

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. In 1990 the Schatz Energy Research Center (SERC) installed a PV array comprised of 192 ARCO M-75 modules. Prior to installation, Zoellick carefully measured module performance and reported average peak power at normal operating cell temperature (NOCT) to be 39 ...

Conference record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002 : Hyatt Regency, New Orleans, Louisiana, May 19-24, 2002 Bookreader Item Preview ... IEEE Photovoltaic Specialists Conference (29th : 2002 ...

PV Modules Preprint May 2002 o NREL/CP-520-31455 C.R. Osterwald, A. Anderberg, S. Rummel, and L. Ottoson To be presented at the 29th IEEE PV Specialists Conference New Orleans, Louisiana May 20-24, 2002 National Renewable Energy Laboratory 1617 Cole Boulevard Golden, Colorado 80401-3393 NREL is a U.S. Department of Energy Laboratory

Conference Record of the Twenty Fifth IEEE Photovoltaic Specialists Conference - 1996; Photovoltaic (PV) cells and modules are often rated in terms of a set of standard reporting conditions defined by a temperature, spectral irradiance and total irradiance. Because PV devices operate over a wide range of temperatures and irradiances, the ...

May 2002 o NREL/CP-520-31444 J.A. del Cueto To be presented at the 29th IEEE PV Specialists Conference New Orleans, Louisiana May 20-24, 2002 National Renewable Energy Laboratory 1617 Cole Boulevard Golden, Colorado 80401-3393 NREL is a ...

Renew Energ 2006; 31: p. 553-567. [3] King DL, Boyson WE, Kratochvil JA. Analysis of factors influencing the annual energy production of photovoltaic systems. In: Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002: p. 1356-1361. [4] Skoplaki E, Palyvos JA.

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. A novel method is applied to determine the fixed positive charge density $Q_{\text{sub f}}$ in plasma-enhanced chemical vapor deposited silicon nitride ($\text{SiN}/\text{sub x/}$) films on crystalline silicon surfaces. In this method, both surfaces of the $\text{SiN}/\text{sub x/}$ -passivated silicon ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference 2002 (Cat. No.02CH37361) Published in: Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Article #: Date of Conference: 19-24 May 2002 Date ...

New Orleans, Louisiana; May 17-24, 2002. Comparison of Dielectric Surface Passivation of Monocrystalline

and Multicrystalline Silicon; ... 26th IEEE Photovoltaic Specialists Conference, Anaheim, California, September, 1997. 4th International Conference on Advanced Thermal Processing of Semiconductors RTP 96, Idaho, 1996.

The rapid growth of the solar industry over the past several years has expanded the significance of photovoltaic (PV) systems. Fault analysis in solar photovoltaic (PV) arrays is a fundamental task to increase reliability, efficiency, and safety in PV systems and, if not detected, may not only reduce power generation and accelerated system aging but also threaten the ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Photonic crystals use a periodic modulation of the refractive index to alter the photonic density of states. The photonic density of states is an important parameter in many phenomena involving radiation-matter interactions - including thermal emission of ...

High voltage silicon vertical multi-junction (VMJ) solar cells are ideally suited for providing efficient operation at solar intensities exceeding 1000 suns AM1.5. This paper discusses the unique features and advantages of the VMJ cell. The authors believe the high output power performance capability and manufacturing simplicity of VMJ cells will enable more cost-effective photovoltaic ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. By means of LPE growth and Zn diffusion, TPV cells and mid-IR photodetectors based on p-InAsSbP/n-InAsSbP/n-InAs and p-InAs/n-InAs structures have been fabricated with the photosensitivity widened in the infrared range (2.5-3.4 μm).

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. We present an analysis of the results of a solar weathering program that found a linear relationship between maximum power degradation and the total UV exposure dose for four different types of commercial crystalline Si modules. The average degradation rate ...

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T2 - Twenty-Ninth IEEE Photovoltaic Specialists Conference 2002. Y2 - 19 May 2002 through 24 May 2002. ER - NREL. Device Modeling and Simulation of CIS-Based Solar Cells. 2002. Paper presented at Twenty-Ninth IEEE Photovoltaic Specialists Conference 2002, ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002.. IEEE, 2002. Lifetime (Wafer), QSSPC: 2002: Rein, S., et al. "Lifetime spectroscopy for defect characterization: Systematic analysis of the possibilities and restrictions." Journal of Applied Physics 91.4 (2002): 2059-2070.

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Electrical system islanding occurs when the utility grid is removed but local sources continue to operate and provide power to local loads. This can present safety hazards and the possibility of damage to other electric equipment. Anti-islanding functionality ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Degradation leading to failure in photovoltaic modules follows a progression that is dependent on multiple factors, some of which interact causing degradation that is difficult to simulate in the lab. This paper defines observed degradation in field-aged ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Predictive performance tools could accelerate the implementation of building integrated photovoltaics (BIPV). The National Institute of Standards and Technology (NIST) seeks to improve and validate previously developed computer simulation tools with ...

Conference Record of the Twenty-Ninth IEEE Photovoltaic Specialists Conference, 2002. Three new developments have now occurred making economical TPV systems possible. The first development is the diffused junction GaSb cell that responds out to 1.8 microns producing over 1 W/cm² electric given an IR emitter temperature of 1200 C.

N1 - Prepared for the 29th IEEE PV Specialists Conference, 20-24 May; 2002, New Orleans, Louisiana. PY - 2002. Y1 - 2002. N2 - This conference paper describes the performance data for 14 photovoltaic modules deployed at fixed-latitude tilt in the field are presented and compared. Module performance is monitored continuously for optimum power ...

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