

1. Record Nr.	UNINA9910141321703321
Titolo	Stability and degradation of organic and polymer solar cells [[electronic resource] /] / editor, Frederik C. Krebs
Pubbl/distr/stampa	Chichester, West Sussex, U.K., : Wiley, 2012
ISBN	1-118-31223-6 1-280-59010-6 9786613619938 1-118-31221-X 1-119-94243-8 1-119-94242-X
Descrizione fisica	1 online resource (376 p.)
Altri autori (Persone)	KrebsFrederik C
Disciplina	621.3815/42
Soggetti	Polymers - Deterioration Photovoltaic cells Organic compounds - Biodegradation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Stability and Degradation of Organic and Polymer Solar Cells; Contents; Preface; Acknowledgements; List of Contributors; 1. The Different PV Technologies and How They Degrade; 1.1 The Photovoltaic Effect and the Overview; 1.2 The Photovoltaic Technologies; 1.3 Intrinsic Versus Extrinsic Stability; 1.3.1 Intrinsic Stability; 1.3.2 Extrinsic Stability; 1.4 Degradation - The Culprits, the What, the Why and the How; 1.5 Some Representative Technologies and How They Degrade; 1.5.1 Mono- and Polycrystalline Silicon Solar Cells; 1.5.2 Amorphous, Micro- and Nanocrystalline Silicon Solar Cells 1.5.3 CIS/CIGS Solar Cells1.5.4 CdS/CdTe Solar Cells; 1.5.5 Dye-Sensitized Solar Cells (DSSC); 1.5.6 Organic and Polymer Solar Cells (OPV); References; 2. Chemical and Physical Probes for Studying Degradation; 2.1 Introduction; 2.2 Physical Probes; 2.2.1 UV-vis Spectroscopy; 2.2.2 Atomic Force Microscopy (AFM); 2.2.3 Interference Microscopy; 2.2.4 Scanning Electron Microscopy (SEM); 2.2.5 Fluorescence Microscopy; 2.2.6 Light-Beam Induced-Current

Microscopy (LBIC); 2.2.7 Electroluminescence and Photoluminescence Imaging Microscopy (ELI and PLI); 2.2.8 X-ray Reflectometry; 2.3 Chemical Probes

2.3.1 Infrared Spectroscopy (IR) 2.3.2 Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS); 2.3.3 X-ray Photoelectron Spectroscopy (XPS); 2.4 Summary and Outlook; References; 3. Imaging Techniques for Studying OPV Stability and Degradation; 3.1 Introduction to Imaging Techniques; 3.1.1 Microscopy and Optical Scanning; 3.1.2 Luminescence Imaging; 3.1.3 Lock-In Thermography; 3.1.4 Light-Beam Induced Current; 3.2 Reports; 3.2.1 Background: Degradation of OLED Devices; 3.2.2 Light-Beam Induced Current; 3.2.3 Luminescence Imaging; 3.2.4 Optical Microscopy

3.2.5 Dark Lock-In Thermography and LBIC 3.2.6 Dark Lock-In Thermography and Optical Scanning for Failure Analysis; 3.3 Discussion: Comparison of Imaging Techniques; 3.4 Summary; Acknowledgement; References; 4. Photochemical Stability of Materials for OPV; 4.1 Introduction; 4.2 Methods; 4.2.1 Aging Condition; 4.2.2 Degradation Monitoring; 4.3 State-of-the-Art; 4.3.1 Degradation of the p-Conjugated Polymer; 4.3.2 Acceptor Material Aging and Blend Degradation; References; 5. Degradation of Small-Molecule-Based OPV; 5.1 Comparison to Small-Molecule OLEDs

5.1.1 Number of Photoexcitations per Molecule 5.2 Comparison to Polymer Solar Cells; 5.2.1 Sensitivity to Air; 5.2.2 Temperature Stability; 5.3 Small-Molecule Organic Materials; 5.3.1 Active Materials; 5.3.2 Transport- and Exciton-Blocking Materials; 5.4 Degradation Conditions; 5.4.1 Oxygen and Water; 5.4.2 UV Radiation; 5.5 State-of-the-Art in Lifetime Studies; 5.6 Summary and Outlook; References; 6. Degradation of Polymer-Based OPV; 6.1 Focus on the Degradation and Stability of Polymer Solar Cells; 6.2 A Chart of Degradation and Stability of Polymer Solar Cells

6.3 A Short Account of the OPV Stability/Degradation History

Sommario/riassunto

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

2. Record Nr.	UNINA9910816964003321
Autore	Wolfe Jessica
Titolo	Homer and the question of strife from Erasmus to Hobbes // Jessica Wolfe
Pubbl/distr/stampa	Toronto, [Ontario] ; ; Buffalo, [New York] ; ; London, [England] : , : University of Toronto Press, , 2015 ©2015
ISBN	1-4426-2268-7 1-4426-2267-9
Descrizione fisica	1 online resource (624 p.)
Disciplina	883/.01
Soggetti	Epic poetry, Greek - History and criticism European literature - Renaissance, 1450-1600 - History and criticism Social conflict in literature LITERARY CRITICISM / General Translations. Criticism, interpretation, etc. Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Homer, Erasmus, and the problem of strife -- The remedy of contraries : Melanchthon, Rabelais, and epic parody -- Spenser, Homer, and the mythography of strife. Part 1 : the concatenation of virtue -- Part 2 : the two faces of Ate -- Chapman's ironic Homer -- The razor's edge : Homer, Milton, and the problem of deliberation. Part 1 : the razor's edge -- Part 2 : moral horizons : Milton's Horai -- Hobbe's Homer and the idols of the Agora -- Epilogue : the Homeric contest from Vico to Arendt.
Sommario/riassunto	Wolfe's transnational and multilingual study is a landmark work in the study of classical reception that has a great deal to offer to anyone examining the literary, political, and intellectual life of early modern Europe.