European Materials Research Society

2023 Spring Meeting May 29 | June 2

40th Anniversary

Congress & Exhibition Centre, Strasbourg, France

SYMPOSIUM A

Solid state ionics: bulk, interfaces and integration in devices

Symposium Organizers:

Ainara AGUADERO, Imperial College London, U.K.

Emiliana FABBRI, Paul Scherrer Institut, Switzerland

Francesco CIUCCI, HKUST, Hong Kong

Miguel LAGUNA-BERCERO, Universidad de Zaragoza, Spain

Published in Solid State Ionics by Elsevier

Monday May 29

A01

Fundamentals: space charges and local transport

Chairperson(s) : TARANCON Albert

Marie Curie B (1st floor)

08:45	809	INV	The Consequences of Space-Charge Zones for Short-Circuit Diffusion along Extended Defects	**DE SOUZA Roger**
09:15	715		Understanding local mass transports at grain boundaries in perovskite oxide electrodes	**SKINNER Stephen**
09:30	728		A molecular-dynamics study of oxygen diffusion in polycrystalline (La,Sr)FeO3	**BONKOWSKI Alexander**
09:45	696		Exploring space charge effects at SrTiO3Imixed ionic and electronic oxide heterojunctions	**STEINBACH Claudia**

Monday May 29

A02

High-temperature oxygen exchange kinetics

Chairperson(s) : DE SOUZA Roger

Marie Curie B (1st floor)

10:30	2784	INV	High-throughput screening of defect-mediated properties: ionic conductivity and surface exchange kinetics	**PERRY Nicola H.**
11:00	430		Effect of transition metal impurities on oxygen exchange kinetics in mixed ionic and electronic conducting oxides	**ABDOULI Insaf**
11:15	1140		Oxygen exchange kinetics of mixed conducting oxide ceramics covered by dendritic surface particles	**PREIS Wolfgang**
11:30	698		Interplay between surface chemistry, transport properties, and oxygen exchange kinetics in mixed conducting oxides	**MERIEAU Alexandre**
11:45	1455		Modifying the surface exchange kinetics of Fe-substituted SrTiO3 via the infiltration of acidic/basic binary oxides	**HARRINGTON George**

Monday May 29

A03
Catalyst exsolution

Chairperson(s) : PERRY Nicola H.

Marie Curie B (1st floor)

	2837		Printing wearable and bioelectronic sensors with microfibr	**WANG Wenyu Andy**
13:30	2779	INV	Control of Surface Cation Segregation through Strain Engineering	**HAN Jeong Woo**
14:00	517		Understanding the exsolution of Ni-Co-Fe alloyed nanoparticles in double perovskites electrodes by synchrotron-based in situ NAP-XPS and XRD	**CARRILLO Alfonso J.**
14:15	1835		On the influence of pressure on multicomponent metallic exsolution	**LÓPEZ-GARCÍA Andrés**
14:30	1533		Exsolution Catalysts as a Plaything of Atmosphere and Electrochemical Polarization	**OPITZ Alexander K.**
14:45	498		Visualizing the Evolution of Exsolved Nanoparticles from Nanoporous Perovskites	**INANGHA Princess**

Monday May 29

A04
Complex oxides for high and low temperature electrolysis

Chairperson(s) : FABBRI Emiliana

Marie Curie B (1st floor)

15:00	2777	INV	Low content Ru pyrochlores as efficient and stable electrocatalysts for PEMWE anodes	**RETUERTO M.**
15:30	2780		OER Catalysts derived from Ir double perovskites for PEMWE	**ROJAS Sergio**
15:45	2791		Ferrites for High-Performance Protonic Ceramic Fuel Cells	**CIUCCI Francesco**

Monday May 29

A05
Oxide catalyst for fuel production

Chairperson(s) : CARRILLO Alfonso J.

Marie Curie B (1st floor)

16:30	2776	INV	Optimization of metal oxide catalysts for water splitting	**TSUR Yoed**
17:00	352		Mechanochemical route to novel high-entropy sulfides for rechargeable battery battery and electrocatalytic water splitting	**LIN Ling**
17:15	1459		CeO2-promoted Cu2O-based catalysts for the electrocatalytic reduction of carbon dioxide to ethylene	**ALARCÓN Andreina**
17:30	1270		Insights into triple conducting oxides as cathodes for electrochemical nitrogen hydrogenation	**WEISS Maximilian**
17:45	1985		Understanding Fluorite-Type Electrodes for CO2 Electrolysis: A Multi-Analytical Approach Employing Well-Defined Model Electrodes	**RATH Kirsten**
18:00	1569		Electrochemical CO2 reduction with MgO support for methane production	**WANG Yifei**
18:15	2526		Porous MgO stabilized ZrO2 plates from directionally solidified composites as supports of dual membranes.	**MERINO Rosa Isabel**

Tuesday May 30

A06

Sustainable routes in electrochemical storage

Chairperson(s) : JIMÉNEZ RIOBÓO Ricardo

Marie Curie B (1st floor)

10:00	2773	INV	Sustainable battery design	**KENDRICK Emma**
10:30	1820		The Effect of Configurational Entropy on Acoustic Emission of P2-Type Layered Oxide Cathodes for Sodium-Ion Batteries	**DREYER Sören L.**
10:45	2576		The route matters: effect of liquid-phase processing on bulk properties of high-capacity cathode materials	**GADERMAIER Bernhard**
11:00	732		Development of fast Li conductor halides with non-critical elements	**ARTAL Raul**
11:15	2728		Novel hybrid solid electrolytes based on metal organic frameworks	**HANZU Ilie**
11:30	1899		Rechargeable oxide ion batteries based on mixed conducting oxygen insertion electrodes	**SCHMID Alexander**
11:45	2637		Magnetic Thermally-Chargeable Textile Supercapacitor: Synergy Between CNT@ MnFe2O4 Hybrid Electrodes & Glow-in-the-Dark Solid-gel Electrolyte	**TEIXEIRA Joana S.**

Tuesday May 30

A07

Solid state electrolytes for secondary batteries

Chairperson(s) : CIUCCI Francesco

Marie Curie B (1st floor)

13:30	2774	INV	Protecting solid-state batteries from failure by using pulsed current waveform and ion implantation	**RETTENWANDER Daniel**
14:00	2457		Overscreening and underscreening: the emergence of oscillatory space charge layers in solid electrolytes	**COLES Samuel William**
14:15	1436		Ionic diffusion in the argyrodite-type Li6PS5Br: Influence of Br/S site-exchange and grain boundaries	**SADOWSKI Marcel**

14:30	2529	Influence of the powder preparation method on the Self-diffusion coefficients obtained by 7Li PFG (Pulse Field Gradient) NMR spectroscopy in polycrystalline Li1+xTi2-xAlx(PO4)3 (0.2 = x = 0.4) samples.	**JIMÉNEZ RIOBÓO Ricardo**
14:45	1675	Lowering the sintering temperature of garnet electrolytes for Solid-State Batteries by cold sintering process	**PESCE Arianna**

Tuesday May 30

A08
Solid state batteries development

Chairperson(s) : KENDRICK Emma

Marie Curie B (1st floor)

15:00	1401	Solid-state architectures based on ultra-thin NASICON electrolytes and oxide-based anodes	**GONZALEZ-ROSILLO Juan Carlos**
15:15	2354	Rapid screening of materials and interfaces for high rate capability in energy storage and conversion	**ADAMS Stefan**
15:30	210	Solution-phase synthesis of Li metal protective interlayer for stable anodic interface in all-solid-state batteries	**LEE Seong Gyu**
15:45	2353	High Performance Solid State Lithium Batteries by Ultrathin In-situ-cured Composite Solid Electrolytes	**ADAMS Stefan**
16:00	379	Predicting the ionic conductivity of superionic conductors	**CARVALHO Alexandra**
16:15	1905	Monolithically-stacked thin-film cells for high-power solid-state batteries	**FUTSCHER Moritz H.**

Tuesday May 30

A_P01
Poster session 1

Etoile (1st floor) - 4.30 p.m to 6.30 p.m

01_1069	Clarification of Li Deposition Behavior on a Porous Interlayer Anode in Li-free All-Solid-State Batteries	**JUN Dayoung**
02_11	Modulating the electronic conductivity of hematite (a-Fe2O3) via biaxial mechanical strain: A density functional theory study.	**ABDULMUTALIB Sheriff Naziru**

03_1126	Stability of high-temperature electrical and acoustic properties of congruent and near stoichiometric single crystalline lithium niobate-tantalate solid solutions	**SUHAK Yuriy**
04_1128	Modelling of oxygen vacancy diffusion in acceptor doped barium titanate: a molecular dynamics approach	**PREIS Wolfgang**
05_1142	New solid-state electrolyte based on 2-adamantanone for sodium all-solid-state batteries	**BUDDE Joshua**
06_1244	Understanding quantum phenomena in multiferroic A2CoB2O7 (A = Sr, Ba; B = Ge, Si) single crystals	**DUTTA Rajesh**
07_1247	A molecular dynamics study of oxygen diffusion in brownmillerite Sr2Fe2O5	**AMBAUM Sonja**
08_1261	Insight into the Transport of Li Polysulfides in Solid Polymer Electrolytes	**AHIAVI Ernest**
09_1263	A general expression for the statistical error in a diffusion coefficient obtained from a solid-state Molecular-Dynamics simulation	**USLER Adrian L.**
10_1291	A novel sample cell for the detection of protons in ceramic materials by an in-situ combination of laser induced breakdown spectroscopy and electrochemistry	**WEISS Maximilian**
11_1318	An oxide ion all-solid-state synaptic transistor with efficient energy consumption for low temperature applications	**LANGNER Philipp**
12_1343	Understanding seed layers for lithium metal plating in all-solid-state batteries with 3D microscopy	**MUELLER Andre**
13_1359	Polyether based Polyhydroxy urethane Network as Polymer Electrolyte Solid-state Lithium Metal Batteries	**RAJ Ashish**
14_1362	Electrical and Optical Properties of SrTi0.7Fe0.3O3-d Perovskite-Type Oxide	**YILDIRIM Ceren**
15_1365	Diffusion of cobalt ions in strontium titanate	**MA Qian**
16_1367	Depth-dependent characterization of (Ag,Cu)(In,Ga)Se2 by X-ray absorption spectroscopy	**BABUCCI Melike**
17_1372	Coupling of an experimental and numerical study on high performance oxygen electrodes for micro-Solid Oxide Cells	**PANISSET Silvère**
18_1377	Solid-state Li metal battery with hybrid electrolyte: An overview of the Horizon Europe SEATBELT project.	**BOULMIER Thomas**

19_1413	Understanding the structure, ionic conductivity and transport mechanisms of A2ZrCl6.	**BARKER Kit**
20_1415	Computational Study on the Effect of Inactive Fillers in Hybrid Electrolytes using Empirical Molecular Dynamics	**MARTIN DALMAS CEA Joël**
21_1442	Dendritic growth study by coupling phase filed equations and Poisson Nernst Planck equation for Li metal batteries	**WORTHEMPHY Mahung Khuiya Shimray**
22_1446	In-situ impedance spectroscopy to identify mechanisms in cold sintering process of Li1-xAlxTi2-x(PO4)3 (LATP) solid electrolyte	**VICENTE-AGUT Nuria**
23_179	Interstitial segregation has the potential to mitigate liquid metal embrittlement in iron	**AHMADIAN Ali**
24_184	Solid polymer electrolytes via click chemistry for all solid state lithium batteries	**HALTTUNEN Niki**
25_197	Novel mesoporous carbon supports for sustainable PEMFC catalysts	**PERRIN Eugénie**
26_199	Mixed Ion-Electron Transport in Composite Electrodes	**CHEN Chia-Chin**
27_1020	Analysis of interfacial defects in InGaZnO TFT using nonlinear optics	**HYUNMIN Hong**
28_229	Influence of Sm doping on structural, ferroelectric, electrical, optical and magnetic properties of BaTiO3	**ALSHOAIBI Adil**
29_230	Effect of Sm3+ Substitutions on the Lithium Ionic Conduction and Relaxation Dynamics of Li5+2xLa3Nb2-xSmxO12 Ceramics	**ALSHOAIBI Adil**
30_231	Enhancement of Optical Activity and Properties of Barium Titanium Oxides to Be Active in Sunlight through Using Hollandite Phase Instead of Perovskite Phase	**ALSHOAIBI Adil**
31_234	Colossal Permittivity Characteristics of (Nb, Si) Co-Doped TiO2 Ceramics	**ALSHOAIBI Adil**
32_1059	Multi-ferroic glass properties of cubic Sm-doped ceria	**LAVIE Anna**
33_236	Investigation of Chemical Bath Deposited Transition Metals/GO Nanocomposites for Supercapacitive Electrodes	**ALSHOAIBI Adil**
34_2717	Prediction of Sodium Ion Transport in NaSICON Materials by DFT and Monte Carlo methods	**NEITZEL-GRIESHAMMER Steffen**

35_2830	Performance of NaSICON electrolytes in anodeless sodium solid-state batteries	**GARCÍA Cristina**
36_29	Tuning Ionic Conductivity and Stability of Superionic Solid-State Electrolyte	**KC Santosh**
37_314	Nanostructured air electrodes for reversible solid oxide fuel cells via crystallization-assisted infiltration	**SEUNG-BOK Lee**
39_416	Physically Transient Devices Based on Biological Materials with Agarose as an Active Layer for Nonvolatile Memory Application	**NGUYEN Tan Hoang Vu**
40_463	Interface studies in solid lithium metal batteries based on halide hybrid electrolytes	**STANKIEWICZ Natalia**
41_491	Pulsed laser deposition of epitaxial Li4Ti5O12 thin films as an all-solid-state microbattery anode	**ŽUNTAR Jan**
42_532	First principles calculations of oxygen vacancies and protonic defects in Sr2FeO4+/-d	**MASTRIKOV Yuri A.**
43_536	Enlargement of band gaps on thermal wave crystals by using heterostructures	**MORALES-MORALES Gerardo**
44_592	Composite coating for suppressing undesirable interfacial reactions in sulfide-based all-solid-state batteries.	**JI Yong Jun**
45_615	Optimization of Thermoelectric n- & p-type Bismuth-Tellurium and Antimony-Tellurium Based Alloys through Mechanical Alloying, Hot Pressing and Hot Deformation	**VOURLIAS Georgios**
46_537	Prolongating Cycling Lifetime of Lithium Metal Batteries with Monolithic and Inorganic-Rich Solid Electrolyte Interphase	**YANG Jinlin**
47_629	Synthesis of Thermoelectric Copper Selenide Compounds by High Energy Ball Milling and Pack Cementation	**VOURLIAS Georgios**
48_631	Control of local thermal conductivity in oxide thin films through ionic manipulation	**VARELA-DOMÍNGUEZ Noa**
49_636	Synthesis of silver selenide for thermoelectric applications via Pack Cementation and Ball Milling	**MALLETZIDOU Lamprini**
50_671	Preparation and analysis of EVA-ZnO composite for solar cell encapsulation	**PATHI Prathap**
51_703	Partial pressure dependence of the space charge between SrTiO3 and mixed conducting La0.6Sr0.4FeO3, La0.65Sr0.35MnO3 and La0.9Sr0.1CrO3	**STEINBACH Claudia**

52_760	Theoretical insights into the monolayer adsorption and characterization of HB238 merocyanine on Ag(100) surface	**TOMAR Ritu**
53_80	Unleashing the potential of solid-state thin film electrolyte with pulsed laser deposition (PLD)	**CHEN Jixi**
54_821	Effect of deposition regime on the microstructure and electrochemical performances of reactively sputtered VOxNy pseudo-capacitive thin films	**BARBÉ Jérémy**
55_90	Grafted MXenes Based Electrolytes for 5V-class Flexible Solid-state Batteries	**CHEN Ze**
56_905	Investigation of Proton Diffusion in Nanostructured TiO2 with H2O/D2O Isotope Exchange by In Situ Raman Spectroscopy	**ZHAO Zihan**
57_910	Properties of the ALD Zn1-xSnxOy/ Cu2Zn(GexSn1-x)S4 interface relevant for earth abundant thin film solar cells	**MARTIN Natalia**
58_724	Screening mixed conducting oxide storage electrodes via chemical capacitance measurements	**WAGNER Barbara**
59_933	Magnetic Phase Transition in MoS2 detected with AFM	**GUPTA Akash**
60_935	Cation and oxygen vacancy ordering in BaLnCo2O6-d double perovskites revealed by atomic-resolution analytical TEM/STEM	**GHICA Corneliu**
62_945	Ionic conductivity in the hexagonal LiBH4–LiI–LiBr solid solution	**MAZZUCCO Asya**
63_1702	The Achilles heel of Li10GeP2S12: determining the rate limiting diffusion steps in ultrafast solid electrolytes	**HOGREFE Katharina**
64_2624	Low dimensional Li+ diffusion in halide electrolytes	**STAINER Florian**

Wednesday May 31

A09
SOFC/SOEC devices

Chairperson(s) : LAGUNA-BERCERO Miguel

Marie Curie B (1st floor)

10:00	2067	INV	Recent advances in 3D printing of Solid Oxide Cells and Stacks	**TARANCON Albert**
10:30	2689		Boosting the performance of solid oxide cells by infiltrated electrodes	**ORERA Alodia**
10:45	1741		Ni-Fe bimetallic alloying and Sm-Zr co-doping of CeO2 for Intermediate Temperature Solid Oxide Electrolyzers and Fuel Cells	**SUAREZ ANZORENA Rosario**
11:00	1154		In creatio analysis: electrode optimisation by in situ electrochemical studies during the growth of nano structures	**STANGL Alexander**
11:15	2482		Interfaces, dopant segregation and oxygen vacancies in Gd-doped CeO2/CoO and CeO2/NiO ceramic eutectics	**LARREA Angel**
11:30	132		All solid state electro-chemo -electrical ceria based device	**FREIDZON Daniel**
11:45	1765		Dynamics of the topotactic phase transition in complex oxide La0.6Sr0.4CoO3-d thin films	**HE Suqin**
12:00	2770	INV	Development of Oxygen Electrode Materials for Reversible Solid Oxide Cells Based on Proton Conductors	**LIU Meilin**

Wednesday May 31

A10
Surface catalysis

Chairperson(s) : HARRINGTON George

Marie Curie B (1st floor)

13:30	2771	INV	Exsolution: Rethinking the Role of Nanoparticles in Materials	**NEAGU Dragos**
14:00	971		Electronic and ionic effects of acidic adsorbates on SOFC cathode surfaces	**SIEBENHOFER Matthäus**

14:15	1499		Measurements of oxygen surface exchange kinetics on porous mixed conducting oxides, and strategies to improve ceramic processing for surface reaction studies	**NICOLLET Clement**
14:30	2034		Exsolved Palladium Doped Double Perovskite as a Potential SOFC Anode Material	**SENGODAN Sivaprakash**
14:45	1524		Production and Characterization of Tubular Solid Oxide Cells with infiltrated nanocatalyst precursors	**MORALES-ZAPATA Miguel Angel**
15:00	2775	INV	Air Electrode Stability for Reversible Solid Oxide Cells	**ZHU John**
15:30	2015		Oxygen mass transport properties of bulk and grain boundaries in Mn-deficient La0.8Sr0.2MnO3±d thin films	**CHIABRERA Francesco**
15:45	362		Study of oxygen ion conductivity in high-entropy oxides	**KANTE Mohana Veerraju**

Wednesday May 31

A11

Proton conduction in oxides

Chairperson(s) : CHIABRERA Francesco

Marie Curie B (1st floor)

16:30	2772	INV	Novel Nanoscale optimized electrodes and proton ceramic electrolytes for electrochemical reactions	**FONTAINE Marie-Laure**
17:00	819		Hydration Entropy and Enthalpy of SrTiO3 from Oxygen Tracer Diffusion Experiments	**KLER Joe**
17:15	1896		Proton mobility in triple-conducting perovskites	**MERKLE Rotraut**
17:30	469		Proton uptake and transport properties of self-generated Ba(Ce,Fe,Y)O3-d and Ba(Ce,Fe,In)O3-d composites	**NADER Christina**
17:45	365		Atomistic insight into proton migration barriers in BaFeO(3-d)	**CESNOKOVS Andrejs**
18:00	1822		Exploring the nature of the oxidation states of tungsten and ionic conductivity in W-doped LaNbO4	**HUANG Kehan**
18:15	1141		Understanding the Meyer-Neldel rule in fast ionic conductors	**CHEN Qianli**

Thursday June 1

A12

In situ and operando analysis I:devices

Chairperson(s) : OPITZ Alexander K.

Marie Curie B (1st floor)

10:00	2801	INV	Spatially and temporally resolved operando measurements on solid oxide cells of device-representative size	**VAN HERLE Jan**
10:30	1426		Study of ion transport in thin-film batteries by operando spectroscopic ellipsometry	**MORATA Alex**
10:45	2333		Exploration of the resistive switching mechanisms in La2NiO4+d-based devices by in situ and operando spectroscopic techniques	**BURRIEL Monica**
11:00	4		In-operando optical tracking of phase change and oxygen vacancy migration in ultra-thin film binary oxide ferroelectric memories	**JAN Atif**
11:15	1443		Electronic structure and charge transport in NaNbO3	**KLEIN Andreas**
11:30	489		Analysis of Behaviours and Characteristics for All-Solid-State-Batteries via In-situ XRD technique	**KOO Jehyoung**
11:45	2470		Sustainable solution-processed oxide memristors: Approaches to interface analysis by XPS	**DEUERMEIER Jonas**

Thursday June 1

A13

In situ and operando analysis II: surfaces and interface phenomena

Chairperson(s) : ORERA Alodia

Marie Curie B (1st floor)

13:30	2741	INV	In situ photoelectron spectroscopy reveals the chemical nature of semiconductor surface states	**FAVARO Marco**
14:00	1882		Probing Electrode/Electrolyte Interfaces via Operando Piezoelectric Sensing	**SEL Ozlem**

14:15	325		In Operando XAFS on Local Structure and Electronic State of Tungsten Oxide Nanoparticles with Different Crystal Structure under Electrochromism	**TAKAHASHI Mari**
14:30	2322		Growth and Resistive Switching Properties of Single Crystalline HfO2 Thin Films	**GOSS Kalle**
14:45	2007		In-operando spatiochemical depth profiling of interfaces in Li/LiPON/LMO on-chip solid-state batteries.	**PANAGIOTOPOULOS Apostolos**

Thursday June 1

A14

Alternative storage in the solid state

Chairperson(s) : BURRIEL Monica

Marie Curie B (1st floor)

15:00	2778	INV	Symmetry breaking – A peek into the field of oxide heterostructures	**PRYDS Nini**
15:30	1888		Investigation of the low-temperature thermoelectric transport and intrinsic electronic structure of half-Heusler TiCoSb	**SERRANO SANCHEZ Federico**
15:45	1714		Increased filling, structural disordering, and correlation with thermoelectric properties in Sn-doped CoSb3 skutterudites	**GAINZA Javier**
16:00	2352		CMOS-Compatible and Scalable Electrochemical Synaptic Transistor Arrays for Deep-Learning Accelerator	**CAO Qing**

Thursday June 1

A_P02

Poster session 2

Etoile (1st floor) - 4.30 p.m to 6.30 p.m

01_1460		Enhanced ionic conductivity in composite solid electrolytes via Cold Sintering Process	**FERRER-NICOMEDES Sergio**
02_1463		Preparation of cold sintered (1-x)-Li1.3Al0.3Ti1.7(PO4)3:x-Bi2O3 solid-state electrolytes	**MORMENEO-SEGARRA Andrés**
03_1485		The mixed proton- and electron-conducting material BaFe0.9Y0.1O3-??: Synthesis, characterization, and application as fuel electrode in proton conducting solid oxide cells	**ANSTISS Melanie**

04_1509	Investigation of the real performance of proton conducting ceramic cells with double perovskite positrode	**ZHENG Haoyu**
06_1558	Magnetron sputtering of C- or Si-doped LiPON as Li-ion conducting thin-film separator for solid-state batteries	**OSENCIAT Nicolas**
07_1629	An NIR dual-emitting/absorbing inorganic compact pair: A self-calibrating LRET system for homogeneous virus detection	**KANG Dongkyu**
09_1708	Lithium metal passivation by atmospheric-pressure plasma	**RANGASAMY Vijay Shankar**
10_1712	Effect of (External) Electric Fields on The Heterogeneous Solid State Reaction between Al2O3 and Y2O3 Forming Multiple Product Layers	**KORTE Carsten**
11_1737	Polyelectrolytes based on Nafion for Lithium Rechargeable Batteries	**RANGASAMY Vijay Shankar**
12_1743	Electrical conductivity and chemical diffusion coefficients of self-generated Ba(Ce,Fe,Y) O3-d composites	**BUCHER Edith**
13_1767	Strain engeenering of thermoelectric and dielectrical properties of misfit cobaltates	**HARIZANOVA Sonya**
14_1793	Water adsorption and surface protonics of mixed conducting oxide materials	**KANG Xiaolan**
15_1846	Elucidation of Crystallization Mechanism of NASICON Glass-ceramics Toward Aqueous Sodium-ion Batteries	**SAKAEDA Kento**
16_1847	A comparative study: Influence of magnetic (Fe) and non-magnetic (In) doping on structural, magnetic, and weak anti-localization properties of Bi2Te3 topological insulator	**KANDER Niladri**
17_1873	Control of functional properties of perovskite oxides by voltage-driven oxygen-ion transport	**NIZET Paul**
18_1880	Steroactivity and disorder cause fluorite BaSnF4 to be stranger than it seems	**COLES Samuel William**
19_1897	Strategy of Enhancing Ionic Conductivity with Accurate Sintering Conditions in Li7La3Zr2O12	**PARK Kwangjin**
20_1903	A solid oxide harvestore for combined harvesting and storing photovoltaic energy	**SCHMID Alexander**
21_1917	Upscaling strategies for the fabrication of solid oxide cells	**RUIZ Kandela**

22_1951	Size and Shape Optimization of Silicon Anodes for All-Solid-State Batteries	**GRANDJEAN Martine**
23_1980	Towards all-phosphate solid-state lithium batteries	**GONZALEZ-ROSILLO Juan Carlos**
25_2014	Stability analysis of Ni-doped SrTiO3 using ab-initio thermodynamics	**LEE Na-Young**
26_2022	Gaining Insight into the Role of Electrochemical Polarisation on Degradation Phenomena in Solid Oxide Cells by Experiments on Thin Film Electrodes	**RATH Kirsten**
27_2029	Effect of (Y,Co) co-doping on the space charge and electrical conductivity of CGO based materials sintered by hot pressing	**ABRANTES João**
28_2039	Effect of yttrium ion on the space charge potential across grain boundaries regions of gadolinia-doped ceria electrolytes	**GOMES Eduarda**
29_2045	Silica scavenging effect of praseodymium on tetragonal zirconia – effects on conductivity and space charge	**FERREIRA António**
30_2071	Reducing interfacial resistance in garnet-based solid-state batteries by an ex-situ formed SEI interlayer	**SUN Yanyan**
31_2106	Explaining Hysteresis in Metal Halide Perovskite-based Memristors by Numerical Simulations	**PÉREZ MARTÍNEZ José Carlos**
32_2157	Thin-film (Cu, Fe)-Li-F conversion cathodes for high-energy solid-state batteries	**CASELLA Joel**
33_2189	Understanding molecular-scale dynamics inside composite polymer electrolyte	**NAVALLON Guillaume**
34_2199	Numerical Modeling of Two-Dimensional Memristive Devices for Neuromorphic Computing	**SPETZLER Benjamin**
35_2300	Novel 3D Structured Electrode Fabrication as Free-Standing Carbon Lattice for Al –Air Batteries	**TAVERNE Mike**
36_2372	Modified polytetrahydrofuran-based solid polymer electrolytes for safe lithium-ion batteries	**NURGAZIYEVA Elmira**
37_2787	Antiperovskite Materials for Li-ion Solid-State Batteries: A Computation-Guided Design Approach	**SHEN Longyun**
38_2387	The role of doping in all-inorganic mixed-halide perovskites for ozone sensing	**ARGYROU Aikaterini**

40_2506	Effect of Intentional Potassium Incorporation in Solution-Processed Cu(In,Ga)(S,Se)2 (CIGSSe) Solar Modules on Structural Shunt Defects	**LEE Seung Hoon**
42_2525	Fast microwave-assisted syntheses for old and new positive electrodes in conventional and solid-state batteries	**MURGIA Fabrizio**
44_2652	Evaluation of Potential Induced Degradation in Silicon Solar Cells	**PATHI Prathap**
45_2681	Interface studies on reactively sputtered TiOxNy-based MIS device	**GAJULA Hari Priya**
46_2788	Surface reconstruction enables highly active catalyst for oxygen catalysis	**BI Yixin**
47_2789	Self-recovered Symmetric Protonic Ceramic Fuel Cell with Smart Reversible Exsolution/ Dissolution Electrode	**WANG Yuhao**
48_2790	In-situ Polymerized PDOL-based Quasi-solid-state Electrolyte for Practical Li-Metal Battery	**WANG Zilong**