

1. Record Nr.	UNINA9910465412203321
Autore	Fahrner W. R.
Titolo	Silicon heterojunction solar cells / / W.R. Fahrner, M. Muehlbauer, H.C. Neitzert
Pubbl/distr/stampa	Uetikon-Zuerich ; ; Enfield, New Hampshire : , : Trans Tech Publications Limited, , [2006] ©2006
ISBN	3-03813-102-4
Descrizione fisica	1 online resource (204 p.)
Collana	Materials science foundations, , 1422-3597 ; ; volumes 31-32
Disciplina	621.381/044
Soggetti	Silicon solar cells Semiconductors - Junctions Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (pages 183-198).
Nota di contenuto	Silicon Heterojunction Solar Cells; Preface. Acknowledgments; Contents; Table of Contents; 1. Physics, Use and Layer Sequence of the Silicon Heterojunction Solar Cell; 1.1 Physical Background; 1.2 HIT Cell Manufacturing; 1.3 Solar Cell Parameters; 2. Survey on the Heterojunction Solar Cell Technology - Selection of Condensed Publications; 2.1 Monocrystalline Silicon as Absorber Material; 2.2 Special Emitter Layers on Monocrystalline Silicon Absorbers; 2.3 Polycrystalline, Microcrystalline and Porous Silicon Absorber Materials; 2.4 Heterojunction solar cells with amorphous silicon absorber 2.5 Silicon Tandem Solar Cell with Heterojunctions3. Conclusion; Future Prospects of the Heterojunction Solar Cell Development; 4. Literature
Sommario/riassunto	The world of today must face up to two contradictory energy problems: on the one hand, there is the sharply growing consumer demand in countries such as China and India. On the other hand, natural resources are dwindling. Moreover, many of those countries which still possess substantial gas and oil supplies are politically unstable. As a result, renewable natural energy sources have received great attention. Among these, solar-cell technology is one of the most promising candidates. However, there still remains the problem of the manufacturing costs of such cells. Many attempts have been made

