Stability and Degradation of Organic and Polymer Solar Cells

Organic photovoltaics (OPV) are a new generation of solar cells with the potential to offer very short energy pay back times, mechanical flexibility and significantly lower production costs compared to traditional crystalline photovoltaic systems. A weakness of OPV is their comparative instability during operation and this is a critical area of research towards the successful development and commercialization of these 3rd generation solar cells. Covering both small molecule and polymer solar cells, Stability and Degradation of Organic and Polymer Solar Cells summarizes the state of the art understanding of stability and provides a detailed analysis of the mechanisms by which degradation occurs. Following an introductory chapter which compares different photovoltaic technologies, the book focuses on OPV degradation, discussing the origin and characterization of the instability and describing measures for extending the duration of operation.

General information
State: Published
Organisations: Department of Energy Conversion and Storage, Functional organic materials
Contributors: Krebs, F. C. (ed.)
Number of pages: 360
Publication date: 2012

Publication information
Publisher: John Wiley & Sons Ltd
ISBN (Print): 978-1-1199-5251-0
Original language: English
Research output: Research - peer-review + Book – Annual report year: 2012