

Abstract

Organic-inorganic hybrid perovskite solar cell is a new type of thin film photovoltaic technology and has achieved extraordinary improvements in power conversion efficiency in a relatively short time. It has potential to be a high efficiency, low cost alternative photovoltaic technology. The solution based system is attractive for processing of devices using a variety of techniques, such as printing, and it can be readily made into flexible solar cells on plastic substrates. However, there are a number of challenges before the technology's commercialization, for example, device stability, difficulties in forming good quality large area thin films, lead poisoning and lack of clear targets for commercialisation etc. In this presentation, I will talk about some recent progress in dealing with these challenges and introduce activities in scaling up perovskite solar cell modules, including the work at Wuhan University of Technology.