

Materials Challenges in Alternative
And Renewable Energy 2022

MCARE 2022

August 22-26, 2022

The Westin Josun Hotel, Busan, Korea

Material Challenges in Alternative & Renewable Energy (MCARE 2022) is a premium conference on energy challenges from materials perspective, providing a new opportunity for communication and collaboration.

MCARE 2022 is a forum addressing emerging materials technologies and emphasizing the future challenges in achieving a cleaner and sustainable global society.

MCARE 2022 will bring together leading global experts from industry, universities, R & D laboratories and government agencies, thus providing a unique opportunity for communication and collaboration essential to propel a multi-disciplinary dialogue on innovative and sustainable solutions in the field of alternative and renewable energy.

This cutting-edge international conference will feature plenary and invited talks, thematically focused technical sessions and poster presentations enabling the delegates to network and exchange ideas with their professional peers and acclaimed experts.

Plenary Speakers

MCARE
2022

Prof. Sang Il Seok, Ulsan National Institute of Science and Technology (UNIST), Korea

Prof. Ki Suk Kang, Seoul National University, Korea

Dr. Hoon Teak Chung, Hanhwa Solutions Corp., Korea

Prof. Eilizabeth Dickey, Carnegie Mellon University, USA

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Abstract Submission Due : **April 15, 2022 (FRI)**
Early Bird Registration Due : **May 31, 2022 (TUE)**

Homepage : www.macre2022.org | Email : secretariat@macare2022.org

MCARE 2022 Chair:

Prof. Do-Heyoung Kim, Chonnam National University, Korea

Co-Chairs:

Prof. Yoon-Bong Hahn, Jeonbuk National University, Korea

Prof. Kijung Yong, POSTECH, Korea

Prof. Sanjay Mathur, University of Cologne, Germany

Secretary General:

Dr. Sung Jong Yoo, Korea Institute of Science and Technology, Korea

Prof. Hyon Bin Na, Myongji University, Korea

Prof. Yongjin Chung, Korea National University of Transportation, Korea

Symposia at a Glance

The scientific and technical scope of **MCARE 2022** is to present new advances and research results in the fields of materials, energy, and environment technologies. Abstracts are solicited from interested and committed individuals from academia, national laboratories, industries and start-up companies on the following and related topics:

Symposium 1	Materials for Hydrogen Fuel Production and CO ₂ conversion
Symposium 2	Advanced Materials for Electrochemical Energy Storage
Symposium 3	Advanced Materials for Next Generation Photovoltaics
Symposium 4	Advanced Materials for Fuel Cells and Electrolysis
Symposium 5	Frontiers of Functional Nanomaterials for Eco-friendly Devices Applications (Special symposium in honor of Prof. Yoon-Bong Hahn, Jeonbuk National University)
Symposium 6	Electromechanical Coupling Materials for Nanogenerators and Self-powered Electronics
Symposium 7	Materials for Super Ultra-low Energy and Emission Vehicles
Symposium 8	Materials for Green Ammonia Cycling
Symposium 9	Semiconductor Nanocrystal Quantum Dots
Symposium 10	Spectral Conversion Materials
Symposium 11	Advanced Biomaterials and Applications

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