



Process-structure-property relationship of polymer-fullerene bulk heterojunction films for organic solar cells

By Benjamin Schmidt-Hansberg

Cuvillier Verlag Mai 2012, 2012. Taschenbuch. Book Condition: Neu. 237x170x19 mm. Neuware -Photovoltaic (PV) is attracting increasing interest as an important contribution to renewable energy supply. Organic photovoltaic (OPV) is a comparable young PV technology with a great potential towards low cost solar power. This is due to the intrinsic advantage of the incorporated organic semiconductors which are soluble. Solution processing allows high throughput coating and printing processes. Hence, energy intensive high temperature and vacuum steps can be avoided which reduces the fabrication costs and keeps energy payback times low. The performance of organic solar cells strongly depends on the structure of the solution cast photoactive layer which comprises a polymer-fullerene blend. The blend structure evolves during the film drying step which has been studied in this thesis. Starting point of this work was the hypothesis that drying process parameters are suitable for systematically tuning the structure formation during drying of solution cast polymer-fullerene films in order to generate optimized structures with improved photovoltaic performance. For the evaluation of this hypothesis the structure formation of the polymer-fullerene system Poly(3-hexylthiophene-2,5-diyl):[6,6]-Phenyl C61-butyric acid methyl ester (P3HT:PCBM) was investigated incorporating i) thin film drying kinetics, ii) phase behavior of polymer-fullerene solutions, iii) structure...



Reviews

It is an incredible publication that we have actually read through. It is among the most incredible pdf i actually have study. I am just pleased to let you know that here is the very best pdf i actually have study in my personal lifestyle and could be he greatest book for possibly.

-- Ms. Linnea Medhurst I

It in one of my personal favorite ebook. I was able to comprehended everything using this created e ebook. I am just pleased to tell you that here is the greatest ebook i have got read through within my own lifestyle and may be he finest publication for possibly.

-- Timothy Johnson DVM

See Also



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date: 2005-09-01 Publisher: Chinese children before making Reading: All books are the Youth Preemployment Training software download generated pictures...



Taken: Short Stories of Her First Time

Speedy Publishing LLC, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ****** Print on Demand ******. Taken is the intimate and sensually heated account of two virgins and how they lost their virginities....



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (3-5 years) Intermediate (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date: 2005-09-01 Publisher: Chinese children before making Reading: All books are the Youth Preemployment Training software download generated pictures...



Comic Maths: Sue: Fantasy-Based Learning for 4, 5 and 6 Year Olds

The Captain Papadopoulos Publishing Company, United Kingdom, 2012. Paperback. Book Condition: New. Brian Williamson (illustrator). 276 x 214 mm. Language: English . Brand New Book ***** Print on Demand *****. Comic Maths: Sue (Key Stage 1, Level 1) has been created for children...



Barabbas Goes Free: The Story of the Release of Barabbas Matthew 27:15-26, Mark 15:6-15, Luke 23:13-25, and John 18:20 for Children

Paperback. Book Condition: New.



Pickles To Pittsburgh: Cloudy with a Chance of Meatballs 2

Atheneum Books for Young Readers, 2000. Paperback. Book Condition: New. No Jacket. New paperbook print book copy of Pickles to Pittsburgh: Cloudy with a Chance of Meatballs 2 written by Judi Barrett. Drawn by Ron Barrett. New York: Athenium Books for Young...