

This work presents the results of optimization of the composition of sputtered targets for the formation of transparent conducting films based on a zinc-indium oxide (ZIO) system by the direct ...

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 regular ...

PDF | On Dec 7, 2018, Stephane Lucas and others published Optical and electrical properties of AZO coating deposited by reactive magnetron sputtering: application to c-Si thin film solar cells ...

Therefore, this study aims at designing anti-reflective coatings based upon multi-layers of TiO₂ and SiO₂ by magnetron sputtering on glass and silicon substrates at room ...

RF magnetron sputtering method is more expensive than DC magnetron method. RF method is applied in a vacuumed chamber. The application rate is slower than other methods but is generally cheap. ... TiO₂ and SiO₂ coatings on solar cells reduced the reflection of solar cells from 36% to 15% with a single-layer ARC (SiO₂) and 7% with a double ...

Radio frequency (RF) magnetron sputtering was used to deposit tungsten disulfide (WS₂) thin films on top of soda lime glass substrates. The deposition power of RF magnetron sputtering varied at 50 ...

Deposited by Pulsed DC Magnetron Sputtering for Heterojunction Silicon Wafer Solar Cell Applications ... DC sputtering, ITO, antireflective coating, heterojunction, silicon solar cells * Corresponding author. Tel.: +6586441246; fax: +65 6775 1943 E-mail address ... heterojunction silicon wafer solar cells by DC sputtering can be as low as 1 W ...

Aiming towards a specific application as antireflection coatings (ARC) in Si solar cells, the growth of hydrogenated diamond like carbon (HDLC) films, by RF magnetron sputtering, has been optimized through comprehensive optical and structural studies. Various physical properties of the films e.g.,

Within magnetron sputtering, there are specific techniques, such as co-sputtering, high-power impulse magnetron sputtering, or reactive magnetron sputtering, which promote the simultaneous deposition of multiple materials and, therefore, lead to the deposition of more complex and functionalized films.

Abstract Copper oxide (CuO) films have been grown by reactive DC magnetron sputtering, high-power impulse magnetron sputtering (HIPIMS), and a hybrid process (DC + HIPIMS). Their resistivity has been measured by the four probe van der Pauw method, and their rms surface roughness has been assessed by atomic force microscopy. The phase ...

A nanostructured TiO₂ thin film was deposited on glass substrate by using sol gel dip-coating method to improve the antireflective property and performance of the solar PV cell.

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