CONTENTS

Preface vii

Expert Commentary

From Randomly Distributed to Vertically Aligned Bulk-Heterojunction Solar Cells: A New Route to Low Cost Photovoltaics?
Nadia Camaioni 1

Short Communications

Evaluation on Coating Shape of Space Solar Cell Based on Automatic Optical Inspection
Z. Fu, H. Zhao, W.X. Yan and Y.Z. Zhao 5

On Determination of Series, Shunt and Dynamic Resistances of Mono-Crystalline, Polycrystalline and Amorphous Silicon Solar Cells from Single I-V Curve Measurement
J. Thongpron, K. Kirtikara, C. Jivacate and A. Namin 23

Dye Sensitized Solar Cells Based on Metal Substrates
Yongseok Jun, Hogyeong Yun and Man Gu Kang 41

Research and Review Articles

Chapter 1 Recent Research Trends in Texturization and Light Trapping in Silicon Solar Cells

Chapter 2 Solar and Heat Engines: Thermodynamic Distinguish as a Key to the High Efficiency Solar Cells
V. I. Laptev 131

Chapter 3 High-Effective Solar Energy Conversion: Thermodynamics, Crystallography and Clusters
V. I. Laptev and H. Khlyap 181
Chapter 4  Present and Future of High Efficiency CdTe Thin Films Solar Cells

Osvaldo Vigil-Galán

Chapter 5  Contribution of Surface Photovoltage Method to Diagnostics of Materials for Solar Cells

J. Toušek, J. Toušková and I. Křivka

Chapter 6  A Candidate for Very Low Cost Solar Cells:
Solar Cells Based on Low-Purity Silicon Materials

Jianming Li


G.R. Vasanthakumar and C.N. Tharamani

Chapter 8  New Method of Preparation of Composites Promising for the Development of Plastic Solar Cells

Ya. Vertsimakha and A. Verbitsky

Index