

## Symposium 4: Materials for Next Generation Photovoltaics

**February 25 (WED)**

| Time        | Program   |   |
|-------------|---|---|
|             | [S4-1] Materials for Next Generation Photovoltaics  |   |
|             | Chair: Kubo, Takaya (The University of Tokyo)   |   |
| 09:00-9:30  | [2114786] Dynamic processes in perovskite solar cells   | Bisquert, Juan<br>(University of Jaume I)                         |
| 9:30-10:00  | [2123539] Organic and Hybrid Solar Cells for Next Generation Photovoltaics  | Segawa, Hiroshi<br>(The University of Tokyo)                      |
| 10:00-10:30 | [2114027] Fabrication of Photoelectrodes on Flexible Substrates for the High Efficiency Mesoscopic Sensitized Solar Cells | Ko, Min Jae<br>(Korea Institute of Science and Technology (KIST)) |

| Time        | Program   |   |
|-------------|---|---|
|             | [S4-2] Materials for Next Generation Photovoltaics - Perovskite, Chalcopyrite, Graphene, Quantum dots, etc                  |   |
|             | Chair: Kim, Jin Young (Korea Institute of Science and Technology (KIST))  |   |
| 10:50-11:20 | [2114985] Plasmonic nanostructures for organic photovoltaic devices   | Chen, Fang-Chung<br>(National Chiao Tung University)                                  |
| 11:20-11:50 | [2092974] Developing near infrared quantum dots and plasmonic nanostructures for solar cell applications                    | Ma, Dongling<br>(INRS, University of Quebec)  |
| 11:50-12:10 | [2142441] Atomic Layer Deposition of n-Type Binary Metal Oxide Thin Films as Hole-Blocking Layers in Perovskite Solar Cells | Oez, Senol<br>(Institute of Inorganic and Materials Chemistry, University of Cologne) |

| Time        | Program  |   |
|-------------|--|---|
|             | [S4-3] Materials for Next Generation Photovoltaics - Perovskite, Chalcopyrite, Graphene, Quantum dots, etc             |   |
|             | Chair: Ko, Min Jae (Korea Institute of Science and Technology (KIST))  |   |
| 13:30-14:00 | [2120024] Strategies for achieving highly efficient (10%) CZTSSe thin film solar cells prepared by the electrochemical | Kim, Jin Young<br>(Korea Institute of Science and Technology)                   |
| 14:30-15:00 | [2105164] Perovskite film deposition by vapor-based methods for solar cell applications                                | Qi, Yabing<br>(Okinawa Institute of Science and Technology Graduate University) |
| 15:00-15:30 | [2096179] Energy and Interface Engineering for Perovskite Solar Cells  | Meng, Qingbo<br>(Institute of Physics, Chinese Academy of Sciences)             |

**February 26 (THU)**

| Time | Program  |  |
|------|--|--|
|      | [S4-4] Materials for Next Generation Photovoltaics - Perovskite, Chalcopyrite, Graphene, Quantum dots, etc |  |
|      | Chair: Jung, Hyun Suk (SKKU)   |  |

|             |   |   |
|-------------|---|---|
| 13:30-14:00 | [2123354] Bilayer Polymer Solar Cells with Non-Planar Heterojunction  | Kim, Kyungkon<br>(Ewha Womans University)   |
| 14:00-14:30 | [2115129] Key Design and Fabrication Considerations of 4G Organic Solar Cells for Energy Harvesting: Inorganics-in-Organics | Silva, S. Ravi P.<br>(University of Surrey) |
| 14:30-15:00 | [2089911] Colloidal PbS quantum dot-based depleted heterojunction solar cells utilizing ZnO nanowires                       | Kubo, Takaya<br>(The University of Tokyo)   |
| 15:00-15:30 | [2141392] Upconverting Lanthanide-Nanophosphors: From Promising Biomarkers to New Players in Energy Conversion              | Hemmer, Eva<br>(INRS)                       |

| Time        | Program  |  |
|-------------|--|--|
|             | [S4-5] Materials for Next Generation Photovoltaics - Perovskite, Chalcopyrite, Graphene, Quantum dots, etc               |  |
|             | Chair: Kim, Kyungkon (Ewha Womans University)  |  |
| 15:50-16:20 | [2111854] Ferroelectric Perovskite BiFeO <sub>3</sub> Thin Films by Atomic Layer Deposition for Solar Cell Devices       | Coll, Mariona<br>(Institut de Ciència de Materials de Barcelona) |
| 16:20-16:50 | [2112131] Physical properties of doped BaSnO <sub>3</sub> with high electrical mobility and optical transparency at room | Kim, Kee Hoon<br>(Seoul National University)                     |
| 16:50-17:20 | [2120259] Charge Collecting Nanomaterials for Highly Efficient Perovskite Solar Cells                                    | Hyun Suk Jung (SKKU)   |
| 17:20-17:40 | [2111612] A cyclic microwave radiation synthesis of CuInS <sub>2</sub> nanostructures and their photovoltaic properties  | Chumha, Nawapong<br>(Chiang Mai University)                      |