



Novel Characterization Methods for Microcrystalline Silicon: Final Report, May 1999-December 2002

By -

Bibliogov, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.The work carried out under this subcontract has provided advanced characterization supporting the development of these materials for photovoltaic applications. The studies, using time-resolved optical methods and positron annihilation spectroscopy, focus on characterization of carrier processes and defect states that are important to understand, and thereby control, to optimize photovoltaic efficiency. This work advances the objectives of the NREL/DOE National Photovoltaic Program by providing unique and innovative characterization methods for photovoltaic materials, by advancing the development of a promising new class of photovoltaic materials through interaction with ongoing materials research at NREL, and by advancing the fundamental scientific understanding of this important class of electronic materials. In this work, systematic studies as a function of key material parameters have been carried out to develop a more detailed understanding of conductivity processes. Femtosecond laser spectroscopic techniques are used to probe photoexcited carrier processes, including carrier trapping and recombination, as well as carrier thermalization, providing key parameters for conductivity models. An important part of the work involves the application of recently developed methods for generation and detection of femtosecond pulses...

Reviews

Merely no words to spell out. It is amongst the most awesome publication i have read. Your life span will likely be transform as soon as you full reading this book.

-- **Marvin Okuneva**

Completely among the best publication I have got at any time go through. I have got go through and so i am confident that i will likely to read again once more down the road. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Zachery Mertz**