Scientific Program



20th International Conference on

Advanced Energy Materials and Research

August 13-14, 2018 | Dublin, Ireland

UK: Conference Series llc LTD
47 Churchfield Road, London, W3 6AY
Toll Free: +0-800-014-8923

DAY-1

August 13, 2018

Meeting Hall: Library Suite

08:30-09:00 Registrations

Opening Ceremony 09:00-09:25

KEYNOTE FORUM

09:25-09:30 **Introduction**

09:30-10:10 **Title: Biomass-derived activated carbon scaffolds for electrochemical energy storage**
Xiaodong Li, University of Virginia, USA

10:10-10:50 **Title: Hydrogen generation in metal water reaction and strategies of storage**
Jerzy. A. Szpunar, University of Saskatchewan, Canada

GROUP PHOTO

Networking & Refreshments 10:50-11:05

11:05-11:45 **Title: Controlling energy bandgap of semiconducting materials for energy and environment**
Hyoyoung Lee, Sungkyunkwan University, Republic of Korea

Sessions: Advanced Energy Materials

Chair: Xiaodong Li, University of Virginia, USA
Chair: Klaus D. Becker, TU Braunschweig, Germany

INTRODUCTION

11:45-12:10 **Title: ^{57}Fe Mössbauer in situ study into oxygen vacancy disorder of BSCF, $Ba_{0.5}Sr_{0.5})(Co_{0.8}Fe_{0.2})O_{3-\delta}$**
Klaus D. Becker, TU Braunschweig, Germany

12:10-12:35 **Title: Comparison of the thermophysical properties of eutectic with peritectic compounds for thermal energy storage at high temperatures**
Fouzia Achchaq, Université de Bordeaux, France

12:35-13:00 **Title: The role of atomic bond strengths and structural disorder in MXene materials for rechargeable ion-batteries**
Wojciech Olszewski, University of Bialystok, Poland

Lunch Break 13:00-13:40 @ Peacock Restaurant

13:40-14:05 **Title: Laser processing of thermoelectric oxides**
Nuno Ferreira, Universidade de Aveiro, Portugal

14:05-14:30 **Title: Porous materials in heat storage and reallocation applications**
Natasa Zabukovec Logar, National Institute of Chemistry and University of Nova Gorica, Slovenia

14:30-14:55 **Title: Production and characterization of electroactive nickel oxides on nickel foam and self-standing nickel nanowires by anodic oxidation in molten salt for supercapacitor electrodes**
Mustafa Urgen, Istanbul Technical University, Turkey

14:55-15:20 **Title: Materials for thermochemical energy storage: Experimental investigation of cycling stability**
Marie Gollsch, German Aerospace Center, Germany

Sessions: Nanotechnology and Energy Materials| Solar Energy Materials

Chair: Hyoyoung Lee, Sungkyunkwan University, Republic of Korea

15:20-15:45 **Title: Flexible reduced graphene oxide based papers: Fabrication and properties**
Tseung-Yuen Tseng, National Chiao Tung University, Taiwan

15:45-16:10 **Title: Multi-striped orthogonal photon-photocarrier-propagation solar cells (MOP^{3}SCs) with new asymmetric redirection waveguides**
Akira Ishibashi, Hokkaido University, Japan

16:10-16:35 **Title: Active materials for stable perovskite solar cells**
Antonio Abate, Helmholtz-Center, Germany

Networking & Refreshments 16:35-16:50 @ Foyer

Panel Discussion

DAY-2

August 14, 2018

Meeting Hall: **Library Suite**

KEYNOTE FORUM

09:00-09:05 **Introduction**

09:05-09:45 **Title: Promising oxyborates for solid-oxide fuel cell applications**
Olivier Joubert, University of Nantes, France

09:45-10:25 **Title: Organic biosourced phase change materials for seasonal thermal energy storage**
Marie Duquesne, Institute of Technology of Bordeaux, France

Networking & Refreshments 10:25-10:40 @ Foyer

Sessions: Polymer Materials| Electrical, Optical and Magnetic Materials| Mining, Metallurgy and Materials Science

Chair: **Antonio Di Bartolomeo,** University of Salerno, Italy

INTRODUCTION

10:40-11:05	**Title:** Graphene-Silicon Schottky heterojunctions for optoelectronic applications **Antonio Di Bartolomeo,** University of Salerno, Italy
11:05-11:30	**Title:** Polyacetylene: Myth, reality and a way forward **Bruce S. Hudson,** Syracuse University, USA
11:30-11:55	**Title:**A sustainable technology for extraction of cobalt and nickel from laterite ores **Guangqing Zhang,** University of Wollongong, Australia
11:55-12:20	**Title:** The phenomenological energy model of orthotropic nonlinear elastic material on the example of rolled sheet of cylindrical tank **Maciej Obst,** Poznan University of Technology, Poland
12:20-12:45	**Title:** The modeling of selected mechanical properties of plastic materials under influence of complex external load state **Dariusz Kurpisz,** Poznan University of Technology, Poland

Lunch Break 12:45-13:20 @ Peacock Restaurant

Sessions: Advanced Nanomaterials |Advanced Graphene Materials| Hydrogen Energy

Chair: **Jerzy. A. Szpunar,** University of Saskatchewan, Canada

13:20-13:45	**Title:** Recent progressive of two-dimensional materials for terahertz detection **Lin Wang,** Shanghai Institute of Technical Physics, China
13:45-14:10	**Title:** Towards sensitive terahertz detection via thermoelectric manipulation in graphene transistors **Gang Chen,** Shanghai Institute of Technical Physics, China

YRF

14:10-14:25	**YRF:** Superior hydrogenation/dehydrogenation kinetics of MgH_2 nanopowders upon mechanical doping with amorphous Zr_2Ni **Fahad Al-Ajmi,** Kuwait Institute for Scientific Research, Kuwait
14:25-14:40	**YRF:**Window ventilation system with Artificial neural network for reducing fine dust indoors **Young Kwon Yang,** Chung-Ang University, South Korea

POSTER SESSION @ LUCAN ROOM 14:40–15.40

Poster Judge: **Antonio Di Bartolomeo,** University of Salerno, Italy

AEM-01	**Title:** TEM studies of epitaxial oxide films for advanced all-solid Li-ion batteries **Leonid A. Bendersky,** National Institute of Standards and Technology, USA

AEM-02 **Title: Asymmetric rolling of polycrystalline metals: modification of microstructure and mechanical properties**
Krzysztof Wierzbanowski, AGH University of Science and Technology, Poland

AEM-03 **Title: Water contained ionic liquid medium for V(III)(acac)$_3$ reduction: A paired electrolysis and application studies.**
Il-Shik Moon, Sunchon National University, South Korea

AEM-04 **Title: New approach for local treatment of defects on glazed ceramics by CO_2 laser**
Nuno Ferreira, Universidade de Aveiro, Portugal

AEM-05 **Title: Supportless Ag-Rh bimetallic nanostructures as efficient cathodic electrocatalyst for dioxygen reduction in alkaline fuel cells**
Il-Shik Moon, Sunchon National University, South Korea

AEM-06 **Title: Advances in room temperature fluoride-ion batteries**
Palanivel Molaiyan, Tallinn University of Technology, Estonia

Networking & Refreshments 15:40-16:00 @ Foyer

PANEL DISCUSSION

Awards & Closing Ceremony

Bookmark your Dates

21st International Conference on

Advanced Energy Materials and Research

July 11-12, 2019 | Zurich, Switzerland

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