URN etd-0407109-183715-1233
Author Chun-Nan Chang
Author's Email Address No Public.
Statistics This thesis had been viewed 103 times. Download 0 times.
Department
Year 2006
Semester 2
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Encapsulation Technique of Lightweight PV Module and Weather Resistance Test
Module and Weather Resistance Test
Date of Defense 0000-00-00
Page Count 56
Keyword
solar energy
Encapsulation

Abstract
The purpose of this study is to investigate the encapsulation technique of lightweight PV modules. We used different kinds of encapsulation materials and covering plates to encapsulate Si-based solar cells and conducted weather resistance tests. By using PC and Tefzel as covering plate, EVA and Silicone as encapsulation materials, we compared the efficiency changes in temperature and humidity circulation tests. The experimental results show that due to the hardness of EVA, using EVA as encapsulation materials can efficiently avoid the deformation of PV modules caused by temperature fluctuations. Since PC is sensitive to the humidity under high temperature environment, damages were found on PC covering plate after 150 temperature and humidity circulation tests. The results up to now have indicated that, PV modules with EVA as encapsulation materials and Tefzel as covering plate have the best weather resistance performance.
Advisory Committee K.M. Lin - advisor

Files No Any Full Text File.
Date of Submission 2007-07-25