

CITATION REPORT

List of articles citing

Phase diagram of P3HT/PCBM blends and its implication for the stability of morphology

DOI: 10.1021/jp804151a

Journal of Physical Chemistry B, 2009, 113, 1587-91.

Source: <https://exaly.com/paper-pdf/46831373/citation-report.pdf>

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
324	Real-Time Tracking of Polymer Crystallization Dynamics in Organic Bulk Heterojunctions by Raman Microscopy.		
323	Correlating Crack Onset Strain and Cohesive Fracture Energy in Polymer Semiconductor Films.		
322	Morphology Control in Solution-Processed Bulk-Heterojunction Solar Cell Mixtures. 2009 , 19, 3028-3036		242
321	Efficient hybrid bulk heterojunction solar cells based on phenylenevinylene copolymer, perylene bisimide and TiO ₂ . 2009 , 93, 1792-1800		27
320	Photovoltaics literature survey (No. 70). 2009 , 17, 273-277		
319	The Role of C60 Barrier Layer in Improving the Performances of Efficient Polymer-Based Photovoltaic Devices: An AFM/EDXR Time-Resolved Study. 2009 , 113, 19740-19747		16
318	Regioregular Poly(3-pentylthiophene): Synthesis, Self-Assembly of Nanowires, High-Mobility Field-Effect Transistors, and Efficient Photovoltaic Cells. 2009 , 42, 8817-8826		169
317	Electrical conductivity and relaxation in poly(3-hexylthiophene). 2009 , 80,		121
316	A Quantitative Study of PCBM Diffusion during Annealing of P3HT:PCBM Blend Films. 2009 , 42, 8392-8397		238
315	Demixing and Remixing Kinetics in Aqueous Dispersions of Poly(N-isopropylacrylamide) (PNIPAM) Brushes Bound to Gold Nanoparticles Studied by Means of Modulated Temperature Differential Scanning Calorimetry. 2009 , 42, 5317-5327		22
314	The use of nanofibers of P3HT in bulk heterojunction solar cells: the effect of order and morphology on the performance of P3HT:PCBM blends. 2009 ,		
313	Post annealing effect of flexible polymer solar cells to improve their electrical properties. 2010 , 10, e192-e196		16
312	Effects of Thermal Annealing Upon the Morphology of Polymer/Bullerene Blends. 2010 , 20, 3519-3529		493
311	Band alignment engineering in organized rrP3HT/C60 bulk heterojunction. 2010 , 11, 1991-1998		1
310	Thermal analysis. 2010 , 82, 4936-49		22
309	Demixing and Remixing Kinetics of Poly(2-isopropyl-2-oxazoline) (PIPOZ) Aqueous Solutions Studied by Modulated Temperature Differential Scanning Calorimetry. 2010 , 43, 6853-6860		47
308	Comparative Study on Structural Properties of Poly(3-hexylthiophene) and Poly(3-hexylthiophene):6,6-Phenyl-C61Butyric Acid Methyl Ester Thin Films Using Synchrotron X-ray Diffraction. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 01AC01	1.4	2

307	Femtosecond Time-Resolved Fluorescence Study of P3HT/PCBM Blend Films. 2010 , 114, 14590-14600	96
306	Measuring the Extent of Phase Separation in Poly-3-Hexylthiophene/Phenyl-C61-Butyric Acid Methyl Ester Photovoltaic Blends with 1H Spin Diffusion NMR Spectroscopy. 2010 , 22, 2930-2936	44
305	Phase behaviour of liquid-crystalline polymer/fullerene organic photovoltaic blends: thermal stability and miscibility. 2011 , 21, 10676	74
304	Phase behavior of PCBM blends with different conjugated polymers. 2011 , 13, 12285-92	25
303	In situ measurement of power conversion efficiency and molecular ordering during thermal annealing in P3HT:PCBM bulk heterojunction solar cells. 2011 , 21, 15224	77
302	A Phase Diagram of the P3HT:PCBM Organic Photovoltaic System: Implications for Device Processing and Performance. 2011 , 44, 2908-2917	100
301	Melting and Crystallization of Poly(ethylene oxide) Nanofilms Studied by Micromechanical Cantilevers. 2011 , 115, 22347-22353	7
300	Quantitative nanoorganized structural evolution for a high efficiency bulk heterojunction polymer solar cell. 2011 , 133, 13064-73	124
299	Thermal Stability of Poly[2-methoxy-5-(2'-phenylethoxy)-1,4-phenylenevinylene] (MPE-PPV):Fullerene Bulk Heterojunction Solar Cells. 2011 , 44, 8470-8478	57
298	Optimization of the bulk heterojunction composition for enhanced photovoltaic properties: correlation between the molecular weight of the semiconducting polymer and device performance. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 12717-27	3.4 51
297	Enhancement of interfacial polymer crystallinity using chromism in single inorganic nanowire-polymer nanohybrids for photovoltaic applications. 2011 , 11, 3460-7	19
296	Real-time in-situ observation of morphological changes in organic bulk-heterojunction solar cells by means of capacitance measurements. 2011 , 109, 044503-044503-5	16
295	Recent progress in the morphology of bulk heterojunction photovoltaics. 2011 , 7, 11065	141
294	Moving through the phase diagram: morphology formation in solution cast polymer-fullerene blend films for organic solar cells. 2011 , 5, 8579-90	144
293	Polymer Crystallization of Partially Miscible Polythiophene/Fullerene Mixtures Controls Morphology. 2011 , 44, 5722-5726	230
292	n-Channel polymer thin film transistors with long-term air-stability and durability and their use in complementary inverters. 2011 , 21, 16461	52
291	Diketo-pyrrolo-pyrrole-Based Medium Band Gap Copolymers for Efficient Plastic Solar Cells: Morphology, Transport, and Composition-Dependent Photovoltaic Behavior. 2011 , 115, 11282-11292	32
290	Soluble fullerene derivatives: The effect of electronic structure on transistor performance and air stability. 2011 , 110, 014506	18

289	Polymeric solar cells based on P3HT:PCBM: Role of the casting solvent. 2011 , 95, 3408-3418	118
288	Determination of phase diagrams of binary and ternary organic semiconductor blends for organic photovoltaic devices. 2011 , 95, 3465-3471	66
287	Isothermal crystallization of P3HT:PCBM blends studied by RHC. 2011 , 105, 845-849	16
286	The phase behavior of a polymer-fullerene bulk heterojunction system that contains bimolecular crystals. 2011 , 49, 499-503	70
285	Electrospun fibers of functional nanocomposites composed of single-walled carbon nanotubes, fullerene derivatives, and poly(3-hexylthiophene). 2011 , 49, 1263-1268	16
284	Block copolymer strategies for solar cell technology. 2011 , 49, 1131-1156	163
283	Description of the nanostructured morphology of [6,6]-phenyl-C61 -butyric acid methyl ester (PCBM) by XRD, DSC and solid-state NMR. 2011 , 49, 242-7	23
282	Room-Temperature Phase Demixing in Bulk Heterojunction Layers of Solution-Processed Organic Photodetectors: the Effect of Active Layer Ageing on the Device Electro-optical Properties. 2011 , 21, 1355-1363	15
281	Evolution of Structure, Optoelectronic Properties, and Device Performance of Polythiophene:Fullerene Solar Cells During Thermal Annealing. 2011 , 21, 1383-1390	94
280	Enhanced Structural Stability and Performance Durability of Bulk Heterojunction Photovoltaic Devices Incorporating Metallic Nanoparticles. 2011 , 21, 3573-3582	98
279	Quantitative Analysis of Bulk Heterojunction Films Using Linear Absorption Spectroscopy and Solar Cell Performance. 2011 , 21, 4640-4652	126
278	P3HT:PCBM, best seller in polymer photovoltaic research. 2011 , 23, 3597-3602	1000
277	Technology development for roll-to-roll production of organic photovoltaics. 2011 , 50, 454-461	140
276	Light-induced degradation of the P3HT-based solar cells active layer. 2011 , 95, 1315-1325	88
275	Influence of substrate on crystallization in polythiophene/fullerene blends. 2011 , 95, 1375-1381	42
274	Properties of Charge Carrier Transport in Au/Phenyl C61Butyric Acid Methyl Ester/Au Structure. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 031601	1.4 1
273	Dendrite growth in annealed polymer blends for use in bulk heterojunction solar cells. 2011 , 110, 103517	8
272	Efficiency Enhancement in Hybrid P3HT/Silicon Nanocrystal Solar Cells. 2011 , 1,	21

271	Polymer-Based Solar Cells: State-of-the-Art Principles for the Design of Active Layer Components. 2011 , 1,	48
270	Optimal parameters for morphology of bulk heterojunction solar cells from simulations. 2012 , 100, 053307	7
269	Looking at bulk-heterojunction organic photovoltaics from two viewpoints: morphology development and charge transfer. 2012 ,	
268	Static and dynamic properties of poly(3-hexylthiophene) films at liquid/vacuum interfaces. 2012 , 137, 204701	11
267	Molecular dynamics simulations of the solvent- and thermal history-dependent structure of the PCBM fullerene derivative. 2012 , 22, 5434	26
266	Enhancement of photo/thermal stability of organic bulk heterojunction photovoltaic devices via gold nanoparticles doping of the active layer. 2012 , 4, 7452-9	64
265	Relationship between the morphology of poly(3-hexylthiophene)/methanofullerene composite and its photoelectrode characteristics in the water phase. 2012 , 549, 77-81	11
264	Aggregation-dependent photovoltaic properties of squaraine/PC61BM bulk heterojunctions. 2012 , 14, 8328-34	79
263	An ADMET Route to Low-Band-Gap Poly(3-hexadecylthienylene vinylene): A Systematic Study of Molecular Weight on Photovoltaic Performance. 2012 , 45, 2190-2199	38
262	Glass transition of PCBM, P3HT and their blends in quenched state. 2012 , 3, 045001	32
261	Rationalizing Phase Transitions with Thermal Annealing Temperatures for P3HT:PCBM Organic Photovoltaic Devices. 2012 , 45, 1499-1508	57
260	Aging of polymer/fullerene films: Temporal development of composition profiles. 2012 , 161, 2540-2543	13
259	Methods in determination of morphological degradation of polymer:fullerene solar cells. 2012 , 161, 2534-2539	17
258	Interfacial properties of free-standing poly(3-hexylthiophene) films. 2012 , 137, 044703	15
257	Morphology characterization in organic and hybrid solar cells. 2012 , 5, 8045	359
256	Significant Improved Performance of Photovoltaic Cells Made from a Partially Fluorinated Cyclopentadithiophene/Benzothiadiazole Conjugated Polymer. 2012 , 45, 5427-5435	173
255	Hybrid solar cells: basic principles and the role of ligands. 2012 , 22, 2351-2368	121
254	Manipulating the Crystallization of Methanofullerene Thin Films with Polymer Additives. 2012 , 213, 2081-2090	11

253	Molecular solubility and hansen solubility parameters for the analysis of phase separation in bulk heterojunctions. 2012 , 50, 1405-1413	90
252	Poly(3-hexylthiophene) and [6,6]-Phenyl-C61-butyric Acid Methyl Ester Mixing in Organic Solar Cells. 2012 , 45, 6587-6599	93
251	Dumb-belled PCBM derivative with better photovoltaic performance. 2012 , 22, 1758-1761	29
250	Understanding Heterogeneous Nucleation in Binary, Solution-Processed, Organic Semiconductor Thin Films. 2012 , 24, 2920-2928	25
249	Reel-to-reel wet coating by variation of solvents and compounds of photoactive inks for polymer solar cell production. 2012 , 107, 283-291	32
248	Influence of a ternary donor material on the morphology of a P3HT:PCBM blend for organic photovoltaic devices. 2012 , 22, 15570	88
247	Grooved nanowires from self-assembling hairpin molecules for solar cells. 2012 , 6, 2032-40	51
246	X-ray and neutron reflectivity and electronic properties of PCBM-poly(bromo)styrene blends and bilayers with poly(3-hexylthiophene). 2012 , 22, 4364-4370	23
245	Excited-state dynamics and self-organization of poly(3-hexylthiophene) (P3HT) in solution and thin films. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 2347-55	3-4 67
244	Analysis of voltage and temperature dependent photocurrent collection in p3ht/pcbm solar cells. 2012 , 112, 114514	10
243	Structure and property development of poly(3-hexylthiophene) organogels probed with combined rheology, conductivity and small angle neutron scattering. 2012 , 8, 8854	37
242	Strategies for controlling the active layer morphologies in OPVs. 2012 , 50, 1045-1056	31
241	Light-trapping plasmonic nanovoid arrays. 2012 , 85,	32
240	Direct patterning of conductive polymer domains for photovoltaic devices. 2012 , 4, 4015-23	18
239	Biomaterials-based electronics: polymers and interfaces for biology and medicine. 2012 , 1, 248-66	133
238	Interlayer adhesion in roll-to-roll processed flexible inverted polymer solar cells. 2012 , 97, 171-175	173
237	Impedance spectrometry of optimized standard and inverted P3HT-PCBM organic solar cells. 2012 , 101, 210-216	132
236	Transport and spectroscopic studies of the effects of fullerene structure on the efficiency and lifetime of polythiophene-based solar cells. 2012 , 100, 192-198	4

235	Film stresses and electrode buckling in organic solar cells. 2012 , 103, 80-85		21
234	Degradation mechanisms in organic photovoltaic devices. 2012 , 13, 432-456		361
233	Nano-morphology characterization of organic bulk heterojunctions based on mono and bis-adduct fullerenes. 2012 , 13, 1315-1321		15
232	Thermal stability of P3HT and P3HT:PCBM blends in the molten state. 2013 , 32, 1192-1201		38
231	Effect of Processing Additives on the Solidification of Blade-Coated Polymer/Fullerene Blend Films via In-Situ Structure Measurements. 2013 , 3, 938-948		89
230	Structure-processing-property correlations in solution-processed, small-molecule, organic solar cells. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 5250	7.1	22
229	Improved thermal stability of bulk heterojunctions based on side-chain functionalized poly(3-alkylthiophene) copolymers and PCBM. 2013 , 110, 69-76		49
228	Quantifying organic solar cell morphology: a computational study of three-dimensional maps. 2013 , 6, 3060		40
227	Indolocarbazoles end-capped with diketopyrrolopyrroles: impact of regioisomerism on the solid-state properties and the performance of solution-processed bulk heterojunction solar cells. 2013 , 1, 14686		15
226	Fast ultrahigh-density writing of low-conductivity patterns on semiconducting polymers. 2013 , 4, 2668		12
225	A comparative study on the influence of alkyl thiols on the structural transformations in P3HT/PCBM and P3OT/PCBM blends. 2013 , 54, 6785-6792		22
224	Novel Cyclopentadithiophene-Based D π A Copolymers for Organic Photovoltaic Cell Applications. 2013 , 214, 2144-2156		8
223	Directly probing the molecular order of conjugated polymer in OPV blends induced by different film thicknesses, substrates and additives. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 6235	7.1	37
222	Thermally Stable Bulk Heterojunction Solar Cells Based on Cross-Linkable Acrylate-Functionalized Polythiophene Diblock Copolymers. 2013 , 46, 785-795		42
221	Polymer-regulated epitaxial crystallization of methanofullerene on mica. 2013 , 15, 1208-15		15
220	Investigation of aged organic solar cell stacks by cross-sectional transmission electron microscopy coupled with elemental analysis. 2013 , 48, 2908-2919		5
219	X-ray based tools for the investigation of buried interfaces in organic electronic devices. 2013 , 14, 479-487		13
218	Structural and dynamical characterization of P3HT/PCBM blends. 2013 , 427, 142-146		29

217	Imidazolium-substituted ionic (co)polythiophenes: Compositional influence on solution behavior and thermal properties. 2013 , 54, 6293-6304	25
216	Controlling the morphology and performance of bulk heterojunctions in solar cells. Lessons learned from the benchmark poly(3-hexylthiophene):[6,6]-phenyl-C61-butyric acid methyl ester system. 2013 , 113, 3734-65	516
215	Solubility, Miscibility, and the Impact on Solid-State Morphology. 2013 , 1-38	1
214	Correlation of polymeric compatibilizer structure to its impact on the morphology and function of P3HT:PCBM bulk heterojunctions. 2013 , 1, 5309	30
213	Self-Assembly of Selective Interfaces in Organic Photovoltaics. 2013 , 23, 1935-1946	49
212	Solvent-free phenyl-C61-butyric acid methyl ester (PCBM) from clathrates: insights for organic photovoltaics from crystal structures and molecular dynamics. 2013 , 49, 4525-7	43
211	Nucleation-limited fullerene crystallisation in a polymerfullerene bulk-heterojunction blend. 2013 , 1, 7174	50
210	The role of dynamic measurements in correlating structure with optoelectronic properties in polymer : fullerene bulk-heterojunction solar cells. 2013 , 76, 022501	37
209	Phase separation-driven stratification in conventional and inverted P3HT:PCBM organic solar cells. 2013 , 14, 1249-1254	27
208	Influence of fullerene photodimerization on the PCBM crystallization in polymer: Fullerene bulk heterojunctions under thermal stress. 2013 , 51, 1209-1214	64
207	Correlating dilute solvent interactions to morphology and OPV device performance. 2013 , 14, 2431-2443	28
206	Correlating Stiffness, Ductility, and Morphology of Polymer:Fullerene Films for Solar Cell Applications. 2013 , 3, 399-406	113
205	Enhanced thermal stability of organic solar cells by using photolinkable end-capped polythiophenes. 2013 , 4, 4145	18
204	Triple shape memory effects of cross-linked polyethylene/polypropylene blends with cocontinuous architecture. 2013 , 5, 5550-6	125
203	Stabilization of PCBM domains in bulk heterojunctions using polystyrene-tethered fullerene. 2013 , 118, 96-101	3
202	Modification of PCBM Crystallization via Incorporation of C60 in Polymer/Fullerene Solar Cells. 2013 , 23, 514-522	65
201	The effect of photocrosslinkable groups on thermal stability of bulk heterojunction solar cells based on donor-acceptor-conjugated polymers. 2013 , 51, 4156-4166	18
200	Three-Dimensional Concentration Mapping of Organic Blends. 2013 , 23, 2115-2122	60

199	Characterization and optimization of poly (3-hexylthiophene-2, 5- diyl) (P3HT) and [6, 6] phenyl-C61-butyric acid methyl ester (PCBM) blends for optical absorption. 2013 , 4, 93-102		10
198	. 2014 ,		76
197	The effect of calcium-induced fullerene migration on the performance of thermally stable nanoparticle organic solar cells. 2014 , 116, 124502		5
196	P3HT-Based Solar Cells: Structural Properties and Photovoltaic Performance. 2014 , 181-232		8
195	Decohesion kinetics in polymer organic solar cells. 2014 , 6, 21474-83		45
194	P3HT Revisited [From Molecular Scale to Solar Cell Devices. 2014 ,		56
193	High open circuit voltage organic solar cells based upon fullerene free bulk heterojunction active layers. <i>Canadian Journal of Chemistry</i> , 2014 , 92, 932-939	0.9	4
192	Toward bulk heterojunction polymer solar cells with thermally stable active layer morphology. 2014 , 4, 040997		41
191	Multiscale study of the effect of solvent on the glass transition temperature, molecule diffusion, and reorientation of P3HT-PCBM. 2014 ,		
190	Amphiphilic N-methylimidazole-functionalized diblock copolythiophenes. 2014 , 53, 206-214		21
189	Facile Monitoring of Fullerene Crystallization in Polymer Solar Cell Blends by UV-Vis Spectroscopy. 2014 , 215, 530-535		15
188	Increase in thermo-oxidation stability of conjugated polymers at high temperatures. 2014 , 34, 183-191		10
187	Electron Barrier Formation at the Organic-Back Contact Interface is the First Step in Thermal Degradation of Polymer Solar Cells. 2014 , 24, 3978-3985		84
186	Morphological Stabilization by Supramolecular Perfluorophenyl-C60 Interactions Leading to Efficient and Thermally Stable Organic Photovoltaics. 2014 , 24, 1418-1429		46
185	Fullerene Nucleating Agents: A Route Towards Thermally Stable Photovoltaic Blends. 2014 , 4, 1301437		60
184	Organic Photovoltaic Morphology. 2014 , 377-420		2
183	Interplay between annealing temperature and optimum composition and fullerene aggregation effects in bulk heterojunction photocells based on poly(3-hexylthiophene) and unmodified C60. 2014 , 120, 136-142		13
182	Correlating structure and photocurrent for composite semiconducting nanoparticles with contrast variation small-angle neutron scattering and photoconductive atomic force microscopy. 2014 , 8, 4313-24		33

181	Modelling of P3HT:PCBM interface using coarse-grained forcefield derived from accurate atomistic forcefield. 2014 , 16, 4653-63		38
180	Enhanced intrinsic stability of the bulk heterojunction active layer blend of polymer solar cells by varying the polymer side chain pattern. 2014 , 15, 549-562		38
179	Supramolecular engineering of oligothiophene nanorods without insulators: hierarchical association of rosettes and photovoltaic properties. 2014 , 20, 16128-37		35
178	Performance enhancement of polymer-based solar cells by induced phase-separation with silica particles. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 10087-10100	7.1	5
177	Fabrication conditions for efficient organic photovoltaic cells from aqueous dispersions of nanoparticles. 2014 , 4, 45325-45331		43
176	Sub-glass transition annealing enhances polymer solar cell performance. 2014 , 2, 6146-6152		43
175	Electron transport in crystalline PCBM-like fullerene derivatives: a comparative computational study. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 7313-7325	7.1	36
174	A general mechanism for controlling thin film structures in all-conjugated block copolymer:fullerene blends. 2014 , 2, 14711-14719		13
173	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. 2014 , 1, 1400135		24
172	Structural and electronic properties of the P3HT/PCBM dimer: A theoretical Study. 2014 , 612, 234-239		14
171	The Impact of Fullerene Structure on Its Miscibility with P3HT and Its Correlation of Performance in Organic Photovoltaics. 2014 , 26, 3993-4003		23
170	Electrical impedance studies of optimized standard P3HT:PC 70 BM organic bulk heterojunctions solar cells. 2014 , 75, 416-423		8
169	Split-second nanostructure control of a polymer:fullerene photoactive layer using intensely pulsed white light for highly efficient production of polymer solar cells. 2014 , 6, 1495-501		13
168	Synthesis of hyperbranched polythiophenes containing tetrachloroperylene bisimide as bridging moiety for polymer solar cells. 2014 , 55, 6058-6068		11
167	Thermal [6,6] - \leftrightarrow [6,6] Isomerization and Decomposition of PCBM (Phenyl-C61-butyrac Acid Methyl Ester). 2014 , 26, 2361-2367		24
166	Advanced dielectric polymer nanocomposites by constructing a ternary continuous structure in polymer blends containing poly(methyl methacrylate) (PMMA) modified carbon nanotubes. 2014 , 2, 10614		42
165	Solution-processed Ga-doped ZnO nanorod arrays as electron acceptors in organic solar cells. 2014 , 6, 5308-18		32
164	Self-Assembly of Poly(3-hexylthiophene)-block-poly(Ebenzyl-L-glutamate) within Solution-Cast Films and Nanofibers. 2014 , 299, 1484-1493		5

163	Conjugated Polymer-Based Blends, Copolymers, and Composites: Synthesis, Properties, and Applications. 2015 , 1-118	5
162	Morphology and Performance of Polymer Solar Cell Characterized by DPD Simulation and Graph Theory. 2015 , 5, 16854	49
161	Hydrogen bonds in PC61BM solids. 2015 , 5, 097201	8
160	Entanglements in P3HT and their influence on thin-film mechanical properties: Insights from molecular dynamics simulations. 2015 , 53, 934-942	49
159	Rapid and Facile Formation of P3HT Organogels via Spin Coating: Tuning Functional Properties of Organic Electronic Thin Films. 2015 , 25, 5848-5857	13
158	The Investigation of CuOx Anode Interlayer Effect in Working Performance and Charge Carrier Transport in Hybrid Solar Cells with Inverted Structure. 2015 , 353, 121-127	
157	. 2015 ,	26
156	On the Glass Transition of Polymer Semiconductors and Its Impact on Polymer Solar Cell Stability. 2015 , 27, 2740-2754	159
155	Simultaneous Enhancement of Solar Cell Efficiency and Stability by Reducing the Side Chain Density on Fluorinated PCPDTQx Copolymers. 2015 , 48, 3873-3882	22
154	Sequential Processing for Organic Photovoltaics: Design Rules for Morphology Control by Tailored Semi-Orthogonal Solvent Blends. 2015 , 5, 1402020	63
153	[70]PCBM and Incompletely Separated Grades of Methanofullerenes Produce Bulk Heterojunctions with Increased Robustness for Ultra-Flexible and Stretchable Electronics. 2015 , 27, 3902-3911	45
152	Optimizing the fabrication process and interplay of device components of polymer solar cells using a field-based multiscale solar-cell algorithm. 2015 , 142, 184902	2
151	The effects of structural disorders and microstructural mechanisms on semi-crystalline P3HT behavior. 2015 , 57, 1-11	12
150	Methods for improving the lifetime performance of organic photovoltaics with low-costing encapsulation. 2015 , 16, 1134-54	59
149	Phase Diagram of Conjugated Polymer Blend P3HT/PF12TBT and the Morphology-Dependent Photovoltaic Performance. 2015 , 119, 1729-1736	16
148	Elimination of burn-in open-circuit voltage degradation by ZnO surface modification in organic solar cells. 2015 , 7, 1608-15	43
147	Enhanced Organic Solar Cell Stability by Polymer (PCPDTBT) Side Chain Functionalization. 2015 , 27, 1332-1341	62
146	Analysis of carrier transport in photovoltaic structures of P3HT with CdSe nanocrystals. 2015 , 334, 169-173	6

145	Isothermal structure development in submicron P3HT layers studied by fast scanning chip calorimetry. 2015 , 57, 39-44	22
144	In Situ Characterization of Polymer/Fullerene Bilayer Stability. 2015 , 48, 383-392	103
143	Viability of stretchable poly(3-heptylthiophene) (P3HpT) for organic solar cells and field-effect transistors. 2015 , 203, 208-214	67
142	Predicting thermal stability of organic solar cells through an easy and fast capacitance measurement. 2015 , 141, 240-247	33
141	Mapping fullerene crystallization in a photovoltaic blend: an electron tomography study. 2015 , 7, 8451-6	13
140	Bimodal crystallization at polymer-fullerene interfaces. 2015 , 17, 2216-27	18
139	Isothermal Crystallization of PC61BM in Thin Layers Far below the Glass Transition Temperature. 2015 , 15, 5614-5623	12
138	Three-Phase Morphology of Semicrystalline Polymer Semiconductors: A Quantitative Analysis. 2015 , 4, 1051-1055	21
137	Improved Thermal Stability of Polymer Solar Cells by Incorporating Porphyrins. 2015 , 25, 748-757	36
136	Role of molecular mixing on the stiffness of polymer:fullerene bulk heterojunction films. 2015 , 134, 64-72	18
135	Mechanical degradation and stability of organic solar cells: molecular and microstructural determinants. 2015 , 8, 55-80	172
134	Morphology and interdiffusion control to improve adhesion and cohesion properties in inverted polymer solar cells. 2015 , 132, 443-449	21
133	Flexible Textile-Based Organic Transistors Using Graphene/Ag Nanoparticle Electrode. 2016 , 6,	12
132	Plasmonic effects and the morphology changes on the active material P3HT:PCBM used in polymer solar cells using Raman spectroscopy. 2016 , 47, 888-894	7
131	Microstructural behavior and failure mechanisms of organic semicrystalline thin film blends. 2016 , 54, 896-907	10
130	Influence of the amorphous phase and preceding solution processing on the eutectic behaviour in the state diagram of P3HT : PC61BM determined by rapid heat/cool calorimetry. 2016 , 6, 92981-92988	5
129	Predicting the Mechanical Properties of Organic Semiconductors Using Coarse-Grained Molecular Dynamics Simulations. 2016 , 49, 2886-2894	49
128	Boron doped ZnO films for dye-sensitized solar cell (DSSC): effect of annealing temperature. 2016 , 27, 8394-8401	5

127	New Insights into the Molecular Dynamics of P3HT:PCBM Bulk Heterojunction: A Time-of-Flight Quasi-Elastic Neutron Scattering Study. 2016 , 7, 2252-7	16
126	Photo-degradation in air of the active layer components in a thiophene-quinoxaline copolymer:fullerene solar cell. 2016 , 18, 11132-8	16
125	Mechanical Properties of Solution-Processed Small-Molecule Semiconductor Films. 2016 , 8, 11649-57	46
124	Spectroscopic Investigations of Three-Phase Morphology Evolution in Polymer: Fullerene Solar Cell Blends. 2016 , 120, 10806-10814	35
123	Comparison of the Morphology Development of PolymerFullerene and PolymerPolymer Solar Cells during Solution-Shearing Blade Coating. 2016 , 6, 1601225	73
122	Molecular dynamics simulation of poly(3-hexylthiophene) helical structure In Vacuo and in amorphous polymer surrounding. 2016 , 54, 2448-2456	10
121	Induced Infiltration of Hole-Transporting Polymer into Photocatalyst for Staunch Polymer-Metal Oxide Hybrid Solar Cells. 2016 , 8, 25915-25922	4
120	Packing and Disorder in Substituted Fullerenes. 2016 , 120, 17242-17250	23
119	. 2016 ,	5
118	New insight of molecular interaction, crystallization and phase separation in higher performance small molecular solar cells via solvent vapor annealing. 2016 , 30, 639-648	58
117	Thermal stabilization of organic photovoltaic cells using [6,6]-phenyl C61-butyric acid methyl ester analogs: Effects of alkyl substituents on the nanostructures of bulk heterojunction films and their stabilities. 2016 , 221, 61-66	2
116	Harnessing StructureProperty Relationshipsfor Poly(alkyl thiophene)Fullerene Derivative Thin Films to Optimize Performance in Photovoltaic Devices. 2016 , 26, 1908-1920	7
115	Bulk heterojunction organic photovoltaics from water-processable nanomaterials and their facile fabrication approaches. 2016 , 235, 56-69	17
114	Phase behavior of blends of PCBM with amorphous polymers with different aromaticity. 2016 , 54, 994-1001	13
113	Lifetime of Organic Photovoltaics: Status and Predictions. 2016 , 6, 1501208	104
112	A QTAIM topological analysis of the P3HT?PCBM dimer. 2016 , 644, 157-162	8
111	Relaxation and Conductivity in P3HT/PC71BM Blends As Revealed by Dielectric Spectroscopy. 2016 , 49, 2709-2717	16
110	Mechanism of Metal Oxide Deposition from Atomic Layer Deposition inside Nonreactive Polymer Matrices: Effects of Polymer Crystallinity and Temperature. 2016 , 28, 2668-2676	24

109	Morphological control and performance improvement of organic photovoltaic layer of roll-to-roll coated polymer solar cells. 2016 , 150, 10-18		15
108	Cathode deposition, paramagnetic defect formation and performance degradation in polymerfullerene solar cells. 2016 , 129, 20-27		2
107	Thermal behaviour below and inside the glass transition region of a submicron P3HT layer studied by fast scanning chip calorimetry. 2016 , 83, 59-66		15
106	Approaches to Stretchable Polymer Active Channels for Deformable Transistors. 2016 , 49, 433-444		51
105	Raman spectroscopy as an advanced structural nanoprobe for conjugated molecular semiconductors. 2017 , 50, 073001		58
104	Organic photovoltaic annealing process analysis using impedance spectroscopy. 2017 , 144, 367-375		5
103	Plasmonic Nanospectroscopy for Thermal Analysis of Organic Semiconductor Thin Films. 2017 , 89, 2575-2582		24
102	A fullerene alloy based photovoltaic blend with a glass transition temperature above 200 °C. 2017 , 5, 4156-4162		16
101	Effect of Selective Contacts on the Thermal Stability of Perovskite Solar Cells. 2017 , 9, 7148-7153		145
100	New 3,3'-(ethane-1,2-diylidene)bis(indolin-2-one) (EBI)-based small molecule semiconductors for organic solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 5143-5153	7.1	4
99	Effect of heat, UV radiation, and moisture on the decohesion kinetics of inverted organic solar cells. 2017 , 170, 239-245		8
98	Morphology visualization of P3HT:Fullerene blends by using subsurface atomic layer deposition. 2017 , 49, 234-241		11
97	Analysis of electrical and thermal stress effects on PCBM:P3HT solar cells by photocurrent and impedance spectroscopy modeling. 2017 ,		1
96	Unravelling the Thermomechanical Properties of Bulk Heterojunction Blends in Polymer Solar Cells. 2017 , 50, 3347-3354		46
95	Grating-coupled surface plasmon resonance enhanced organic photovoltaic devices induced by Blu-ray disc recordable and Blu-ray disc grating structures. 2017 , 9, 4963-4971		22
94	Nanoporous poly(3-hexylthiophene) thin film structures from self-organization of a tunable molecular bottlebrush scaffold. 2017 , 9, 7071-7080		17
93	Factors affecting tacticity and aggregation of P3HT polymers in P3HT:PCBM blends. 2017 , 43, 743-755		4
92	Aqueous Nanoparticle Polymer Solar Cells: Effects of Surfactant Concentration and Processing on Device Performance. 2017 , 9, 13380-13389		44

91	Progress in Understanding Degradation Mechanisms and Improving Stability in Organic Photovoltaics. 2017 , 29, 1603940	248
90	Stability and reliability of P3HT:PC61BM inverted organic solar cells. 2017 , 161, 407-415	21
89	Boosting the photovoltaic thermal stability of fullerene bulk heterojunction solar cells through charge transfer interactions. 2017 , 5, 23662-23670	13
88	Quantitative Analysis of the Molecular Dynamics of P3HT:PCBM Bulk Heterojunction. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 9073-9080	3-4 18
87	A new strategy to engineer polymer bulk heterojunction solar cells with thick active layers via self-assembly of the tertiary columnar phase. 2017 , 9, 11511-11522	8
86	Enhanced Long-term and Thermal Stability of Polymer Solar Cells in Air at High Humidity with the Formation of Unusual Quantum Dot Networks. 2017 , 9, 26257-26267	14
85	Muscovite mica as a growth template of PC61BM crystallites for organic photovoltaics. 2017 , 19, 4424-4436	3
84	Synergetic Effect of a Surfactant on the Facile Fabrication and High Detectivity of an Inverted Organic Bulk Heterojunction Photodiode. 2017 , 4, 2085-2090	19
83	Crystallization Mechanism and Charge Carrier Transport in MAPLE-Deposited Conjugated Polymer Thin Films. 2017 , 9, 44799-44810	12
82	A thermally and mechanically stable solar cell made of a small-molecule donor and a polymer acceptor. 2017 , 5, 15923-15931	16
81	Glass Transition Temperature of Conjugated Polymers by Oscillatory Shear Rheometry. 2017 , 50, 5146-5154	58
80	Probing the bulk heterojunction morphology in thermally annealed active layers for polymer solar cells. 2017 , 41, 319-326	8
79	Advances in Polymer/Fullerene Nanocomposite: A Review on Essential Features and Applications. 2017 , 56, 594-605	41
78	Ion irradiation induced modifications of P3HT: A donor material for organic photovoltaic devices. 2017 , 135, 73-85	9
77	Interfacial Engineering of fullerenol using thiophene for solution processable solar cell: Effect of thiophenated fullerene on the miscibility with poly(3-hexylthiophene). 2017 , 215, 219-225	
76	Quantitative Evaluation of Molecular Diffusion in Organic Planar Heterojunctions by Time-of-Flight Secondary Ion Mass Spectroscopy. 2018 , 3, 1522-1528	10
75	Direct Calorimetric Observation of the Rigid Amorphous Fraction in a Semiconducting Polymer. 2018 , 9, 990-995	48
74	Controlling nanoparticle crystallinity and surface enrichment in polymer (P3HT)/Nanoparticle(PCBM) blend films with tunable soft confinement. 2018 , 136, 37-46	3

73	Melt-processing of small molecule organic photovoltaics bulk heterojunction compatibilization. 2018 , 20, 2218-2224	7
72	A Simple Linear Acceptor with Dye-Based Flanking Groups. 2018 , 35-62	
71	Determination of P3HT Trap Site Energies by Thermally Stimulated Current. 2018 , 47, 1611-1619	3
70	OrderDisorder Phase Equilibria of Regioregular Poly(3-hexylthiophene-2,5-diyl) Solution. 2018 , 51, 9026-9034	8
69	Hole Transport in Low-Donor-Content Organic Solar Cells. 2018 , 9, 5496-5501	28
68	The effects of the PEDOT:PSS acidity on the performance and stability of P3HT:PCBM-based OSCs. 2018 , 29, 19287-19295	11
67	P3HT:PCBM blend films phase diagram on the base of variable-temperature spectroscopic ellipsometry. 2018 , 9, 1108-1115	11
66	Solution self-assembly of poly(3-hexylthiophene)poly(lactide) brush copolymers: impact of side chain arrangement. 2018 , 9, 3279-3286	15
65	Resonant Grazing-Incidence Small-Angle X-ray Scattering at the Sulfur K-Edge for Material-Specific Investigation of Thin-Film Nanostructures. 2018 , 9, 3081-3086	10
64	From PCBM-Polymer to Low-Cost and Thermally Stable C60/C70-Polymer Solar Cells: The Role of Molecular Structure, Crystallinity, and Morphology Control. 2018 , 10, 24037-24045	9
63	Aggregation and Solubility of a Model Conjugated Donor-Acceptor Polymer. 2018 , 9, 4802-4807	23
62	Real-Time Tracking of Polymer Crystallization Dynamics in Organic Bulk Heterojunctions by Raman Microscopy. 2018 , 122, 19289-19297	6
61	Brownian orientational lath model (BOLD): A computational model relating the self-assembly in a fluid of lath like particles with its rheology and gelation. 2018 , 13, e0191785	
60	Fast scanning chip calorimetry study of P3HT/PC61BM submicron layers: structure formation and eutectic behaviour. 2019 , 68, 277-282	4
59	In Situ Generation of Fullerene from a Poly(fullerene). 2019 , 57, 1434-1452	2
58	Mechanistic Insights into the Effect of Polymer Regioregularity on the Thermal Stability of Polymer Solar Cells. 2019 , 11, 40310-40319	5
57	Impact of P3HT materials properties and layer architecture on OPV device stability. 2019 , 202, 110151	10
56	Functional nanostructured surfaces induced by laser on fullerene thin films. 2019 , 476, 668-675	6

55	Diffusion-Limited Crystallization: A Rationale for the Thermal Stability of Non-Fullerene Solar Cells. 2019 , 11, 21766-21774	56
54	Simulating morphologies of organic semiconductors by exploiting low-frequency vibrational modes. 2019 , 150, 164115	1
53	Probing the Relationship between Molecular Structures, Thermal Transitions, and Morphology in Polymer Semiconductors Using a Woven Glass-Mesh-Based DMTA Technique. 2019 , 31, 6740-6749	17
52	Glass Transition Phenomenon for Conjugated Polymers. 2019 , 220, 1900062	40
51	Random Copolymers Outperform Gradient and Block Copolymers in Stabilizing Organic Photovoltaics. 2019 , 29, 1900467	4
50	Degradation pathways in standard and inverted DBP-C based organic solar cells. 2019 , 9, 4024	13
49	Evidencing Excellent Thermal- and Photostability for Single-Component Organic Solar Cells with Inherently Built-In Microstructure. 2019 , 9, 1900409	67
48	Pattern formation aspects of electrically charged tri-stable media with implications to bulk heterojunction in organic photovoltaics. 2019 , 125, 38001	2
47	Polythiophene Doping of the Cu-Based Metal-Organic Framework (MOF) HKUST-1 Using Innate MOF-Initiated Oxidative Polymerization. 2019 , 58, 5561-5575	15
46	Challenge and Solution of Characterizing Glass Transition Temperature for Conjugated Polymers by Differential Scanning Calorimetry. 2019 , 57, 1635-1644	18
45	Optimization of annealing temperature and the annealing effect on life time and stability of P3HT:PCBM-based organic solar cells. 2019 , 6, 045103	2
44	Monte Carlo Simulation for Investigation of Morphology Dependent Charge Transport in Bulk-Heterojunction Organic Solar Cells. 2019 , 123, 1527-1538	4
43	Thermal Transitions in P3HT:PC60BM Films Based on Electrical Resistance Measurements. 2020 , 12,	1
42	Correlating the Phase Behavior with the Device Performance in Binary Poly-3-hexylthiophene: Nonfullerene Acceptor Blend Using Optical Probes of the Microstructure. 2020 , 32, 8294-8305	13
41	Tuning the size and morphology of P3HT/PCBM composite nanoparticles: towards optimized water-processable organic solar cells. 2020 , 12, 22798-22807	7
40	Electrostatic potential imaging of phase-separated structures in organic materials via differential phase contrast scanning transmission electron microscopy. 2020 , 69, 304-311	1
39	Elasto-morphology of P3HT:PCBM bulk heterojunction organic solar cells. 2020 , 16, 6743-6751	6
38	Charge Carrier Transport and Generation via Trap-Mediated Optical Release in Organic Semiconductor Devices. 2020 , 124, 128001	12

37	Liquid-liquid equilibrium in polymer-fullerene mixtures; an in situ neutron reflectivity study. 2020 , 16, 3727-3739		2
36	Phase Behavior in the Active Layer of Small Molecule Organic Photovoltaics: State Diagram of p-DTS(FBTTh2)2:PC71BM. 2020 , 124, 7566-7577		1
35	Phase diagram of P3HT:PC70BM thin films based on variable-temperature spectroscopic ellipsometry. 2020 , 84, 106383		5
34	Enhancing P3HT/PCBM blend stability by thermal crosslinking using poly(3-hexylthiophene)-S,S-dioxide. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 7698-7707	7.1	7
33	MD simulation studies of the physical and mechanical properties of P3HT-based blends. 2021 , 99, 10-15		
32	Dynamics of the sub-ambient gelation and shearing of solutions of P3HT and P3HT blends towards active layer formation in bulk heterojunction organic solar cells. 2021 , 17, 1642-1654		0
31	The coupling and competition of crystallization and phase separation, correlating thermodynamics and kinetics in OPV morphology and performances. 2021 , 12, 332		64
30	Phase Diagrams of Ternary Conjugated Polymer Solutions for Organic Photovoltaics. 2021 , 13,		1
29	Methyl-Branched Side Chains on Polythiophene Suppress Chain Mobility and Crystallization to Enhance Photovoltaic Performance. 2021 , 54, 3689-3699		2
28	Enhancing thermal, viscoelastic, and optical properties of biodegradable fullerene(C60)/agarose/chitosan composite films for biotechnology. 2021 , 127, 1		0
27	Ubiquitous organic molecule-based free-standing nanowires with ultra-high aspect ratios. 2021 , 12, 4025		1
26	Providing a Window into the Phase Behavior of Semiconducting Polymers. 2021 , 54, 5304-5320		2
25	Wide Bandgap Perylene Diimide Derivatives as an Effective Third Component for Parallel Connected Ternary Blend Polymer Solar Cells. 2021 , 33, 7396-7407		6
24	Photochemical Stability of Materials for OPV. 71-108		4
23	Imaging layers in thin-film molecular devices by transmission electron microscopy, using milling by focused ion beams and deposition on NaCl and Si. <i>Canadian Journal of Chemistry</i> , 2020 , 98, 582-588	0.9	2
22	Bulk Heterojunction Morphology Control and Characterization. 2014 , 317-366		2
21	Properties of Charge Carrier Transport in Au/Phenyl C61Butyric Acid Methyl Ester/Au Structure. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 031601	1.4	1
20	High open-circuit voltage under the bulk photovoltaic effect for the chiral smectic crystal phase of a double chiral ferroelectric liquid crystal doped with a fullerene derivative. <i>Materials Chemistry Frontiers</i> , 2021 , 5, 8265-8274	7.8	3

19	Recent advances in intermixed phase of organic solar cells: Characterization, regulating strategies and device applications. <i>Journal of Polymer Science</i> ,	2.4	2
18	Fullerenes, Higher Fullerenes, and their Hybrids. 1-45		
17	Bending and pinching of three-phase stripes: From secondary instabilities to morphological deformations in organic photovoltaics. <i>Physical Review E</i> , 2020 , 102, 062213	2.4	0
16	Blending Donors with Different Molecular Weights: An Efficient Strategy to Resolve the Conflict between Coherence Length and Intermixed Phase in Polymer/Nonfullerene Solar Cells. <i>Small</i> , 2021 , 18, e2103804	11	8
15	Versatile methods for improving the mechanical properties of fullerene and non-fullerene bulk heterojunction layers to enable stretchable organic solar cells. <i>Journal of Materials Chemistry C</i> ,	7.1	4
14	Introducing neat fullerenes to improve the thermal stability of slot-die coated organic solar cells. <i>Materials Advances</i> , 2022 , 3, 2838-2849	3.3	
13	Thermally stable poly(3-hexylthiophene): Nonfullerene solar cells with efficiency breaking 10%. <i>Aggregate</i> ,	22.9	7
12	CHAPTER 6. Structure/Property/Processing Relationships for Organic Solar Cells. <i>RSC Nanoscience and Nanotechnology</i> , 182-225		
11	Submolecular Resolution Imaging of P3HT:PCBM Nanostructured Films by Atomic Force Microscopy: Implications for Organic Solar Cells. <i>ACS Applied Nano Materials</i> ,	5.6	1
10	Manipulating Conjugated Polymer Backbone Dynamics through Controlled Thermal Cleavage of Alkyl Side Chains. 2200533		0
9	Flexible solar and thermal energy conversion devices: Organic photovoltaics (OPVs), organic thermoelectric generators (OTEGs) and hybrid PV-TEG systems. 2022 , 29, 101614		0
8	Improving the photovoltaic performance of inverted perovskite solar cells via manipulating the molecular packing structure of PCBM.		0
7	Nucleation Front Proliferation in Bi-modal PCBM Crystals and a Crystal Fan \rightarrow Axial Morphological Transition..		0
6	Nucleation Front Proliferation in Bi-modal PCBM Crystals, the spherulite \rightarrow Axial transition.		0
5	Coexisting Glassy Phases with Different Compositions in NFA-Based Bulk Heterojunctions. 2125-2133		0
4	Kinetics of crystallization mechanisms in poly(3-hexylthiophene) and poly(9,9-dihexylfluorene-alt-2,5-didodecyloxybenzene) conjugated polymers. 2022 , 134270		0
3	Influence of the (E)-N-(4-diphenylamino)benzylidene)benzo[d]thiazol-2-imine on the dielectric properties of P3HT, PCBM and P3HT:PCBM system in a wide temperature and frequency range. 2023 , 287, 116161		0
2	Poly(3-hexylthiophene)-Based Organic Thin-Film Transistors with Virgin Graphene Oxide as an Interfacial Layer. 2022 , 14, 5061		0

- 1 A materials physics perspective on structure-processing-function relations in blends of organic semiconductors.

o