



HARDCOPY POSTER PROGRAM

Dedicated Poster Session
Tuesday 24 September 2019
1730 - 1900

POSTER NUMBERS	ABSTRACT NUMBER	PRESENTATION TITLE	THEME	PRESENTING AUTHOR
1	4	The reduced graphene-oxide as hole-transporting material to enhance photocatalytic performance of bismuth vanadium oxide photoanodes	A. Electronic and Optical Materials	Prof Chungjoong Kim
2	8	Morphology Driven by Molecular Structure of Thiazole-Based Polymers for Use in Field-Effect Transistors and Solar Cells	B. Energy and Environment Materials	Tae Kyu An
3	13	Elucidation Of Structures And Lithium Environments For An Organo-sulfur Cathode	G. Advanced Fabrication, Characterisation and Devices	Ms Lisa Djuandhi
4	20	Automating generation of nonpolar and stoichiometric slab-and-vacuum models; application to the normal spinel structure	F. Computational Materials	Yoyo Hinuma
5	175	HYDROTHERMAL SYNTHESIS OF Co(OH)2@MoSe2 NANOHYBRID FOR HIGH CAPACITANCE ASYMMETRIC SUPERCAPACITOR	B. Energy and Environment Materials	Mr ASRAR ALAM
6	45	What a battery can do for negative thermal expansion materials? New phases and modification the thermal expansion properties	B. Energy and Environment Materials	Mr Junnan LIU
7	47	An Integrated Computational Materials Engineering Framework for Designing Sintered Materials	F. Computational Materials	Tesfaye Molla
8	63	Electrochromic properties of reduced MoO3 layers prepared by physical vapor deposition	A. Electronic and Optical Materials	Aram Arash
9	70	Effects of beta phase and intermetallic compound on deoxidation behavior in titanium alloy powders	E. Advanced Structured Materials	Jaewon Lim
10	71	Microstructures studies on Ag-TiO2 thin films for self-cleaning solar panel application	B. Energy and Environment Materials	Dewi Suriyani Che Halin
11	97	Fabrication of ZnO-SnO2 Thin Film Transistors on Flexible Substrates	A. Electronic and Optical Materials	Satoru KANEKO
12	104	High performance in rational design NiS2 anode material for sodium-ion batteries.	B. Energy and Environment Materials	THI TRANG VU
13	105	Long Cycle Life Span Aqueous Rechargeable Zinc-Ion Battery at a Low Current Density	B. Energy and Environment Materials	Saiful Islam
14	106	Evaluating the thermoelectric performance of sintered Mg2Si co-doped with donor and isoelectric impurities	A. Electronic and Optical Materials	Shuntaro Shiiba
15	111	Analysis of the electronic states and the local structure of Mg2Si using synchrotron radiation	A. Electronic and Optical Materials	Tomoyuki Kadono
16	113	Broad Range Photodetectors Based on Few-layer α -In2Se3 Nanosheets	A. Electronic and Optical Materials	Bin Tang
17	130	RTA and carbon co-implantation effect on dopant diffusion and activation in polycrystalline silicon substrate	G. Advanced Fabrication, Characterisation and Devices	Sung-Kun Park
18	131	Investigation of electrode-matrix interface stability for mid-temperature thermoelectric material of Mg2Si	A. Electronic and Optical Materials	Fuyuko Ikeda
19	133	Examination of the formation of electrodes for mid-temperature thermoelectric MnSix materials	A. Electronic and Optical Materials	Tomoya Kawamura
20	136	Stability of 4 metal oxide-based nanoparticles in acidic electrolytes for non-platinum cathode in PEFC	B. Energy and Environment Materials	Yuto Kitamura
21	138	Site-selective in situ grown carbonate micromodels with tunable geometry, porosity, and wettability	D. Advanced Functional Materials	Seung Goo Lee
22	139	Development of Nb-doped TiO2 Supports using SiO2 Coating as Non-carbon Supports for PEFC	B. Energy and Environment Materials	Yuta Inoue
23	143	Liquid Spreading on Bioinspired Textured Surfaces of Wharf Roach	C. Bio-Materials	Taro YAO
24	154	Factors affecting ORR activity of Carbon Nanotubes covered with Nb doped Titanium Oxide for PEFC cathodes	B. Energy and Environment Materials	Yoshinori Adachi
25	160	Quasi-solid-state zinc-ion battery based on α -MnO2 cathode with husk-like morphology	B. Energy and Environment Materials	Dimas Yuniarto Putro
26	161	Highly Stretchable and Sensitive Strain Sensor Based on Ag/CNT Composite with Screen Printing Process	G. Advanced Fabrication, Characterisation and Devices	XUE QI
27	162	K2V6O16·2.7H2O cathode for aqueous Zn ion batteries: understanding cyclability deprivation	B. Energy and Environment Materials	Balaji Sambandam
28	166	Enhanced performance of perovskite solar cells by introducing a modified 2D perovskite layer	G. Advanced Fabrication, Characterisation and Devices	Jingsong Sun
29	167	Crystallization Inhibition of Indium Oxide on Tantalum Pentoxides in Thin Film Transistors Prepared via All Solution-Processing	A. Electronic and Optical Materials	Song Yi Park
30	174	Dynamic mechanism of intramolecular exchange via sequential deposition	G. Advanced Fabrication, Characterisation and Devices	Bin Li
31	176	Surface modification of over-lithiated oxides coated by vanadium phosphates as cathode materials for lithium ion batteries	B. Energy and Environment Materials	Seokhun Kim
32	179	Study of Oxygen Evolution Reaction on Binary Non-Precious Metal Oxides	B. Energy and Environment Materials	Kyogo Sumi
33	180	A stretchable reduced graphene oxide hydrogel for sensing application	D. Advanced Functional Materials	Le Thai Duy
34	181	A cost-effective and green n-p nanohybrid of nitrogen-doped graphene quantum dots and 2D graphene for high-performance UV detector	A. Electronic and Optical Materials	Le Thai Duy
35	190	Nanocrystalline Na3V2(PO4)3F3 embedded in carbon matrix as a cathode material for high - performance sodium - ion batteries.	B. Energy and Environment Materials	sohyun park
36	195	Pyro-Synthesis of Chromium doped Na3V2(PO4)3 as Cathode Material for Sodium batteries	B. Energy and Environment Materials	Jun Lee
37	202	Spectroscopic Ellipsometry Study of Transparent Conducting Indium Zinc Tin Oxide Thin Films	A. Electronic and Optical Materials	Hee Young Lee
38	204	Optimizing electrospun PLLA/PEG nanofibrous scaffold properties by visualizing distribution of PLLA with AIE probes	C. Bio-Materials	Samaneh Mirzaei
39	220	Scaleable, Green Synthesis of Colloidal CsPbBr3 Perovskite Nanocrystals with High Yield	A. Electronic and Optical Materials	Chun Kiu Ng
40	221	Mechanistic insights into the phenomena of increasing capacity with cycle number: using pulse-laser deposited MoO2 thin film electrodes	B. Energy and Environment Materials	Michael Fenech
41	228	PREPARATION OF MAGNESIUM OXIDE NANOPARTICLES OF VARIOUS MORPHOLOGIES FROM NESQUEHONITE ND HYDROMAGNESITE PRECURSORS	D. Advanced Functional Materials	Alaa Kamaludeen
42	238	Development of Electrolyte Membrane for PEFC using Protic Ionic-Liquids and Polymer Monoliths	B. Energy and Environment Materials	Ryoya Sano
43	241	Fabrication of conductive oxide films for a novel low-cost REBCO superconducting wires	D. Advanced Functional Materials	Shuhei Funaki
44	250	Combined performance of one selector one restive memory element (1S1R) in a hybrid crossbar based on vanadium dioxide and strontium titanium oxide.	A. Electronic and Optical Materials	Shruti Nirantar
45	252	Effect of plasma gas composition on ZnO nanowire growth using microwave torch at atmospheric pressure	D. Advanced Functional Materials	Goohwan Jeong
46	254	High-density growth of horizontally-aligned SWNTs in CVD	D. Advanced Functional Materials	Goohwan Jeong
47	256	The first switch, dynamic effects in the electrochemical switching of electrochromic materials	A. Electronic and Optical Materials	Stojan Neychev
48	260	Investigation of post-annealing Ga-doped ZnO films by flash lamp equipment	A. Electronic and Optical Materials	Rei Sugiyura
49	262	Ga Amount Dependence of Electrical Properties for Ga doped ZnO Films	A. Electronic and Optical Materials	Yumika Yamada
50	264	Electron beam irradiation synthesis of non-platinum nitrogen doped carbon without high temperature for cathode of PEFC	B. Energy and Environment Materials	Kaito Homma
51	265	Oxygen Reduction Activity of Group 4 Metal Oxide-based Compounds Prepared by Arc Plasma Deposition	B. Energy and Environment Materials	Wataru Shimabukuro
52	274	Chitin nanofibers: a renewable functional material for green electronics and energy devices	D. Advanced Functional Materials	Jungho Jin
53	278	Surface Modification of Quartz Crystal Microbalance (QCM) Sensor for Bacterial Detection by using Diamond-like Carbon Coating	D. Advanced Functional Materials	Kosei Kudo
54	282	Crystallisation and phase stability in inorganic cesium lead halide perovskites	B. Energy and Environment Materials	Yen Yee Choo
55	283	Oriented attachment for microstructural evolution in chloride-derived hybrid perovskite thin films for high performance solar cells	B. Energy and Environment Materials	Wen Liang Tan
56	290	Hierarchical alignment of chitin fiber for energy storage and harvesting devices	B. Energy and Environment Materials	Seok Ju Kang
57	298	CdSe/CdS Core/Crown Nanoplatelets Based Light-Emitting-Diodes with Ultra-narrow Emission Linewidth	A. Electronic and Optical Materials	Xiao Wei Sun
58	300	Synthesis and Characterisation of High Entropy Alloy Containing Titanium	G. Advanced Fabrication, Characterisation and Devices	Candace Lang
59	301	Effects of edge functional groups on salt rejection by graphene oxide membranes.	F. Computational Materials	Ruosang QIU
60	306	Effect of thermal annealing on optical bandgap for nitrogen doped DLC films	D. Advanced Functional Materials	Akihiro Nomura
61	307	Screening highly active perovskites for hydrogen-evolving reaction via unifying ionic electronegativity descriptor	B. Energy and Environment Materials	Daqin Guan
62	327	Enhancing the Performance of Organic Solar Cells using Plasmonic Nanoparticles Anchored M13-Bacteriophage	D. Advanced Functional Materials	MISO LEE
63	328	Development of 2D-3D Multi-Dimensional Perovskite Solar Cells with Enhanced Efficiency and Stability	G. Advanced Fabrication, Characterisation and Devices	Hock Beng Lee
64	330	Spray Deposited NiO Layer for Efficient Cesium-Containing Triple Cation Perovskite Solar Cells	B. Energy and Environment Materials	Neetesh Kumar
65	333	High performance wearable asymmetric supercapacitor using CNTs and Ni(OH)2 nanoparticles electrodes	B. Energy and Environment Materials	MANOJ MAYAJI OVHAL
66	335	Synthesis of CsPbBr3 Perovskite Quantum Dots and Control of ligands Density for Light-Emitting Diodes	A. Electronic and Optical Materials	Siwei He
67	336	Compositional Engineering of Triple-Cation based Highly Reproducible Perovskite Solar Cells for Performance and Stability Enhancement	B. Energy and Environment Materials	BARKHA TYAGI
68	357	Aluminium-ion batteries - will they replace lithium?	B. Energy and Environment Materials	Thomas Nann
69	359	Novel electrolytes for low-cost redox flow batteries	B. Energy and Environment Materials	Thomas Nann
70	381	Electrospun cell-free nanofibrous scaffold for sustained delivery of dual miRNA targeting fibroblast for direct reprogramming of heart	C. Bio-Materials	PRİYADHARSHNI MUNIYANDI
71	383	Electrochemical Analysis of the NO-Releasing Property of a Macrocyclic Ruthenium Nitrosyl Complex	C. Bio-Materials	Joel Jorolan
72	398	Edge-Rich Graphene by Bimetallic Junction Coated on Highly Ordered Multi-Block Nanotubes for Anode in Lithium Ion Battery and Supercapacitors	B. Energy and Environment Materials	Sanghyun Cho
73	401	All Printed Semi-Transparent Perovskite Solar Cells for Perovskite/Silicon Four-Terminal Tandem Cells	B. Energy and Environment Materials	Won-Yong Jin
74	406	Optimal top electrodes for inverted polymer solar cells	A. Electronic and Optical Materials	Hye Rim Yeom
75	411	Phase change vanadium dioxide optical sensors: Photoresponse and size dependence	A. Electronic and Optical Materials	Sumaiya Kabir

76	413	Chemical Bath Deposition of ZnO Nanorods on Ion-plated Ga doped ZnO Seed Layers and Formation of PEDOT:PSS/ZnO Nanorods Heterostructures for UV Light Detection	A. Electronic and Optical Materials	Tomoaki Terasako
77	416	Photosensitization of Hierarchical ZnO Nanostructures with Polyaniline for Enhanced Photocatalytic Dye Degradation and PEC Water Splitting	B. Energy and Environment Materials	Surbhi Sharma
78	420	Structural and Electrical Properties of Undoped and Li Doped CuO Films Grown by Chemical Bath Deposition	A. Electronic and Optical Materials	Tomoaki Terasako
79	422	Crystalline/amorphous WO ₃ nanochannel arrays with high electrochromic and capacitive performance	D. Advanced Functional Materials	Yingdi Shi
80	423	Magnetism of epitaxial copper doped bismuth ferrite ceramic thin films	D. Advanced Functional Materials	Tachgiss Jampreecha
81	425	Characterization and electrochemical properties of Ag ₂ CuMnO ₄ nanostructure for energy storage application	D. Advanced Functional Materials	Jessada Khajonrit
82	444	Synthesis and In Situ TEM Studies of Ti ₃ C ₂ MXene	G. Advanced Fabrication, Characterisation and Devices	joel von treifeldt
83	445	Theoretical study of Sulfur-deficient MoS ₂ -x promoted lithium polysulfides conversion in lithium-sulfur battery	F. Computational Materials	Qi Zhang
84	450	Small and Ultra Small Angle Scattering for Nano- and Micro-Structural Characterisation at ACNS, ANSTO	G. Advanced Fabrication, Characterisation and Devices	Jitendra Mata
85	452	On the use of in situ laboratory X-ray diffraction: The effect of impurities on the thermal behaviour of spodumene of the liberation of lithium	G. Advanced Fabrication, Characterisation and Devices	Matthew Rowles
86	456	Enhanced initial permeability in soft magnetic composite materials of Fe-Ni	A. Electronic and Optical Materials	JIEUN LEE
87	460	3D Printed PLA based filters for Terahertz Applications.	G. Advanced Fabrication, Characterisation and Devices	Praveen kumar Revuri
88	462	Optimization of Germanium Thin Films for Long Wave Infrared Wavelength Range Miniaturized Sensing and Imaging Systems	A. Electronic and Optical Materials	Gurpreet Singh Gill
89	464	Applications of RuCo ₂ O ₄ thin films for high performance supercapacitor	B. Energy and Environment Materials	do heyoung Kim
90	536	Flash-enabled micro-explosive reduction of graphene oxide for supercapacitor applications	B. Energy and Environment Materials	Huihui Zhang
91	539	Investigating the optical property of plasmonic nanoparticle using analytical models and numerical methods	A. Electronic and Optical Materials	Abu S. M. Mohsin
92	540	Probing the impact of nanoparticle on waste water treatment	A. Electronic and Optical Materials	Abu S. M. Mohsin
93	541	Emulsion-templated, hierarchical porous polymers for oil water separation	D. Advanced Functional Materials	Qipeng Guo
94	545	Chemically Cross-Linked Chitosan/Lignosulfonate (CS@LS) Amphiphilic Nanospheres: A "Green" Antimicrobial framework	C. Bio-Materials	Ravi Prakash Pandey
95	559	Determining the maximum working voltage of supercapacitors with different ionic liquid-based electrolyte concentration	B. Energy and Environment Materials	Shao Ing Wong
96	572	Manufacturing Straw-Mycelium Composites by Fermentation	C. Bio-Materials	PING YANG
97	573	Fermentation of mushroom laccase used for polymerization	C. Bio-Materials	WENXIA JIANG
98	584	Development and characterisation of mucoadhesive in situ nasal gelling system	C. Bio-Materials	Preeti Pandey
99	594	The role of cation and anion dopant incorporated in ZnO ETL for organic photovoltaics	B. Energy and Environment Materials	Dong Chan Lim
100	595	Self-sustainable organic photovoltaics for IoT devices under low-light indoor environments and its applications	G. Advanced Fabrication, Characterisation and Devices	Soyeon Kim
101	596	Heating Rate-Dependent Thermal decomposition of Microcrystalline Cellulose	C. Bio-Materials	MOHAMED RASHID AHMED MOHAMED
102	592	High-efficiency Monolayer Molybdenum Ditelluride Light Emitting Diode and Photodetector	A. Electronic and Optical Materials	Yi Zhu