Solar Energy from China Institute of Microsystem and Information Technology

Can high-flexibility solar cells help China's low-carbon development?
[video:20230525-Chinese researchers develop high-flexibility solar cells for low-carbon development] Research fellows from the Shanghai Institute of Microsystem and Information Technology under the Chinese Academy of Sciences have developed high-flexibility monocrystalline silicon solar cells to serve China's low-carbon development in a better way.

Can c-Si solar cells be bent?
Chinese researchers have developed a special technology to tailor the edges of textured crystalline silicon (c-Si) solar cells,based on which the solar cells can be bentand folded like thin paper,allowing for broader application and use.

Who has the best solar cell efficiency in the world?
Chinese manufacturer Longiholds the world record for perovskite-tandem solar cell efficiency,achieving 33.9% efficiency in November 2023. A few months earlier,Saudi Arabia's King Abdullah University of Science and Technology (KAUST) announced a perovskite-silicon tandem device with an efficiency of 33.7%.

Can organic semiconductor materials improve solar power conversion efficiency?
The development of organic semiconductor materials has significantly advanced the power conversion efficiency (PCE) of organic solar cells (OSCs), now surpassing 20%.

Research fellows from the Shanghai Institute of Microsystem and Information Technology under the Chinese Academy of Sciences have developed high-flexibility ...

Research fellows from the Shanghai Institute of Microsystem and Information Technology under the Chinese Academy of Sciences have developed high-flexibility monocrystalline silicon solar cells to serve China"s low-carbon development in a better way.

Shanghai Institute of Microsystem and Information Technology (SIMIT), Chinese Academy of Sciences (CAS), formerly known as Shanghai Institute of Metallurgy, was founded in 1928. It"s a multidisciplinary institute engaged in both fundamental and applied researches aiming at the demands of national economic and social developments fore 1949, SIMIT, then named as ...

The crystal structure and, electrical and optical characteristics of GZO/IWO stacks with different thickness ratios were investigated and the current-voltage performance of ...

Kai Jiang is currently pursuing his PhD degree at the Research Center for New Energy Technology, Shanghai

Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, China. His research interests include amorphous silicon/crystalline silicon heterojunction solar cells, and interdigitated back contact silicon ...

Jianhua SHI, Research Assistant | Cited by 1,157 | of Shanghai Institute of Microsystem And Information Technology, Shanghai | Read 55 publications | Contact Jianhua SHI

The "Key Laboratory of Wireless Sensor Networks and Communications of the Chinese Academy of Sciences" was formally established in December 2006 under the Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences. In order to meet the major national strategy and application requirements, the laboratory is committed to ...

Chinese researchers have developed a special technology to tailor the edges of textured crystalline silicon (c-Si) solar cells, based on which the solar cells can be bent and ...

Chinese solar module producer JinkoSolar said it has achieved a 33.24% power conversion efficiency for a perovskite-silicon tandem solar cell based on n-type wafers. The ...

Recently, the PCE of single-crystal silicon solar cells has boosted to 26.8% in China, approaching the theoretical limit of 29.4%, thanks to the collaborative innovations of material structure ...

I currently work as a professor at Shanghai Institute of Microsystem and Information Technology. My research interests focus on chalcogenides and their-based devices, especially phase change ...

Research fellows from the Shanghai Institute of Microsystem and Information Technology under the Chinese Academy of Sciences have developed high-flexibility monocrystalline silicon solar cells to serve China"s ...

Chinese researchers have developed a special technology to tailor the edges of textured crystalline silicon (c-Si) solar cells, based on which the solar cells can be bent and folded like...

In this study, we report an additive-assisted LBL OSC device fabrication methodology to obtain optimized gradient fibrillar morphology with topological features to ...

Recently, the PCE of single-crystal silicon solar cells has boosted to 26.8% in China, approaching the theoretical limit of 29.4%, thanks to the collaborative innovations of material structure engineering and advanced equipment development. Meanwhile, the levelized cost of energy has decreased significantly, thus achieving grid parity in most ...

The researchers, from the Shanghai Institute of Microsystem and Information Technology (SIMIT), achieved this by developing a unique technology that allows the edges of textured crystalline silicon (c-Si) solar cells ...

Web: https://doubletime.es