

Uniform Perovskite Films by the Hybrid Deposition Method and their Solar Cells Applications

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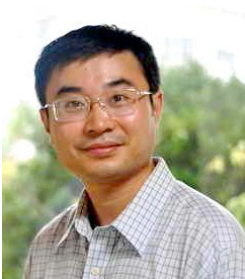
Date & Time: August 6th (Wed), 2014, 13:00- 14:00

Place: Meeting Room 2, Engineering Bldg #2, 3F, The University of Tokyo (7-3-1, Hongo, Bunkyo-ku, Hongo campus)

場所: 東京大学 本郷キャンパス 電気系会議室 2, 工学部新 2 号館 3 階 (文京区本郷 7-3-1)

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ABSTRACT: Recently organo-lead-halide perovskites have become one of the most promising materials for high-efficiency low-cost solar cells. Solar cells based on perovskites have achieved efficiencies higher than 16%, reaching a similar level of the commercial crystalline silicon solar panels. But these efficiencies were mostly achieved on small-area cells. In this presentation, I will talk about recent research effort in my group to develop an instrumentation and methodology, which enables the fabrication of large-area perovskite films with superior uniformity. Solar cell devices based on these perovskite films as thin as ~135 nm achieved efficiencies of 9.9% and high open circuit voltages of 1.09 V.



Biography: Dr. Yabing Qi is Assistant Professor and Head of Energy Materials and Surface Sciences Unit at Okinawa Institute of Science and Technology Graduate University. Prior to his current appointment, Dr. Qi was a postdoctoral research fellow at Princeton University. He received his B.S., M.Phil., and Ph.D. from Nanjing University, Hong Kong University of Science and Technology, and University of California Berkeley, respectively. His research interests include energy materials and devices, organic electronics, surface sciences, condensed matter physics.

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