Magnetron sputtering equipment for solar cells

Room-temperature-processed (RTP) electron-transport layer (ETL) is a prerequisite for fabricating fully RTP perovskite solar cells (PSCs). Herein, an RTP-Zn 2 SnO 4 ...

The mechanosynthesized perovskite powder is used to fabricate films and solar cells by magnetron sputtering. The stable PSCs with excellent reproducibility show a PCE of ...

In this research, using radio frequency magnetron sputtering (RFMS), TiO2 cp layers were fabricated and the thickness could be controlled by deposition time; CH3NH3PbI3 ...

An effective RF magnetron sputtering using a high-purity Sb2S3 target followed with post-sulfurization or post-selenization treatment was applied to prepare Sb 2 S 3 thin films.

All functional layers of PSCs can be deposited with magnetron sputtering. Replacing the organic charge transport layer (CTL) with a sputtered inorganic CTL can also ...

Columnar-structured rutile TiO2 film with a thickness of 1.4 mu m is prepared using the radio-frequency (RF) magnetron sputtering technique, for application in dye-sensitized solar cells ...

If the perovskite films can be prepared by magnetron sputtering for high-efficiency solar cells, the industrial application of PSCs will be greatly promoted. Herein, a ...

As everyone knows, the properties of CIGS solar cells could be influenced by every detailed process, and magnetron sputtering is one of the mainly methods for mass ...

In this work, for the first time, a novel quasi-homojunction Sb 2 Se 3 thin film solar cell was constructed. The device does not require liquid-phase deposition of those buffer ...

In this work, we have achieved the implementation of moderate temperature radio frequency magnetron sputtered SnO 2 as electron transport layer for spin-coated triple-cation ...

Over the last two decades, thin film solar cell technology has made notable progress, presenting a competitive alternative to silicon-based solar counterparts. CIGS ...

The magnetron sputtering technique was applied to fabricate thin film structures for CIGS solar cells application. The structural properties of the sputtered layers ...

equipment-related assistance, Katarina Kovacevic for the incessant help, especially with the PECVD system to fabricate the solar cells used in this work, Liqi Cao for being available to ...

Sputtering is the manufacturing process at the heart of today"s semiconductors, CDs, disk drives and optical devices industries. On an atomic level, sputtering is the process whereby atoms of a target or source material is bombarded by ...

The magnetron sputtering technique was applied to fabricate thin film ...

The blocking layer reactive direct current magnetron sputtering deposition process scheme for Ti target and laboratory equipment used ... current reactive magnetron ...

The perovskite solar cells (PSCs) are still facing the two main challenges of stability and scalability to meet the requirements for their potential commercialization. ...

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