



**Next-Generation Materials for Energy Applications**  
 in partnership with the Collaborative Innovation Center of Chemistry for Energy Materials  
 (iChEM), Xiamen University  
 November 17–19, 2019 — Xiamen, China

**Cell Symposium: Next-Generation Materials for Energy Applications** in partnership with the Collaborative Innovation Center of Chemistry for Energy Materials (iChEM), Xiamen University.

One of the world's most pressing challenges is the need for clean, sustainable energy. We have a limited timescale to implement sustainable energy solutions at a global scale to mitigate potentially catastrophic climate change and pollution.

Further, millions of people around the planet still lack access to reliable electricity. In 2015, the UN announced 17 Sustainable Development Goals, with Goal 7 – Affordable and Clean Energy for all – aiming to ensure universal clean energy for everyone by 2030.

To meet the energy challenge, there is a need for scientific and technological breakthroughs and advances with a clear pathway to real-world impact. Researchers around the world are responding, investigating sustainable and clean molecular and materials systems for energy generation and storage.

In this landmark Cell Symposium, "New Materials for Energy Applications," leading international experts will come together to present and discuss the latest fundamental and applied research breakthroughs, spanning conceptual advances and outstanding performance results, in topics which include but are not limited to:

#### Solar Energy Conversion

- Perovskite solar cells
- Organic photovoltaics
- Other photovoltaic technologies

#### Energy Storage

- Electrochemical energy storage and conversion materials, including Li-ion batteries and new storage materials
- Grid-scale storage, including flow batteries

#### Nanocatalysis

- HER, OER, ORR
- CO<sub>2</sub> reduction to CO, CH<sub>4</sub>, and methanol
- N<sub>2</sub> reduction to ammonia
- Single-atom catalysis

#### Gas Storage and Activation (CO<sub>2</sub>, H<sub>2</sub>, Natural Gas)

- Metalorganic framework
- Covalent organic frameworks
- Zeolites

Each session will bring the latest developments within the fields from both an experimental and theory perspective. Attendees to the Cell Symposium will see and discuss how cutting-edge developments at the molecular and materials scale may positively impact society in the future.

The prime objective of this Cell Symposium is to bring communities together, under a common goal, to foster collaboration and drive the search for new energy solutions forward.

<http://www.cell-symposia.com/energymaterials-2019/>

a nature conference

## Solar Fuels

Wuhan University of Technology | Nature Energy | Nature Catalysis | Nature Materials | Communications Chemistry | Nature Communications | Nature Nanotechnology



Image credit: MAGEMORE Co, Ltd.

Wuhan University of Technology, *Nature Energy*, *Nature Catalysis*, *Nature Materials*, *Communications Chemistry*, *Nature Communications*, and *Nature Nanotechnology* are pleased to present:

### Solar Fuels

October 12–14, 2019  
 Inter Continental Wuhan, China



CO<sub>2</sub> using either renewable electricity or by directly harnessing solar energy. This three-day, single-session conference will explore research progress towards solar fuels production through a series of talks by leading international scientists. We aim to foster an atmosphere of open discussion with ample scope for cross-fertilization of ideas between researchers working on photocatalytic, electrocatalytic, photoelectrocatalytic, and biohybrid routes to renewable fuel production. A strong focus for the conference will be the relationship between fundamental science and application, emphasizing the future of the solar fuels field, the challenges that it faces and the development of viable technologies.

On-site registration will begin at around noon on October 11. The meeting will start at 9 am on October 12 and will conclude at around 5 pm on October 14.

### Scientific Sessions

Topics will include:

- Session 1: New systems for water splitting
- Session 2: New systems for CO<sub>2</sub> reduction
- Session 3: Theory and mechanism
- Session 4: Characterisation and spectroscopy
- Session 5: Towards larger-scale systems

<https://www.nature.com/natureconferences/solarfuels19/index.html>



### MMIE 2019 | Beijing, China

**The growing importance of Manufacturing Engineering.** We live in an age of rapid innovation, complex technology and sustainability. Naturally, the job of a Manufacturing Engineer has become even more important.

*2019 2nd International Conference on Mechanical Manufacturing and Industrial Engineering (MMIE 2019)* will be held in Beijing, China during December 14-16, 2019. The aim as well as objective of MMIE 2019 is to present the latest research and results of scientists related to Mechanical Manufacturing and Industrial Engineering topics.

MMIE provides a forum for accessing to the most up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of Mechanical Manufacturing and Industrial Engineering. The meeting will provide an opportunity to highlight recent developments and to identify emerging and future areas of growth in this exciting field.

### Proceedings

All submissions will be peer reviewed, and all the accepted papers will be published in the Conference Proceedings, Indexed by SCOPUS, EiCompendex (CPX).

### Call for Papers

The MMIE 2019 is the premier interdisciplinary platform for the presentation of new advances and research results in the fields of Mechanical Manufacturing and Industrial Engineering. The conference will bring together leading academic scientists, researchers and scholars in the domain of interest from around the world. Topics of interest for submission include, but are not limited to:

#### Mechanical and Manufacturing Engineering

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|--|---------------------------|
| • Mechanical and Materials Engineering | • Energy Management       |
| • Aerospace Systems and Technology     | • Finite element analysis |
| • Applied Mechanics and Design         | • Fluid Dynamics          |
| • Biomechanics                         | • Fuels and Combustion    |