The effect of ferrosilicon on solar power generation

In this Review, we provide a comprehensive overview of PV materials and technologies, including mechanisms that limit PV solar-cell and module efficiencies.

This paper studies the Si-insulator-NiFe (SIFM) structure to explore the photovoltaic (PV) effect and provide deeper insights into MTJMSD-based solar cells.

In this article, the detailed understanding associated with various proposed mechanisms, recent progress on the improvement in FE-PV parameters, PV phenomenon coupling with other ...

Ferrosilicon is produced by reduction of silica using carbonaceous sources, which generates planet warming greenhouse gases. In this work, we present a simple method to use recycled Si (reSi) ...

Including ferroelectric effects in solar cells introduces a number of significant effects, as the ferroelectric polarization strongly affects the processes that regulate photovoltaic operation.

The upgrading of inexpensive ferrosilicon alloys or metallurgical grade silicon to solar grade silicon is a potentially economical refining route and several research studies have been carried...

Upcycling of Si scrap: High-energy silicon that cannot be recycled to solar cells serves to convert low-energy iron oxide waste into a marketable product, ferrosilicon, thus avoiding additional energy input ...

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