



Characterization of Amorphous Silicon Thin Films and Pv Devices: Phase I Annual Technical Report

By National Renewable Energy Laboratory (NREL)

Bibliogov, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****. Major accomplishments of the previous year include (1) an evaluation of the potential for n-type doping of a-SiSx: H and a-SiSex: H alloys, (2) an investigation of the optically induced metastabilities in a-SiSx: H and a-SiSex: H alloys with regard to their potential use in photovoltaic applications, and (3) a more detailed understanding of the kinetics of light-induced electron spin resonance (ESR) due to carriers trapped in localized band-tail states in a-Si: H. Also of importance are preliminary measurements of the defects and metastabilities in hot-wire samples of a-Si: H and in samples of a-Si: H made under strong hydrogen dilution. The preliminary measurements on hydrogen dilution suggest that the production of neutral silicon dangling bonds is not suppressed from the standard material even though there appears to be an improvement in the stability of cells made using the hydrogen-dilution process. The new three-chamber, load-locked plasma-enhanced chemical vapor deposition system is functioning and producing intrinsic and doped films of a-Si: H. Plans for the next year include the production of high quality devices using this new deposition.



Reviews

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-- Shayne O'Conner

This composed publication is great. It is one of the most remarkable publication i have got read through. I am just quickly could get a delight of looking at a composed book.

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