



Solar Innovation



# Virtual

*CONFERENCE*

International Conference on

## Advances and Challenges in Perovskite and Organic Solar Cells



January 21-22, 2021

Time Zone:  
**GMT**

## GMT

08:30 - 08:50 Meeting (AV Check)

08:50 - 09:00 Opening Remarks and Introduction

**Keynote Talks**

09:00 - 09:30 **Addressing Stability and Toxicity of Perovskite Solar Cells based PV Technologies**  
[Hongxia Wang](#), Queensland University of Technology, Australia

09:30 - 10:00 **Role of Additives in Enabling Perovskite Solar Cells and Light Emitting Diodes**  
[Nripan Mathews](#), Nanyang Technological University, Singapore

10:00-10:20 **Achieving Stable Perovskite Solar Cells with Spiro-OMeTAD Hole Transport Layer at 85 °C**  
[Ganbaatar Tumen-Ulzii](#), Kyushu University, Japan

10:20-10:40 **Stress Factor Investigation on Methylammonium Lead Iodide (MAPbI<sub>3</sub>) Perovskite Films**  
[Gokhan Yilmaz](#), Burdur Mehmet Akif Ersoy University, Turkey

10:40 - 11:00 **Unravelling the Material Composition Effects on the Gamma Ray Stability of Lead Halide Perovskite Solar Cells: MAPbI<sub>3</sub> breaks the records**  
[Lavrenty G. Gutsev](#), ICP RAS, Russia

11:00 - 11:20 **Break**

**Keynote Talks**

11:20 - 11:50 **Multiscale Modelling of Perovskite Solar Cells**  
[Alison Walker](#), University of Bath, UK

11:50 - 12:20 **Progresses and Challenges with Tandem Perovskite-silicon Solar Cells**  
[Christophe Ballif](#), Swiss Federal Institute of Technology in Lausanne, Switzerland

12:20 - 12:40 **Improving Stability of Organometallic-halide Perovskite Solar Cells Using Exfoliation Two-dimensional Molybdenum Chalcogenides**  
[Meiyang Liang](#), Trinity College Dublin, Ireland

12:40 - 13:00 **Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini- Modules**  
[Janardan Dagar](#), Helmholtz-Zentrum Berlin, Germany

13:00 - 13:20 **Advances in Lab-scale Slot-die Tools for Thin Film Solar Cell Development**  
[Benjamin Robotham](#), FOM Technologies A/S, Denmark

13:20 - 13:40 **Break**

**Keynote Talks**

13:40 - 14:10 **Defects in Perovskite Grains**  
[Jinsong Huang](#), University of North Carolina at Chapel Hill, USA

14:10 - 14:40 **Facets of Multicomponent Halide Perovskites: How *in-situ* Experiments Can Help Us to Understand Formation, Stability and Composition**  
[Ana Flavia Nogueira](#), University of Campinas, Brazil

14:40 - 15:00 **Two-Dimensional Organic-Perovskite Hybrid Materials for Energy Harvesting**  
[Letian Dou](#), Purdue University, USA

15:00 - 15:20 **A Novel CBD Method for Highly Crystalline Hybrid Perovskite Films**  
[Camilo Otálora](#), Academics for Colombia, Colombia

## Panelists



**Daniele Braga**

*Head of Sales and Marketing  
FLUXiM AG*



**Sebastian Gatz**

*President, Photovoltaics  
Von Ardenne*



**Frank van Mierlo**

*CEO & Founder  
1366 Technologies Inc*



**Christian Buchner**

*Vice President  
BU Photovoltaics SCHMID Group*



**Vivek Babu**

*Process Engineering Team Leader  
Saule Technologies*



**Michael Irwin**

*Chief Technology Officer  
Hunt Perovskite Technologies*

## Moderator



**Shahzada Ahmad**

*Ikerbasque Research Professor  
BCMaterials*

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8:50 - 9:00 Opening Remarks and Introduction

### Keynote Talks

09:00 - 09:30 **High-efficiency All-Perovskite Tandem Solar Cells**  
Hairen Tan, Nanjing University, China

09:30 - 10:00 **Thermally Co-Evaporated Perovskites: From Solar Cells to Mini-module**  
Annalisa Bruno, Nanyang Technological University, Singapore

10:00-10:20 **Remarkable Thermal Stability of Co-evaporated MAPbI<sub>3</sub> Solar Cells**  
Herlina Arianita Dewi, Nanyang Technological University, Singapore

10:20-10:40 **Influence of Titanium Dioxide Surface Activation on the Performance of Mesoscopic Perovskite Solar Cells**  
Muhammad Talha Masood, Åbo Akademi University, Finland

10:40 - 11:00 **Coffee Break**

### Poster Presentations

11:00 - 11:05 **High Performance Carbon-based Planar Solar Cells by Hot-pressing Approach**  
Yongyue Yu, Queensland University of Technology

11:05 - 11:10 **Deposition and Characterization of Inorganic Hole Transporting Layer for Perovskite Solar Cells**  
Jagadeesh Babu Bellam, Madanapalle Institute of Technology & Science, India

11:10 - 11:15 **Fabrication of Metal Halide Perovskite Photodetector Array Using Photolithographic Dry Lift-off**  
Benzheng Xia, KU Leuven, Belgium

11:15 - 11:20 **N-Bromosuccinimide as an Interfacial Alleviator for Br/I Exchange in Perovskite for Solar Cell Fabrication**  
Meenakshi Pegu, BCMaterials, Spain

### Keynote Talk

11:20 - 11:50 **Accelerated Solar Material Innovation**  
Christoph Brabec, University of Erlangen-Nuremberg, Germany

11:50 - 12:10 **Unusual Photophysics in Lead-free Inorganic Perovskite Single Crystals**  
Soumitra Satapathi, Indian Institute of Technology Roorkee, India

12:10 - 12:30 **Photostability of Perovskite Solar Cells: A Gateway to Commercialization**  
Amjad Farooq, University of Duisburg-Essen, Germany

### Keynote Talk

12:30 - 13:00 **Quantum Dots + Perovskite Hybrids, Tandems and Other Ways for Improving Perovskite Stability**  
Alex Voznyy, University of Toronto, Canada

#### Organising Partner

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