES 03	Rowan Blake	Illuminating Electrochemistry within Forensic Science: Electrochemiluminescence for the Selective Detection of Indole-based Synthetic Cannabinoids	University of Strathclyde	Tuesday
P ES 04	Gökhan Özgenç	The Production and Characterisation of Enhanced Microfabricated Carbon Electrode Systems	University of Edinburgh	Monday
P ES 05	Shane O'Sullivan	Development of Microfluidics System for Electrochemical Sensing	Tyndall Institute - University College Cork	Tuesday
P ES 06	Stuart Milne	Developing a low-cost, electrode-based ELISA for cancer detection	University of Strathclyde	Monday
P ES 07	Kayleigh Doherty	Electrochemical sensing for continuous monitoring of fetal health	University of Edinburgh	Tuesday
P ES 08	Emer Farrell	Aprotic Solvent Accumulation Amplifies Ion Current Rectification in Conical Nanopores	University College Dublin	Monday
P ES 09	Shane P O'Neill	Proton Coupled Electron Transfer of Anthraquinone at a Glassy Carbon and Boron-Doped Diamond electrode interface	University College Dublin	Tuesday
P ES 10	Shan Zhang	Simulation of oxygen diffusion within a miniature implantable oxygen sensor	University of Edinburgh	Monday
P ES 11	Pui H Shum	Simple and Rapid Electrochemiluminescence method by using modified Glassy Carbon Electrode on Leucovorin detection	University of Strathclyde	Tuesday
P ES 12	Donal Whelan	Development of a DNA Based Biosensor for the Detection of Food-Borne Pathogens	University College Dublin	Monday
P ES 13	Kathleen Kennedy	Electrochemical-based pH control for milk analysis	Tyndall Institute - University College Cork	Tuesday
P ES 14	Alexander Macdonald	Enzymatic biosensors for neurochemicals on implantable neural probes	University of Strathclyde	Monday
P ES 15	Ridwan Adib	Development of smart electrochemical nanosensor systems for animal health and wellbeing	Tyndall Institute - University College Cork	Tuesday
P ES 16	Ian J Bennett-Wright	The properties and tunable nature of electrochemically-grown dipeptide-based hydrogels at single microelectrodes	University of Edinburgh	Monday

P ES 17	Fiona Moore	Developing an Electrochemical Glucose Sweat Sensor using Nanoband Electrodes	University of Edinburgh	Tuesday
---------	-------------	--	-------------------------	---------

Fundamental and Applied Electrochemistry

#	Presenting author	Title	Affiliation	Group
P FAE 01	Dan Broadhurst	High Yield and Selective Electrocatalytic Reduction of Nitroarenes to Anilines using Redox Mediators	University of Glasgow	Monday
P FAE 02	Nataly Rey-Munoz	Identifying the Key Factors That Influence Electropolymerisation of Conducting Polymers at a Polarised Liquid-Liquid Interface	University of Limerick	Tuesday
P FAE 03	Hannah Hilton-Tapp	Prediction and Application of Effective Copper Nanocomposite Plating Baths	University of Leicester	Monday
P FAE 04	Lewis MacDonald	Membraneless Electrolyzer System for Acid and Base production from Seawater	University of Strathclyde	Tuesday
P FAE 05	Valentin C Menzel	3D Printing Highly Conductive Polyaniline based Electrodes for Electrochemical Applications	University of Edinburgh	Monday
P FAE 06	Carlos Mingoes	Improving oxygen evolution reaction through chiral molecular functionalisation of nano-catalysts	Queen Mary, University of London	Tuesday
P FAE 07	Ruth A. Carvajal-Ortiz	Molten salt Pyro-Processing Apparatus	National Nuclear Laboratory	Monday
P FAE 08	Anju Jolly	An investigation into the levelling effect of Electroless Nickel deposition for the mitigation of surface defects on additively manufactured parts	Coventry University	Tuesday
P FAE 09	Ricoveer S Shergill	Optimisation of printing and instrument parameters to enhance the conductivity of 3D printed electrodes	University of Brighton	Monday
P FAE 10	Abiola V Oladeji	Palladium recovery and in situ palladium-carbon catalyst fabrication via impact electrochemistry	University of Birmingham	Tuesday
P FAE 11	Suqi Zhang	Continuous-flow self-supported electrochemically mediated atom transfer polymerization using a sonicated microreactor	KU Leuven	Monday
P FAE 12	Franziska Böhl	The effect of acoustic power at low frequency ultrasound on the piezo-electrocatalytic and sonochemical degradation of pollutants in water	University of Edinburgh	Tuesday
P FAE 13	Tabassum Malik	Extractive desulfurization and polymerization of thiophenic compounds in oil using deep eutectic solvent	University of Leicester	Monday
P FAE 14	Pallavi Dutta	Effect of Electrolyte Concentration on Ion Current Rectification Inversion	University College Dublin	Tuesday

Electrochem 2022

Edinburgh, 4-6 September 2022

John McIntyre Conference Centre, Pollock Halls, The University of Edinburgh



P FAE 15 Richard Clark	Application of Single Metal Atoms/Metal Nanoclusters for Electrochemical Reactions	University of Birmingham	Monday
P FAE 16 Maisa Azevedo Beluomini	The oxygen reduction reaction in the presence of polymer of intrinsic microporosity probed with generator-collector electrochemistry at graphene foam electrodes	University of Bath	Tuesday
P FAE 17 Inyoung Jang	Structural effects on performances of solid oxide electrochemical reactors with 3D printed Ni(O)-YSZ pillared negative electrodes	Imperial College London	Monday
P FAE 18 Nashwa Awais	Stability of Thiolated Nanoparticles on Metallic Surfaces	University of Birmingham	Tuesday
P FAE 19 Mohammed A Alkhalifah	Insight into the electronic structure and oxygen electrocatalytic activities of Mn-based perovskite	University of Bristol	Monday
P FAE 20 Enrico De Bonis	Electrochemical Impedance Monitoring of Gold Surface Covalent Grafting	Lancaster University	Tuesday
P FAE 21 Anjali John	Freestanding boron-doped diamond mesh electrodes for uv-vis absorption spectroelectrochemistry	University of Warwick	Monday

Sponsors



Exhibitors

