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Molecular design of photovoltaic materials for polymer solar cells: toward suitable electronic energy levels and broad absorption

DOI: 10.1021/ar2002446 Accounts of Chemical Research, 2012, 45, 723-33.

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2294	Effects of alkoxy chain length in alkoxy-substituted dihydronaphthyl-based [60]fullerene bisadduct acceptors on their photovoltaic properties. 2012 , 4, 5966-73		26
2293	Introduction of a conjugated side chain as an effective approach to improving donor ceptor photovoltaic polymers. 2012 , 5, 9756		104
2292	Design of benzodithiophene-diketopyrrolopyrrole based donor\(\textit{acceptor copolymers for efficient organic field effect transistors and polymer solar cells. \(\textit{2012}\), 22, 22734		62
2291	High-performance polymer solar cells with a conjugated zwitterion by solution processing or thermal deposition as the electron-collection interlayer. 2012 , 22, 24155		69
2290	Isomers of dialkyl diketo-pyrrolo-pyrrole: Electron-deficient units for organic semiconductors. 2012 , 13, 2516-2524		22
2289	Effect of Incorporated Nitrogens on the Planarity and Photovoltaic Performance of Donor Acceptor Copolymers. 2012 , 45, 6415-6423		46
2288	Small molecules based on benzo[1,2-b:4,5-b']dithiophene unit for high-performance solution-processed organic solar cells. 2012 , 134, 16345-51		538
2287	Synthesis and Photovoltaic Properties of a Donor-Acceptor Copolymer of Dithienosilole and 5,6-Bis(octyloxy)benzo[1,2,5]thiadiazole. 2012 , 213, 2529-2535		2
2286	High-efficiency polymer solar cells based on phenylenevinylene copolymer with BF2-azopyrrole complex and CN-PC70BM with solvent additive. 2012 , 50, 1612-1618		7
2285	Synthesis and application of dithieno[2,3-d:2?,3?-d?]benzo[1,2-b:4,5-b?]dithiophene in conjugated polymer. 2012 , 22, 21362		61
2284	Fine-tuning device performances of small molecule solar cells via the more polarized DPP-attached donor units. 2012 , 14, 14238-42		50

(2012-2012)

2283	Evolution of polymer photovoltaic performances from subtle chemical structure variations. 2012 , 14, 15127-34	7
2282	Theoretical Investigations on DonorAcceptor Conjugated Copolymers Based on Naphtho[1,2-c:5,6-c]bis[1,2,5]thiadiazole for Organic Solar Cell Applications. 2012 , 116, 26154-26161	54
2281	Quinoxaline-Based Semiconducting Polymers: Effect of Fluorination on the Photophysical, Thermal, and Charge Transport Properties. 2012 , 45, 6380-6389	57
2280	Oxazolination of 1,4-(PhCH2)2C60: toward a better understanding of multiadditions of heteroaddends. 2012 , 14, 3482-5	12
2279	Synthesis and photovoltaic performances of conjugated copolymers with 4,7-dithien-5-yl-2,1,3-benzothiadiazole and di(p-tolyl)phenylamine side groups. 2012 , 22, 22913	26
2278	Benzo[1,2-b:4,5-b?]difuran-Based DonorAcceptor Copolymers for Polymer Solar Cells. 2012 , 45, 6898-6905	93
2277	Self-Assembly of Well-Defined Poly(3-hexylthiophene) Nanostructures toward the Structure P roperty Relationship Determination of Polymer Solar Cells. 2012 , 116, 23858-23863	27
2276	Development of a new diindenopyrazineBenzotriazole copolymer for multifunctional application in organic field-effect transistors, polymer solar cells and light-emitting diodes. 2012 , 13, 1671-1679	18
2275	Functionalized dihydronaphthyl-C60 derivatives as acceptors for efficient polymer solar cells with tunable photovoltaic properties. 2012 , 104, 113-120	24
2274	Conjugated and Nonconjugated Substitution Effect on Photovoltaic Properties of Benzodifuran-Based Photovoltaic Polymers. 2012 , 45, 6923-6929	125
2273	A star-shaped oligothiophene end-capped with alkyl cyanoacetate groups for solution-processed organic solar cells. 2012 , 48, 9655-7	67
2272	Enhancing the photocurrent in diketopyrrolopyrrole-based polymer solar cells via energy level control. 2012 , 134, 13787-95	249
2271	Synthesis and thin-film transistor performance of benzodipyrrolinone and bithiophene donor-acceptor copolymers. 2012 , 22, 22282	35
2270	Synthesis of a New Ladder-Type Benzodi(cyclopentadithiophene) Arene with Forced Planarization Leading to an Enhanced Efficiency of Organic Photovoltaics. 2012 , 24, 3964-3971	94
2269	Influence of alkyl chain branching positions on the hole mobilities of polymer thin-film transistors. 2012 , 24, 6457-61	493
2268	Palladium-Catalyzed Direct CH Arylation of Thieno[3,4-b]pyrazines: Synthesis of Advanced Oligomeric and Polymeric Materials. 2012 , 2012, 5540-5551	45
2267	Detection and distinction of DNT and TNT with a fluorescent conjugated polymer using the microwave conductivity technique. 2012 , 116, 10371-8	27
2266	Solution-Processed Tungsten Oxide as an Effective Anode Buffer Layer for High-Performance Polymer Solar Cells. 2012 , 116, 18626-18632	142

2265	Photovoltaic effect of individual polymer nanotube. 2012 , 100, 173902	5
2264	Effect of Oligothiophene Bridge Length on the Photovoltaic Properties of DA Copolymers Based on Carbazole and Quinoxalinoporphyrin. 2012 , 45, 7806-7814	47
2263	Fine tuning the HOMO energy levels of polythieno[3,4-b]thiophene derivatives by incorporation of thiophene-3,4-dicarboxylate moiety for photovoltaic applications. 2012 , 162, 2005-2009	10
2262	Alcohol soluble titanium(IV) oxide bis(2,4-pentanedionate) as electron collection layer for efficient inverted polymer solar cells. 2012 , 13, 2429-2435	28
2261	A crystalline D-EA organic small molecule with naphtho[1,2-b:5,6-b?]dithiophene-core for solution processed organic solar cells. 2012 , 13, 3183-3194	27
2260	Improving the performance of polymer solar cells by altering polymer side chains and optimizing film morphologies. 2012 , 13, 3234-3243	17
2259	Toward high performance inverted polymer solar cells. 2012 , 53, 5437-5448	53
2258	New acceptor-pended conjugated polymers based on 3,6- and 2,7-carbazole for polymer solar cells. 2012 , 53, 5675-5683	28
2257	Side Chain Engineering of Polythiophene Derivatives with a Thienylene Vinylene Conjugated Side Chain for Application in Polymer Solar Cells. 2012 , 45, 2312-2320	49
2256	High performance polymeric charge recombination layer for organic tandem solar cells. 2012 , 5, 9827	171
2255	Bithiopheneimide-dithienosilole/dithienogermole copolymers for efficient solar cells: information from structure-property-device performance correlations and comparison to thieno[3,4-c]pyrrole-4,6-dione analogues. 2012 , 134, 18427-39	239
225		
2254	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge units. 2012 , 22, 21024	59
2254	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge	59 67
	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge units. 2012, 22, 21024 Poly(thieno[3,2-b]thiophene-alt-bithiazole): A DA Copolymer Donor Showing Improved	
2253	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge units. 2012, 22, 21024 Poly(thieno[3,2-b]thiophene-alt-bithiazole): A DA Copolymer Donor Showing Improved Photovoltaic Performance with Indene-C60 Bisadduct Acceptor. 2012, 45, 6930-6937 Dibenzothiophene-Based Planar Conjugated Polymers for High Efficiency Polymer Solar Cells. 2012	67
2253	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge units. 2012, 22, 21024 Poly(thieno[3,2-b]thiophene-alt-bithiazole): A DA Copolymer Donor Showing Improved Photovoltaic Performance with Indene-C60 Bisadduct Acceptor. 2012, 45, 6930-6937 Dibenzothiophene-Based Planar Conjugated Polymers for High Efficiency Polymer Solar Cells. 2012, 45, 7843-7854 Incorporation of Pyrene Units to Improve Hole Mobility in Conjugated Polymers for Organic Solar	67 43
2253 2252 2251	Design, synthesis and photovoltaic properties of a new DA polymer with extended Ebridge units. 2012, 22, 21024 Poly(thieno[3,2-b]thiophene-alt-bithiazole): A DA Copolymer Donor Showing Improved Photovoltaic Performance with Indene-C60 Bisadduct Acceptor. 2012, 45, 6930-6937 Dibenzothiophene-Based Planar Conjugated Polymers for High Efficiency Polymer Solar Cells. 2012, 45, 7843-7854 Incorporation of Pyrene Units to Improve Hole Mobility in Conjugated Polymers for Organic Solar Cells. 2012, 45, 8628-8638 Pd/C as a Clean and Effective Heterogeneous Catalyst for CC Couplings toward Highly Pure	67 43 65

2247	Solution-processed vanadium oxide as a hole collection layer on an ITO electrode for high-performance polymer solar cells. 2012 , 14, 14589-95	65
2246	Synthesis, Properties, and Photovoltaic Performances of DonorAcceptor Copolymers Having Dioxocycloalkene-Annelated Thiophenes As Acceptor Monomer Units. 2012 , 45, 4564-4571	55
2245	Development of Solar Cells Based on Synthetic Near-Infrared Absorbing Purpurins 2: Use of Fullerene and Its Derivative As Electron Acceptors for Favorable Charge Separation. 2012 , 116, 21244-21254	17
2244	Chain-growth polymerization of 2-chlorothiophenes promoted by Lewis acids. 2012 , 134, 18916-9	31
2243	Copolymers from naphtho[2,3-c]thiophene-4,9-dione derivatives and benzodithiophene: synthesis and photovoltaic applications. 2012 , 2, 7439	18
2242	Large-scale, ultra-dense and vertically standing zinc phthalocyanine lstacks as a hole-transporting layer on an ITO electrode. 2012 , 22, 23492	16
2241	Conjugated Side-Chain-Isolated DA Copolymers Based on Benzo[1,2-b:4,5-b?]dithiophene-alt-dithienylbenzotriazole: Synthesis and Photovoltaic Properties. 2012 , 24, 3247-3254	247
2240	High efficiency polymer solar cells based on poly(3-hexylthiophene)/indene-C70 bisadduct with solvent additive. 2012 , 5, 7943	364
2239	Optoelectronic properties of dicyanofluorene-based n-type polymers. 2012 , 7, 1845-52	13
2238	Effects of Solubilizing Group Modification in Fullerene Bis-Adducts on Normal and Inverted Type Polymer Solar Cells. 2012 , 24, 2373-2381	144
2237	Solution-processed nickel acetate as hole collection layer for polymer solar cells. 2012 , 14, 14217-23	71
2236	Highly efficient polymer solar cells based on poly(carbazole-alt-thiophene-benzofurazan). 2012 , 36, 2042	40
2235	Effect of substituents on the aggregate structure and photovoltaic property of violanthrone derivatives. 2012 , 95, 377-383	6
2234	Using water-soluble nickel acetate as hole collection layer for stable polymer solar cells. 2013 , 128, 684-690	6
2233	Synthesis of alternating copolymers consisting of N-2-octyldodecyldithieno[2,3-b;7,6-b]carbazole and N-octylthieno[3,4-c]pyrrole-4,6-dione derivative units for photovoltaic applications. 2013 , 176, 70-77	5
2232	Fine Structural Tuning of Cyanated Dithieno[3,2-b:2?,3?-d]silole©ligothiophene Copolymers: Synthesis, Characterization, and Photovoltaic Response. 2013 , 46, 6419-6430	35
2231	5,6-bis(tetradecyloxy)-2,1,3-benzoselenadiazole-based polymers for photovoltaic applications. 2013 , 128, 3678-3686	2
2230	All-polymer solar cells based on side-chain-isolated polythiophenes and poly(perylene diimide-alt-dithienothiophene). 2013 , 117, 336-342	12

2229	Efficient polymer solar cells based on benzothiadiazole and alkylphenyl substituted benzodithiophene with a power conversion efficiency over 8%. 2013 , 25, 4944-9	298
2228	Three-dimensional electron-accepting compounds containing perylene bis(dicarboximide)s as n-type organic photovoltaic materials. 2013 , 49, 8386-8	20
2227	Introduction of fluorine and fluorine-containing functional groups. 2013 , 52, 8214-64	1777
2226	Application of solution processable squaraine dyes as electron donors for organic bulk-heterojunction solar cells. 2013 , 12, 1688-99	22
2225	[6,6]-Phenyl-C61-Butyric Acid Dimethylamino Ester as a Cathode Buffer Layer for High-Performance Polymer Solar Cells. 2013 , 3, 1569-1574	70
2224	Toward green solvent processable photovoltaic materials for polymer solar cells: the role of highly polar pendant groups in charge carrier transport and photovoltaic behavior. 2013 , 6, 3022	142
2223	Alternating Electron DonorAcceptor Conjugated Polymers Based on Modified Naphthalene Diimide Framework: The Large Enhancement of p-Type Semiconducting Performance upon Solvent Vapor Annealing. 2013 , 46, 5504-5511	25
2222	A selenium-substituted low-bandgap polymer with versatile photovoltaic applications. 2013 , 25, 825-31	370
2221	Construction of planar and bulk integrated heterojunction polymer solar cells using cross-linkable D-A copolymer. 2013 , 5, 6591-7	22
2220	Enhanced efficiency of single and tandem organic solar cells incorporating a diketopyrrolopyrrole-based low-bandgap polymer by utilizing combined ZnO/polyelectrolyte electron-transport layers. 2013 , 25, 4783-8	109
2219	On-Substrate Preparation of an Electroactive Conjugated Polyazomethine from Solution-Processable Monomers and its Application in Electrochromic Devices. 2013 , 23, 3549-3559	53
2218	Fullerene-bisadduct acceptors for polymer solar cells. 2013 , 8, 2316-28	136
2217	Inter-crosslinking through both donor and acceptor with unsaturated bonds for highly efficient and stable organic solar cells. 2013 , 4, 5637	12
2216	Polythiophenes comprising conjugated pendants toward long-term air-stable inverted polymer solar cells with high open circuit voltages. 2013 , 1, 8950	9
2215	Effect of Side-Chain Architecture on the Optical and Crystalline Properties of Two-Dimensional Polythiophenes. 2013 , 46, 5985-5997	47
2214	A potential perylene diimide dimer-based acceptor material for highly efficient solution-processed non-fullerene organic solar cells with 4.03% efficiency. 2013 , 25, 5791-7	407
2213	Facile Access to Functional Building Blocks of C60 Involving C3-Symmetrical Addition Patterns. 2013 , 2013, 5093-5105	12
2212	Synthesis and photovoltaic properties of benzotriazole-based donor⊞cceptor copolymers. 2013 , 48, 3177-3184	6

2211	Significant Enhancement of Polymer Solar Cell Performance via Side-Chain Engineering and Simple Solvent Treatment. 2013 , 25, 3196-3204	114
2210	Incorporating CuInS2 quantum dots into polymer/oxide-nanoarray system for efficient hybrid solar cells. 2013 , 114, 43-53	28
2209	A new ladder-type benzodi(cyclopentadithiophene)-based donor-acceptor polymer and a modified hole-collecting PEDOT:PSS layer to achieve tandem solar cells with an open-circuit voltage of 1.62 V. 2013 , 49, 7702-4	22
2208	Optimization and simplification of polymerfullerene solar cells through polymer and active layer design. 2013 , 54, 5267-5298	105
2207	Semiconducting copolymers comprising benzodithiophene and benzotriazole derivatives for organic photovoltaic cells. 2013 , 179, 18-26	8
2206	Synthesis and photovoltaic behavior of two new alternative donor conjugated copolymers containing isoindigo moiety. 2013 , 24, 945-950	6
2205	Recent advances in water/alcohol-soluble Econjugated materials: new materials and growing applications in solar cells. 2013 , 42, 9071-104	400
2204	Amine group functionalized fullerene derivatives as cathode buffer layers for high performance polymer solar cells. 2013 , 1, 9624	66
2203	A One-Step Strategy for End-Functionalized Donor Acceptor Conjugated Polymers. 2013, 46, 6431-6438	39
2202	Synthesis and characterization of low bandgap Etonjugated copolymers incorporating 4,7-bis(3,3?/4,4?-hexylthiophene-2-yl)benzo[c][2,1,3]thiadiazole units for photovoltaic application. 2013 , 1, 10306	31
2201	Double acceptor DA copolymers containing benzotriazole and benzothiadiazole units: chemical tailoring towards efficient photovoltaic properties. 2013 , 1, 10736	22
2200	New alkoxylphenyl substituted benzo[1,2-b:4,5-b?] dithiophene-based polymers: synthesis and application in solar cells. 2013 , 1, 10639	49
2199	Synthesis and photovoltaic performance of novel thiophenyl-methylene-9H-fluorene-based low bandgap polymers. 2013 , 54, 4930-4939	19
2198	Synthesis and photovoltaic properties of a star-shaped molecule based on a triphenylamine core and branched terthiophene end groups. 2013 , 56, 997-1003	14
2197	Ruthenium(II) containing supramolecular polymers with cyclopentadithiopheneBenzothiazole conjugated bridges for photovoltaic applications. 2013 , 4, 5701	25
2196	Synthesis and Photovoltaic Properties of DA Copolymers Based on 11,12-Difluorodibenzo[a,c]phenazine Acceptor Unit. 2013 , 214, 1772-1779	9
2195	Attempted Inversion of Semiconducting Features of Platinum Polyyne Polymers: A New Approach for All-Polymer Solar Cells. 2013 , 214, 1465-1472	26
2194	The Effect of Additive on the Performance and Phase Separation of Benzo[1,2-b:3,4-b?]dithiophene-Based Polymer Heterojunction Photovoltaic Devices. 2013 , 214, 985-993	2

2193	Theoretical design of donor-acceptor conjugated copolymers based on furo-, thieno-, and selenopheno[3,4-c] thiophene-4,6-dione and benzodithiophene units for organic solar cells. 2013 , 19, 4283-91	19
2192	An alternating DA1DA2 copolymer containing two electron-deficient moieties for efficient polymer solar cells. 2013 , 1, 11141	63
2191	Thermo-cleavable fullerene materials as buffer layers for efficient polymer solar cells. 2013 , 1, 11170	28
2190	Correlation between structure and photovoltaic performance of a series of furan bridged donor conjugated polymers. 2013 , 1, 12128	25
2189	Stabilization of the film morphology in polymer: Fullerene heterojunction solar cells with photocrosslinkable bromine-functionalized low-bandgap copolymers. 2013 , 51, 3123-3131	23
2188	Dipyrrolidinyl-substituted perylene diimide as additive for poly(3-hexylthiophene): [6,6]-Phenyl C61 butyric acid methylester bulk-heterojunction blends. 2013 , 548, 398-405	2
2187	Solution-processed small-molecule solar cells: breaking the 10% power conversion efficiency. 2013 , 3, 3356	511
2186	High-efficiency polymer solar cells via the incorporation of an amino-functionalized conjugated metallopolymer as a cathode interlayer. 2013 , 135, 15326-9	301
2185	25th anniversary article: key points for high-mobility organic field-effect transistors. 2013 , 25, 6158-83	598
2184	Effect of fullerene tris-adducts on the photovoltaic performance of P3HT:fullerene ternary blends. 2013 , 5, 4401-8	65
2183	Einffirung von Fluor und fluorhaltigen funktionellen Gruppen. 2013, 125, 8372-8423	500
2182	Low band gap dithienogermolodithiophene copolymers with tunable acceptors and side-chains for organic solar cells. 2013 , 1, 14973	27
2181	Side chain effect on photovoltaic properties of DA copolymers based on benzodithiophene and thiophene-substituted bithiazole. 2013 , 14, 3152-3162	18
2180	Developing understanding of organic photovoltaic devices: kinetic Monte Carlo models of geminate and non-geminate recombination, charge transport and charge extraction. 2013 , 6, 3202	73
2179	Correlating molecular morphology with optoelectronic function in solar cells based on low band-gap copolymer:fullerene blends. 2013 , 1, 7266	63
2178	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. 2013 , 1, 8007	55
2177	Enhanced Photovoltaic Performance of Diketopyrrolopyrrole (DPP)-Based Polymers with Extended [Conjugation. 2013 , 117, 9550-9557	100
2176	Molecular weight effect on the efficiency of polymer solar cells. 2013 , 5, 12163-7	102

2175	Application of Bis-PCBM in Polymer Solar Cells with Improved Voltage. 2013 , 117, 25360-25366	56
2174	Understanding the mechanism of poly(3-hexylthiophene)-b-poly(4-vinylpyridine) as a nanostructuring compatibilizer for improving the performance of poly(3-hexylthiophene)/ZnO-based hybrid solar cells. 2013 , 1, 10881	12
2173	Unified assay of adverse effects from the varied nanoparticle hybrid in polymerfullerene organic photovoltaics. 2013 , 116, 153-170	15
2172	Effect of spacer insertion in a commonly used dithienosilole/benzothiadiazole-based low band gap copolymer for polymer solar cells. 2013 , 49, 4176-4188	16
2171	Low band-gap donor copolymers based on dioxocyclopenta[c]thiophene derivatives as acceptor units: synthesis, properties, and photovoltaic performances. 2013 , 1, 15000	8
2170	Substituent Effects on Physical and Photovoltaic Properties of 5,6-Difluorobenzo[c][1,2,5]thiadiazole-Based DA Polymers: Toward a Donor Design for High Performance Polymer Solar Cells. 2013 , 46, 9587-9592	47
2169	Additives for morphology control in high-efficiency organic solar cells. 2013 , 16, 326-336	432
2168	Design and synthesis of soluble dibenzosuberane-substituted fullerene derivatives for bulk-heterojunction polymer solar cells. 2013 , 14, 2184-2191	15
2167	Fine tuning of the PCDTBT-OR:PC71BM blend nanoscale phase separation via selective solvent annealing toward high-performance polymer photovoltaics. 2013 , 24, 484004	8
2166	High-performance polymer solar cells with solution-processed and environmentally friendly CuOx anode buffer layer. 2013 , 5, 10658-64	73
2165	DiketopyrrolopyrroleII hiopheneBenzothiadiazole Random Copolymers: An Effective Strategy To Adjust Thin-Film Crystallinity for Transistor and Photovoltaic Properties. 2013 , 46, 9211-9219	49
2164	Enhancing Photovoltaic Performance of Copolymers Containing Thiophene Unit with DA Conjugated Side Chain by Rational Molecular Design. 2013 , 46, 9575-9586	61
2163	Synthesis and photovoltaic properties of a DA copolymer of dithienosilole and fluorinated-benzotriazole. 2013 , 4, 1467-1473	35
2162	Novel Donor-Acceptor Copolymers Based on Dithienosilole and Ketone Modified Thieno[3,4-b]thiophene for Photovoltaic Application. 2013 , 31, 1455-1462	7
2161	A phenothiazinediketopyrrolopyrrole polymer: Synthesis and photovoltaic applications. 2013 , 584, 119-123	10
2160	Fluorinated benzothiadiazole-based conjugated polymers for high-performance polymer solar cells without any processing additives or post-treatments. 2013 , 135, 17060-8	306
2159	A facile strategy to enhance absorption coefficient and photovoltaic performance of two-dimensional benzo[1,2-b:4,5-b?]dithiophene and thieno[3,4-c]pyrrole-4,6-dione polymers via subtle chemical structure variations. 2013 , 14, 2652-2661	32
2158	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

2157	Poly(ethylene glycol) modified [60]fullerene as electron buffer layer for high-performance polymer solar cells. 2013 , 102, 143902	35
2156	Regioselective DielsAlder Reactions Directed by Carbonyl Groups on the Rim of Open-Cage Fullerene Derivatives. 2013 , 2013, 7272-7276	6
2155	J-aggregation of a squaraine dye and its application in organic photovoltaic cells. 2013, 1, 6547	75
2154	One, two and three-branched triphenylaminebligothiophene hybrids for solution-processed solar cells. 2013 , 1, 5128	40
2153	Becondary doping@methods to significantly enhance the conductivity of PEDOT:PSS for its application as transparent electrode of optoelectronic devices. 2013 , 34, 423-436	226
2152	A material combination principle for highly efficient polymer solar cells investigated by mesoscopic phase heterogeneity. 2013 , 5, 11649-56	10
2151	A New Pentacyclic Indacenodiselenophene Arene and Its Donor Acceptor Copolymers for Solution-Processable Polymer Solar Cells and Transistors: Synthesis, Characterization, and Investigation of Alkyl/Alkoxy Side-Chain Effect. 2013 , 46, 7715-7726	53
2150	Polymers for electronics and spintronics. 2013 , 42, 8895-999	315
2149	25th anniversary article: a decade of organic/polymeric photovoltaic research. 2013 , 25, 6642-71	978
2148	25th anniversary article: no assembly required: recent advances in fully conjugated block copolymers. 2013 , 25, 5686-700	68
2147	Interface control of semiconducting metal oxide layers for efficient and stable inverted polymer solar cells with open-circuit voltages over 1.0 volt. 2013 , 5, 9015-25	51
2146	Designing Etonjugated polymers for organic electronics. 2013 , 38, 1832-1908	588
2145	Towards 15% energy conversion efficiency: a systematic study of the solution-processed organic tandem solar cells based on commercially available materials. 2013 , 6, 3407	90
2144	High-crystalline medium-band-gap polymers consisting of benzodithiophene and benzotriazole derivatives for organic photovoltaic cells. 2013 , 5, 12820-31	52
2143	Control of Polymer-Packing Orientation in Thin Films through Synthetic Tailoring of Backbone Coplanarity. 2013 , 25, 4088-4096	182
2142	A star-shaped electron acceptor based on 5,5?-bibenzothiadiazole for solution processed solar cells. 2013 , 1, 14627	33
2141	A facile strategy to enhance the fill factor of ternary blend solar cells by increasing charge carrier mobility. 2013 , 37, 1728	18
2140	2D Econjugated benzo[1,2-b:4,5-b?]dithiophene- and quinoxaline-based copolymers for photovoltaic applications. 2013 , 3, 24543	31

2139	Enhanced performance and stability in PBDTTT-C-T: PC70 BM polymer solar cells by optimizing thickness of NiOx buffer layers. 2013 , 46, 305106	22
2138	Fluorine substitution enhanced photovoltaic performance of a D-A(1)-D-A(2) copolymer. 2013 , 49, 9335-7	113
2137	Alkyl substituted naphtho[1, 2-b: 5, 6-b?]difuran as a new building block towards efficient polymer solar cells. 2013 , 3, 5366	15
2136	Synthesis and optoelectronic properties of 6,12-bis(amino)anthanthrene derivatives. 2013 , 78, 12769-78	23
2135	Pyridinium salt-based molecules as cathode interlayers for enhanced performance in polymer solar cells. 2013 , 1, 3387	35
2134	Arenedithiocarboxyimide-containing extended Etonjugated systems with high electron affinity. 2013 , 1, 5373	28
2133	Improved phase separation in polymer solar cells by solvent blending. 2013, 51, 868-874	11
2132	Reduction of open circuit voltage loss in a polymer photovoltaic cell via interfacial molecular design: Insertion of a molecular spacer. 2013 , 103, 203902	9
2131	Evolved structure of thiazolothiazole based small molecules towards enhanced efficiency in organic solar cells. 2013 , 14, 599-606	43
2130	Aza-BODIPY-based DA conjugated polymers with tunable band gap: synthesis and near-infrared emission. 2013 , 4, 520-527	46
2129	Synthesis and photovoltaic properties of two-dimension-conjugated DA copolymers based on benzodithiophene or benzodifuran units. 2013 , 4, 1474-1481	49
2128	Natural Photosynthetic Carotenoids for Solution-Processed Organic Bulk-Heterojunction Solar Cells. 2013 , 117, 804-811	34
2127	Enhanced performance of solution-processed solar cells based on porphyrin small molecules with a diketopyrrolopyrrole acceptor unit and a pyridine additive. 2013 , 1, 2144-2150	90
2126	Optimization of a High Work Function Solution Processed Vanadium Oxide Hole-Extracting Layer for Small Molecule and Polymer Organic Photovoltaic Cells. 2013 , 117, 49-57	59
2125	Efficient small molecule bulk heterojunction solar cells with high fill factors via introduction of Estacking moieties as end group. 2013 , 1, 1801-1809	87
2124	An ADA small molecule based on the 3,6-dithienylcarbazole electron donor (D) unit and nitrophenyl acrylonitrile electron acceptor (A) units for solution processed organic solar cells. 2013 , 1, 2297-2306	35
2123	Efficient polymer solar cells based on a broad bandgap DA copolymer of Bigzag□ naphthodithiophene and thieno[3,4-c]pyrrole-4,6-dione. 2013 , 1, 1540-1543	52
2122	Thiophene spacers impart crystallinity and enhance the efficiency of benzotrithiophene-based conjugated polymers for bulk heterojunction photovoltaics. 2013 , 4, 1132-1140	37

2121	New alkylthienyl substituted benzo[1,2-b:4,5-b?]dithiophene-based polymers for high performance solar cells. 2013 , 1, 570-577	52
2120	Organic sensitizers from D-FA to D-A-FA: effect of the internal electron-withdrawing units on molecular absorption, energy levels and photovoltaic performances. 2013 , 42, 2039-58	876
2119	Dipyrrolo[2,3-b:2',3'-e]pyrazine-2,6(1H,5H)-dione based conjugated polymers for ambipolar organic thin-film transistors. 2013 , 49, 484-6	43
2118	Efficient and stable polymer solar cells with solution-processed molybdenum oxide interfacial layer. 2013 , 1, 657-664	109
2117	A solution-processable DAD small molecule based on isoindigo for organic solar cells. 2013 , 48, 1014-1020	32
2116	Wide band gap copolymers based on phthalimide: synthesis, characterization, and photovoltaic properties with 3.70% efficiency. 2013 , 4, 2174	27
2115	Donor∃cceptor semiconducting polymers for organic solar cells. 2013 , 51, 743-768	183
2114	Synthesis and photovoltaic properties of a furan-diketopyrrolopyrrole-fluorene terpolymer. 2013 , 49, 3921-3928	14
2113	Synthesis and characterization of the conjugated polymers tethered with dipolar side chains containing a benzothiadiazole entity for bulk heterojunction solar cells. 2013 , 14, 2290-2298	13
2112	Efficient small-molecule organic solar cells incorporating a doped buffer layer. 2013 , 536, 235-239	4
2111	Control of miscibility and aggregation via the material design and coating process for high-performance polymer blend solar cells. 2013 , 25, 6991-6	192
2110	Inverted polymer solar cells with a boron-doped zinc oxide layer deposited by metal organic chemical vapor deposition. 2013 , 117, 610-616	16
2109	Conjugated polymer based on oligobenzo[c]thiophene with low-lying HOMO energy level as potential donor for bulk heterojunction solar cells. 2013 , 262, 34-44	14
2108	Synthesis, optical and electrochemical properties of novel D-FA type conjugated polymers based on benzo[c][1,2,5]selenadiazole unit via alkyne module. 2013 , 54, 6158-6164	9
2107	Synthesis and studies of methyl ester substituted thieno-o-quinodimethane fullerene multiadducts for polymer solar cells. 2013 , 113, 13-19	18
2106	A Benzoselenadiazole-Based Low Band Gap Polymer: Synthesis and Photovoltaic Application. 2013 , 46, 763-768	76
2105	New [DA1DA2)nItype conjugated polymers for photovoltaic applications: consensus between low band-gap and low HOMO energy level. 2013 , 69, 3419-3424	11
2104	A Solution-Processable Electron Acceptor Based on Dibenzosilole and Diketopyrrolopyrrole for Organic Solar Cells. 2013 , 3, 724-728	153

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2103	cells. 2013 , 51, 2243-2251	12
2102	Structure, band gap and energy level modulations for obtaining efficient materials in inverted polymer solar cells. 2013 , 14, 635-643	27
2101	Conjugated polymers with 2,7-linked 3,6-difluorocarbazole as donor unit for high efficiency polymer solar cells. 2013 , 4, 2773	30
2100	Modulation of the molecular geometry of carbazolebis(thiadiazole)-based conjugated polymers for photovoltaic applications. 2013 , 4, 2480	7
2099	Electronic and optoelectronic materials and devices inspired by nature. 2013 , 76, 034501	129
2098	Benzodifuran-alt-thienothiophene based low band gap copolymers: substituent effects on their molecular energy levels and photovoltaic properties. 2013 , 4, 3047	42
2097	Synthesis and photovoltaic performance of donor\(\text{donor}\(\text{donor}\) copolymers based on thieno[3,2-b]quinoxaline. 2013 , 4, 2884	2
2096	Design and synthesis of indole-substituted fullerene derivatives with different side groups for organic photovoltaic devices. 2013 , 14, 682-692	15
2095	A highly crystalline low band-gap polymer consisting of perylene and diketopyrrolopyrrole for organic photovoltaic cells. 2013 , 49, 3248-50	30
2094	Benzotrithiophene and benzodithiophene-based polymers for efficient polymer solar cells with high open-circuit voltage. 2013 , 4, 3390	12
2093	Conjugated random copolymers of benzodithiopheneBenzooxadiazolediketopyrrolopyrrole with full visible light absorption for bulk heterojunction solar cells. 2013 , 4, 5321	79
2092	Photophysical Properties of Phenyl- or Thiophene-Cored Branched Molecules with Thiophene and/or Thienylenevinylene Arms toward Broad Absorption Spectra for Solar Cells: A Theoretical Study. 2013 , 117, 3221-3231	12
2091	A new donor donor donor ternary copolymer pending additional diketopyrrolopyrrole unit in the side of a donor for efficient solar cells. 2013 , 14, 1510-1515	16
2090	Efficient and thermally stable polymer solar cells based on a 54Eelectron fullerene acceptor. 2013 , 1, 5562	30
2089	Theoretical characterization and design of small molecule donor material containing naphthodithiophene central unit for efficient organic solar cells. 2013 , 34, 1611-9	105
2088	Bandgap and Molecular-Energy-Level Control of Conjugated-Polymer Photovoltaic Materials Based on 6,12-Dihydro-diindeno[1,2-b;10,20-e]pyrazine. 2013 , 214, 1147-1157	9
2087	Perylene diimides based materials for organic solar cells. 2013 , 98, 160-179	292
2086	A star-shaped oligothiophene with triphenylamine as core and octyl cyanoacetate as end groups for solution-processed organic solar cells. 2013 , 14, 875-881	20

2085	Efficient Computational Screening of Organic Polymer Photovoltaics. 2013 , 4, 1613-23	137
2084	Synthesis and characterization of a low band gap quinoxaline based DA copolymer and its application as a donor for bulk heterojunction polymer solar cells. 2013 , 4, 4033	31
2083	Fluorinated thienyl-quinoxaline-based DA-type copolymer toward efficient polymer solar cells: synthesis, characterization, and photovoltaic properties. 2013 , 4, 3411	46
2082	Synthesis, photophysical and photovoltaic properties of a new class of two-dimensional conjugated polymers containing donor ceptor chromophores as pendant groups. 2013 , 4, 3333	6
2081	Dithiazolyl-benzothiadiazole-containing polymer acceptors: synthesis, characterization, and all-polymer solar cells. 2013 , 4, 5228	38
2080	New alternating electron donor\(\text{donor}\) conjugated polymers entailing (E)-[4,4?-biimidazolylidene]-5,5?(1H,1?H)-dione moieties. 2013 , 4, 5283	19
2079	Synthesis and Photovoltaic Properties of a Polythiophene Derivative with Triphenylamine-Vinylene Conjugated Side Chain Attaching Carbonyl end Group. 2013 , 32, E822-E831	1
2078	Dithienocoronene diimide based conjugated polymers as electron acceptors for all-polymer solar cells. 2013 , 112, 13-19	34
2077	Two similar near-infrared (IR) absorbing benzannulated aza-BODIPY dyes as near-IR sensitizers for ternary solar cells. 2013 , 5, 5609-16	67
2076	Low-band-gap conjugated polymers of dithieno[2,3-b:7,6-b]carbazole and diketopyrrolopyrrole: effect of the alkyl side chain on photovoltaic properties. 2013 , 5, 5741-7	36
2075	Thieno[3,2-b]thiophene-Bridged DA Polymer Semiconductor Based on Benzo[1,2-b:4,5-b?]dithiophene and Benzoxadiazole. 2013 , 46, 4805-4812	59
2074	New low band-gap semiconducting polymers consisting of 5-(9H-carbazol-9-yl)benzo[a]phenazine as a new acceptor unit for organic photovoltaic cells. 2013 , 51, 2354-2365	6
2073	Development of naphthalene and quinoxaline-based donor conjugated copolymers for delivering high open-circuit voltage in photovoltaic devices. 2013 , 51, 1843-1851	7
2072	Donor-acceptor conjugated cooligomers for single molecule solar cells. 2013 , 31, 815-822	12
2071	High mobility diketopyrrolopyrrole (DPP)-based organic semiconductor materials for organic thin film transistors and photovoltaics. 2013 , 6, 1684	552
2070	A Solution-Processable Small Molecule Based on Benzodithiophene and Diketopyrrolopyrrole for High-Performance Organic Solar Cells. 2013 , 3, 1166-1170	195
2069	Synthesis and photovoltaic properties of novel 3,4-ethylenedithiathiophene-based copolymers for organic solar cells. 2013 , 4, 1317	17
2068	Interfacial Bonding and Morphological Control of Electropolymerized Polythiophene Films on ZnO. 2013 , 117, 9852-9863	24

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2067	Toward High-Performance Organic-Inorganic Hybrid Solar Cells: Bringing Conjugated Polymers and Inorganic Nanocrystals in Close Contact. 2013 , 4, 1788-96	80
2066	Influences of the non-covalent interaction strength on reaching high solid-state order and device performance of a low bandgap polymer with axisymmetrical structural units. 2013 , 25, 2445-51	122
2065	A New sp2-sp2 Dialkylethylene-Bridged Heptacyclic Ladder-Type Arene for High Efficiency Polymer Solar Cells. 2013 , 3, 457-465	21
2064	Solution-Processable Organic Molecule Photovoltaic Materials with Bithienyl-benzodithiophene Central Unit and Indenedione End Groups. 2013 , 25, 2274-2281	172
2063	Improved performance of polymer solar cells based on P3HT and ICBA using alcohol soluble titanium chelate as electron collection layer. 2013 , 14, 845-851	19
2062	3,6-Dithiophen-2-yl-diketopyrrolo[3,2-b]pyrrole (isoDPPT) as an Acceptor Building Block for Organic Opto-Electronics. 2013 , 46, 3895-3906	57
2061	Improving the stability of P3HT/PC61BM solar cells by a thermal crosslinker. 2013 , 1, 4589	36
2060	Synthesis of donor copolymers based on anthracene derivatives for polymer solar cells. 2013 , 4, 3949	19
2059	Infiltration of E7 Liquid Crystal in a Nanoparticle-Based Multilayer Photonic Crystal: Fabrication and Electro-optical Characterization. 2013 , 572, 31-39	9
2058	Interface engineering to enhance the efficiency of conventional polymer solar cells by alcohol-/water-soluble C60 materials doped with alkali carbonates. 2013 , 5, 5122-8	21
2057	Molecular design toward efficient polymer solar cells with high polymer content. 2013 , 135, 8464-7	83
2056	Synthesis and characterization of new acetalized [60]fullerenes. 2013 , 54, 3510-3513	6
2055	Effect of a furan Ebridge on polymer coplanarity and performance in organic field effect transistors. 2013 , 4, 4199	14
2054	Effects of Olefin Content and Alkyl Chain Placement on Optoelectronic and Morphological Properties in Poly(thienylene vinylenes). 2013 , 46, 5184-5194	46
2053	The state of organic solar cells meta analysis. 2013 , 119, 84-93	141
2052	Effect of side-chain positions on morphology and photovoltaic properties of phenazine-based donor\(\text{donor}\) copolymers. 2013 , 51, 2910-2918	11
2051	High Open Circuit Voltage Solution-Processed Tandem Organic Photovoltaic Cells Employing a Bottom Cell Using a New Medium Band Gap Semiconducting Polymer. 2013 , 25, 2722-2732	77
2050	Small molecules based on 2,7-carbazole for efficient solution-processed organic solar cells. 2013 , 1, 8805	31

2049	Anthracene-containing wide-band-gap conjugated polymers for high-open-circuit-voltage polymer solar cells. 2013 , 34, 1163-8	16
2048	Synthesis of a low-bandgap fluorinated donor-acceptor copolymer and its optoelectronic application. 2013 , 5, 6045-53	16
2047	Donor conjugated polymers-based on alkyl chain substituted oligobenzo[c]thiophene derivatives with well-balanced energy levels for bulk heterojunction solar cells. 2013 , 3, 14595	17
2046	Oligothiophene-bridged bis(arylene ethynylene) small molecules for solution-processible organic solar cells with high open-circuit voltage. 2013 , 8, 1892-900	13
2045	Synthesis of 5H-Dithieno[3,2-b:2?,3?-d]pyran as an Electron-Rich Building Block for DonorAcceptor Type Low-Bandgap Polymers. 2013 , 46, 3384-3390	273
2044	A triphenylamine-capped solution-processable wholly aromatic organic molecule with electrochemical stability and its potential application in photovoltaic devices. 2013 , 37, 2440	22
2043	Bridgehead Imine Substituted Cyclopentadithiophene Derivatives: An Effective Strategy for Band Gap Control in Donor Acceptor Polymers. 2013 , 46, 1337-1342	46
2042	Carbazole P henylbenzotriazole Copolymers as Absorber Material in Organic Solar Cells. 2013 , 46, 3870-3878	24
2041	High-Efficiency Polymer Solar Cells Achieved by Doping Plasmonic Metallic Nanoparticles into Dual Charge Selecting Interfacial Layers to Enhance Light Trapping. 2013 , 3, 666-673	109
2040	Naphtho[1,2-b:5,6-b?]dithiophene-Based DonorAcceptor Copolymer Semiconductors for High-Mobility Field-Effect Transistors and Efficient Polymer Solar Cells. 2013 , 46, 3358-3366	69
2039	Design and Synthesis of Copolymers of Indacenodithiophene and Naphtho[1,2-c:5,6-c]bis(1,2,5-thiadiazole) for Polymer Solar Cells. 2013 , 46, 3950-3958	65
2038	Synthesis and photovoltaic properties of amorphous polymers based on dithienylbenzothiadiazole-triphenylamine with hexyl side chains on different positions of thienyl groups. 2013 , 51, 2536-2544	16
2037	Dithienosilole-bridged small molecules with different alkyl group substituents for organic solar cells exhibiting high open-circuit voltage. 2013 , 1, 7622	36
2036	A series of new medium-bandgap conjugated polymers based on naphtho[1,2-c:5,6-c]bis(2-octyl-[1,2,3]triazole) for high-performance polymer solar cells. 2013 , 25, 3683-8	118
2035	Fluorine substituted benzothiazole-based low bandgap polymers for photovoltaic applications. 2013 , 3, 11869	17
2034	Formation of Nanostructured Fullerene Interlayer through Accelerated Self-Assembly and Cross-Linking of Trichlorosilane Moieties Leading to Enhanced Efficiency of Photovoltaic Cells. 2013 , 46, 4781-4789	20
2033	Benzotriazole-based donor\(\text{lceptor}\) type semiconducting polymers with different alkyl side chains for photovoltaic devices. \(\textbf{2013}\), 108, 113-125	39
2032	6,7-dialkoxy-2,3-diphenylquinoxaline based conjugated polymers for solar cells with high open-circuit voltage. 2013 , 31, 901-911	28

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2031	Integrated Energy-Harvesting System by Combining the Advantages of Polymer Solar Cells and Thermoelectric Devices. 2013 , 117, 24685-24691	43
2030	Physically adsorbed fullerene layer on positively charged sites on zinc oxide cathode affords efficiency enhancement in inverted polymer solar cell. 2013 , 5, 6665-71	25
2029	Scanning angle Raman spectroscopy of poly(3-hexylthiophene)-based films on indium tin oxide, gold, and sapphire surfaces. 2013 , 5, 8686-93	10
2028	Platinum nanoparticles modified indium tin oxide anodes for enhancing the efficiency and stability of organic solar cells. 2013 , 87, 277-282	3
2027	Conjugated polymer consisting of dibenzosilole and quinoxaline as donor materials for organic photovoltaics. 2013 , 49, 3261-3270	23
2026	Synthesis, characterization and photovoltaic performances of DA copolymers based on BDT and DBPz: the largely improved performance caused by additional thiophene blocks. 2013 , 1, 4508	29
2025	The effect of methanol treatment on the performance of polymer solar cells. 2013, 24, 484003	32
2024	Graphene as a Target for Polymer Synthesis. 2013 , 61-92	11
2023	Chloroboron (III) subnaphthalocyanine as an electron donor in bulk heterojunction photovoltaic cells. 2013 , 24, 484007	16
2022	Influence of Fullerene Multiadducts on the Morphology and Charge Photogeneration of Their Photovoltaic Blends with Poly(3-hexylthiophene). 2013 , 117, 25898-25907	13
2021	A benzo[1,2-b:4,5-b?]difuran- and thieno-[3,4-b]thiophene-based low bandgap copolymer for photovoltaic applications. 2013 , 4, 470-476	31
2020	Synthesis and characterization of naphthalene diimide polymers based on donor-acceptor system for polymer solar cells. 2013 , 7, 842-851	16
2019	A DMF-assisted solution process boosts the efficiency in P3HT:PCBM solar cells up to 5.31%. 2013 , 24, 484008	22
2018	Organic photovoltaic cells with copper (II) tetra-methyl substituted phthalocyanine. 2013 , 22, 128505	5
2017	Effects of annealing rate and morphology of solgel derived ZnO on the performance of inverted polymer solar cells. 2013 , 22, 118801	5
2016	Optical Band Gap Decrement of Nanocomposited MEH-PPV:CNTs Thin Film for Organic Solar Cells. 2013 , 667, 260-264	1
2015	Photovoltaic properties and annealing effects of a low bandgap copolymer containing dithienothiophene and benzothiadiazole units. 2013 , 7, 63-75	6
2014	Increasing the open-circuit voltage in high-performance organic photovoltaic devices through conformational twisting of an indacenodithiophene-based conjugated polymer. 2013 , 34, 1623-8	31

2013	Dithieno[3,2-b:2?,3?-d]pyrrole and Benzothiadiazole-Based Semicrystalline Copolymer for Photovoltaic Devices with Indene-C60 Bisadduct. 2013 , 214, 2083-2090	5
2012	Synthesis and characterization of naphtho[2,1-b:3,4-b?]dithiophene-based polymers with extended Econjugation systems for use in bulk heterojunction polymer solar cells. 2013 , 51, 4742-4751	12
2011	Donor Ecceptor (donor) polymers with differently conjugated side groups at the acceptor units for photovoltaics. 2013 , 51, 1565-1572	12
2010	New quinoxaline derivatives as accepting units in donor acceptor type low-band gap polymers for organic photovoltaic cells. 2013 , 51, 4136-4149	21
2009	New selenophene-based low-band gap conjugated polymers for organic photovoltaics. 2013 , 51, 4550-4557	8
2008	Synthesis and electronic energy-level regulation of imide-fused poly(thienylene vinylene) derivatives. 2013 , 51, 4975-4982	7
2007	Benzo[1,2-b:4,5-b?]dithiophene-alt-terthiophene Copolymers Containing Styryl-Triphenylamine Side Chains: Synthesis and Photovoltaic Performance Optimization with Fullerene Acceptors. 2013 , 214, 1081-1088	1
2006	Highly efficient inverted polymer solar cells with a solution-processable dendrimer as the electron-collection interlayer. 2013 , 102, 083302	10
2005	Highly Efficient Polymer Solar Cells by using the Homogeneous Self-Assembly of a Sulphydryl-Capped Photoactive Polymer Covalently Bound to the Anode. 2013 , 1, 613-616	15
2004	Low band-gap modulation of isoindigo-based copolymers toward high open-circuit voltage of polymer solar cells. 2013 , 51, 3477-3485	13
2003	Computational engineering of low bandgap copolymers. 2013 , 1, 35	49
2002	Effect of the length of alkyl side chains in the electronic structure of conjugated polymers. 2014 , 17, 1369-1374	20
2001	Solution processable diketopyrrolopyrrole (DPP) cored small molecules with BODIPY end groups as novel donors for organic solar cells. 2014 , 10, 2683-95	20
2000	Exciton dissociation and design optimization in P3HT:PCBM bulk-heterojunction organic solar cell. 2014 , 92, 853-856	2
1999	Inclusion of fullerene in polymer chains grafted on silica nanoparticles in an organic solvent. 2014 , 46, 623-627	2
1998	Effect of Oxygen-Containing Functional Side Chains on the Electronic Properties and Photovoltaic Performances in a Thiophene-Thiazolothiazole Copolymer System. 2014 , 25, 556-564	5
1997	Effects of substituents and molecular weight on the optical, thermal and photovoltaic properties of alternating dithienogermoledithienylbenzothiadiazole polymers. 2014 , 46, 628-631	18
1996	Alternating Current Electrohydrodynamic Printing of Microdroplets. 2014 , 2014, 1-7	3

1995	Polythiophenes Comprising Conjugated Pendants for Polymer Solar Cells: A Review. 2014 , 7, 2411-2439	49
1994	Are hot charge transfer states the primary cause of efficient free-charge generation in polymer:fullerene organic photovoltaic devices? A kinetic Monte Carlo study. 2014 , 16, 20310-20	31
1993	Electronic and optical excitations of the PTB7 crystal: First-principles GW-BSE calculations. 2014 , 90,	17
1992	Green-Solvent-Processed Molecular Solar Cells. 2014 , 126, 14606-14609	8
1991	Photocurrent enhancement of BODIPY-based solution-processed small-molecule solar cells by dimerization via the meso position. 2014 , 6, 22496-505	46
1990	Fullerene C70 as a p-type donor in organic photovoltaic cells. 2014 , 105, 093301	12
1989	Establishment of a linear correlation between the LUMO levels of fullerenes and the Hammett constants of substituents installed: An experimental and theoretical study. 2014 , 198, 357-360	10
1988	Selenium in Diketopyrrolopyrrole-based Polymers: Influence on Electronic Properties and Charge Carrier Mobilities. 2014 , 54, 817-827	5
1987	Naphtho[1,2-b:5,6-b?]dithiophene Based Two-Dimensional Conjugated Polymers for Highly Efficient Thick-Film Inverted Polymer Solar Cells. 2014 , 26, 6947-6954	40
1986	Thieno[3,2-b]thiophene-substituted benzodithiophene in donor\(\text{donor}\) copolymers: A feasible approach to improve performances of organic photovoltaic cells. 2014 , 52, 3608-3616	14
1985	Conjugated polymer with rigid donor poly(para-divinylphenylamino) backbone and pendant cyanoacetic acid acceptor for dye sensitized solar cells. 2014 , 52, 2958-2965	3
1984	Novel wide band-gap polymer utilizing fused hetero-aromatic unit for efficient polymer solar cells and field-effect transistors. 2014 , 55, 6708-6716	30
1983	TPD-Based Copolymers with Strong Interchain Aggregation and High Hole Mobility for Efficient Bulk Heterojunction Solar Cells. 2014 , 47, 8570-8577	37
1982	Organic and Hybrid Solar Cells. 2014 ,	8
1981	Synthesis and Photovoltaic Properties of a DA Copolymer Based on the 2,3-Di(5-hexylthio[phen-2-yl)quinoxaline Acceptor Unit. 2014 , 215, 597-603	10
1980	Efficient microwave-mediated synthesis of fullerene acceptors for organic photovoltaics. 2014 , 4, 63200-6320	713
1980 1979		7 13

1977	Random Copolymers Based on Thieno[3,4-c]pyrrole-4,6-dione and Isoindigo Building Blocks for Polymer Solar Cells. 2014 , 32, 521-526	7
1976	Selenium-Containing Econjugated Polymers for Organic Solar Cells. 2014 , 54, 621-641	20
1975	Elastic and Wearable Wire-Shaped Lithium-Ion Battery with High Electrochemical Performance. 2014 , 126, 7998-8003	119
1974	Preparation and Photoinduced Energy and Electron Transfer of Donor-Silicon-Acceptor Polymers. 2014 , 3, 170-175	9
1973	Enhanced Photovoltaic Performance of Amorphous Copolymers Based on Dithienosilole and Dioxocycloalkene-annelated Thiophene. 2014 , 26, 6971-6978	30
1972	Synthesis of Anthracene-Based DonorAcceptor Copolymers with a Thermally Removable Group for Polymer Solar Cells. 2014 , 47, 8585-8593	14
1971	High open circuit voltage organic solar cells based upon fullerene free bulk heterojunction active layers. 2014 , 92, 932-939	4
1970	Polymer solar cells with a TiO2:Ag layer. 2014 , 61, 1767-1772	12
1969	A designed bithiopheneimide-based conjugated polymer for organic photovoltaic with ultrafast charge transfer at donor/PC(71)BM interface: theoretical study and characterization. 2014 , 16, 25799-808	45
1968	One donor E wo acceptor (DA1)-(DA2) random terpolymers containing perylene diimide, naphthalene diimide, and carbazole units. 2014 , 52, 3337-3345	35
1967	Synthesis characterization and bulk-heterojunction photovoltaic applications of new naphtho[1,2-b:5,6-b?]dithiophenequinoxaline containing narrow band gap DA conjugated polymers. 2014 , 5, 132-143	18
1966	Novel regioregular polythiophenes containing side-chain porphyrin groups for polymeric photovoltaic cells. 2014 , 146, 464-471	18
1965	A new polymer from fluorinated benzothiadiazole and alkoxylphenyl substituted benzo[1,2-b:4,5-b?]dithiophene: Synthesis and photovoltaic applications. 2014 , 187, 201-208	12
1964	Small-Molecule Solar Cells with Fill Factors up to 0.75 via a Layer-by-Layer Solution Process. 2014 , 4, 1300626	84
1963	Effects of Fullerene Bisadduct Regioisomers on Photovoltaic Performance. 2014 , 24, 158-163	95
1962	Synthesis and optoelectronic properties of new DA copolymers based on fluorinated benzothiadiazole and benzoselenadiazole. 2014 , 5, 567-577	44
1961	Solution-Processed Rhenium Oxide: A Versatile Anode Buffer Layer for High Performance Polymer Solar Cells with Enhanced Light Harvest. 2014 , 4, 1300884	68
1960	Elucidating double aggregation mechanisms in the morphology optimization of diketopyrrolopyrrole-based narrow bandgap polymer solar cells. 2014 , 26, 3142-7	47

1959	Controlling Solution-Phase Polymer Aggregation with Molecular Weight and Solvent Additives to Optimize Polymer-Fullerene Bulk Heterojunction Solar Cells. 2014 , 4, 1301733	182
1958	25th anniversary article: high-mobility hole and electron transport conjugated polymers: how structure defines function. 2014 , 26, 2119-36	182
1957	Improved photovoltaic properties of terpolymers containing diketopyrrolopyrrole and an isoindigo side chain. 2014 , 5, 4054	25
1956	Significant Efficiency Enhancement of Bulk Heterojunction Organic Photovoltaics Using Solution-Processable Interfacial Bilayers. 2014 , 1, 471-475	1
1955	Dithienocarbazole and isoindigo based amorphous low bandgap conjugated polymers for efficient polymer solar cells. 2014 , 26, 471-6	186
1954	A direct arylation-derived DPP-based small molecule for solution-processed organic solar cells. 2014 , 25, 014006	27
1953	Small molecule BODIPY dyes as non-fullerene acceptors in bulk heterojunction organic photovoltaics. 2014 , 50, 2913-5	72
1952	Crystal growth and characterization of fluorinated perylene diimides. 2014 , 30, 63-67	4
1951	Inverted Tandem Polymer Solar Cells with Polyethylenimine-Modified MoOX/Al2O3:ZnO Nanolaminate as the Charge Recombination Layers. 2014 , 4, 1400048	21
1950	New organic semiconductors with imide/amide-containing molecular systems. 2014 , 26, 6965-77	164
1949	Electron-donor function of methanofullerenes in donor-acceptor bulk heterojunction systems. 2014 , 50, 4123-5	20
1948	Opto-electrical and density functional theory analysis of poly(2,7-carbazole-alt-thieno[3,4-c]pyrrole-4,6-dione) and photovoltaic behaviors of bulk heterojunction structure. 2014 , 20, 290-296	13
1947	Layer-by-Layer Solution-Processed Low-Bandgap Polymer-PC61BM Solar Cells with High Efficiency. 2014 , 4, 1301349	53
1946	D-A copolymers based on 5,6-difluorobenzotriazole and oligothiophenes: Synthesis, field effect transistors, and polymer solar cells. 2014 , 55, 1707-1715	26
1945	Synergistic effect of fluorination on molecular energy level modulation in highly efficient photovoltaic polymers. 2014 , 26, 1118-23	360
1944	Recent advances in polymer solar cells: realization of high device performance by incorporating water/alcohol-soluble conjugated polymers as electrode buffer layer. 2014 , 26, 1006-24	208
1943	Solution-processed bulk heterojunction solar cells based on a porphyrin small molecule with 7% power conversion efficiency. 2014 , 7, 1397-1401	184
1942	Fine tuning of frontier orbital energy levels in dithieno[3,2-b:2?,3?-d]silole-based copolymers based on the substituent effect of phenyl pendants. 2014 , 55, 2139-2145	5

1941	Polymeric Acceptor Semiconductors for Organic Solar Cells. 2014 , 239-300	1
1940	New conjugated molecules with two and three dithienyldiketopyrrolopyrrole (DPP) moieties substituted at meta positions of benzene toward p- and n-type organic photovoltaic materials. 2014 , 9, 1570-8	17
1939	Optical, electrical and mechanical properties of indium tin oxide on polyethylene terephthalate substrates: Application in bulk-heterojunction polymer solar cells. 2014 , 24, 110-116	26
1938	Efficient inverted organic solar cells using Zn-doped titanium oxide films as electron transport layers. 2014 , 116, 442-446	15
1937	Performance enhancement of bulk heterojunction solar cells with direct growth of CdS-cluster-decorated graphene nanosheets. 2014 , 20, 6010-8	11
1936	Synthesis of yellow emitting bis-pyrimidine based purely organic phosphors. 2014 , 149, 61-68	6
1935	Solution-Processed and Low-Temperature Annealed CrOx as Anode Buffer Layer for Efficient Polymer Solar Cells. 2014 , 118, 9309-9317	27
1934	Thieno[3,4-c]pyrrole-4,6-dione-based small molecules for highly efficient solution-processed organic solar cells. 2014 , 9, 1045-53	25
1933	Synthesis, crystal structures, optical properties, and photocurrent response of heteroacene derivatives. 2014 , 9, 1943-9	15
1932	High open-circuit voltage organic photovoltaic cells fabricated using semiconducting copolymers consisting of bithiophene and fluorinated quinoxaline or triazole derivatives. 2014 , 194, 88-96	13
1931	Triazine-Bridged Porphyrin Triad as Electron Donor for Solution-Processed Bulk Hetero-Junction Organic Solar Cells. 2014 , 118, 5968-5977	45
1930	Solution-Processed Copper Iodide as an Inexpensive and Effective Anode Buffer Layer for Polymer Solar Cells. 2014 , 118, 16806-16812	69
1929	Acceptor-donor-acceptor small molecules based on indacenodithiophene for efficient organic solar cells. 2014 , 6, 8426-33	116
1928	Narrow-Band-Gap Conjugated Polymers Based on 2,7-Dioctyl-Substituted Dibenzo[a,c]phenazine Derivatives for Polymer Solar Cells. 2014 , 47, 2921-2928	55
1927	Enhanced open-circuit voltage in polymer solar cells by dithieno[3,2-b:2?,3?-d]pyrrole N-acylation. 2014 , 2, 7535-7545	30
1926	Tailored donor-acceptor polymers with an A-D1-A-D2 structure: controlling intermolecular interactions to enable enhanced polymer photovoltaic devices. 2014 , 136, 6049-55	174
1925	Theory study on the properties of thiadiazole polymer donors for organic solar cells. 2014 , 27, 99-105	6
1924	A Twisted Dimeric Perylene Diimide Electron Acceptor for Efficient Organic Solar Cells. 2014 , 4, 1400420	112

	923	cyclic voltammetry and thermal analysis. 2014 , 102, 189-195	17
19	922	Design and properties of intermediate-sized narrow band-gap conjugated molecules relevant to solution-processed organic solar cells. 2014 , 136, 5697-708	132
19	921	Thioalkyl-Substituted Benzothiadiazole Acceptors: Copolymerization with Carbazole Affords Polymers with Large Stokes Shifts and High Solar Cell Voltages. 2014 , 47, 2279-2288	57
19	920	D-A-D structured organic molecules with diketopyrrolopyrrole acceptor unit for solution-processed organic solar cells. 2014 , 372, 20130009	5
19	919	Synthesis and photovoltaic performance of low band gap copolymers based on diketopyrrolopyrrole and tetrathienoacene with different conjugated bridges. 2014 , 2, 653-662	39
19	918	Thiazolyl substituted benzodithiophene copolymers: synthesis, properties and photovoltaic applications. 2014 , 2, 1306-1313	21
19	917	Consequences of hydrogen bonding on molecular organization and charge transport in molecular organic photovoltaic materials. 2014 , 2, 1541-1549	34
19	916	Flexible photovoltaic technologies. 2014 , 2, 1233	87
19	915	Influence of the Excited-State Charge-Transfer Character on the Exciton Dissociation in Donor Acceptor Copolymers. 2014 , 118, 27-36	10
19	914	Benzo[1,2-b:4,5-b?]dithiophene-fumaronitrile-based D-A type copolymers with different Ebridges: Synthesis, characterization and photovoltaic properties. 2014 , 188, 57-65	5
	914 913		5
19		Synthesis, characterization and photovoltaic properties. 2014 , 188, 57-65	
19	913	Synthesis, characterization and photovoltaic properties. 2014 , 188, 57-65 Ternary MEH-PPV-CuInS2/ZnO solar cells with tunable CuInS2 content. 2014 , 99, 126-133 New alkylselenyl substituted benzodithiophene-based solution-processable 2D Etonjugated	5
19	913	Synthesis, characterization and photovoltaic properties. 2014, 188, 57-65 Ternary MEH-PPV-CuInS2/ZnO solar cells with tunable CuInS2 content. 2014, 99, 126-133 New alkylselenyl substituted benzodithiophene-based solution-processable 2D Etonjugated polymers for bulk heterojunction polymer solar cell applications. 2014, 122, 136-145 The trifluoromethylating Sandmeyer reaction: a method for transforming C-N into C-CF(3). 2014,	5 26
19	913 912 911	Synthesis, characterization and photovoltaic properties. 2014, 188, 57-65 Ternary MEH-PPV-CuInS2/ZnO solar cells with tunable CuInS2 content. 2014, 99, 126-133 New alkylselenyl substituted benzodithiophene-based solution-processable 2D Etonjugated polymers for bulk heterojunction polymer solar cell applications. 2014, 122, 136-145 The trifluoromethylating Sandmeyer reaction: a method for transforming C-N into C-CF(3). 2014, 53, 1482-4 Structure@roperty relationships of oligothiophene@oindigo polymers for efficient	5 26 50
19	913 912 911	Synthesis, characterization and photovoltaic properties. 2014, 188, 57-65 Ternary MEH-PPV-CuInS2/ZnO solar cells with tunable CuInS2 content. 2014, 99, 126-133 New alkylselenyl substituted benzodithiophene-based solution-processable 2D Econjugated polymers for bulk heterojunction polymer solar cell applications. 2014, 122, 136-145 The trifluoromethylating Sandmeyer reaction: a method for transforming C-N into C-CF(3). 2014, 53, 1482-4 Structureproperty relationships of oligothiophene coindigo polymers for efficient bulk-heterojunction solar cells. 2014, 7, 361-369	5 26 50 100
19	913 912 911 910	Synthesis, characterization and photovoltaic properties. 2014, 188, 57-65 Ternary MEH-PPV-CuInS2/ZnO solar cells with tunable CuInS2 content. 2014, 99, 126-133 New alkylselenyl substituted benzodithiophene-based solution-processable 2D Etonjugated polymers for bulk heterojunction polymer solar cell applications. 2014, 122, 136-145 The trifluoromethylating Sandmeyer reaction: a method for transforming C-N into C-CF(3). 2014, 53, 1482-4 StructureBroperty relationships of oligothiopheneBoindigo polymers for efficient bulk-heterojunction solar cells. 2014, 7, 361-369 High-Efficiency Solar Cells. 2014, Molecular design of donor@cceptor conjugated copolymers based on C-, Si- and N-bridged	5 26 50 100 16

1905	ZnO nanorod arrays for various low-bandgap polymers in inverted organic solar cells. 2014 , 6, 466-71	14
1904	Preparation of a DA polymer with disilanobithiophene as a new donor component and application to high-voltage bulk heterojunction polymer solar cells. 2014 , 5, 346-349	19
1903	Regioselective derivatization of C84 by Diels-Alder reactions: applications to photovoltaic solar cells and fullerene polymerization. 2014 , 16, 170-3	20
1902	Effect of Molecular Order on the Performance of Naphthobisthiadiazole-Based Polymer Solar Cells. 2014 , 4, 1301601	21
1901	Bandgap Tunable Zn1-xMgxO Thin Films as Highly Transparent Cathode Buffer Layers for High-Performance Inverted Polymer Solar Cells. 2014 , 4, 1301404	78
1900	Engineering frontier energy levels in donor-acceptor fluoren-9-ylidene malononitriles versus fluorenones. 2014 , 118, 475-86	19
1899	Rational molecular engineering towards efficient non-fullerene small molecule acceptors for inverted bulk heterojunction organic solar cells. 2014 , 50, 1591-4	51
1898	Protonation process of conjugated polyelectrolytes on enhanced power conversion efficiency in the inverted polymer solar cells. 2014 , 4, 043099	5
1897	Donor Bpacer Bcceptor monodisperse conjugated co-oligomers for efficient single-molecule photovoltaic cells based on non-fullerene acceptors. 2014 , 2, 3632	36
1896	All-plastic solar cells with a high photovoltaic dynamic range. 2014 , 2, 3492	87
	All-plastic solar cells with a high photovoltaic dynamic range. 2014 , 2, 3492 Recent developments on isoindigo-based conjugated polymers. 2014 , 5, 3298-3305	118
	Recent developments on isoindigo-based conjugated polymers. 2014 , 5, 3298-3305	, i
1895	Recent developments on isoindigo-based conjugated polymers. 2014 , 5, 3298-3305 From lab to fab: how must the polymer solar cell materials design change? [an industrial	118
1895 1894	Recent developments on isoindigo-based conjugated polymers. 2014 , 5, 3298-3305 From lab to fab: how must the polymer solar cell materials design change? Dan industrial perspective. 2014 , 7, 925 Using ultra-high molecular weight hydrophilic polymer as cathode interlayer for inverted polymer	118
1895 1894 1893	Recent developments on isoindigo-based conjugated polymers. 2014, 5, 3298-3305 From lab to fab: how must the polymer solar cell materials design change? Ibn industrial perspective. 2014, 7, 925 Using ultra-high molecular weight hydrophilic polymer as cathode interlayer for inverted polymer solar cells: Enhanced efficiency and excellent air-stability. 2014, 123, 104-111 Correlation between Polymer Structure and Polymer:Fullerene Blend Morphology and Its	118 268 18
1895 1894 1893	Recent developments on isoindigo-based conjugated polymers. 2014, 5, 3298-3305 From lab to fab: how must the polymer solar cell materials design change? Ibn industrial perspective. 2014, 7, 925 Using ultra-high molecular weight hydrophilic polymer as cathode interlayer for inverted polymer solar cells: Enhanced efficiency and excellent air-stability. 2014, 123, 104-111 Correlation between Polymer Structure and Polymer:Fullerene Blend Morphology and Its Implications for High Performance Polymer Solar Cells. 2014, 118, 2237-2244 Influence of the backbone conformation of conjugated polymers on morphology and photovoltaic properties. 2014, 5, 1976-1981	118 268 18
1895 1894 1893 1892	Recent developments on isoindigo-based conjugated polymers. 2014, 5, 3298-3305 From lab to fab: how must the polymer solar cell materials design change? Ian industrial perspective. 2014, 7, 925 Using ultra-high molecular weight hydrophilic polymer as cathode interlayer for inverted polymer solar cells: Enhanced efficiency and excellent air-stability. 2014, 123, 104-111 Correlation between Polymer Structure and Polymer:Fullerene Blend Morphology and Its Implications for High Performance Polymer Solar Cells. 2014, 118, 2237-2244 Influence of the backbone conformation of conjugated polymers on morphology and photovoltaic properties. 2014, 5, 1976-1981	118 268 18 14

1887	Synthesis of Group 14 Dipyridinometalloles with Enhanced Electron-Deficient Properties and Solid-State Phosphorescence. 2014 , 33, 517-521	36	
1886	Cyano-substituted perylene diimides with linearly correlated LUMO levels. 2014 , 16, 394-7	54	
1885	A Highly Efficient Catalyst for the Synthesis of Alternating Copolymers with Thieno[3,4-c]pyrrole-4,6-dione Units via Direct Arylation Polymerization. 2014 , 47, 626-631	89	
1884	Conjugated electron donor\(\text{Bcceptor molecules with}\) (E)-[4,4?-biimidazolylidene]-5,5?(1H,1?H)-dione for new organic semiconductors. 2014 , 2, 1149-1157	7	
1883	Benzotriazole-based donor\(\text{lcceptor conjugated polymers with a broad absorption in the visible range. \(\text{2014}, 5, 1258-1263 \)	24	
1882	Benzodithiophene-based poly(aryleneethynylene)s: Synthesis, optical properties, and applications in organic solar cells. 2014 , 52, 208-215	19	
1881	A bipolar small molecule based on indacenodithiophene and diketopyrrolopyrrole for solution processed organic solar cells. 2014 , 2, 778-784	79	
1880	Design and synthesis of triazoloquinoxaline polymers with positioning alkyl or alkoxyl chains for organic photovoltaics cells. 2014 , 5, 1163-1172	20	
1879	Improved power conversion efficiency by insertion of RGOIIiO2 composite layer as optical spacer in polymer bulk heterojunction solar cells. 2014 , 15, 348-355	20	
1878	Hole-Transporting Spirothioxanthene Derivatives as Donor Materials for Efficient Small-Molecule-Based Organic Photovoltaic Devices. 2014 , 26, 6585-6594	39	
1877	Neat CEbased bulk-heterojunction polymer solar cells with excellent acceptor dispersion. 2014 , 6, 21416-25	26	
1876	Electronic structure of conducting organic polymers: insights from time-dependent density functional theory. 2014 , 4, 601-622	70	
1875	Synthesis, characterization and photovoltaic properties of benzo[1,2-b:4,5-b?]dithiophene-bridged molecules. 2014 , 4, 63260-63267	8	
1874	Isopropanol-treated PEDOT:PSS as electron transport layer in polymer solar cells. 2014 , 15, 3445-3451	31	
1873	N-phenyl[60]fulleropyrrolidines: alternative acceptor materials to PC61BM for high performance organic photovoltaic cells. 2014 , 2, 20889-20895	26	
1872	Computational study on the effects of substituent and heteroatom on physical properties and solar cell performance in donor-acceptor conjugated polymers based on benzodithiophene. 2014 , 20, 2489	5	
1871	Optical engineering of uniformly decorated graphene oxide nanoflakes via in situ growth of silver nanoparticles with enhanced plasmonic resonance. 2014 , 6, 21069-77	22	
1870	Determining Optimal Crystallinity of Diketopyrrolopyrrole-Based Terpolymers for Highly Efficient Polymer Solar Cells and Transistors. 2014 , 26, 6963-6970	123	

1869	Benzobisthiazole as Weak Donor for Improved Photovoltaic Performance: Microwave Conductivity Technique Assisted Molecular Engineering. 2014 , 24, 28-36	31
1868	Alkylphenyl substituted naphthodithiophene: a new building unit with conjugated side chains for semiconducting materials. 2014 , 35, 1886-9	8
1867	Planar conjugated polymers containing 9,10-disubstituted phenanthrene units for efficient polymer solar cells. 2014 , 35, 1142-7	10
1866	Effect of Donor-Acceptor Substitution on Optoelectronic Properties of Conducting Organic Polymers. 2014 , 10, 4921-37	24
1865	A New Ladder-Type Germanium-Bridged Dithienocarbazole Arene and Its DonorAcceptor Conjugated Copolymers: Synthesis, Molecular Properties, and Photovoltaic Applications. 2014 , 47, 7386-7396	21
1864	Green-solvent-processed molecular solar cells. 2014 , 53, 14378-81	95
1863	Effects of different dopants on the band gap and electrical conductivity of the poly(phenylene-thiazolo[5,4-d]thiazole) copolymer. 2014 , 4, 25165-25171	14
1862	Solution-processed organic solar cells based on dialkylthiol-substituted benzodithiophene unit with efficiency near 10%. 2014 , 136, 15529-32	637
1861	Tuning of HOMO energy levels and open circuit voltages in solar cells based on statistical copolymers prepared by ADMET polymerization. 2014 , 5, 6287-6294	12
1860	Benzothiadiazole[1,2-b:4,3-b?]dithiophene, a new ladder-type multifused block: Synthesis and photovoltaic application. 2014 , 15, 3601-3608	15
1859	New dithienyl-diketopyrrolopyrrole-based conjugated molecules entailing electron withdrawing moieties for organic ambipolar semiconductors and photovoltaic materials. 2014 , 2, 10101-10109	25
1858	A high molecular weight triisopropylsilylethynyl (TIPS)-benzodithiophene and diketopyrrolopyrrole-based copolymer for high performance organic photovoltaic cells. 2014 , 2, 6348	56
1857	Design and photovoltaic characterization of dithieno[3,2-b:2',3'-d]silole copolymers with positioning phenyl groups. 2014 , 16, 26893-900	4
1856	A non-fullerene acceptor with all Allunits realizing high open-circuit voltage solution-processed organic photovoltaics. 2014 , 2, 2657	20
1855	A water-soluble metallophthalocyanine derivative as a cathode interlayer for highly efficient polymer solar cells. 2014 , 2, 12484-12491	49
1854	Interplay of alternative conjugated pathways and steric interactions on the electronic and optical properties of donoracceptor conjugated polymers. 2014 , 2, 8873-8879	22
1853	A diketopyrrolopyrrole and benzothiadiazole based small molecule electron acceptor: design, synthesis, characterization and photovoltaic properties. 2014 , 4, 57635-57638	38
1852	A new two-dimensional donor/acceptor copolymer based on 4,8-bis(2?-ethylhexylthiophene)thieno[2,3-f]benzofuran for high-performance polymer solar cells.	35

Effects of heteroatom substitution in conjugated heterocyclic compounds on photovoltaic performance: from sulfur to tellurium. 2014 , 50, 7964-7	52
A high-performance solution-processed small molecule: alkylselenophene-substituted benzodithiophene organic solar cell. 2014 , 2, 4937-4946	31
Tuning morphology and photovoltaic properties of diketopyrrolopyrrole-based small-molecule solar cells by taloring end-capped aromatic groups. 2014 , 16, 4664-71	18
Pentacyclic aromatic bislactam-based conjugated polymers: constructed by Beckmann rearrangement and application in organic field-effect transistor. 2014 , 5, 5369-5374	9
Structure-property relationship study of substitution effects on isoindigo-based model compounds as electron donors in organic solar cells. 2014 , 6, 14533-42	28
Trapping Light with a Nanostructured CeOx/Al Back Electrode for High-Performance Polymer Solar Cells. 2014 , 1, 1400197	30
Alkoxyphenylthiophene Linked Benzodithiophene Based Medium Band Gap Polymers for Organic Photovoltaics: Efficiency Improvement upon Methanol Treatment Depends on the Planarity of Backbone. 2014 , 47, 7060-7069	35
Supramolecular self-assembly and photovoltaic property of soluble fluorogallium phthalocyanine. 2014 , 4, 29485-29492	3
Significance of ions with an ordered arrangement for enhancing the electron injection/extraction in polymer optoelectronic devices. 2014 , 2, 4805-4811	8
High efficiency P3HT:PCBM solar cells with an inserted PCBM layer. 2014 , 2, 4383	83
Enhanced power conversion efficiency of inverted organic solar cells by using solution processed Sn-doped TiO2 as an electron transport layer. 2014 , 2, 11426	17
Introducing asymmetry in tetradentate azadipyrromethene chromophores: a systematic study of the impact on electronic and photophysical properties. 2014 , 16, 22207-21	9
Quinoxaline-functionalized C60 derivatives as electron acceptors in organic solar cells. 2014 , 4, 25291-25301	22
Synthesis and morphological studies of a poly(5,6-difluorobenzo-2,1,3-thiadiazole-4,7-diyl-alt-quaterchalcogenophene) copolymer with 7.3% polymer solar cell efficiency. 2014 , 5, 6472-6479	20
The effect of DIO additive on performance improvement of polymer solar cells. 2014 , 59, 3227-3231	6
Binary Additives Regulate the PC71BM Aggregate Morphology for Highly Efficient Polymer Solar Cells. 2014 , 1, 1278-1284	6
Effect of thermal annealing on active layer morphology and performance for small molecule bulk heterojunction organic solar cells. 2014 , 2, 7247-7255	58
Improving the photovoltaic performance of ladder-type dithienonaphthalene-containing copolymers through structural isomerization. 2014 , 2, 13905-13915	20
	performance: from sulfur to tellurium. 2014, 50, 7964-7 A high-performance solution-processed small molecule: alkylselenophene-substituted benzodithiophene organic solar cell. 2014, 2, 4937-4946 Tuning morphology and photovoltaic properties of diketopyrrolopyrrole-based small-molecule solar cells by taloring end-capped aromatic groups. 2014, 16, 4664-71 Pentacyclic aromatic bislactam-based conjugated polymers: constructed by Beckmann rearrangement and application in organic field-effect transistor. 2014, 5, 3369-5374 Structure-property relationship study of substitution effects on isoindigo-based model compounds as electron donors in organic solar cells. 2014, 6, 1453-42 Trapping Light with a Nanostructured CeOx/Al Back Electrode for High-Performance Polymer Solar Cells. 2014, 1, 1400197 Alkoxyphenylthiophene Linked Benzodithiophene Based Medium Band Cap Polymers for Organic Photovoltaics: Efficiency Improvement upon Methanol Treatment Depends on the Planarity of Backbone. 2014, 47, 706-7069 Supramolecular self-assembly and photovoltaic property of soluble fluorogallium phthalocyanine. 2014, 4, 29485-29492 Significance of ions with an ordered arrangement for enhancing the electron injection/extraction in polymer optoelectronic devices. 2014, 2, 4805-4811 High efficiency P3HT:PCBM solar cells with an inserted PCBM layer. 2014, 2, 4383 Enhanced power conversion efficiency of inverted organic solar cells by using solution processed Sn-doped TiO2 as an electron transport layer. 2014, 2, 11426 Introducing asymmetry in tetradentate azadipyrromethene chromophores: a systematic study of the impact on electronic and photophysical properties. 2014, 16, 22207-21 Quinoxaline-functionalized C60 derivatives as electron acceptors in organic solar cells. 2014, 4, 25291-25301 Synthesis and morphological studies of a poly(5,6-diffluorobenzo-2,1,3-thiadiazole-4,7-diyl-alt-quaterchalcogenophene) copolymer with 7.3% polymer solar cell efficiency. 2014, 5, 6472-6479 The effect of DIO additive on performance improvement

1833	Self n-doped [6,6]-phenyl-C61-butyric acid 2-((2-(trimethylammonium)ethyl)-(dimethyl)ammonium) ethyl ester diiodides as a cathode interlayer for inverted polymer solar cells. 2014 , 2, 14720-14728	37
1832	Indole and triisopropyl phenyl as capping units for a diketopyrrolopyrrole (DPP) acceptor central unit: an efficient DAD type small molecule for organic solar cells. 2014 , 4, 732-742	21
1831	Substituent dependent tunable fluorescence in thieno[3,2-c]pyrans. 2014 , 4, 56779-56783	9
1830	The role of solvent vapor annealing in highly efficient air-processed small molecule solar cells. 2014 , 2, 9048	120
1829	Naphthodifuran alternating quinoxaline copolymers with a bandgap of ~1.2 eV and their photovoltaic characterization. 2014 , 38, 4816-4822	24
1828	High efficiency solution-processed two-dimensional small molecule organic solar cells obtained via low-temperature thermal annealing. 2014 , 2, 15904-15911	41
1827	Indacenodithiophene core-based small molecules with tunable side chains for solution-processed bulk heterojunction solar cells. 2014 , 2, 4004	30
1826	Polythiophenes with vinylene linked ortho, meta and para-carborane sidechains. 2014 , 5, 6190-6199	21
1825	The effect of different chalcogenophenes in isoindigo-based conjugated copolymers on photovoltaic properties. 2014 , 5, 6545-6550	45
1824	The effect of branched versus linear alkyl side chains on the bulk heterojunction photovoltaic performance of small molecules containing both benzodithiophene and thienopyrroledione. 2014 , 16, 19874-83	33
1823	Protonation induced shifting of electron-accepting centers in intramolecular charge transfer chromophores: a theoretical study. 2014 , 16, 20221-7	9
1822	Oligothiophene-modified silver/silica coreBhell nanoparticles for inhibiting open-circuit voltage drop and aggregation in polymer solar cells. 2014 , 2, 15357-15364	10
1821	New solution processed bulk-heterojunction organic solar cells based on a triazine-bridged porphyrin dyad as electron donor. 2014 , 4, 50819-50827	13
1820	Doping Poly(3-hexylthiophene) Nanowires with Selenophene Increases the Performance of Polymer-Nanowire Solar Cells. 2014 , 26, 4605-4611	49
1819	Side-chain engineering of benzodithiophene-fluorinated quinoxaline low-band-gap co-polymers for high-performance polymer solar cells. 2014 , 20, 13259-71	40
1818	High open circuit voltage in regioregular narrow band gap polymer solar cells. 2014 , 136, 12576-9	200
1817	Application of biuret, dicyandiamide, or urea as a cathode buffer layer toward the efficiency enhancement of polymer solar cells. 2014 , 6, 4329-37	25
1816	New low band gap 2-(4-(trifluoromethyl)phenyl)-1H-benzo[d]imidazole and benzo[1,2-c;4,5-c?]bis[1,2,5]thiadiazole based conjugated polymers for organic photovoltaics. 2014 , 4, 44902-44910	13

1815	Chain Length Dependence of the Photovoltaic Properties of Monodisperse Donor Acceptor Oligomers as Model Compounds of Polydisperse Low Band Gap Polymers. 2014 , 24, 7538-7547	49
1814	Perylene diimides: a thickness-insensitive cathode interlayer for high performance polymer solar cells. 2014 , 7, 1966	560
1813	Role of the coordination center in photocurrent behavior of a tetrathiafulvalene and metal complex dyad. 2014 , 53, 3078-87	15
1812	Triphenylamine modified bis-diketopyrrolopyrrole molecular donor materials with extended conjugation for bulk heterojunction solar cells. 2014 , 15, 2575-2586	15
1811	A Facile Method to Enhance Photovoltaic Performance of Benzodithiophene-Isoindigo Polymers by Inserting Bithiophene Spacer. 2014 , 4, 1301455	58
1810	Synthesis and photovoltaic properties of new donor (DA) copolymers based on benzo[1,2-b:3,4-b?:6,5-b??] trithiophene donor and different acceptor units (P1 and P2). 2014 , 4, 53531-53542	5
1809	Design, synthesis and photophysical studies of dipyrromethene-based materials: insights into their applications in organic photovoltaic devices. 2014 , 43, 3342-405	405
1808	Effects of cyano (CN)-groups on the planarity, film morphology and photovoltaic performance of benzodithiophene-based polymers. 2014 , 5, 4772-4780	6
1807	Molecular design of new P3HT derivatives: Adjusting electronic energy levels for blends with PCBM. 2014 , 148, 923-932	23
1806	Effect of Econjugated bridges of TPD-based medium bandgap conjugated copolymers for efficient tandem organic photovoltaic cells. 2014 , 7, 4118-4131	101
1805	High polymer/fullerene ratio realized in efficient polymer solar cells by tailoring of the polymer side-chains. 2014 , 26, 3624-30	58
1804	Compact bis-adduct fullerenes and additive-assisted morphological optimization for efficient organic photovoltaics. 2014 , 6, 20102-9	9
1803	Optimization of the Power Conversion Efficiency of Room Temperature-Fabricated Polymer Solar Cells Utilizing Solution Processed Tungsten Oxide and Conjugated Polyelectrolyte as Electrode Interlayer. 2014 , 24, 3986-3995	41
1802	Simultaneous Enhancement of Solar Cell Efficiency and Photostability via Chemical Tuning of Electron Donating Units in Diketopyrrolopyrrole-Based Push Pull Type Polymers. 2014 , 47, 6270-6280	32
1801	Synthesis of donor acceptor conjugated polymers based on benzo[1,2-b:4,5-b?] dithiophene and 2,1,3-benzothiadiazole via direct arylation polycondensation: towards efficient CH activation in nonpolar solvents. 2014 , 5, 5784-5792	79
1800	Synthesis and characterization of dithienobenzothiadiazole-based donor\(\text{lcceptor conjugated} \) polymers for organic solar cell applications. 2014 , 55, 4849-4852	12
1799	Effect of a long alkyl group on cyclopentadithiophene as a conjugated bridge for D-A-EA organic sensitizers: IPCE, electron diffusion length, and charge recombination. 2014 , 6, 14621-30	60
1798	Direct Access to Fluorene by Successive CD/CH Bond Activations of 2-Phenylbenzyl Ester. 2014 , 33, 1921-1924	8

1797	Benzodithiophene homopolymers synthesized by Grignard metathesis (GRIM) and Stille coupling polymerizations. 2014 , 2, 8773-8781	14
1796	Small band gap D-FA-ED benzothiadiazole derivatives with low-lying HOMO levels as potential donors for applications in organic photovoltaics: a combined experimental and theoretical investigation. 2014 , 4, 35318-35331	29
1795	Self-Assembled Conjugated Polyelectrolytelbnic Liquid Crystal Complex as an Interlayer for Polymer Solar Cells: Achieving Performance Enhancement via Rapid Liquid Crystal-Induced Dipole Orientation. 2014 , 47, 1623-1632	37
1794	Microcavity-enhanced light-trapping for highly efficient organic parallel tandem solar cells. 2014 , 26, 6778-84	81
1793	High performance polymer solar cells based on a two dimensional conjugated polymer from alkylthienyl-substituted benzodifuran and benzothiadiazole. 2014 , 5, 5002-5008	26
1792	Engineering the band gap and energy level of conjugated polymers using a second acceptor unit. 2014 , 5, 5037-5045	11
1791	Highly efficient charge-carrier generation and collection in polymer/polymer blend solar cells with a power conversion efficiency of 5.7%. 2014 , 7, 2939	253
1790	New polythiophene derivatives and enhanced photovoltaic effect by a boron compound blended with them in OPVs cells. 2014 , 196, 83-91	5
1789	Graphene oxide-based carbon interconnecting layer for polymer tandem solar cells. 2014 , 14, 1467-71	51
1788	Copper-catalyzed synthesis of aryl and alkyl trifluoromethyl sulfides using CF3SiMe3 and Na2S2O3 as BCF3 source. 2014 , 55, 4909-4911	23
1787	A polythiophene derivative with superior properties for practical application in polymer solar cells. 2014 , 26, 5880-5	173
1786	Fine Tuning of Polymer Properties by Incorporating Strongly Electron-Donating 3-Hexyloxythiophene Units into Random and Semi-random Copolymers. 2014 , 47, 5029-5039	27
1785	Indolo[3,2-b]carbazole and benzofurazan based narrow band-gap polymers for photovoltaic cells. 2014 , 38, 4587-4593	19
1784	Manipulating backbone structure with various conjugated spacers to enhance photovoltaic performance of DIA-type two-dimensional copolymers. 2014 , 15, 2876-2884	36
1783	Theoretical investigations on fluorinated and cyano copolymers for improvements of photovoltaic performances. 2014 , 16, 311-23	32
1782	Effects of alkyl chain length and substituent pattern of fullerene bis-adducts on film structures and photovoltaic properties of bulk heterojunction solar cells. 2014 , 6, 17313-22	40
1781	Alkyl chain engineering in the hybrid bithiophene-3,4-ethylenedioxythiophene: Synthesis, electronic properties, and electropolymerization. 2014 , 198, 19-30	17
1780	Inverted organic solar cells employing RGO/TiO x composite films as electron transport layers. 2014 , 143, 18-22	13

1779	Photopatternable electrochromic materials from oxetane precursors. 2014 , 6, 6920-9	17
1778	A non-fullerene electron acceptor based on fluorene and diketopyrrolopyrrole building blocks for solution-processable organic solar cells with an impressive open-circuit voltage. 2014 , 16, 23837-42	56
1777	Pyrene based conjugated materials: synthesis, characterization and electroluminescent properties. 2014 , 16, 23320-8	24
1776	A novel carbazolephenothiazine dyad small molecule as a non-fullerene electron acceptor for polymer bulk heterojunction solar cells. 2014 , 4, 33279-33285	23
1775	Effect of extended Econjugation structure of donor-acceptor conjugated copolymers on the photoelectronic properties. 2014 , 9, 2961-9	9
1774	A Miscible and Adaptive Poly(methyl acrylate)/Polystyrene Blend Formed by Multiple-Responsive Host G uest Interactions. 2014 , 215, 536-543	15
1773	Location and Number of Selenium Atoms in Two-Dimensional Conjugated Polymers Affect Their Band-Gap Energies and Photovoltaic Performance. 2014 , 47, 7070-7080	58
1772	Donor-acceptor-type copolymers based on a naphtho[1,2-c:5,6-c]bis(1,2,5-thiadiazole) scaffold for high-efficiency polymer solar cells. 2014 , 9, 2104-12	11
1771	Comparison of additive amount used in spin-coated and roll-coated organic solar cells. 2014 , 2, 19542-19549	30
1770	Light-harvesting capabilities of low band gap donor-acceptor polymers. 2014 , 16, 24853-65	24
1769	Highly Efficient 2D-Conjugated Benzodithiophene-Based Photovoltaic Polymer with Linear	
	Alkylthio Side Chain. 2014 , 26, 3603-3605	509
1768	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and nonvolatile memory. 2014 , 6, 6589-97	29
1768 1767	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and	
	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and nonvolatile memory. 2014 , 6, 6589-97 Effects of donor unit and Ebridge on photovoltaic properties of DA copolymers based on	29
1767	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and nonvolatile memory. 2014 , 6, 6589-97 Effects of donor unit and Ebridge on photovoltaic properties of DA copolymers based on benzo[1,2-b:4,5-c']-dithiophene-4,8-dione acceptor unit. 2014 , 52, 1929-1940	29
1767 1766	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and nonvolatile memory. 2014 , 6, 6589-97 Effects of donor unit and Ebridge on photovoltaic properties of DA copolymers based on benzo[1,2-b:4,5-c']-dithiophene-4,8-dione acceptor unit. 2014 , 52, 1929-1940 Oriented thin films of a benzodithiophene covalent organic framework. 2014 , 8, 4042-52 Immiscible solvents enabled nanostructure formation for efficient polymer photovoltaic cells. 2014	29 26 149
1767 1766 1765	High crystalline dithienosilole-cored small molecule semiconductor for ambipolar transistor and nonvolatile memory. 2014, 6, 6589-97 Effects of donor unit and Ebridge on photovoltaic properties of DA copolymers based on benzo[1,2-b:4,5-c']-dithiophene-4,8-dione acceptor unit. 2014, 52, 1929-1940 Oriented thin films of a benzodithiophene covalent organic framework. 2014, 8, 4042-52 Immiscible solvents enabled nanostructure formation for efficient polymer photovoltaic cells. 2014, 25, 295401 Strategy to Modulate the Electron-Rich Units in DonorAcceptor Copolymers for Improvements of	29 26 149

1761	Small molecular non-fullerene electron acceptors for P3HT-based bulk-heterojunction solar cells. 2014 , 57, 973-981	14
1760	Synthesis and photovoltaic properties of DAD type small molecules containing diketopyrrolopyrrole (DPP) acceptor central unit with different donor terminal units. 2014 , 15, 2116-2125	15
1759	Molecular design toward highly efficient photovoltaic polymers based on two-dimensional conjugated benzodithiophene. <i>Accounts of Chemical Research</i> , 2014 , 47, 1595-603	624
1758	Efficient diketopyrrolopyrrole-based small-molecule bulk-heterojunction solar cells with different electron-donating end-groups. 2014 , 9, 2505-13	12
1757	Improvement of open-circuit voltage and photovoltaic properties of 2D-conjugated polymers by alkylthio substitution. 2014 , 7, 2276-2284	460
1756	Synthesis and photovoltaic properties of thieno[3,2-b]thiophenyl substituted benzo[1,2-b:4,5-b?]dithiophene copolymers. 2014 , 5, 6710-6717	10
1755	Efficient ternary blend polymer solar cells with indene-C60 bisadduct as an electron-cascade acceptor. 2014 , 7, 2005	250
1754	Dibenzothiophene- S,S -dioxide based medium-band-gap polymers for efficient bulk heterojunction solar cells. 2014 , 15, 2950-2958	8
1753	Optimization of Solubility, Film Morphology and Photodetector Performance by Molecular Side-Chain Engineering of Low-Bandgap Thienothiadiazole-Based Polymers. 2014 , 24, 7605-7612	70
1752	Optimization of molecular organization and nanoscale morphology for high performance low bandgap polymer solar cells. 2014 , 6, 3984-94	42
1751	5-Alkyloxy-6-fluorobenzo[c][1,2,5]thiadiazole- and Silafluorene-Based DA Alternating Conjugated Polymers: Synthesis and Application in Polymer Photovoltaic Cells. 2014 , 47, 4645-4652	41
1750	Flexible polymer solar cells with power conversion efficiency of 8.7%. 2014 , 2, 5077-5082	70
1749	Preparation of poly(disilanylenetetracyanobutadienyleneoligothienylene)s as new donor (ceptor type organosilicon polymers. 2014 , 749, 255-260	6
1748	New small molecules with thiazolothiazole and benzothiadiazole acceptors for solution-processed organic solar cells. 2014 , 38, 1559	21
1747	Porphyrin-incorporated 2D D-A polymers with over 8.5% polymer solar cell efficiency. 2014 , 26, 5205-10	104
1746	High open-circuit voltage polymer solar cells based on DA copolymer of indacenodithiophene and fluorine-substituted benzotriazole. 2014 , 15, 818-823	16
1745	Synthesis and photovoltaic properties of novel C60 bisadducts based on benzo[2,1,3]-thiadiazole. 2014 , 70, 6217-6221	21
1744	Synthesis and photovoltaic characterization of thiadiazole based low bandgap polymers. 2014 , 562, 75-83	12

(2014-2014)

1743	Improved photovoltaic performance of two-dimensional low band-gap conjugated polymers with thieno[3,2-b]thiophene and diketopyrrolopyrrole units by altering pendent position of conjugated side chain. 2014 , 109, 6-12	19
1742	Influence of crystal phase for CuInS2 on device performance of polymer t uInS2/oxide nanoarrays solar cells. 2014 , 25, 337-343	11
1741	Near-IR dye sensitization of polymer blend solar cells. 2014 , 55, 2856-2860	17
1740	Solution-processed small molecules based on indacenodithiophene for high performance thin-film transistors and organic solar cells. 2014 , 15, 1155-1165	20
1739	Bis-adducts of benzocyclopentane- and acenaphthene-C60 superior to mono-adducts as electron acceptors in polymer solar cells. 2014 , 125, 198-205	11
1738	Design and characterization of Bodipy derivatives for bulk heterojunction solar cells. 2014 , 70, 6229-6234	27
1737	Synthesis and photovoltaic properties of an alternating polymer based on benzo[1,2-b:4,5-b?]dithiophene and fluorine substituted 4,7-dithiophene-2-yl-2,1,3-benzothiadiazole. 2014 , 192, 82-86	2
1736	A thienylenevinylene-phthalimide copolymer based polymer solar cell with high open circuit voltage: Effect of additive concentration on the open circuit voltage. 2014 , 125, 253-260	12
1735	Effect of Varying Thiophene Units on Charge-Transport and Photovoltaic Properties of Poly(phenylene ethynylene)-alt-poly(phenylene vinylene) Polymers. 2014 , 215, 1473-1484	3
1734	Thiophene Fused Azacoronenes: Regioselective Synthesis, Self-Organization, Charge Transport and Its Incorporation in Conjugated Polymers. 2014 , 26, 3920-3927	64
1733	Elastic and wearable wire-shaped lithium-ion battery with high electrochemical performance. 2014 , 53, 7864-9	259
1732	25th anniversary article: isoindigo-based polymers and small molecules for bulk heterojunction solar cells and field effect transistors. 2014 , 26, 1801-26	306
1731	An easy and effective method to modulate molecular energy level of the polymer based on benzodithiophene for the application in polymer solar cells. 2014 , 26, 2089-95	132
1730	Enhanced Photovoltaic Performance of Indacenodithiophene-Quinoxaline Copolymers by Side-Chain Modulation. 2014 , 4, 1400680	132
1729	Comparison of LC-TDDFT and ADC(2) Methods in Computations of Bright and Charge Transfer States in Stacked Oligothiophenes. 2014 , 10, 3280-9	42
1728	Thiophene-Fused Benzothiadiazole: A Strong Electron-Acceptor Unit to Build DA Copolymer for Highly Efficient Polymer Solar Cells. 2014 , 26, 3495-3501	75
1727	Non-fullerene acceptors for organic photovoltaics: an emerging horizon. 2014 , 1, 470	640
1726	A star-shaped perylene diimide electron acceptor for high-performance organic solar cells. 2014 , 26, 5137-42	352

1725	Monte Carlo Simulation of Geminate Pair Recombination Dynamics in Organic Photovoltaic Devices: Multi-Exponential, Field-Dependent Kinetics and Its Interpretation. 2014 , 118, 85-91	16
1724	Efficient polymer solar cells based on poly(3-hexylthiophene) and indene-Clbisadduct fabricated with non-halogenated solvents. 2014 , 6, 8190-8	82
1723	Improving Structural Order for a High-Performance Diketopyrrolopyrrole-Based Polymer Solar Cell with a Thick Active Layer. 2014 , 4, 1300739	39
1722	High-efficiency aqueous-processed hybrid solar cells with an enormous Herschel infrared contribution. 2014 , 6, 8606-12	22
1721	Computational evaluation of optoelectronic properties for organic/carbon materials. <i>Accounts of Chemical Research</i> , 2014 , 47, 3301-9	54
1720	Novel donor-acceptor polymer containing 4,7-bis(thiophen-2-yl)benzo[c][1,2,5]thiadiazole for polymer solar cells with power conversion efficiency of 6.21%. 2014 , 35, 1153-7	31
1719	Low-bandgap copolymers consisting of 2,1,3-benzoselenadiazole and carbazole derivatives with thiophene or selenophene Ebridges. 2014 , 55, 3605-3613	18
1718	Enhanced photovoltaic properties of the terpolymer containing diketopyrrolopyrrole and benzothiadiazole side chain. 2014 , 57, 83-90	4
1717	Effect of the position of substitution on the electronic properties of nitrophenyl derivatives of fulleropyrrolidines: Fundamental understanding toward raising LUMO energy of fullerene electron-acceptor. 2014 , 25, 501-504	19
1716	Progress of nanoscience in China. 2014 , 9, 257-288	19
1715	Die Sandmeyer-Trifluormethylierung leine Methode zur Umwandlung von C-N- in C-CF3-Bindungen. 2014 , 126, 1506-1508	12
1714	Roll-Coated Fabrication of Fullerene-Free Organic Solar Cells with Improved Stability. 2015 , 2, 1500096	75
1713	Electron-Deficient Conjugated Heteroaromatics. 2015, 411-443	
1712	Morphology and Performance of Polymer Solar Cell Characterized by DPD Simulation and Graph Theory. 2015 , 5, 16854	49
1711	A Mechanistic Understanding of a Binary Additive System to Synergistically Boost Efficiency in All-Polymer Solar Cells. 2015 , 5, 18024	37
1710	Electron-accepting EConjugated Systems Based on Cyclic Imide and Cyano-substituted Benzothiadiazole for Non-fullerene Organic Photovoltaics. 2015 , 44, 694-696	6
1709	Synthesis and Optical-electronic Properties of a Novel Star-shaped Benzodithiophene Molecule. 2015 , 44, 291-293	5
1708	Fulleropyrrolidine Derivatives with Benzophenone Moiety as Electron Acceptors in Thermally Stable Organic Photovoltaic Devices. 2015 , 44, 527-529	5

1707	Improving the efficiency of harvesting electricity from living trees. 2015 , 7, 063108	4
1706	Higher triplet state of fullerene C70 revealed by electron spin relaxation. 2015 , 143, 244314	4
1705	Synthesis, and Optical and Electrochemical Properties of Germanium-Bridged Viologen. 2015 , 83, 605-608	15
1704	Study of Photoelectric Conversion in Benzotrithiophene-Based Conjugated Semiconducting Polymers. 2015 , 28, 605-610	4
1703	Dithienopyrrole Based Small Molecule with Low Band Gap for Organic Solar Cells. 2015 , 33, 852-858	12
1702	Organic Charge Carriers for Perovskite Solar Cells. 2015 , 8, 3012-28	101
1701	A New DA conjugated polymer P(PTQD-BDT) with PTQD acceptor and BDT donor units for BHJ polymer solar cells application. 2015 , 53, 2390-2398	8
1700	Angular-Shaped 4,9-Dialkyl <code>Hand ENaphthodithiophene-Based Donor</code> Acceptor Copolymers: Investigation of Isomeric Structural Effects on Molecular Properties and Performance of Field-Effect Transistors and Photovoltaics. 2015 , 25, 6131-6143	46
1699	Subtle Balance Between Length Scale of Phase Separation and Domain Purification in Small-Molecule Bulk-Heterojunction Blends under Solvent Vapor Treatment. 2015 , 27, 6296-302	141
1698	Organic Solar Cells Based on a 2D Benzo[1,2-b:4,5-b']difuran-Conjugated Polymer with High-Power Conversion Efficiency. 2015 , 27, 6969-75	137
1697	New Semiconducting Polymer Based on Benzo[1,2-b:4,5-b?]diselenophene Donor and Diketopyrrolopyrrole/Isoindigo Acceptor Unit: Synthesis, Characterization and Photovoltaics. 2015 , 33, 909-916	3
1696	Spiro Linkage as an Alternative Strategy for Promising Nonfullerene Acceptors in Organic Solar Cells. 2015 , 25, 5954-5966	123
1695	Balanced Ambipolar Poly(diketopyrrolopyrrole-alt-tetrafluorobenzene) Semiconducting Polymers Synthesized via Direct Arylation Polymerization. 2015 , 36, 2162-70	41
1694	Organic Photovoltaic MaterialsDesign, Synthesis and Scale-Up. 2015 , 15, 1006-20	5
1693	Side chain engineering and conjugation enhancement of benzodithiophene and phenanthrenequnioxaline based conjugated polymers for photovoltaic devices. 2015 , 53, 1915-1926	12
1692	Suppressing the environmental dependence of the open-circuit voltage in inverted polymer solar cells through a radical polymer anodic modifier. 2015 , 53, 311-316	23
1691	Rational Design of Small Molecular Donor for Solution-Processed Organic Photovoltaics with 8.1% Efficiency and High Fill Factor via Multiple Fluorine Substituents and Thiophene Bridge. 2015 , 25, 3514-3523	110
1690	Carrier-Selectivity-Dependent Charge Recombination Dynamics in Organic Photovoltaic Cells with a Ferroelectric Blend Interlayer. 2015 , 5, 1500802	20

1689	Designing Efficient Non-Fullerene Acceptors by Tailoring Extended Fused-Rings with Electron-Deficient Groups. 2015 , 5, 1501063	196
1688	Thiophene Ebridge effect on photovoltaic performances of dithienosilole and bithiazole backboned polymers. 2015 , 132, n/a-n/a	2
1687	Optimizing Light-Harvesting Polymers via Side Chain Engineering. 2015 , 25, 6458-6469	32
1686	Wide-Bandgap Benzodithiophene-Benzothiadiazole Copolymers for Highly Efficient Multijunction Polymer Solar Cells. 2015 , 27, 4461-4468	95
1685	A Large-Bandgap Conjugated Polymer for Versatile Photovoltaic Applications with High Performance. 2015 , 27, 4655-60	586
1684	Interface engineering for ternary blend polymer solar cells with a heterostructured near-IR dye. 2015 , 27, 5868-74	51
1683	High-Performance Non-Fullerene Polymer Solar Cells Based on a Pair of Donor-Acceptor Materials with Complementary Absorption Properties. 2015 , 27, 7299-304	219
1682	Medium Bandgap Conjugated Polymer for High Performance Polymer Solar Cells Exceeding 9% Power Conversion Efficiency. 2015 , 27, 7462-8	73
1681	Polymer Solar Cells Based on the Copolymers of Naphtho[1,2-c:5,6-c]bis(1,2,5-thiadiazole) and Alkoxylphenyl Substituted Benzodithiophene with High Open-Circuit Voltages. 2015 , 33, 902-908	12
1680	Recently Advanced Polymer Materials Containing Dithieno[3,2-b:2?,3?-d]phosphole Oxide for Efficient Charge Transfer in High-Performance Solar Cells. 2015 , 25, 3991-3997	50
1679	Toward Highly Efficient Large-Area ITO-Free Organic Solar Cells with a Conductance-Gradient Transparent Electrode. 2015 , 27, 6983-9	54
1678	High-Performance Organic Solar Cells Based on a Small Molecule with Alkylthio-Thienyl-Conjugated Side Chains without Extra Treatments. 2015 , 27, 7469-75	174
1677	Development of Active Organic and Polymeric Materials for Batteries and Solar Cells: Introduction to Essential Characterization Techniques. 2015 , 5, 1500858	13
1676	Stille cross-coupling applied to get higher molecular weight polymers: Synthesis, optoelectronic, Voc properties, and solar cell application. 2015 , 132, n/a-n/a	O
1675	Synthesis of dithienogermole-containing oligo- and polysilsesquioxanes as luminescent materials. 2015 , 44, 8214-20	22
1674	Improved synthesis and photovoltaic performance of donor\(\text{lcceptor copolymers based on dibenzothiophene-cored ladder-type heptacyclic units. \(\text{2015}, 3, 5631-5641 \)	11
1673	Solution-Processed Diketopyrrolopyrrole-Containing Small-Molecule Organic Solar Cells with 7.0% Efficiency: In-Depth Investigation on the Effects of Structure Modification and Solvent Vapor Annealing. 2015 , 27, 4338-4348	100
1672	Simultaneous Enhancement of Solar Cell Efficiency and Stability by Reducing the Side Chain Density on Fluorinated PCPDTQx Copolymers. 2015 , 48, 3873-3882	22

1671	Modulation of electronic and self-assembly properties of a donor-acceptor-donor-based molecular materials via atomistic approach. 2015 , 7, 670-81	16
1670	A low bandgap carbazole based small molecule for organic solar cells. 2015 , 24, 89-95	16
1669	Squaraine dyes for organic photovoltaic cells. 2015 , 3, 14517-14534	167
1668	4,8-Bis(thienyl)-benzo[1,2-b:4,5-b?]dithiophene based A-ED-EA typed conjugated small molecules with mono-thiophene as the Ebridge: Synthesis, properties and photovoltaic performance. 2015 , 120, 299-306	8
1667	A mono(carboxy)porphyrin-triazine-(bodipy)2 triad as a donor for bulk heterojunction organic solar cells. 2015 , 3, 6209-6217	26
1666	Molecular Design and Application of a Photovoltaic Polymer with Improved Optical Properties and Molecular Energy Levels. 2015 , 48, 3493-3499	46
1665	A new multi-functional conjugated polymer for use in high-performance bulk heterojunction solar cells. 2015 , 51, 11572-5	32
1664	Perylene and naphthalene diimide polymers for all-polymer solar cells: a comparative study of chemical copolymerization and physical blend. 2015 , 6, 5254-5263	42
1663	Recent Advances in P-Type Conjugated Polymers for High-Performance Solar Cells. 2015, 145-189	
1662	High efficient ternary polymer solar cells based on absorption complementary materials as electron donor. 2015 , 141, 154-161	29
1661	Highly Stable Polymer Solar Cells Based on Poly(dithienobenzodithiophene-co-thienothiophene). 2015 , 48, 3890-3899	23
1660	Conjugated Polymer-Small Molecule Alloy Leads to High Efficient Ternary Organic Solar Cells. 2015 , 137, 8176-83	484
1659	New environmentally friendly polyazomethines with thiophene rings for polymer solar cells. 2015 , 117, 246-259	42
1658	Molecular design strategies for voltage modulation in highly efficient polymer solar cells. 2015 , 64, 957-962	41
1657	Efficient polymer solar cells with polyethylene glycol cathode buffer layer and improved PEDOT:PSS conductivity. 2015 , 212, 1800-1804	9
1656	Organic Optoelectronic Materials. 2015 ,	21
1655	Terthiophene [160 dyads as donor/acceptor compatibilizers for developing highly stable P3HT/PCBM bulk heterojunction solar cells. 2015 , 3, 14401-14408	12
1654	Functional tuning of ADA oligothiophenes: the effect of solvent vapor annealing on blend morphology and solar cell performance. 2015 , 3, 13738-13748	30

1653	Influence of Regio- and Chemoselectivity on the Properties of Fluoro-Substituted Thienothiophene and Benzodithiophene Copolymers. 2015 , 137, 7616-9	73
1652	Efficient Small-Molecule-Based Inverted Organic Solar Cells With Conjugated Polyelectrolyte as a Cathode Interlayer. 2015 , 5, 1118-1124	5
1651	Synthesis of a low bandgap polymer based on thieno[3,2-b]thiophene and fluorinated quinoxaline derivatives and its application in bulk heterojunction solar cells. 2015 , 206, 66-71	5
1650	Dramatic performance enhancement for large bandgap thick-film polymer solar cells introduced by a difluorinated donor unit. 2015 , 15, 607-615	89
1649	Conjugated Polymer Photovoltaic Materials. 2015 , 195-239	2
1648	Optimization of Broad-Response and High-Detectivity Polymer Photodetectors by Bandgap Engineering of Weak DonorBtrong Acceptor Polymers. 2015 , 48, 3941-3948	60
1647	An Easily Accessible Cathode Buffer Layer for Achieving Multiple High Performance Polymer Photovoltaic Cells. 2015 , 119, 27322-27329	29
1646	Investigation of the enhanced performance and lifetime of organic solar cells using solution-processed carbon dots as the electron transport layers. 2015 , 3, 12403-12409	23
1645	Synthesis and characterization of fluorine atom substituted new BDT-based polymers for use in organic solar cells. 2015 , 210, 273-281	8
1644	Perovskite-polymer hybrid solar cells with near-infrared external quantum efficiency over 40%. 2015 , 58, 953-960	34
1643	Isoindigo-based low bandgap conjugated polymer for o-xylene processed efficient polymer solar cells with thick active layers. 2015 , 3, 19928-19935	17
1642	An electron acceptor challenging fullerenes for efficient polymer solar cells. 2015 , 27, 1170-4	2522
1641	Dithienocarbazole- and benzothiadiazole-based donor-acceptor conjugated polymers for bulk heterojunction polymer solar cells. 2015 , 58, 294-300	4
1640	Synthesis and photovoltaic properties of conjugated polymers with an asymmetric 4-(2-ethylhexyloxy)-8-(2-ethylhexylthio)benzo[1,2-b:4,5-b?]dithiophene unit. 2015 , 115, 58-66	8
1639	Efficient Annealing-Free P3HT:PC 61 BM-Based Organic Solar Cells by Using a Novel Solvent Additive without a Halogen or Sulphur Atom. 2015 , 32, 028802	3
1638	Synthesis, properties, and semiconducting characteristics of electron-transporting three-dimensional Etonjugated compounds containing dicyanomethylene-substituted difluorocyclopenta[b]thiophene. 2015 , 174, 75-80	3
1637	Enhanced power conversion efficiency in bulk heterojunction solar cell based on new polyazomethine with vinylene moieties and [6,6]-phenyl C61 butyric acid methyl ester by adding 10-camphorsulfonic acid. 2015 , 159, 81-92	22
1636	Single-junction polymer solar cells with high efficiency and photovoltage. 2015 , 9, 174-179	1495

1635	Synthesis of dithieno[2,3-d:2]BHIbenzo[1,2-b:4,5-bIdithiophene -alt-isoindigo conjugated polymer and enhancement of photovoltaic property with diphenyl sulfide additives. 2015 , 22, 1	12
1634	The effect of interfacial diffusion on device performance of polymer solar cells: a quantitative view by active-layer doping. 2015 , 58, 317-322	8
1633	Remarkable Ligand Effect of P(2-MeOC6H4)3 on Palladium-Catalyzed Direct Arylation. 2015, 34, 198-205	35
1632	Single-junction polymer solar cells with over 10% efficiency by a novel two-dimensional donor-acceptor conjugated copolymer. 2015 , 7, 4928-35	241
1631	Nanoimprinting-induced nanomorphological transition in polymer solar cells: enhanced electrical and optical performance. 2015 , 9, 2773-82	29
1630	Stable organic photovoltaic with PEDOT:PSS and MoOX mixture anode interfacial layer without encapsulation. 2015 , 19, 140-146	12
1629	The enhanced performance of fluorinated quinoxaline-containing polymers by replacing carbon with silicon bridging atoms on the dithiophene donor skeleton. 2015 , 6, 2337-2347	19
1628	N-acyl-dithieno[3,2-b:2[B댐]pyrrole-based low bandgap copolymers affording improved open-circuit voltages and efficiencies in polymer solar cells. 2015 , 136, 70-77	12
1627	Effect of electron-withdrawing units on triphenylamine-based small molecules for solution-processed organic solar cells. 2015 , 58, 331-338	6
1626	Effect of molecular weight on the properties and organic solar cell device performance of a donor acceptor conjugated polymer. 2015 , 6, 2312-2318	58
1625	A highly regio- and stereoselective synthesis of Fluorinated imides via fluorination of chiral enamides. 2015 , 17, 572-5	28
1624	Acceptor-donor-acceptor small molecules containing benzo[1,2- b :4,5- b ']dithiophene and rhodanine units for solution processed organic solar cells. 2015 , 116, 13-19	28
1623	Synthesis of modified benzothiadiazole-thiophene-cored acceptor and carbazole/indolocarbazole alternating conjugated polymers and their photovoltaic applications. 2015 , 72, 565-581	9
1622	Influence of the fused hetero-aromatic centers on molecular conformation and photovoltaic performance of solution-processed organic solar cells. 2015 , 39, 2224-2232	4
1621	Synthesis and optical properties of photovoltaic materials based on the ambipolar dithienonaphthothiadiazole unit. 2015 , 3, 4229-4238	10
1620	A new fullerene-free bulk-heterojunction system for efficient high-voltage and high-fill factor solution-processed organic photovoltaics. 2015 , 27, 1900-7	77
1619	Simple and versatile molecular donors for organic photovoltaics prepared by metal-free synthesis. 2015 , 21, 1598-608	20
1618	Highly efficient polymer solar cells based on a universal cathode interlayer composed of metallophthalocyanine derivative with good film-forming property. 2015 , 3, 4547-4554	34

1617	Novel photovoltaic donor 1\(\text{lcceptor} \text{donor 2} lcceptor terpolymers with tunable energy levels based on a difluorinated benzothiadiazole acceptor. 2015 , 5, 12087-12093	11
1616	Toward efficient non-fullerene polymer solar cells: Selection of donor polymers. 2015 , 17, 295-303	40
1615	All That Glisters Is Not Gold[]An Analysis of the Synthetic Complexity of Efficient Polymer Donors for Polymer Solar Cells. 2015 , 48, 453-461	205
1614	Chalcogenophene comonomer comparison in small band gap diketopyrrolopyrrole-based conjugated polymers for high-performing field-effect transistors and organic solar cells. 2015 , 137, 1314-21	317
1613	A potential naphtho[2,1-b:3,4-b?]dithiophene-based polymer with large open circuit voltage for efficient use in organic solar cells. 2015 , 3, 1904-1912	13
1612	Synthesis of conjugated polymers via an exclusive direct-arylation coupling reaction: a facile and straightforward way to synthesize thiophene-flanked benzothiadiazole derivatives and their copolymers. 2015 , 6, 1846-1855	64
1611	Dithienogermole-Containing Small-Molecule Solar Cells with 7.3% Efficiency: In-Depth Study on the Effects of Heteroatom Substitution of Si with Ge. 2015 , 5, 1402044	40
1610	Synthesis of star-shaped small molecules carrying peripheral 1,8-naphthalimide functional groups and their applications in organicsolar cells. 2015 , 115, 181-189	25
1609	Synthesis and photovoltaic properties of new small molecules with rhodanine derivative as the end-capped blocks. 2015 , 17, 355-363	16
1608	Tuning the Isomeric Fused Heteroaromatic Core of Small DonorAcceptor Molecules to Alter Their Crystalline Nature and Enhance Photovoltaic Performance. 2015 , 2015, 820-827	13
1607	Realizing over 10% efficiency in polymer solar cell by device optimization. 2015 , 58, 248-256	302
1606	High-efficiency large-bandgap material for polymer solar cells. 2015 , 36, 84-9	18
1605	Correlation of structure and photovoltaic performance of benzo[1,2-b:4,5-b?]dithiophene copolymers alternating with different acceptors. 2015 , 39, 2248-2255	14
1604	Significant Enhancement of the Detectivity of Polymer Photodetectors by Using Electrochemically Deposited Interfacial Layers of Crosslinked Polycarbazole and Carbazole-Tethered Gold Nanoparticles. 2015 , 2, 1400475	16
1603	Water/alcohol soluble conjugated polymers for the interface engineering of highly efficient polymer light-emitting diodes and polymer solar cells. 2015 , 51, 5572-85	140
1602	Design and photovoltaic characterization of dialkylthio benzo[1,2-b:4,5-b']dithiophene polymers with different accepting units. 2015 , 17, 7848-56	15
1601	Direct fluorination of styrenes. 2015 , 51, 6584-6	16
1600	High efficiency all-polymer solar cells realized by the synergistic effect between the polymer side-chain structure and solvent additive. 2015 , 3, 7077-7085	70

1599	Effects of end-capped acceptors subject to subtle structural changes on solution-processable small molecules for organic solar cells. 2015 , 17, 8894-900	19
1598	Effect of fluorine substitution on photovoltaic performance of DPP-based copolymer. 2015 , 20, 125-131	11
1597	Progress in High-Efficient Solution Process Organic Photovoltaic Devices. 2015,	10
1596	Enhanced efficiency of inverted polymer solar cells by using solution-processed TiOx/CsOx cathode buffer layer. 2015 , 10, 29	7
1595	A new oligobenzodithiophene end-capped with 3-ethyl-rhodanine groups for organic solar cells with high open-circuit voltage. 2015 , 58, 339-346	21
1594	Triple cathode buffer layers composed of PCBM, C60, and LiF for high-performance planar perovskite solar cells. 2015 , 7, 6230-7	114
1593	Low-band gap and fluorescent poly(triphenylamine-thiazolo[5,4-d]thiazole) copolymer dye. 2015 , 5, 18710-18	3749
1592	Polymer/Polymer Blend Solar Cells Using Tetraazabenzodifluoranthene Diimide Conjugated Polymers as Electron Acceptors. 2015 , 48, 1759-1766	38
1591	Au-doped single layer graphene nanoribbons for a record-high efficiency ITO-free tandem polymer solar cell. 2015 , 8, 1523-1537	51
1590	Tuning Mechanical and Optoelectrical Properties of Poly(3-hexylthiophene) through Systematic Regioregularity Control. 2015 , 48, 4339-4346	156
1589	Fluorination on both D and A units in DA type conjugated copolymers based on difluorobithiophene and benzothiadiazole for highly efficient polymer solar cells. 2015 , 8, 2427-2434	156
1588	Side chain modification: an effective approach to modulate the energy level of benzodithiophene based polymers for high-performance solar cells. 2015 , 3, 18115-18126	33
1587	Effects of flanked units on optoelectronic properties of diketopyrrolopyrrole based £conjugated polymers. 2015 , 123, 64-71	15
1586	Different depositing amount of CuInS2 on TiO2 nanoarrays for polymer/CuInS2IIiO2 solar cells. 2015 , 40, 257-261	6
1585	Solution-processed new porphyrin-based small molecules as electron donors for highly efficient organic photovoltaics. 2015 , 51, 14439-42	62
1584	A graphene oxide/oxygen deficient molybdenum oxide nanosheet bilayer as a hole transport layer for efficient polymer solar cells. 2015 , 3, 18380-18383	25
1583	Synthesis of copolymers based on benzo[1,2-b:4,5-b?]difuran and fluorinated quinoxaline derivatives and their photovoltaic properties. 2015 , 67, 55-62	10
1582	Synthesis and Physical Properties of Hyperbranched Polymers Containing Twisted Acenes. 2015 , 68, 505	7

1581	Cyano-substitution on the end-capping group: facile access toward asymmetrical squaraine showing strong dipoledipole interactions as a high performance small molecular organic solar cells material. 2015 , 3, 17704-17712	32
1580	Synthesis and photovoltaic properties of two new alkoxylphenyl substituted thieno[2,3-f]benzofuran based polymers. 2015 , 17, 17592-600	20
1579	A new V-shaped triphenylamine/diketopyrrolopyrrole containing donor material for small molecule organic solar cells. 2015 , 5, 68192-68199	16
1578	Spirobifluorene-based acceptors for polymer solar cells: Effect of isomers. 2015 , 123, 16-25	15
1577	Diketopyrrolopyrrole-based conjugated polymers containing alkyl and aryl side-chains for bulk heterojunction solar cells. 2015 , 203, 221-227	2
1576	A unique concept of copolymer composed of main chain donor and side chain acceptor for promising bulk heterojunction solar cells. 2015 , 205, 195-200	3
1575	Cascade Polyannulation of Diyne and Benzoylacetonitrile: A New Strategy for Synthesizing Functional Substituted Poly(naphthopyran)s. 2015 , 48, 4241-4249	35
1574	Cooperative assembly of an active layer utilizing the synergistic effect of a functional fullerene triad as an acceptor for efficient P3HT-based PSCs. 2015 , 3, 17991-18000	6
1573	Polymer Solar Cells Using a PEDOT:PSS/Cu Nanowires/PEDOT:PSS Multilayer as the Anode Interlayer. 2015 , 32, 077202	1
1572	Transparent Conducting Polymers. 2015 , 359-392	5
1571	Development of New Photovoltaic Conjugated Polymers Based on Di(1-benzothieno)[3,2-b:2?,3?-d]pyrrole: Benzene Ring Extension Strategy for Improving Open-Circuit Voltage. 2015 , 48, 5213-5221	29
1570	Facile synthesis and photovoltaic applications of a new alkylated bismethano fullerene as electron acceptor for high open circuit voltage solar cells. 2015 , 5, 64724-64730	16
1569	Synthesis of a benzotriazole bearing alternating copolymer for organic photovoltaic applications. 2015 , 39, 6623-6630	16
1568	Low band-gap polymers based on easily synthesized thioester-substituted thieno[3,4-b]thiophene for polymer solar cells. 2015 , 5, 62336-62342	4
1567	Tuning the Solid State Emission of Thin Films/Microspheres Obtained from Alternating Oligo(3-octylthiophenes) and 2,6-Bis(pyrazole)pyridine Copolymers by Varying Conjugation Length and Eu3+/Tb3+ Metal Coordination. 2015 , 48, 4801-4812	23
1566	Efficient Palladium-Catalyzed C-H Fluorination of C(sp3)-H Bonds: Synthesis of Efluorinated Carboxylic Acids. 2015 , 17, 3798-801	52
1565	Visible light-induced selective hydrobromodifluoromethylation of alkenes with dibromodifluoromethane. 2015 , 13, 8740-9	58
1564	Well-controlled thieno[3,4-c]pyrrole-4,6-(5H)-dione based conjugated polymers for high performance organic photovoltaic cells with the power conversion efficiency exceeding 9%. 2015 , 8, 2352-2356	101

1563	polymer solar cells. 2015 , 8, 2357-2364	73
1562	Multilayer Transparent Top Electrode for Solution Processed Perovskite/Cu(In,Ga)(Se,S)2 Four Terminal Tandem Solar Cells. 2015 , 9, 7714-21	139
1561	Synthesis of monolateral and bilateral sulfur-heterocycle fused naphthalene diimides (NDIs) from monobromo and dibromo NDIs. 2015 , 2, 372-377	10
1560	Single crystalline indene-C60 bisadduct: isolation and application in polymer solar cells. 2015 , 3, 14991-14995	32
1559	Device characterization and optimization of small molecule organic solar cells assisted by modelling simulation of the current-voltage characteristics. 2015 , 17, 19261-7	2
1558	Versatile third components for efficient and stable organic solar cells. 2015 , 2, 462-485	150
1557	Incorporation of Fluorine onto Different Positions of Phenyl Substituted Benzo[1,2-b:4,5-b?]dithiophene Unit: Influence on Photovoltaic Properties. 2015 , 48, 4347-4356	48
1556	Highly efficient photovoltaics and field-effect transistors based on copolymers of mono-fluorinated benzothiadiazole and quaterthiophene: synthesis and effect of the molecular weight on device performance. 2015 , 6, 6050-6057	15
1555	ADA based porphyrin for solution processed small molecule bulk heterojunction solar cells. 2015 , 3, 16287-16301	40
1554	New conjugated molecules with four DPP (diketopyrrolopyrrole) moieties linked by [2,2]paracyclophane as electron acceptors for organic photovoltaic cells. 2015 , 39, 6421-6427	7
1553	Enhanced performance of bulk heterojunction solar cells using double layers deposition of polymer:fullerene derivatives. 2015 , 207, 72-78	4
1552	Photophysical, electrochemical, and spectroelectrochemical investigation of electronic push p ull benzothiadiazole fluorophores. 2015 , 87, 649-661	15
1551	Linked-Acceptor Type Conjugated Polymer for High Performance Organic Photovoltaics with an Open-Circuit Voltage Exceeding 1 V. 2015 , 2, 1500021	18
1550	Enhancing the performance of polymer solar cells using CuPc nanocrystals as additives. 2015 , 26, 204001	6
1549	New reagent for highly efficient synthesis of trifluoromethyl-substituted arenes and heteroarenes. 2015 , 17, 2086-9	25
1548	Polymer solar cells based on poly(3-hexylthiophene) and fullerene: Pyrene acceptor systems. 2015 , 159, 46-55	19
1547	Photoinduced Carrier Generation and Recombination Dynamics of a Trilayer Cascade Heterojunction Composed of Poly(3-hexylthiophene), Titanyl Phthalocyanine, and C60. 2015 , 119, 7729-39	17
1546	Electronic and vibrational spectra of positive polarons and bipolarons in regioregular poly(3-hexylthiophene) doped with ferric chloride. 2015 , 119, 4788-94	106

1545	Phenanthrodithiophenelboindigo Copolymers: Effect of Side Chains on Their Molecular Order and Solar Cell Performance. 2015 , 48, 2875-2885	31
1544	Benzodithiophene-based two-dimensional polymers with extended conjugated thienyltriphenylamine substituents for high-efficiency polymer solar cells. 2015 , 23, 124-132	16
1543	Improved photovoltaic performance of star-shaped molecules with a triphenylamine core by tuning the substituted position of the carbazolyl unit at the terminal. 2015 , 3, 10883-10889	27
1542	Dithienosilole-benzothiadiazole-based ternary copolymers with a D1AD2A structure for polymer solar cells. 2015 , 6, 4154-4161	20
1541	Rational design of diketopyrrolopyrrole-based oligomers for high performance small molecular photovoltaic materials via an extended framework and multiple fluorine substitution. 2015 , 3, 11575-11586	35
1540	AFM study of advanced composite materials for organic photovoltaic cells with active layer based on P3HT:PCBM and chiral photosensitive liquid crystalline dopants. 2015 , 42, 964-972	27
1539	Insight into D-A-FA Structured Sensitizers: A Promising Route to Highly Efficient and Stable Dye-Sensitized Solar Cells. 2015 , 7, 9307-18	239
1538	Modulation of optical and electronic properties of quinoxailine-based conjugated polymers for organic photovoltaic cells. 2015 , 53, 1904-1914	5
1537	Side-chain engineering of benzodithiopheneEhiophene copolymers with conjugated side chains containing the electron-withdrawing ethylrhodanine group. 2015 , 3, 12005-12015	23
1536	Efficiency enhancement from [60]fulleropyrrolidine-based polymer solar cells through N-substitution manipulation. 2015 , 92, 185-192	9
1535	Performance improvement of conventional and inverted polymer solar cells with hydrophobic fluoropolymer as nonvolatile processing additive. 2015 , 23, 99-104	11
1534	NDI-Based Small Molecule as Promising Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. 2015 , 5, 1500195	91
1533	Evaluating the photovoltaic properties of two conjugated polymers synthesized by Suzuki polycondensation and direct C-H activation. 2015 , 58, 286-293	16
1532	Metallated conjugation in small-sized-molecular donors for solution-processed organic solar cells. 2015 , 58, 347-356	10
1531	Structure Evolution of Fluorinated Conjugated Polymers Based on Benzodithiophene and Benzothiadiazole for Photovoltaics. 2015 , 119, 8038-8045	5
1530	Crowning of dibenzosilole with a naphthalenediimide functional group to prepare an electron acceptor for organic solar cells. 2015 , 120, 314-321	12
1529	Neutral amine based alcohol-soluble interface materials for inverted polymer solar cells: realizing high performance and overcoming solvent erosion. 2015 , 51, 10182-5	22
1528	Performance Enhancement of Polymer Solar Cells by Using Two Polymer Donors with Complementary Absorption Spectra. 2015 , 36, 1348-53	12

1527	phenanthro[4,5-abc]phenazine and benzo[c][1,2,5]thiadiazole by changing the substituents. 2015 , 3, 6240-6248	40
1526	Enhanced efficiency of organic and perovskite photovoltaics from shape-dependent broadband plasmonic effects of silver nanoplates. 2015 , 140, 224-231	66
1525	Enhancing the photovoltaic performance of triphenylamine based star-shaped molecules by tuning the moiety sequence of their arms in organic solar cells. 2015 , 3, 13568-13576	34
1524	A series of simple oligomer-like small molecules based on oligothiophenes for solution-processed solar cells with high efficiency. 2015 , 137, 3886-93	722
1523	Theoretical design and characterization of pyridalthiadiazole-based chromophores with fast charge transfer at donor/acceptor interface toward small molecule organic photovoltaics. 2015 , 5, 29401-29411	36
1522	Enhanced efficiency of polymer solar cells by adding a high-mobility conjugated polymer. 2015 , 8, 1463-1470	204
1521	Crown-ether functionalized fullerene as a solution-processable cathode buffer layer for high performance perovskite and polymer solar cells. 2015 , 3, 9278-9284	59
1520	A low band gap n-type polymer based on dithienosilole and naphthalene diimide for all-polymer solar cells application. 2015 , 63, 164-169	18
1519	Highly efficient low-bandgap polymer solar cells with solution-processed and annealing-free phosphomolybdic acid as hole-transport layers. 2015 , 7, 5367-72	46
1518	Organic polymeric semiconductor materials for applications in photovoltaic cells. 2015 , 85-119	0
1517	Improved open-circuit voltage of benzodithiophene based polymer solar cells using bulky terthiophene side group. 2015 , 138, 26-34	19
1516	Oligothiophene-bridged perylene diimide dimers for fullerene-free polymer solar cells: effect of bridge length. 2015 , 3, 13000-13010	40
1515	Tandem Solar Cell©oncept and Practice in Organic Solar Cells. 2015, 315-346	6
1514	Single-junction organic solar cells based on a novel wide-bandgap polymer with efficiency of 9.7%. 2015 , 27, 2938-44	450
1513	Side Chain Influence on the Morphology and Photovoltaic Performance of 5-Fluoro-6-alkyloxybenzothiadiazole and Benzodithiophene Based Conjugated Polymers. 2015 , 7, 10710-7	36
1512	Porphyrin-Based Bulk Heterojunction Organic Photovoltaics: The Rise of the Colors of Life. 2015 , 5, 1500218	146
1511	High photocurrent in oligo-thienylenevinylene-based small molecule solar cells with 4.9% solar-to-electrical energy conversion. 2015 , 3, 11340-11348	13
1510	Improved photovoltaic performance of a 2D-conjugated benzodithiophene-based polymer by the side chain engineering of quinoxaline. 2015 , 6, 4290-4298	26

1509	Bis(2-oxoindolin-3-ylidene)-benzodifuran-dione-based DA polymers for high-performance n-channel transistors. 2015 , 6, 2531-2540	29
1508	Trifluoromethyl benzimidazole-based conjugated polymers with deep HOMO levels for organic photovoltaics. 2015 , 205, 112-120	12
1507	Hot Charge-Transfer States Determine Exciton Dissociation in the DTDCTB/C60 Complex for Organic Solar Cells: A Theoretical Insight. 2015 , 119, 11320-11326	45
1506	4,7-Di-2-thienyl-2,1,3-benzothiadiazole with hexylthiophene side chains and a benzodithiophene based copolymer for efficient organic solar cells. 2015 , 6, 4415-4423	24
1505	Tuning the Semiconducting Behaviors of New Alternating DithienyldiketopyrrolopyrroleAzulene Conjugated Polymers by Varying the Linking Positions of Azulene. 2015 , 48, 2039-2047	66
1504	Efficient bulk heterojunction solar cells based on solution processed small molecules based on the same benzo[1,2-b:4, 5-b']thiophene unit as core donor and different terminal units. 2015 , 7, 7692-703	16
1503	Synthesis, Characterization and Photovoltaic Properties of Polycarbazole Derived Random Copolymers With Enhanced Light Absorption. 2015 , 52, 155-161	6
1502	Influences of the backbone randomness on the properties, morphology and performances of the fluorinated benzoselenadiazoleBenzothiadiazole based random copolymers. 2015 , 6, 3728-3736	16
1501	Influence of the alkyl substitution position on photovoltaic properties of 2D-BDT-based conjugated polymers. 2015 , 58, 213-222	20
1500	An alcohol soluble amino-functionalized organoplatinum(II) complex as the cathode interlayer for highly efficient polymer solar cells. 2015 , 3, 4372-4379	27
1499	Poly(benzodithiophene) Homopolymer for High-Performance Polymer Solar Cells with Open-Circuit Voltage of Near 1 V: A Superior Candidate To Substitute for Poly(3-hexylthiophene) as Wide Bandgap Polymer. 2015 , 27, 2653-2658	39
1498	Thienoisoindigo (TIIG)-based small molecules for the understanding of structurepropertydevice performance correlations. 2015 , 3, 9899-9908	32
1497	New alkylthio-thieno[3,2-b]thiophene-substituted benzodithiophene-based highly efficient photovoltaic polymer. 2015 , 3, 4250-4253	19
1496	Influence of 4-fluorophenyl pendants in thieno[3,4-b]thiophene-based polymers on the performance of photovoltaics. 2015 , 53, 1586-1593	2
1495	Effects of alkyl chain length on the optoelectronic properties and performance of pyrrolo-perylene solar cells. 2015 , 7, 8859-67	16
1494	Two-Dimensional, Acene-Containing Conjugated Polymers That Show Ratiometric Fluorescent Response to Singlet Oxygen. 2015 , 48, 6825-6831	27
1493	Rational design of D-A1-D-A2 conjugated polymers with superior spectral coverage. 2015 , 17, 26677-89	12
1492	Solution processed thick film organic solar cells. 2015 , 6, 8081-8098	76

1491	Development of a donor polymer using a B <- N unit for suitable LUMO/HOMO energy levels and improved photovoltaic performance. 2015 , 6, 8029-8035	27
1490	Angular-Shaped 4,10-Dialkylanthradiselenophene and Its DonorAcceptor Conjugated Polymers: Synthesis, Physical, Transistor, and Photovoltaic Properties. 2015 , 48, 6994-7006	22
1489	A planar electron acceptor for efficient polymer solar cells. 2015 , 8, 3215-3221	283
1488	Effect of fluorine substitution on the photovoltaic performance of poly(thiophene-quinoxaline) copolymers. 2015 , 6, 8203-8213	11
1487	Polythiophenes with Thiophene Side Chain Extensions: Convergent Syntheses and Investigation of Mesoscopic Order. 2015 , 48, 7049-7059	19
1486	2D-Conjugated Benzodithiophene-Based Polymer Acceptor: Design, Synthesis, Nanomorphology, and Photovoltaic Performance. 2015 , 48, 7156-7163	64
1485	Synthesis and characterisation of 3-armed dendritic molecules with triphenylbenzene or triphenyltriazine as core and triphenylene derivative as shells. 2015 , 1-10	1
1484	Atomic layer deposition of NiO hole-transporting layers for polymer solar cells. 2015 , 26, 385201	25
1483	Development of a silver/polymer nanocomposite interconnection layer for organic tandem solar cells. 2015 , 9, 093049	13
1482	Linear solubilizing side chain substituents enhance the photovoltaic properties of two-dimensional conjugated benzodithiophene-based polymers. 2015 , 79, 262-270	16
1481	Influence of thermal and solvent annealing on the morphology and photovoltaic performance of solution processed, DAD type small molecule-based bulk heterojunction solar cells. 2015 , 5, 93579-93590	11
1480	Synthesis of Extended Dithienobenzodithiophene-Containing Medium Bandgap Copolymers and Their Photovoltaic Application. 2015 , 52, 934-941	10
1479	Design of Super-Paramagnetic Core-Shell Nanoparticles for Enhanced Performance of Inverted Polymer Solar Cells. 2015 , 7, 25061-8	16
1478	New advances in non-fullerene acceptor based organic solar cells. 2015 , 5, 93002-93026	138
1477	Conjugated Random Copolymers Consisting of Pyridine- and Thiophene-Capped Diketopyrrolopyrrole as Co-Electron Accepting Units To Enhance both JSC and VOC of Polymer Solar Cells. 2015 , 48, 7836-7842	58
1476	Self-assembled conjugated polyelectrolyteBurfactant complexes as efficient cathode interlayer materials for bulk heterojunction organic solar cells. 2015 , 3, 23905-23916	15
1475	Solution-Processable Organic Molecule for High-Performance Organic Solar Cells with Low Acceptor Content. 2015 , 7, 24686-93	24
1474	Terthiophene-based D-A polymer with an asymmetric arrangement of alkyl chains that enables efficient polymer solar cells. 2015 , 137, 14149-57	358

1473 Air-processed polymer tandem solar cells with power conversion efficiency exceeding 10%. 2015, 8, 2902-2909144 The photoirradiation induced p-n junction in naphthylamine-based organic photovoltaic cells. 2015, 8 7, 14612-7 Rational selection of solvents and fine tuning of morphologies toward highly efficient polymer 34 solar cells fabricated using green solvents. **2015**, 5, 69567-69572 Thiadiazole quinoxaline-based copolymers with ~1.0 LeV bandgap for ternary polymer solar cells. 16 **2015**, 79, 12-20 High-Performance Small Molecule/Polymer Ternary Organic Solar Cells Based on a Layer-By-Layer 1469 35 Process. 2015. 7. 23190-6 Synthesis and photovoltaic properties of two-dimensional benzodithiophene-thiophene 28 copolymers with pendent rational naphtho[1,2-c:5,6-c]bis[1,2,5]thiadiazole side chains. 2015, 3, 23149-23161 Optoelectronic properties of oligomers based on tetrazine, benzothiadiazole, benzodithiophene 1467 2 and thiophene moieties for photovoltaic applications: a theoretical study. **2015**, 5, 83960-83968 A detailed study on the thermal, photo-physical and electrochemical properties and OFET 16 applications of DAD structured unsymmetrical diketopyrrolopyrrole materials. 2015, 5, 94859-94865 Steric minimization towards high planarity and molecular weight for aggregation and photovoltaic 1465 2.2 studies. 2015, 3, 23587-23596 1464 Graphene-Based Bulk-Heterojunction Solar Cells: A Review. 2015, 15, 6237-78 56 1463 Comparison of conventional and inverted structures in fullerene-free organic solar cells. **2015**, 24, 744-749 17 Photovoltaic properties of Zn, Al, La, Sm, and Yb complexes with o-iminobenzoquinone ligands. 1462 **2015**, 10, 613-620 The effect of with/without resonance-mediated interactions on the organic solar cell performance 1461 7 of new 2D Etonjugated polymers. 2015, 6, 7149-7159 Efficiency enhancement in organic solar cells by incorporating silica-coated gold nanorods at the 30 buffer/active interface. 2015, 3, 9859-9868 Low-Bandgap Near-IR Conjugated Polymers/Molecules for Organic Electronics. 2015, 115, 12633-65 863 Rational design of diketopyrrolopyrrole-based oligomers with deep HOMO level and tunable liquid 18 crystal behavior by modulating the sequence and strength of the donor moiety. 2015, 3, 9849-9858 Synthesis of new D-A polymers containing disilanobithiophene donor and application to bulk 1457 14 heterojunction polymer solar cells. 2015, 47, 733-738 Donor Ecceptor conjugated polymers based on cyclic imide substituted quinoxaline or 1456 16 dibenzo[a,c]phenazine for polymer solar cells. 2015, 6, 7558-7569

1455	Solvent Annealing Control of Bulk Heterojunction Organic Solar Cells with 6.6% Efficiency Based on a Benzodithiophene Donor Core and Dicyano Acceptor Units. 2015 , 119, 20871-20879	32
1454	Dithienosilole-Based Small-Molecule Organic Solar Cells with an Efficiency over 8%: Investigation of the Relationship between the Molecular Structure and Photovoltaic Performance. 2015 , 27, 6077-6084	87
1453	Low-Bandgap Small Molecules as Non-Fullerene Electron Acceptors Composed of Benzothiadiazole and Diketopyrrolopyrrole for All Organic Solar Cells. 2015 , 27, 6038-6043	98
1452	Novel Approaches in the Design of Donor-Acceptor Oligomeric and Polymeric Materials for Photovoltaic Applications: D/A Blend versus Self-assembly of D/A by Covalent or Non-Covalent Interaction. 2015 , 3,	3
1451	Non-Fullerene-Acceptor-Based Bulk-Heterojunction Organic Solar Cells with Efficiency over 7. 2015 , 137, 11156-62	440
1450	Naphtho[1,2b;5,6b?]difuran-based donor\(\text{dceptor polymers for high performance organic field-effect transistors. \(\textbf{2015}\), 5, 70319-70322	8
1449	Two-dimensional quinoxaline based low bandgap conjugated polymers for bulk-heterojunction solar cells. 2015 , 6, 7436-7446	6
1448	Improved Device Performance of Polymer-CuInS2/TiO2 Solar Cells Based on Treated CuInS2 Quantum Dots. 2015 , 44, 3294-3301	5
1447	Improving power conversion efficiency of polymer solar cells by doping copper phthalocyanine. 2015 , 180, 645-650	11
1446	Improving the efficiency of polymer solar cells based on furan-flanked diketopyrrolopyrrole copolymer via solvent additive and methanol treatment. 2015 , 7, 15945-52	21
1445	Unprecedented side reactions in Stille coupling: desired ones for Stille polycondensation. 2015 , 51, 15846-9	8
1444	The effect of molecular geometry on the polymer/fullerene ratio in polymer solar cells. 2015 , 6, 7550-7557	4
1443	Nonfullerene acceptors based on extended fused rings flanked with benzothiadiazolylmethylenemalononitrile for polymer solar cells. 2015 , 3, 20758-20766	84
1442	Enhancing the photovoltaic performance of quinoxalino[2,3-b?]porphyrinatozinc-based donor\(\text{donor}\) copolymers by using 4,4?-bipyridine as a linear bidentate ligand additive. 2015 , 3, 21460-21470	5
1441	Dipyrrin-based complexes for solution-processed organic solar cells. 2015 , 31, 801-808	7
1440	One-Step Synthesis of Precursor Oligomers for Organic Photovoltaics: A Comparative Study between Polymers and Small Molecules. 2015 , 7, 27106-14	23
1439	Effect of Fluorine Substitution on Photovoltaic Properties of Alkoxyphenyl Substituted Benzo[1,2-b:4,5-b']dithiophene-Based Small Molecules. 2015 , 7, 25237-46	32
1438	Synthesis and photovoltaic properties of 4,9-dithien-2?-yl-2,1,3-naphthothiadiazole-based D-A copolymers. 2015 , 79, 119-127	5

1437	Synthesis of quinoline based heterocyclic compounds for blue lighting application. 2015 , 50, 275-281	20
1436	Preparation and Reactions of Dichlorodithienogermoles. 2015 , 34, 5609-5614	22
1435	Study of Vertical and Lateral Charge Transport Properties of DPP-Based Polymer/PC61BM Films Using Space Charge Limited Current (SCLC) and Field Effect Transistor Methods and their Effects on Photovoltaic Characteristics. 2015 , 68, 1741	5
1434	Solution-processable metal oxides/chelates as electrode buffer layers for efficient and stable polymer solar cells. 2015 , 8, 1059-1091	228
1433	Side-chain engineering of high-efficiency conjugated polymer photovoltaic materials. 2015 , 58, 192-209	304
1432	Improved Photovoltaic Properties of DonorAcceptor Copolymers by Introducing Quinoxalino[2,3-b?]porphyrin as a Light-Harvesting Unit. 2015 , 48, 287-296	38
1431	Solution-processable thienoisoindigo-based molecular donors for organic solar cells with high open-circuit voltage. 2015 , 115, 17-22	33
1430	Benzotriazole and benzodithiophene containing medium band gap polymer for bulk heterojunction polymer solar cell applications. 2015 , 53, 528-535	18
1429	Synergistic effect of polymer and small molecules for high-performance ternary organic solar cells. 2015 , 27, 1071-6	183
1428	Hiding and recovering electrons in a dimetallic endohedral fullerene: air-stable products from radical additions. 2015 , 137, 232-8	38
1427	Efficient polymer solar cells based on a new benzo[1,2-b:4,5-b?]dithiophene derivative with fluorinated alkoxyphenyl side chain. 2015 , 3, 3130-3135	42
1426	An electron acceptor based on indacenodithiophene and 1,1-dicyanomethylene-3-indanone for fullerene-free organic solar cells. 2015 , 3, 1910-1914	125
1425	High-performance fullerene-free polymer solar cells with 6.31% efficiency. 2015 , 8, 610-616	534
1424	Synthesis, optical and electrochemical properties new donorficceptor (DA) copolymers based on benzo[1,2-b:3,4-b?:6,5-b?] trithiophene donor and different acceptor units: Application as donor for photovoltaic devices. 2015 , 17, 167-177	8
1423	Perylene diimideEhienylenevinylene-based small molecule and polymer acceptors for solution-processed fullerene-free organic solar cells. 2015 , 114, 283-289	22
1422	Effective side chain selection for enhanced open circuit voltage of polymer solar cells based on 2D-conjugated anthracene derivatives. 2015 , 115, 73-80	8
1421	Low bandgap conjugated polymers based on mono-fluorinated isoindigo for efficient bulk heterojunction polymer solar cells processed with non-chlorinated solvents. 2015 , 8, 585-591	66
1420	The side chain effect on difluoro-substituted dibenzo[a,c]phenazine based conjugated polymers as donor materials for high efficiency polymer solar cells. 2015 , 6, 1613-1618	16

1419	Band gap tunable benzodithiophene-based donor-rich semi-random DIA copolymers with active layer thickness tolerance for organic solar cells. 2015 , 134, 148-156	7
1418	Fluorination as an effective tool to increase the open-circuit voltage and charge carrier mobility of organic solar cells based on poly(cyclopenta[2,1-b:3,4-b?]dithiophene-alt-quinoxaline) copolymers. 2015 , 3, 2960-2970	30
1417	Giant enhancement of inverted polymer solar cells efficiency by manipulating dual interlayers with integrated approaches. 2015 , 5, 1549-1556	12
1416	A novel donor acceptor alternating copolymer based on angular-shaped benzo[2,1-b:3,4-b?] diselenophene for bulk heterojunction solar cells. 2015 , 6, 1383-1392	12
1415	The role of conjugated side chains in high performance photovoltaic polymers. 2015 , 3, 2802-2814	38
1414	Branched terthiophenes in organic electronics: from small molecules to polymers. 2015 , 36, 115-37	27
1413	Poly(3-butylthiophene) nanowires inducing crystallization of poly(3-hexylthiophene) for enhanced photovoltaic performance. 2015 , 3, 809-819	23
1412	Theoretical studies on the effect of a bithiophene bridge with different substituent groups (R = H, CHIOCHLand CN) in donor-Lacceptor copolymers for organic solar cell applications. 2015 , 17, 2043-53	23
1411	Toward reliable and accurate evaluation of polymer solar cells based on low band gap polymers. 2015 , 3, 564-569	29
1410	Single-junction polymer solar cells exceeding 10% power conversion efficiency. 2015 , 27, 1035-41	942
•	Single-junction polymer solar cells exceeding 10% power conversion efficiency. 2015 , 27, 1035-41 Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41	942 701
1409		
1409	Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41 Synthesis of four-armed triphenylamine-based molecules and their applications in organic solar	701
1409 1408	Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41 Synthesis of four-armed triphenylamine-based molecules and their applications in organic solar cells. 2015 , 39, 994-1000 Poly(benzo[2,1-b:3,4-b?]dithiophene-alt-isoindigo): a low bandgap polymer showing a high open circuit voltage in polymer solar cells. 2015 , 5, 269-273 Thieno[3,4-b]thiopheneflenzo[1,2-b:4,5-b]dithiophene-based polymers bearing optically pure	701 8
1409 1408 1407	Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41 Synthesis of four-armed triphenylamine-based molecules and their applications in organic solar cells. 2015 , 39, 994-1000 Poly(benzo[2,1-b:3,4-b?]dithiophene-alt-isoindigo): a low bandgap polymer showing a high open circuit voltage in polymer solar cells. 2015 , 5, 269-273 Thieno[3,4-b]thiopheneBenzo[1,2-b:4,5-b?]dithiophene-based polymers bearing optically pure	701 8 8
1409 1408 1407 1406	Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41 Synthesis of four-armed triphenylamine-based molecules and their applications in organic solar cells. 2015 , 39, 994-1000 Poly(benzo[2,1-b:3,4-b?]dithiophene-alt-isoindigo): a low bandgap polymer showing a high open circuit voltage in polymer solar cells. 2015 , 5, 269-273 Thieno[3,4-b]thiopheneBenzo[1,2-b:4,5-b?]dithiophene-based polymers bearing optically pure 2-ethylhexyl pendants: Synthesis and application in polymer solar cells. 2015 , 56, 171-177 Narrow band gap conjugated polymer for improving the photovoltaic performance of P3HT:PCBM	701 8 8
1409 1408 1407 1406	Small-molecule solar cells with efficiency over 9%. 2015 , 9, 35-41 Synthesis of four-armed triphenylamine-based molecules and their applications in organic solar cells. 2015 , 39, 994-1000 Poly(benzo[2,1-b:3,4-b?]dithiophene-alt-isoindigo): a low bandgap polymer showing a high open circuit voltage in polymer solar cells. 2015 , 5, 269-273 Thieno[3,4-b]thiopheneBenzo[1,2-b:4,5-b?]dithiophene-based polymers bearing optically pure 2-ethylhexyl pendants: Synthesis and application in polymer solar cells. 2015 , 56, 171-177 Narrow band gap conjugated polymer for improving the photovoltaic performance of P3HT:PCBM ternary blend bulk heterojunction solar cells. 2015 , 6, 962-972 Effects of aromatic spacers on film morphology and device memory performance based on	701 8 8 10

1401	Solution-derived poly(ethylene glycol)-TiO x nanocomposite film as a universal cathode buffer layer for enhancing efficiency and stability of polymer solar cells. 2015 , 8, 456-468	36
1400	Layer by layer solution processed organic solar cells based on a small molecule donor and a polymer acceptor. 2015 , 3, 447-452	31
1399	Enhanced fill factor of tandem organic solar cells incorporating a diketopyrrolopyrrole-based low-bandgap polymer and optimized interlayer. 2015 , 8, 331-6	8
1398	Synthesis, optical and electrochemical properties of the A-ED-EA porphyrin and its application as an electron donor in efficient solution processed bulk heterojunction solar cells. 2015 , 7, 179-89	42
1397	Single junction inverted polymer solar cell reaching power conversion efficiency 10.31% by employing dual-doped zinc oxide nano-film as cathode interlayer. 2014 , 4, 6813	448
1396	Heteroannulated acceptors based on benzothiadiazole. 2015 , 2, 22-36	94
1395	Design and synthesis of star-burst triphenyamine-based Econjugated molecules. 2015, 113, 1-7	33
1394	A new small molecule with indolone chromophore as the electron accepting unit for efficient organic solar cells. 2015 , 113, 458-464	18
1393	Enhanced photovoltaic properties of di(dodecylthiophene)-alt-2,3-di(3-octoxylphenyl)-5,8-dithieno[3,2-b]thiophene 6,7-difluoroquinoxaline copolymer by fluorination. 2015 , 113, 312-317	5
1392	Donor-acceptor conjugated polymers based on multifused ladder-type arenes for organic solar cells. 2015 , 44, 1113-54	479
1391	Increasing thiophene spacers between thieno[3,2-b]thiophene and benzothiadiazole units in backbone to enhance photovoltaic performance for their 2-D polymers. 2015 , 112, 99-104	19
1390	Ultrathin polyaniline-based buffer layer for highly efficient polymer solar cells with wide applicability. 2014 , 4, 6570	65
1389	High performance polymer solar cells with as-prepared zirconium acetylacetonate film as cathode buffer layer. 2014 , 4, 4691	144
1388	Improve the photovoltaic performance of new quinoxaline-based conjugated polymers from the view of conjugated length and steric hindrance. 2015 , 6, 55-63	22
1387	A phthalimide- and diketopyrrolopyrrole-based A1A2 conjugated polymer for high-performance organic thin-film transistors. 2015 , 6, 418-425	12
1386	An Integrated Experimental/Theoretical Study of Structurally Related Poly-Thiophenes Used in Photovoltaic Systems. 2016 , 21, E110	8
1385	Synthesis and characterization of benzodithiophene and benzotriazole-based polymers for photovoltaic applications. 2016 , 12, 1629-37	17
1384	High performance p-type molecular electron donors for OPV applications via alkylthiophene catenation chromophore extension. 2016 , 12, 2298-2314	21

1383	Synthesis of a Conjugated D-A Polymer with Bi(disilanobithiophene) as a New Donor Component. 2016 , 21,	6
1382	The Influence of Fluorination on Nano-Scale Phase Separation and Photovoltaic Performance of Small Molecular/PCBM Blends. 2016 , 6,	3
1381	Synthesis and Characterization of Two-Dimensional Conjugated Polymers Incorporating Electron-Deficient Moieties for Application in Organic Photovoltaics. 2016 , 8,	4
1380	Improving the Performances of Random Copolymer Based Organic Solar Cells by Adjusting the Film Features of Active Layers Using Mixed Solvents. 2015 , 8,	8
1379	Tunable surface-emitting dual-wavelength laser from a blended gain layer with an external holographic grating feedback structure. 2016 , 6, 3320	4
1378	Synthesis of carbazole-based copolymers containing carbazole-thiazolo[5,4-d]thiazole groups with different dopants and their fluorescence and electrical conductivity applications. 2016 , 6, 69196-69205	18
1377	Dependence of Excited-State Properties of a Low-Bandgap Photovoltaic Copolymer on Side-Chain Substitution and Solvent. 2016 , 9, 1623-33	4
1376	Thiophene Bridge effect on bulky side-chained benzodithiophene-based photovoltaic polymers. 2016 , 54, 1615-1622	4
1375	Control of vertical distribution of thiophene-based copolymers containing 4,7-Dithien-2-yl-benzo[C][1,2,5]thiadiazole and 3,6-Dithien-2-yl-pyrrolo[3,4-C]pyrrole-1,4(2H,5H)-dione as Side Groups for Photovoltaics. 2016 , 54, 2746-2759	1
1374	Recent Advances in Organic Photovoltaics: Device Structure and Optical Engineering Optimization on the Nanoscale. 2016 , 12, 1547-71	68
1373	Singlet Fission of Non-polycyclic Aromatic Molecules in Organic Photovoltaics. 2016 , 28, 1585-90	54
1372	Fullerene-Free Polymer Solar Cells with over 11% Efficiency and Excellent Thermal Stability. 2016 , 28, 4734-9	1507
1371	Diketopyrrolopyrrole-based Conjugated Polymers Bearing Branched Oligo(Ethylene Glycol) Side Chains for Photovoltaic Devices. 2016 , 55, 10376-80	95
1370	Benzotrithiophene versus Benzo/Naphthodithiophene Building Blocks: The Effect of Star-Shaped versus Linear Conjugation on Their Electronic Structures. 2016 , 22, 6374-81	12
1369	Effectively Improving Extinction Coefficient of Benzodithiophene and Benzodithiophenedione-based Photovoltaic Polymer by Grafting Alkylthio Functional Groups. 2016 , 11, 2650-2655	10
1368	Multi-channel interface dipole of hyperbranched polymers with quasi-immovable hydrion to modification of cathode interface for high-efficiency polymer solar cells. 2016 , 24, 1044-1054	8
1367	Regioregular Polythiophene B orphyrin Supramolecular Copolymers for Optoelectronic Applications. 2016 , 217, 445-458	11
1366	Achieving high performance non-fullerene organic solar cells through tuning the numbers of electron deficient building blocks of molecular acceptors. 2016 , 324, 538-546	35

1365	Improved performance of polymer solar cells by using inorganic, organic, and doped cathode buffer layers. 2016 , 25, 038402	9
1364	Copolymers with similar comonomers: Tuning frontier orbital energies for application in organic solar cells. 2016 , 56, 479-487	10
1363	High-Detectivity All-Polymer Photodetectors with Spectral Response from 300 to 1100 nm. 2016 , 217, 1683-1689	28
1362	Broad Bandgap D-A Copolymer Based on Bithiazole Acceptor Unit for Application in High-Performance Polymer Solar Cells with Lower Fullerene Content. 2016 , 37, 1066-73	8
1361	Fully Solution-Processed Small Molecule Semitransparent Solar Cells: Optimization of Transparent Cathode Architecture and Four Absorbing Layers. 2016 , 26, 4543-4550	60
1360	Homo-Tandem Polymer Solar Cells with VOC >1.8 V for Efficient PV-Driven Water Splitting. 2016 , 28, 3366-73	46
1359	Perylene Diimide Trimers Based Bulk Heterojunction Organic Solar Cells with Efficiency over 7%. 2016 , 6, 1600060	97
1358	An Electron-Deficient Building Block Based on the B<-N Unit: An Electron Acceptor for All-Polymer Solar Cells. 2016 , 128, 1458-1462	49
1357	Incorporation of Hexa-peri-hexabenzocoronene (HBC) into Carbazole-Benzo-2,1,3-thiadiazole Copolymers to Improve Hole Mobility and Photovoltaic Performance. 2016 , 11, 766-74	1
1356	Modified structure of two-dimensional polythiophene derivatives by incorporating electron-deficient units into terthiophene-vinylene conjugated side chains and the polymer backbone: synthesis, optoelectronic and self-assembly properties, and photovoltaic application.	4
1355	Synthesis of Poly(dithienogermole)s. 2016 , 35, 2333-2338	16
1354	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. 2016 , 28, 8021-8028	189
1353	Optimization of Norbornadiene Compounds for Solar Thermal Storage by First-Principles Calculations. 2016 , 9, 1786-94	27
1352	Molecular Lock: A Versatile Key to Enhance Efficiency and Stability of Organic Solar Cells. 2016 , 28, 5822-9	114
1351	Breaking the 10% Efficiency Barrier in Organic Photovoltaics: Morphology and Device Optimization of Well-Known PBDTTT Polymers. 2016 , 6, 1502529	267
1350	Diketopyrrolopyrrole-based Conjugated Polymers Bearing Branched Oligo(Ethylene Glycol) Side Chains for Photovoltaic Devices. 2016 , 128, 10532-10536	12
1349	Polymer Acceptor Based on B<-N Units with Enhanced Electron Mobility for Efficient All-Polymer Solar Cells. 2016 , 55, 5313-7	189
1348	Effects of Alkylthio and Alkoxy Side Chains in Polymer Donor Materials for Organic Solar Cells. 2016 , 37, 287-302	58

1347	A-ED-EA type Small Molecules Using Ethynylene Linkages for Organic Solar Cells with High Open-circuit Voltages. 2016 , 34, 353-358	8
1346	Photoactive Compounds Based on the Thiazolo[5,4-d]thiazole Core and Their Application in Organic and Hybrid Photovoltaics. 2016 , 2016, 233-251	29
1345	Difluorobenzothiadiazole-Based Small-Molecule Organic Solar Cells with 8.7% Efficiency by Tuning of Econjugated Spacers and Solvent Vapor Annealing. 2016 , 26, 1803-1812	94
1344	Asymmetric-Indenothiophene-Based Copolymers for Bulk Heterojunction Solar Cells with 9.14% Efficiency. 2016 , 28, 3359-65	92
1343	Ternary Organic Solar Cells Based on Two Highly Efficient Polymer Donors with Enhanced Power Conversion Efficiency. 2016 , 6, 1502109	141
1342	Self-Doped and Crown-Ether Functionalized Fullerene as Cathode Buffer Layer for Highly-Efficient Inverted Polymer Solar Cells. 2016 , 6,	13
1341	Layer-by-Layer Processed Organic Solar Cells. 2016 , 6, 1600414	68
1340	11.4% Efficiency non-fullerene polymer solar cells with trialkylsilyl substituted 2D-conjugated polymer as donor. 2016 , 7, 13651	822
1339	Immobilizing photogenerated electrons from graphitic carbon nitride for an improved visible-light photocatalytic activity. 2016 , 6, 22808	18
1338	Stepwise Structural Evolution of a DTS-F2BT Oligomer and Influence of Structural Disorder on Organic Field Effect Transistors and Organic Photovoltaic Performance. 2016 , 28, 8980-8987	10
1337	Thermally stable and efficient polymer solar cells based on a novel donor-acceptor copolymer. 2016 , 27, 254001	4
1336	Fluorination-enabled optimal morphology leads to over 11% efficiency for inverted small-molecule organic solar cells. 2016 , 7, 13740	486
1335	Terminal Modulation of DA Small Molecule for Organic Photovoltaic Materials: A Theoretical Molecular Design. 2016 , 120, 28939-28950	33
1334	Molecular design for tuning electronic structure of Econjugated polymers containing fused dithienobenzimidazole units. 2016 , 107, 191-199	3
1333	Alkoxyphenyl-thiophene, -selenophene and -furan substituted benzodithiophene based 2D Econjugated polymers for polymer solar cells and effect of chalcogen on optoelectronic properties. 2016 , 222, 356-363	4
1332	Electronic structure of polythieno[3,4-b]-thiophene-co-benzodithiophene (PTB7) derivatives for organic solar cell applications. 2016 , 33, 246-252	19
1331	Efficient polymer solar cells based on a new quinoxaline derivative with fluorinated phenyl side chain. 2016 , 4, 2606-2613	36
1330	TCDA: Practical Synthesis and Application in the Trifluoromethylation of Arenes and Heteroarenes. 2016 , 20, 836-839	8

1329	Series of Multifluorine Substituted Oligomers for Organic Solar Cells with Efficiency over 9% and Fill Factor of 0.77 by Combination Thermal and Solvent Vapor Annealing. 2016 , 138, 7687-97	176
1328	Fluorination as an effective tool to increase the photovoltaic performance of indacenodithiophene-alt-quinoxaline based wide-bandgap copolymers. 2016 , 33, 128-134	20
1327	Effect of solvent additive on active layer morphologies and photovoltaic performance of polymer solar cells based on PBDTTT-C-T/PC71BM. 2016 , 6, 51924-51931	9
1326	An asymmetric small molecule based on thieno[2,3-f]benzofuran for efficient organic solar cells. 2016 , 35, 87-94	17
1325	Synthesis of trifluoromethylated isoxazoles and their elaboration through inter- and intra-molecular C-H arylation. 2016 , 14, 5983-91	26
1324	A four-directional non-fullerene acceptor based on tetraphenylethylene and diketopyrrolopyrrole functionalities for efficient photovoltaic devices with a high open-circuit voltage of 1.18 V. 2016 , 52, 8522-5	59
1323	Modulation of charge carrier mobility by side-chain engineering of bi(thienylenevinylene)thiophene containing PPEPPVs. 2016 , 6, 51642-51648	2
1322	Large band-gap copolymers based on a 1,2,5,6-naphthalenediimide unit for polymer solar cells with high open circuit voltages and power conversion efficiencies. 2016 , 4, 7372-7381	20
1321	Non-conjugated water/alcohol soluble polymers with different oxidation states of sulfide as cathode interlayers for high-performance polymer solar cells. 2016 , 4, 4288-4295	14
1320	High performance all-polymer solar cells employing systematically tailored donor polymers. 2016 , 33, 227-234	14
1319	A Fluorinated Polythiophene Derivative with Stabilized Backbone Conformation for Highly Efficient Fullerene and Non-Fullerene Polymer Solar Cells. 2016 , 49, 2993-3000	125
1318	New alternating DA1DA2 copolymer containing two electron-deficient moieties based on benzothiadiazole and 9-(2-Octyldodecyl)-8H-pyrrolo[3,4-b]bisthieno[2,3-f:3',2'-h]quinoxaline-8,10(9H)-dione for efficient	10
1317	Synthesis, characterization, and photovoltaic applications of donor-acceptor alternating and random copolymers based on a ladder-type nonacyclic structure. 2016 , 108, 113-121	3
1316	Ternary Blend Composed of Two Organic Donors and One Acceptor for Active Layer of High-Performance Organic Solar Cells. 2016 , 8, 10961-7	20
1315	Advances in Metal-Containing Macromolecules. 2016,	
1314	Efficient polymer solar cells processed by environmentally friendly halogen-free solvents. 2016 , 6, 39074-390	79
1313	Incorporating a vertical BDT unit in conjugated polymers for drastically improving the open-circuit voltage of polymer solar cells. 2016 , 40, 5300-5305	7
1312	Regioregular D1-A-D2-A Terpolymer with Controlled Thieno[3,4-b]thiophene Orientation for High-Efficiency Polymer Solar Cells Processed with Nonhalogenated Solvents. 2016 , 49, 3328-3335	39

1311	Disilanobithiophene-dithienylbenzothiadiazole alternating polymer as donor material of bulk heterojunction polymer solar cells. 2016 , 215, 116-120	4
1310	Two-dimensional conjugated copolymers composed of diketopyrrolopyrrole, thiophene, and thiophene with side chains for binary and ternary polymer solar cells. 2016 , 33, 213-220	7
1309	Revealing different aggregational states of a conjugated polymer in solution by a nanopore sensor. 2016 , 7, 5287-5293	4
1308	Conjugated donor ceptor terpolymers entailing the Pechmann dye and dithienyl-diketopyrrolopyrrole as co-electron acceptors: tuning HOMO/LUMO energies and photovoltaic performances. 2016 , 7, 3838-3847	14
1307	10.20% Efficiency polymer solar cells via employing bilaterally hole-cascade diazaphenanthrobisthiadiazole polymer donors and electron-cascade indene-C70 bisadduct acceptor. 2016 , 25, 170-183	62
1306	Development of a High-Performance Donor A cceptor Conjugated Polymer: Synergy in Materials and Device Optimization. 2016 , 28, 3481-3487	32
1305	Intrinsically Conductive Polymer Fibers from Thermoplastic trans-1,4-Polyisoprene. 2016 , 32, 4904-8	8
1304	Effect of chiral 2-ethylhexyl side chains on chiroptical properties of the narrow bandgap conjugated polymers PCPDTBT and PCDTPT. 2016 , 7, 5313-5321	24
1303	Influence of a Ebridge dependent molecular configuration on the optical and electrical characteristics of organic solar cells. 2016 , 4, 8784-8792	14
1302	Donor日cceptor conjugated polymers based on thieno[3,2-b]indole (TI) and 2,1,3-benzothiadiazole (BT) for high efficiency polymer solar cells. 2016 , 4, 5448-5460	29
1301	Self-assembled tri-, tetra- and penta-ethylene glycols as easy, expedited and universal interfacial cathode-modifiers for inverted polymer solar cells. 2016 , 4, 8707-8715	14
1300	An efficient method to achieve a balanced open circuit voltage and short circuit current density in polymer solar cells. 2016 , 4, 8291-8297	36
1299	High-performance organic broadband photomemory transistors exhibiting remarkable UV-NIR response. 2016 , 18, 13108-17	13
1298	DA conjugated polymers based on thieno[3,2-b]indole (TI) and 2,1,3-benzodiathiazole (BT) derivatives: synthesis, characterization and side-chain influence on photovoltaic properties. 2016 , 6, 45873-45	5883
1297	Dihydrobenzofuran-C60 bisadducts as electron acceptors in polymer solar cells: Effect of alkyl substituents. 2016 , 215, 176-183	4
1296	Surprising characteristics of DA-type functional dyes by introducing 4-alkoxythiazoles as the donor-unit. 2016 , 72, 3232-3239	11
1295	Characterising the morphology and efficiency of polymer solar cell by experiments and simulations. 2016 , 42, 836-845	8
1294	DFT and TD-DFT study on the structural and optoelectronic characteristics of chemically modified donor-acceptor conjugated oligomers for organic polymer solar cells. 2016 , 97, 55-62	32

1293	End-Capping Effect of Quinoxalino[2,3-b?]porphyrin on DonorAcceptor Copolymer and Improved Performance of Polymer Solar Cells. 2016 , 49, 3723-3732	22
1292	Visible-Light-Induced Oxidation of Poly(3-hexylthiophene-2,5-diyl) Thin Films on ZnO Surfaces under Humid Conditions: Study of Light Wavelength Dependence. 2016 , 120, 19942-19950	6
1291	Effects of a heteroatomic benzothienothiophenedione acceptor on the properties of a series of wide-bandgap photovoltaic polymers. 2016 , 4, 9052-9059	10
1290	A Gold(I)-Catalyzed Domino Coupling of Alcohols with Allenes Enables the Synthesis of Highly Substituted Indenes. 2016 , 22, 14471-4	9
1289	Bifunctional Heterocyclic Spiro Derivatives for Organic Optoelectronic Devices. 2016 , 8, 24782-92	21
1288	Influence of molecular structure on the performance of low Voc loss polymer solar cells. 2016 , 4, 15232-1523	912
1287	Energy-Level Modulation of Small-Molecule Electron Acceptors to Achieve over 12% Efficiency in Polymer Solar Cells. 2016 , 28, 9423-9429	1191
1286	Dithieno[2,3-d:2',3'-d']benzo[1,2-b:4,5-b']dithiophene (DTBDAT)-based copolymers for high-performance organic solar cells. 2016 , 54, 3182-3192	7
1285	Recent advances in one-dimensional organic pli heterojunctions for optoelectronic device applications. 2016 , 4, 9388-9398	37
1284	Printable Solar Cells from Advanced Solution-Processible Materials. 2016 , 1, 197-219	50
1283	High-Performance Non-Fullerene Organic Solar Cells Based on a Pair of Medium Band Gap Polymer Donor and Perylene Bisimide Derivative Acceptor. 2016 , 217, 2647-2653	9
1282	A New BDT-Based Conjugated Polymer with Donor-Donor Composition for Bulk Heterojunction Solar Cells. 2016 , 24, 457-462	20
1281	Fluoro-substituted low band gap polymers based on isoindigo for air-stable polymer solar cells with high open circuit voltages. 2016 , 39, 85-90	7
1280	Conjugated terpolymers synthesized by incorporating anthracene units into the backbones of the diketopyrrolopyrrole-based polymers as electron donors for photovoltaic cells. 2016 , 7, 6798-6804	5
1279	Non-fullerene small molecule acceptors based on perylene diimides. 2016 , 4, 17604-17622	227
1278	Narrow bandgap conjugated polymers based on a high-mobility polymer template for visibly transparent photovoltaic devices. 2016 , 4, 17333-17343	15
1277	Tunable Visible and Near Infrared Photoswitches. 2016 , 138, 13960-13966	151
1276	Tetrafluoroquinoxaline based polymers for non-fullerene polymer solar cells with efficiency over 9%. 2016 , 30, 312-320	86

1275	Tuning the fused aromatic rings to enhance photovoltaic performance in wide band-gap polymer solar cells. 2016 , 104, 130-137	9
1274	Application of the dielectric-dependent screened exchange potential approach to organic photocell materials. 2016 , 18, 27554-27563	12
1273	Correlation of intermolecular packing distance and crystallinity of D-A polymers according to Espacer for polymer solar cells. 2016 , 99, 756-766	13
1272	The effect of meta-substituted or para-substituted phenyl as side chains on the performance of polymer solar cells. 2016 , 220, 402-409	2
1271	A fused-ring based electron acceptor for efficient non-fullerene polymer solar cells with small HOMO offset. 2016 , 27, 430-438	112
1270	Efficient Solution Processable Polymer Solar Cells Using Newly Designed and Synthesized Fullerene Derivatives. 2016 , 120, 19493-19503	15
1269	High-Performance Photovoltaic Polymers Employing Symmetry-Breaking Building Blocks. 2016 , 28, 8490-8498	386
1268	Reduced Intramolecular Twisting Improves the Performance of 3D Molecular Acceptors in Non-Fullerene Organic Solar Cells. 2016 , 28, 8546-8551	143
1267	High-performance conjugated terpolymer-based organic bulk heterojunction solar cells. 2016 , 4, 13930-13937	' 24
1266	Efficient and stable organic solar cells via a sequential process. 2016 , 4, 8086-8093	39
1265	New Insights into the Correlation between Morphology, Excited State Dynamics, and Device Performance of Small Molecule Organic Solar Cells. 2016 , 6, 1600961	27
1264	Benzo[d][1,2,3]thiadiazole (isoBT): Synthesis, Structural Analysis, and Implementation in Semiconducting Polymers. 2016 , 28, 6390-6400	29
1263	Realizing 11.3% efficiency in fullerene-free polymer solar cells by device optimization. 2016 , 59, 1574-1582	72
1262	A comparative study of a fluorene-based non-fullerene electron acceptor and PC61BM in an organic solar cell at a quantum chemical level. 2016 , 6, 81164-81173	37
1261	A wide-bandgap conjugated polymer for highly efficient inverted single and tandem polymer solar cells. 2016 , 4, 13251-13258	49
1260	(E)-1,2-Di(thiophen-2-yl)ethene based high mobility polymer for efficient photovoltaic devices without any post treatment. 2016 , 6, 68049-68057	8
1259	Graphene-Based Laser Desorption/Ionization Mass Spectrometry for Bioanalytical Applications. 2016 , 123-142	
1258	High-Performance Polymer Solar Cells Based on a Wide-Bandgap Polymer Containing Pyrrolo[3,4-]benzotriazole-5,7-dione with a Power Conversion Efficiency of 8.63. 2016 , 3, 1600032	57

1257	Synthesis of Thieno[3,4-b]thiophene-Based Donor Molecules with Phenyl Ester Pendants for Organic Solar Cells: Control of Photovoltaic Properties via Single Substituent Replacement. 2016 , 1, 703-709	8
1256	Improved photovoltaic properties of the copolymers based on diketopyrrolopyrrole with broad absorption and high open-circuit voltage. 2016 , 133, 16-24	6
1255	Synthesis of carbon quantum dots by chemical vapor deposition approach for use in polymer solar cell as the electrode buffer layer. 2016 , 109, 598-607	54
1254	Synthesis and photophysical properties of regioregular low bandgap copolymers with controlled 5-fluorobenzotriazole orientation for photovoltaic application. 2016 , 7, 5849-5861	10
1253	Effect of substituent groups on quinoxaline-based random copolymers on the optoelectronic and photovoltaic properties. 2016 , 101, 208-216	13
1252	Alkoxy substituted benzodithiophene-alt-fluorobenzotriazole copolymer as donor in non-fullerene polymer solar cells. 2016 , 59, 1317-1322	20
1251	High open circuit voltage polymer solar cells enabled by employing thiazoles in semiconducting polymers. 2016 , 7, 5730-5738	25
1250	Efficient ternary blend all-polymer solar cells with a polythiophene derivative as a hole-cascade material. 2016 , 4, 14752-14760	78
1249	Theoretical Investigations on Naphthodithiophene Diimide-Based Copolymers as Acceptor for All-Polymer Solar Cell Applications. 2016 , 1, 1662-1673	3
1248	Dithienopyrrole-benzodithiophene based donor materials for small molecular BHJSCs: Impact of side chain and annealing treatment on their photovoltaic properties. 2016 , 37, 312-325	21
1247	Polymers from phenyl-substituted benzodithiophene and tetrafluoridequinoxaline with high open circuit voltage and high fill factor. 2016 , 37, 287-293	15
1246	Toward Practical Useful Polymers for Highly Efficient Solar Cells via a Random Copolymer Approach. 2016 , 138, 10782-5	90
1245	Light Manipulation in Organic Photovoltaics. 2016 , 3, 1600123	43
1244	Novel benzo(1,2-b:4,5-b)Hithiophene-based donor: conjugated polymes for polymer solar cells. 2016 , 27, 9920-9928	4
1243	Highly coplanar bis(thiazol-2-yl)-diketopyrrolopyrrole based donor\(\text{Bcceptor copolymers for ambipolar field effect transistors. \(\textbf{2016}\), 6, 78008-78016	16
1242	PCDTBT based solar cells: one year of operation under real-world conditions. 2016 , 6, 21632	47
1241	High efficiency organic photovoltaic devices based on isoindigo conjugated polymers with a thieno[3,2-b]thiophene Ebridge. 2016 , 4, 16064-16072	15
1240	A Novel Naphtho[1,2-c:5,6-c']Bis([1,2,5]Thiadiazole)-Based Narrow-Bandgap EConjugated Polymer with Power Conversion Efficiency Over 10. 2016 , 28, 9811-9818	207

1239	Ternary D1D2AD2 Structured Conjugated Polymer: Efficient Green Solvent-Processed Polymer/Neat-C70 Solar Cells. 2016 , 28, 7479-7486	40
1238	Head-to-Head Linkage Containing Bithiophene-Based Polymeric Semiconductors for Highly Efficient Polymer Solar Cells. 2016 , 28, 9969-9977	81
1237	High photo-current in solution processed organic solar cells based on a porphyrin core A-ED-EA as electron donor material. 2016 , 38, 330-336	13
1236	Fluorinated p-n type copolyfluorene as polymer electret for stable nonvolatile organic transistor memory device. 2016 , 34, 1183-1195	8
1235	Synthesis and electrochemical polymerization of diketopyrrolopyrrole based donor acceptor flonor monomers containing 3,6- and 2,7-linked carbazoles. 2016 , 7, 6110-6119	17
1234	Synthesis and characterisation of poly(3-hexyl thiophene)-grafted graphene oxide sheets by click chemistry. 2016 , 13, 318	1
1233	Enhancement of photodetector performance by tuning donor-acceptor ratios in diketopyrrolopyrrole- and thiophene-based polymers. 2016 , 99, 427-433	8
1232	Optimization and Analysis of Conjugated Polymer Side Chains for High-Performance Organic Photovoltaic Cells. 2016 , 26, 1517-1525	55
1231	Impact of Fluorine Substituents on EConjugated Polymer Main-Chain Conformations, Packing, and Electronic Couplings. 2016 , 28, 8197-8205	65
1230	Structure Evolution of Oligomer Fused-Ring Electron Acceptors toward High Efficiency of As-Cast Polymer Solar Cells. 2016 , 6, 1600854	141
1229	Synthesis, field-effect and photovoltaic properties of random difluorobenzothiadiazole-isoindigo electron donor-acceptor polymers. 2016 , 134, 251-257	8
1228	Unsubstituted Benzodithiophene-Based Conjugated Polymers for High-Performance Organic Field-Effect Transistors and Organic Solar Cells. 2016 , 8, 19665-71	30
1227	Facile preparation of small molecules for bulk heterojunction solar cells. 2016 , 6, 59218-59225	3
1226	Interfacial Materials for Organic Solar Cells: Recent Advances and Perspectives. 2016 , 3, 1500362	310
1225	A nanomesh scaffold for supramolecular nanowire optoelectronic devices. 2016 , 11, 900-906	63
1224	Efficient ternary organic photovoltaic cells with better trade-off photon harvesting and phase separation by doping DIB-SQ. 2016 , 4, 7809-7816	12
1223	Synthesis and Properties of Benzofuran-Fused Silole and Germole Derivatives: Reversible Dimerization and Crystal Structures of Monomers and Dimers. 2016 , 35, 2327-2332	30
1222	High-Efficiency Nonfullerene Polymer Solar Cells with Medium Bandgap Polymer Donor and Narrow Bandgap Organic Semiconductor Acceptor. 2016 , 28, 8288-8295	224

1221	Recent developments of di-amide/imide-containing small molecular non-fullerene acceptors for organic solar cells. 2016 , 27, 1283-1292	16
1220	Diketopyrrolopyrrole-based oligomers accessed via sequential C H activated coupling for fullerene-free organic photovoltaics. 2016 , 134, 139-147	34
1219	Packing Principles for DonorAcceptor Oligomers from Analysis of Single Crystals. 2016 , 28, 5175-5190	31
1218	10.8% Efficiency Polymer Solar Cells Based on PTB7-Th and PC71BM via Binary Solvent Additives Treatment. 2016 , 26, 6635-6640	254
1217	Efficiency enhancement of polymer solar cells by applying an alcohol-soluble fullerene aminoethanol derivative as a cathode buffer layer. 2016 , 39, 191-198	8
1216	[Conjugated? Copolymers from a Pechmann Dye Derivative. 2016, 217, 2068-2073	3
1215	The importance of the polymer molecular weight and the processing solvent in PBDTTT-C:PCBM bulk heterojunction solar cells: Their effects on the nanostructural active texture. 2016 , 140, 27-33	4
1214	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. 2016 , 116, 14675-14	725 19
1213	Theoretical Prediction on Photovoltaic Properties of 4Cl-BPPQ/PC61BM System via Density Functional Theory Calculations. 2016 , 34, 1143-1150	4
1212	Theoretical Investigation on Porphyrin-Based Small Molecules as Donor Materials for Photovoltaic Applications. 2016 , 120, 27148-27158	11
1211	Diketopyrrolopyrrole based highly crystalline conjugated molecules for application in small molecule donor-polymer acceptor nonfullerene organic solar cells. 2016 , 39, 279-287	14
1210	Multilevel Investigation of Charge Transport in Conjugated Polymers. <i>Accounts of Chemical Research</i> , 2016 , 49, 2435-2443	56
1209	Side-chain Engineering of Benzo[1,2-b:4,5-b']dithiophene Core-structured Small Molecules for High-Performance Organic Solar Cells. 2016 , 6, 25355	17
1208	FAPbCl3 Perovskite as Alternative Interfacial Layer for Highly Efficient and Stable Polymer Solar Cells. 2016 , 2, 1600329	21
1207	Tuning the fluorescence lifetime of donor polymers containing different proportion of electron withdrawing groups inhybrid solar cells. 2016 , 221, 19-24	2
1206	A diketopyrrolopyrrole-based low bandgap polymer with enhanced photovoltaic performances through backbone twisting. 2016 , 4, 18174-18180	13
1205	Design, synthesis and photovoltaic properties of a series of new acceptor-pended conjugated polymers. 2016 , 59, 1583-1592	10
1204	Comparative study of the conformational effect of dithienothiophene- and terthiophene-based photovoltaic polymers. 2016 , 4, 11088-11095	6

1203	Synthesis and optoelectronic properties of new acceptor-donor-acceptor type solution processed conjugated small molecules for optoelectronics. 2016 , 635, 57-66	3
1202	Enhanced light harvesting in flexible polymer solar cells: synergistic simulation of a plasmonic meta-mirror and a transparent silver mesowire electrode. 2016 , 4, 18952-18962	29
1201	Two Donor Dne Acceptor Random Terpolymer Comprised of Diketopyrrolopyrrole Quaterthiophene with Various Donor Linkers for Organic Photovoltaic Application. 2016 , 120, 26609-26619	18
1200	Manipulating the photovoltaic properties of small-molecule donor materials by tailoring end-capped alkylthio substitution. 2016 , 6, 108908-108916	6
1199	Design, Synthesis, and Self-Assembly Behavior of Liquid-Crystalline Bis-[60]Fullerodendrimers. 2016 , 22, 17366-17376	10
1198	High efficiency all-polymer tandem solar cells. 2016 , 6, 26459	52
1197	An oligothiophene chromophore with a macrocyclic side chain: synthesis, morphology, charge transport, and photovoltaic performance. 2016 , 6, 102043-102056	2
1196	A dithieno[3,2-b:2',3'-d]pyrrole based, NIR absorbing, solution processable, small molecule donor for efficient bulk heterojunction solar cells. 2016 , 18, 32096-32106	13
1195	Photophysical and Electrochemical Characterization of BODIPY-Containing Dyads Comparing the Influence of an A-D-A versus D-A Motif on Excited-State Photophysics. 2016 , 120, 8794-8803	12
1194	The Assembling of Poly (3-Octyl-Thiophene) on CVD Grown Single Layer Graphene. 2015 , 5, 17720	1
1193	Charge carrier dynamics in PDPP-F/PCBM heterojunction solar cells. 2016 , 32, 1034-1037	
1192	Polymers for application in organic solar cells: Bithiophene can work better than thienothiophene when coupled to benzodithiophene. 2016 , 54, 1603-1614	5
1191	Solution-Processed Organic Solar Cells with 9.8% Efficiency Based on a New Small Molecule Containing a 2D Fluorinated Benzodithiophene Central Unit. 2016 , 2, 1600061	54
1190	Polymer Acceptor Based on B<-N Units with Enhanced Electron Mobility for Efficient All-Polymer Solar Cells. 2016 , 128, 5399-5403	46
1189	An Electron-Deficient Building Block Based on the B<-N Unit: An Electron Acceptor for All-Polymer Solar Cells. 2016 , 55, 1436-40	186
1188	Theoretical Investigation of DonorAcceptor Copolymers Based on C-, Si-, and Ge-Bridged Thieno[3,2-b]dithiophene for Organic Solar Cell Applications. 2016 , 45, 5427-5435	
1187	Azadipyrromethene cyclometalation in neutral Ru(II) complexes: photosensitizers with extended near-infrared absorption for solar energy conversion applications. 2016 , 45, 10563-76	13
1186	Efficient polymer solar cells based on a copolymer of meta-alkoxy-phenyl-substituted benzodithiophene and thieno[3,4-b]thiophene. 2016 , 4, 10135-10141	29

1185	A simple small molecule as an acceptor for fullerene-free organic solar cells with efficiency near 8%. 2016 , 4, 10409-10413	96
1184	Deep blue energy harvest photovoltaic switching by heptazole-based organic Schottky diode circuits. 2016 , 8, e278-e278	7
1183	All organic-based solar cell and thermoelectric generator hybrid device system using highly conductive PEDOT:PSS film as organic thermoelectric generator. 2016 , 134, 479-483	31
1182	Ultra-narrow bandgap D-A copolymer based on thienoisoindigo acceptor unit for application in polymer solar cells with energy losses below 0.6 eV. 2016 , 220, 134-140	8
1181	Effects of different functional groups on the optical and charge transport properties of copolymers for polymer solar cells. 2016 , 6, 61809-61820	19
1180	Two new fluorinated copolymers based on thieno[2,3-f]benzofuran for efficient polymer solar cells. 2016 , 6, 62923-62933	10
1179	TPD-based polythiophene derivatives with higher Voc for polymer solar cells. 2016 , 6, 63338-63346	8
1178	A feasible random copolymer approach for high-efficiency polymeric photovoltaic cells. 2016 , 4, 11439-11445	29
1177	Non-fullerene polymer solar cells based on a selenophene-containing fused-ring acceptor with photovoltaic performance of 8.6%. 2016 , 9, 3429-3435	154
1176	Development of polymer f ullerene solar cells. 2016 , 3, 222-239	63
1175	Enhanced photovoltaic performance in inverted polymer solar cells using Li ion doped ZnO cathode buffer layer. 2016 , 36, 50-56	19
1174	Novel donor acceptor polymers containing o-fluoro-p-alkoxyphenyl-substituted benzo[1,2-b:4,5-b?]dithiophene units for polymer solar cells with power conversion efficiency exceeding 9%. 2016 , 4, 10212-10222	49
1173	Electronic and photophysical properties of the bend DTATD derivatives for small-molecule organic photovoltaic (SM-OPV) solar cells: a DFT and TD-DFT investigation. 2016 , 42, 6907-6927	5
1172	Molecular Design of Benzodithiophene-Based Organic Photovoltaic Materials. 2016 , 116, 7397-457	824
1171	Effect of bifurcation point of alkoxy side chains on photovoltaic performance of 5-alkoxy-6-fluorobenzo[c][1,2,5]thiadiazole-based conjugated polymers. 2016 , 154, 42-48	5
1170	Recent advances in hybrid solar cells based on metal oxide nanostructures. 2016 , 222, 42-65	12
1169	CuSCN as selective contact in solution-processed small-molecule organic solar cells leads to over 7% efficient porphyrin-based device. 2016 , 4, 11009-11022	37
1168	Synthesis and Optoelectronic Properties of Benzo[1,2-b:4,5-b?]dithiophene-Based Copolymers with Conjugated 2-(2-Ethylhexyl)-3,4-dimethoxythiophene Side Chains. 2016 , 217, 1586-1599	6

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1167	benzo[2,1-b:3,4-b']dithiophene. 2016 , 54, 1706-1712	6
1166	Influence of the positions of thiophenes and side chains on diketopyrrolopyrrole based narrow band-gap small molecules for organic solar cells. 2016 , 133, 100-108	5
1165	Polymer Acceptor Based on Double B<-N Bridged Bipyridine (BNBP) Unit for High-Efficiency All-Polymer Solar Cells. 2016 , 28, 6504-8	252
1164	Transient Extraction of Holes and Electrons Separately Unveils the Transport Dynamics in Organic Photovoltaics. 2016 , 2, 1500333	17
1163	High Bandgap (1.9 eV) Polymer with Over 8% Efficiency in Bulk Heterojunction Solar Cells. 2016 , 2, 1600084	31
1162	A New Polythiophene Derivative for High Efficiency Polymer Solar Cells with PCE over 9%. 2016 , 6, 1600430	78
1161	Molecular design and theoretical investigation on the thieno[3,2-b]thienobis(silolothiophene)-based low band gap donor polymers for efficient polymer solar cell. 2016 , 42, 47-55	3
1160	Enhancing the photovoltaic properties of low bandgap terpolymers based on benzodithiophene and phenanthrophenazine by introducing different second acceptor units. 2016 , 7, 1747-1755	17
1159	Synthesis and photovoltaic properties of a 2D-conjugated copolymer based on benzodithiophene with alkylthio-selenophene side chain. 2016 , 6, 14229-14235	6
1158	Efficient polymer solar cells based on the synergy effect of a novel non-conjugated small-molecule electrolyte and polar solvent. 2016 , 4, 2530-2536	45
1157	Stereomeric effects of bisPC 71 BM on polymer solar cell performance. 2016 , 61, 132-138	25
1156	Toward high performance indacenodithiophene-based small-molecule organic solar cells: investigation of the effect of fused aromatic bridges on the device performance. 2016 , 4, 2252-2262	21
1155	High-performance polymer solar cells based on a 2D-conjugated polymer with an alkylthio side-chain. 2016 , 9, 885-891	150
1154	Photosensitive self-assembling materials as functional dopants for organic photovoltaic cells. 2016 , 6, 11577-11590	42
1153	Influence of ZnO:Al, MoO3 and PEDOT:PSS on efficiency in standard and inverted polymer solar cells based on polyazomethine and poly(3-hexylthiophene). 2016 , 191, 784-794	27
1152	n-Type Water/Alcohol-Soluble Naphthalene Diimide-Based Conjugated Polymers for High-Performance Polymer Solar Cells. 2016 , 138, 2004-13	400
1151	Luminescent Main-Chain Organoborane Polymers: Highly Robust, Electron-Deficient Poly(oligothiophene borane)s via Stille Coupling Polymerization. 2016 , 49, 537-546	97
1150	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. 2016 , 4, 1044-1051	73

1149	Highly conductive, optically transparent, low work-function hydrogen-doped boron-doped ZnO electrodes for efficient ITO-free polymer solar cells. 2016 , 4, 691-703	9
1148	Highly efficient inverted bulk-heterojunction solar cells with a gradiently-doped ZnO layer. 2016 , 9, 240-246	87
1147	Design of medium band gap random terpolymers containing fluorene linked diketopyrrolopyrrole and thiophene co-monomers: an experimental and theoretical study. 2016 , 40, 1377-1386	5
1146	Significant Improvement of Semiconducting Performance of the Diketopyrrolopyrrole-Quaterthiophene Conjugated Polymer through Side-Chain Engineering via Hydrogen-Bonding. 2016 , 138, 173-85	211
1145	Artificial hemes for DSSC and/or BHJ applications. 2016 , 45, 1111-26	32
1144	A spirobifluorene and diketopyrrolopyrrole moieties based non-fullerene acceptor for efficient and thermally stable polymer solar cells with high open-circuit voltage. 2016 , 9, 604-610	316
1143	Random terpolymer with a cost-effective monomer and comparable efficiency to PTB7-Th for bulk-heterojunction polymer solar cells. 2016 , 7, 926-932	37
1142	Synthesis and photovoltaic properties of alkylthiothienyl-substituted benzo[1,2-b:4,5-b?]dithiophene DA copolymers with different accepting units. 2016 , 211, 121-131	14
1141	Materials Design via Optimized Intramolecular Noncovalent Interactions for High-Performance Organic Semiconductors. 2016 , 28, 2449-2460	84
1140	A simple strategy to the side chain functionalization on the quinoxaline unit for efficient polymer solar cells. 2016 , 52, 6881-4	73
1139	Non-symmetric benzo[b]-fused BODIPYs as a versatile fluorophore platform reaching the NIR: a systematic study of the underlying structure-property relationship. 2016 , 45, 7589-604	18
1138	Random dithienosilole-based terpolymers: Synthesis and application in polymer solar cells. 2016 , 130, 63-69	10
1137	Interfacial engineering for high performance organic photovoltaics. 2016 , 19, 169-177	26
1136	Structural engineering of porphyrin-based small molecules as donors for efficient organic solar cells. 2016 , 7, 4301-4307	69
1135	Influence of fluorination on the properties and performance of isoindigoquaterthiophene-based polymers. 2016 , 4, 5039-5043	31
1134	Regioregular and Random Difluorobenzothiadiazole Electron Donor Acceptor Polymer Semiconductors for Thin-Film Transistors and Polymer Solar Cells. 2016 , 49, 2541-2548	28
1133	Impact of structure and homo-coupling of the central donor unit of small molecule organic semiconductors on solar cell performance. 2016 , 6, 32298-32307	17
1132	Diketopyrrolopyrrole based A2-D-A1-D-A2 type small molecules for organic solar cells: Effects of substitution of benzene with thiophene. 2016 , 130, 282-290	17

1131	New low bandgap near-IR conjugated D-A copolymers for BHJ polymer solar cell applications. 2016 , 18, 8389-400	13
1130	Stability of organic solar cells: challenges and strategies. 2016 , 45, 2544-82	618
1129	Synthesis of quaternary perfluoroalkyl lactams via electrophilic perfluoroalkylation. 2016 , 52, 4049-52	27
1128	Molecular Structure Controlled Transitions between Free-Charge Generation and Trap Formation in a Conjugated Copolymer Series. 2016 , 120, 4189-4198	8
1127	Selenium-substituted polymers for improved photovoltaic performance. 2016 , 18, 7978-86	14
1126	Cracking perylene diimide backbone for fullerene-free polymer solar cells. 2016 , 128, 226-234	16
1125	P3HT:DiPBI bulk heterojunction solar cells: morphology and electronic structure probed by multiscale simulation and UV/vis spectroscopy. 2016 , 18, 6217-27	14
1124	Novel DAD type dyes based on BODIPY platform for solution processed organic solar cells. 2016 , 128, 131-140	36
1123	Medium bandgap copolymers based on carbazole and quinoxaline exceeding 1.0 V open-circuit voltages. 2016 , 6, 17624-17631	4
1122	A non-fullerene electron acceptor modified by thiophene-2-carbonitrile for solution-processed organic solar cells. 2016 , 4, 3777-3783	67
1121	Solution-processed VOx prepared using a novel synthetic method as the hole extraction layer for polymer solar cells. 2016 , 4, 1953-1958	11
1120	Toward high open-circuit voltage by smart chain engineering in 2D-conjugated polymer for polymer solar cells. 2016 , 149, 162-169	11
1119	Density functional study on the effect of aromatic rings flanked by bithiophene of novel electron donors in small-molecule organic solar cells. 2016 , 175, 13-21	13
1118	Toward n-type analogues to poly(3-alkylthiophene)s: influence of side-chain variation on bulk-morphology and electron transport characteristics of head-to-tail regioregular poly(4-alkylthiazole)s. 2016 , 4, 2587-2597	6
1117	Ring-fusion as a perylenediimide dimer design concept for high-performance non-fullerene organic photovoltaic acceptors. 2016 , 7, 3543-3555	149
1116	A Facile Planar Fused-Ring Electron Acceptor for As-Cast Polymer Solar Cells with 8.71% Efficiency. 2016 , 138, 2973-6	784
1115	Improving the Photovoltaic Performance of Polymer Solar Cells Based on Furan-Flanked Diketopyrrolopyrrole Copolymers via Tuning the Alkyl Side Chain. 2016 , 120, 4824-4832	12
1114	Fine structural tuning of diketopyrrolopyrrole-cored donor materials for small molecule-fullerene organic solar cells: A theoretical study. 2016 , 32, 134-144	41

1113	Synthesis and characterization of D-A-A type regular terpolymers with narrowed band-gap and their application in high performance polymer solar cells. 2016 , 32, 237-243	19
1112	Rational tuning of high-energy visible light absorption for panchromatic small molecules by a two-dimensional conjugation approach. 2016 , 7, 3857-3861	21
1111	Tuning the LUMO level of organic photovoltaic solar cells by conjugately fusing graphene flake: A DFT-B3LYP study. 2016 , 81, 108-115	12
1110	Functional isocoumarin-containing polymers synthesized by rhodium-catalyzed oxidative polycoupling of aryl diacid and internal diyne. 2016 , 7, 2501-2510	17
1109	Dual structure modifications to realize efficient polymer solar cells with low fullerene content. 2016 , 32, 187-194	6
1108	DonorAcceptor Random versus Alternating Copolymers for Efficient Polymer Solar Cells: Importance of Optimal Composition in Random Copolymers. 2016 , 49, 2096-2105	38
1107	(Z)-(Thienylmethylene)oxindole-Based Polymers for High-Performance Solar Cells. 2016 , 49, 2145-2152	20
1106	Synthesis and photovoltaic properties of D-A copolymers based on alkylthio-thiophene or alkylthio-selenophene-BDT donor unit and DPP acceptor unit. 2016 , 33, 15-22	9
1105	Optimization of the Energy Level Alignment between the Photoactive Layer and the Cathode Contact Utilizing Solution-Processed Hafnium Acetylacetonate as Buffer Layer for Efficient Polymer Solar Cells. 2016 , 8, 432-41	21
1104	Side chain effect on photovoltaic properties of dibenzo[a,c]phenazine based donor\(\text{dcceptor}\) polymers. 2016 , 29, 151-159	5
1103	One-pot preparation of trifluoromethylated homoallylic N-acylhydrazines or Emethylene-Elactams from acylhydrazines, trifluoroacetaldehyde methyl hemiacetal, allyl bromide and tin. 2016 , 14, 1492-500	13
1102	Porphyrin small molecules containing furan- and selenophene-substituted diketopyrrolopyrrole for bulk heterojunction organic solar cells. 2016 , 29, 127-134	34
1101	PBDT-TSR: a highly efficient conjugated polymer for polymer solar cells with a regioregular structure. 2016 , 4, 1708-1713	68
1100	Efficient fullerene-free organic solar cells based on fused-ring oligomer molecules. 2016 , 4, 1486-1494	45
1099	Calculation of low bandgap homopolymers: Comparison of TD-DFT methods with experimental oligomer series. 2016 , 645, 169-173	26
1098	Feasible energy level tuning in polymer solar cells based on broad band-gap polytriphenylamine derivatives. 2016 , 40, 402-412	6
1097	Exciplex Enhancement as a Tool to Increase OLED Device Efficiency. 2016 , 120, 2070-2078	64
1096	A di(1-benzothieno)[3,2-b:2?,3?-d]pyrrole and isoindigo-based electron donating conjugated polymer for efficient organic photovoltaics. 2016 , 4, 663-667	16

1095	Effect of side chain length on the charge transport, morphology, and photovoltaic performance of conjugated polymers in bulk heterojunction solar cells. 2016 , 4, 1855-1866	65
1094	Side-chain manipulation on accepting units of two-dimensional benzo[1,2-b:4,5-b?]dithiophene polymers for organic photovoltaics. 2016 , 7, 1486-1493	15
1093	Theoretical investigations on enhancing the performance of terminally diketopyrrolopyrrole-based small-molecular donors in organic solar cell applications. 2016 , 22, 15	9
1092	Synthesis, Properties, and Polymerization of Spiro[(dipyridinogermole)(dithienogermole)]. 2016 , 35, 20-26	24
1091	Highly crystalline, low band-gap semiconducting polymers based on phenanthrodithiophene-benzothiadiazole for solar cells and transistors. 2016 , 7, 1549-1558	17
1090	Low bandgap semiconducting polymers for polymeric photovoltaics. 2016 , 45, 4825-46	372
1089	Insertion of conjugated bridges in organic backbone for better multilevel memory performance: The role of alkynyl group. 2016 , 28, 155-162	16
1088	Fluorinated and non-fluorinated conjugated polymers showing different photovoltaic properties in polymer solar cells with PFNBr interlayers. 2016 , 28, 178-183	19
1087	Donor Ecceptor copolymers based on dithienopyrrolobenzothiadiazole: Synthesis, characterization, and photovoltaic applications. 2016 , 74, 180-189	9
1086	Fullerene-free small molecule organic solar cells with a high open circuit voltage of 1.15 V. 2016 , 52, 465-8	69
1085	Oligomer Molecules for Efficient Organic Photovoltaics. <i>Accounts of Chemical Research</i> , 2016 , 49, 175-83 _{24.3}	492
1084	Toward facile broadband high photoresponse of fullerene based phototransistor from the ultraviolet to the near-infrared region. 2016 , 96, 685-694	48
1083	Conjugated poly-ynes and poly(metalla-ynes) incorporating thiophene-based spacers for solar cell (SC) applications. 2016 , 812, 13-33	16
1082	Versatile ternary organic solar cells: a critical review. 2016 , 9, 281-322	508
1081	Dialkylthio Substitution: An Effective Method to Modulate the Molecular Energy Levels of 2D-BDT Photovoltaic Polymers. 2016 , 8, 3575-83	41
1080	Synthesis of planar fluorenimine derivative-based broad band-gap polymers for bulk heterojunction polymer solar cells. 2017 , 32, 16-21	
1079	Defining donor and acceptor strength in conjugated copolymers. 2017 , 115, 485-496	12
1078	Realizing Small Energy Loss of 0.55 eV, High Open-Circuit Voltage >1 V and High Efficiency >10% in Fullerene-Free Polymer Solar Cells via Energy Driver. 2017 , 29, 1605216	216

1077	Development of quinoxaline based polymers for photovoltaic applications. 2017, 5, 1858-1879	74
1076	Two 3D Cd(II) Metal-Organic Frameworks Linked by Benzothiadiazole Dicarboxylates: Fantastic S@Cd Cage, Benzothiadiazole Antidimmer, and Dual Emission. 2017 , 56, 1696-1705	21
1075	Synthesis and photovoltaic properties of three different types of terpolymers. 2017 , 1, 1147-1155	4
1074	Generalized-active-space pair-density functional theory: an efficient method to study large, strongly correlated, conjugated systems. 2017 , 8, 2741-2750	46
1073	Ga-doped ZnO as an electron transport layer for PffBT4T-2OD: PC70BM organic solar cells. 2017 , 43, 207-213	20
1072	Evaluating the influence of heteroatoms on the electronic properties of aryl[3,4-c]pyrroledione based copolymers. 2017 , 109, 85-92	3
1071	The effect of solvent treatment on the buried PEDOT:PSS layer. 2017 , 43, 9-14	17
1070	Efficient P3HT:PC61BM solar cells employing 1,2,4-trichlorobenzene as the processing additives. 2017 , 35, 302-308	4
1069	Synthesis and photovoltaic properties low bandgap D-A copolymers based on fluorinated thiadiazoloquinoxaline. 2017 , 43, 268-276	5
1068	Design, Synthesis, and Photovoltaic Characterization of a Small Molecular Acceptor with an Ultra-Narrow Band Gap. 2017 , 129, 3091-3095	43
1067	Design, Synthesis, and Photovoltaic Characterization of a Small Molecular Acceptor with an Ultra-Narrow Band Gap. 2017 , 56, 3045-3049	590
1066	Indacenodithiophene-based wide bandgap copolymers for high performance single-junction and tandem polymer solar cells. 2017 , 33, 313-324	45
1065	Dibenzothiophene-S,S-dioxide and Bispyridinium-Based Cationic Polyfluorene Derivative as an Efficient Cathode Modifier for Polymer Solar Cells. 2017 , 9, 4778-4787	19
1064	Small molecule carbazole-based diketopyrrolopyrroles with tetracyanobutadiene acceptor unit as a non-fullerene acceptor for bulk heterojunction organic solar cells. 2017 , 5, 3311-3319	42
1063	New Wide Band Gap Donor for Efficient Fullerene-Free All-Small-Molecule Organic Solar Cells. 2017 , 139, 1958-1966	225
1062	A novel random terpolymer for high-efficiency bulk-heterojunction polymer solar cells. 2017 , 7, 1975-1980	12
1061	Thermal annealing effect on organic semiconducting polymer laser with an external holographic grating feedback layer. 2017 , 43, 148-155	2
1060	Donor End-Capped Hexafluorinated Oligomers for Organic Solar Cells with 9.3% Efficiency by Engineering the Position of Bridge and Sequence of Two-Step Annealing. 2017 , 29, 1036-1046	34

1059	Theoretical Design of Perylene Diimide Dimers with Different Linkers and Bridged Positions as Promising Non-Fullerene Acceptors for Organic Photovoltaic Cells. 2017 , 121, 2125-2134	37
1058	High-Performance Ternary Organic Solar Cell Enabled by a Thick Active Layer Containing a Liquid Crystalline Small Molecule Donor. 2017 , 139, 2387-2395	351
1057	New wavelength-tunable aza-dipyrromethene dyes with intense near-infrared absorption and emission. 2017 , 337, 82-90	7
1056	1,3-Bis(thieno[3,4-b]thiophen-6-yl)-4H-thieno[3,4-c]pyrrole-4,6(5H)-dione-Based Small-Molecule Donor for Efficient Solution-Processed Solar Cells. 2017 , 9, 6213-6219	19
1055	Solution-Processable Hyperbranched Conjugated Polymer Nanoparticles Based on C -Symmetric Benzotrithiophene for Polymer Solar Cells. 2017 , 38, 1700001	8
1054	Finely designed medium-band-gap polymer donor with judiciously selecting chalcogen atom for high efficiency polymer solar cell. 2017 , 141, 342-347	8
1053	An extended Etonjugated area of electron-donating units in DA structured polymers towards high-mobility field-effect transistors and highly efficient polymer solar cells. 2017 , 5, 2786-2793	29
1052	Electrolytes as Cathode Interlayers in Inverted Organic Solar Cells: Influence of the Cations on Bias-Dependent Performance. 2017 , 9, 8426-8431	10
1051	Abnormal strong burn-in degradation of highly efficient polymer solar cells caused by spinodal donor-acceptor demixing. 2017 , 8, 14541	223
1050	Enhanced open-circuit voltage in methoxyl substituted benzodithiophene-based polymer solar cells. 2017 , 60, 243-250	11
1049	Avoiding ambient air and light induced degradation in high-efficiency polymer solar cells by the use of hydrogen-doped zinc oxide as electron extraction material. 2017 , 34, 500-514	36
1048	Magnesium-Catalyzed Electrophilic Trifluoromethylation: Facile Access to All-Carbon Quaternary Centers in Oxindoles. 2017 , 23, 8353-8357	20
1047	Chlorination of Low-Band-Gap Polymers: Toward High-Performance Polymer Solar Cells. 2017 , 29, 2819-2830	97
1046	Synthesis and characterization of arylenevinylenearyleneBaphthalene diimide copolymers as acceptor in allpolymer solar cells. 2017 , 55, 1757-1764	15
1045	Effect of furan Ebridge on the photovoltaic performance of D-A copolymers based on bi(alkylthio-thienyl)benzodithiophene and fluorobenzotriazole. 2017 , 60, 537-544	22
1044	A novel A-D-A small molecule with 1,8-naphthalimide as a potential non-fullerene acceptor for solution processable solar cells. 2017 , 142, 39-50	10
1043	Design and Synthesis of Chlorinated Benzothiadiazole-Based Polymers for Efficient Solar Energy Conversion. 2017 , 2, 753-758	41
1042	Ternary blend polymer solar cells with two non-fullerene acceptors as acceptor alloy. 2017 , 141, 388-393	17

1041	Colloidal metal oxide nanocrystals as charge transporting layers for solution-processed light-emitting diodes and solar cells. 2017 , 46, 1730-1759	77
1040	Asymmetric medium bandgap copolymers and narrow bandgap small-molecule acceptor with over 7% efficiency. 2017 , 45, 42-48	13
1039	A series of dithienobenzodithiophene based small molecules for highly efficient organic solar cells. 2017 , 60, 552-560	15
1038	Molecular Origin of Donor- and Acceptor-Rich Domain Formation in Bulk-Heterojunction Solar Cells with an Enhanced Charge Transport Efficiency. 2017 , 121, 5864-5870	16
1037	Mixed-Ligand Approach to Palladium-Catalyzed Direct Arylation Polymerization: Highly Selective Synthesis of Econjugated Polymers with Diketopyrrolopyrrole Units. 2017 , 50, 927-934	34
1036	A 1,1?-vinylene-fused indacenodithiophene-based low bandgap polymer for efficient polymer solar cells. 2017 , 5, 5106-5114	29
1035	Oligo- and poly(fullerene)s for photovoltaic applications: Modeled electronic behaviors and synthesis. 2017 , 55, 1345-1355	9
1034	Rhodanine flanked indacenodithiophene as non-fullerene acceptor for efficient polymer solar cells. 2017 , 60, 257-263	36
1033	Synthesis and photovoltaic properties of alkylthio phenyl substituted benzodifuran (BDF)-based conjugated polymers. 2017 , 226, 31-38	9
1032	Semi-crystalline photovoltaic polymers with siloxane-terminated hybrid side-chains. 2017 , 60, 528-536	3
1031	Hybrid Photoconductive Cathode Interlayer Materials Composed of Perylene Bisimide Photosensitizers and Zinc Oxide for High Performance Polymer Solar Cells. 2017 , 7, 1602573	37
1030	An asymmetrical thieno[2,3- f]benzofuran (TBF)-based conjugated polymer for organic solar cells with high fill factor. 2017 , 114, 348-354	11
1029	Bithienopyrroledione vs. thienopyrroledione based copolymers: dramatic increase of power conversion efficiency in bulk heterojunction solar cells. 2017 , 53, 3543-3546	11
1028	Large branched alkylthienyl bridged naphtho[1,2-c:5,6-c?]bis[1,2,5]thiadiazole-containing low bandgap copolymers: Synthesis and photovoltaic application. 2017 , 54, 176-185	19
1027	Conjugated-Polymer Blends for Organic Photovoltaics: Rational Control of Vertical Stratification for High Performance. 2017 , 29, 1601674	91
1026	Modifying electronic properties of ICBA through chemical substitutions for solar cell applications. 2017 , 28, 1133-1140	6
1025	Regioselective synthesis of difluoroalkyl/perfluoroalkyl enones via Pd-catalyzed four-component carbonylative coupling reactions. 2017 , 53, 2814-2817	40
1024	Hydroxyl-Terminated CuInS-Based Quantum Dots: Potential Cathode Interfacial Modifiers for Efficient Inverted Polymer Solar Cells. 2017 , 9, 7362-7367	13

1023	Efficient and controllable vapor to solid doping of the polythiophene P3HT by low temperature vapor phase infiltration. 2017 , 5, 2686-2694	43
1022	A novel small molecule based on dithienophosphole oxide for bulk heterojunction solar cells without pre- or post-treatments. 2017 , 142, 516-523	10
1021	Small molecular non-fullerene acceptors based on naphthalenediimide and benzoisoquinoline-dione functionalities for efficient bulk-heterojunction devices. 2017 , 143, 1-9	16
1020	Insights into the influence of fluorination positions on polymer donor materials on photovoltaic performance. 2017 , 46, 115-120	4
1019	Polymer Electron Acceptors with Conjugated Side Chains for Improved Photovoltaic Performance. 2017 , 50, 3171-3178	33
1018	Density Functional Study on A-Units Based on Thieno[3,4-c]pyrrole-4,6-dione for Organic Solar Cells. 2017 , 46, 4825-4834	1
1017	Importance of side-chain anchoring atoms on electron donor/fullerene interfaces for high-performance organic solar cells. 2017 , 5, 9316-9321	24
1016	Polymer solar cells based low bandgap A1-D-A2-D terpolymer based on fluorinated thiadiazoloquinoxaline and benzothiadiazole acceptors with energy loss less than 0.5 LeV. 2017 , 46, 192-202	9
1015	EConjugation Effects of Oligo(thienylenevinylene) Side Chains in Semiconducting Polymers on Photovoltaic Performance. 2017 , 50, 3557-3564	6
1014	Film morphology of solution-processed regioregular ternary conjugated polymer solar cells under processing additive stress. 2017 , 5, 8903-8908	8
1013	Thienothiophene-benzoxadiazole based conjugated copolymer for organic photovoltaic application. 2017 , 11, 132-138	1
1012	Heteroheptacene-cored semiconducting molecules for non-fullerene organic solar cells. 2017 , 144, 133-141	18
1011	Acenaphtho[1, 2-k]fluoranthene-Fused Diimide Derivatives: An Investigation of the Relationship Between Molecular Structure and Device Performance. 2017 , 6, 1231-1234	10
1010	First-Principle Study on the Effect of Pi-Spacers on Small Molecule Acceptors: Quantum Design of Organic Solar Cells and NLO Compounds. 2017 , 28, 2419-2431	2
1009	Non-fullerene small molecular acceptors based on dithienocyclopentafluorene and dithienocyclopentacarbazole cores for polymer solar cells. 2017 , 144, 48-57	24
1008	Significant Influence of the Methoxyl Substitution Position on Optoelectronic Properties and Molecular Packing of Small-Molecule Electron Acceptors for Photovoltaic Cells. 2017 , 7, 1700183	155
1007	Efficient Organic Solar Cells with Polymer-Small Molecule: Fullerene Ternary Active Layers. 2017 , 2, 1786-179	48
1006	Indacenodithiophene: a promising building block for high performance polymer solar cells. 2017 , 5, 10798-10	81 /4 3

1005	Enhancing the performance of non-fullerene solar cells with polymer acceptors containing large-sized aromatic units. 2017 , 47, 133-138	13
1004	Naphthodifuran-based zigzag-type polycyclic arene with conjugated side chains for efficient photovoltaics. 2017 , 19, 14289-14295	5
1003	Design of diblock co-oligomers as low bandgap small molecules for organic solar cells. 2017 , 43, 1496-1501	3
1002	A solution-processed and low threshold voltage p-type small molecule based on indolocarbazole-and benzothiophene-fused rings. 2017 , 144, 32-40	10
1001	Selenium-Containing Medium Bandgap Copolymer for Bulk Heterojunction Polymer Solar Cells with High Efficiency of 9.8%. 2017 , 29, 4811-4818	49
1000	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. 2017 , 10, 1443-1455	63
999	Direct CH arylation: a CireenerDepproach towards facile synthesis of organic semiconducting molecules and polymers. 2017 , 5, 11550-11571	106
998	Ternary organic solar cells with enhanced open circuit voltage. 2017 , 37, 24-31	83
997	Synthesis and characterization of triazine linked carbazole derivatives green-light-emitting molecules. 2017 , 143, 444-454	21
996	Conjugated polymers containing B<-N unit as electron acceptors for all-polymer solar cells. 2017 , 60, 450-459	96
995	Effect of alkylthiophene spacers and fluorine on the optoelectronic properties of 5,10-bis(dialkylthien-2-yl)dithieno[2,3-d:2?,3?-d?]benzo[1,2-b:4,5-b?]dithiophene-alt-benzothiadiazole derivative copolymers. 2017 , 7, 22845-22854	20
994	A novel naphthyl side-chained benzodithiophene polymer for efficient photovoltaic cells with a high fill factor of 75%. 2017 , 5, 10430-10436	23
993	PPN (poly-peri-naphthalene) film as a narrow-bandgap organic thermoelectric material. 2017 , 5, 9891-9896	10
992	Polymer/Small Molecule/Fullerene Based Ternary Solar Cells. 2017 , 7, 1602540	93
991	A Wide-Bandgap Donor Polymer for Highly Efficient Non-fullerene Organic Solar Cells with a Small Voltage Loss. 2017 , 139, 6298-6301	288
990	Mechanism of Light-Soaking Effect in Inverted Polymer Solar Cells with Open-Circuit Voltage Increase. 2017 , 2, 1617-1624	8
989	Anthracene-based perylene diimide electron-acceptor for fullerene-free organic solar cells. 2017 , 143, 301-307	13
988	A triazoloquinoxaline and benzodithiophene bearing low band gap copolymer for electrochromic and organic photovoltaic applications. 2017 , 228, 111-119	9

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987	Triperylene Hexaimides Based All-Small-Molecule Solar Cells with an Efficiency over 6% and Open Circuit Voltage of 1.04 V. 2017 , 7, 1601664	51
986	Optimized Phase Separation and Reduced Geminate Recombination in High Fill Factor Small-Molecule Organic Solar Cells. 2017 , 2, 14-21	32
985	Comparative study on the photovoltaic characteristics of ADA and DAD molecules based on Zn-porphyrin; a DAD molecule with over 8.0% efficiency. 2017 , 5, 1057-1065	42
984	Energy conversion technologies towards self-powered electrochemical energy storage systems: the state of the art and perspectives. 2017 , 5, 1873-1894	88
983	Naphtho[1,2- c:5,6- c?]bis[1,2,5]thiadiazole-based conjugated polymers consisting of oligothiophenes for efficient polymer solar cells. 2017 , 121, 183-195	31
982	Asymmetric 2D benzodithiophene and quinoxaline copolymer for photovoltaic applications. 2017 , 5, 6798-6804	9
981	Alternating polymers based on alkoxy-phenyl substituted indacenodithiophene and fluorinated quinoxaline derivatives for photovoltaic cells. 2017 , 145, 345-353	6
980	Molecular Optimization Enables over 13% Efficiency in Organic Solar Cells. 2017 , 139, 7148-7151	2152
979	Molecular weight effect on surface and bulk structure of poly(3-hexylthiophene) thin films. 2017 , 119, 76-82	11
978	Donor- or Acceptor-type 9,9?-Bifluorenylidene Derivatives for Attaining Singlet Fission Character in Organic Photovoltaics. 2017 , 46, 1126-1129	5
977	Diketopyrrolopyrrole-Based Conjugated Polymer Entailing Triethylene Glycols as Side Chains with High Thin-Film Charge Mobility without Post-Treatments. 2017 , 4, 1700048	47
976	Palladium-Catalyzed Regioselective Direct Arylation of Benzofurazans at the C-4 Position. 2017 , 359, 2448-2456	9
975	Effects of polymer properties on jetting performance of electrohydrodynamic printing. 2017, 134, 45044	17
974	Cross-Linkable and Dual Functional Hybrid Polymeric Electron Transporting Layer for High-Performance Inverted Polymer Solar Cells. 2017 , 29, 1701507	32
973	Low-band gap copolymers based on diketopyrrolopyrrole and dibenzosilole and their application in organic photovoltaics. 2017 , 146, 73-81	5
972	Enhancing the Performance of Polymer Solar Cells by Using Donor Polymers Carrying Discretely Distributed Side Chains. 2017 , 9, 24020-24026	8
971	Quantum modeling of two-level photovoltaic systems. 2017 , 8, 85503	10
970	Efficiency enhancement in DIBSQ:PC71BM organic photovoltaic cells by using Liq-doped Bphen as a cathode buffer layer. 2017 , 11, 233-240	3

969	A two-dimension-conjugated small molecule for efficient ternary organic solar cells. 2017, 48, 179-187	14
968	Solar Cell Performance of Phenanthrodithiopheneßoindigo Copolymers Depends on Their Thin-Film Structure and Molecular Weight. 2017 , 50, 4639-4648	17
967	Strain-released method to enhance the photovoltaic performance in solution-processed organic solar cells. 2017 , 145, 263-269	
966	Photo-induced characteristic study of the smallest fullerene fragment, 1,6,7,10-tetramethylfluoranthene as an acceptor. 2017 , 41, 5836-5845	8
965	On the Structural and Optoelectronic Properties of Chemically Modified Oligothiophenes with Electron-Withdrawing Substituents for Organic Solar Cell Applications: A DFT/TDDFT Study. 2017 , 86, 064802	7
964	Applying Thienyl Side Chains and Different Ebridge to Aromatic Side-Chain Substituted Indacenodithiophene-Based Small Molecule Donors for High-Performance Organic Solar Cells. 2017 , 9, 19998-20009	9
963	Facile synthesis of a narrow-bandgap strong-donor- alt -strong-acceptor copolymer of poly(5,6-difluorobenzo-[c][1,2,5]-thiadiazole- alt -5 H -dithieno[3,2- b :2?,3'- d]pyran) via direct C-H arylation polymerization. 2017 , 145, 331-338	7
962	Synthesis and Properties of Triphenodioxazine-Based Conjugated Polymers for Polymer Solar Cells. 2017 , 2017, 3689-3698	4
961	Self-Doped N-Type Water/Alcohol Soluble-Conjugated Polymers with Tailored Backbones and Polar Groups for Highly Efficient Polymer Solar Cells. 2017 , 1, 1700055	39
960	DABCO-catalyzed three-component reaction for the synthesis of naphtho[2,3-b]thiophene-4,9-diones. 2017 , 58, 2665-2669	2
959	Wide Bandgap Copolymers Based on Quinoxalino[6,5-f].quinoxaline for Highly Efficient Nonfullerene Polymer Solar Cells. 2017 , 27, 1701491	82
958	A ternary conjugated DA copolymer yields over 9.0% efficiency in organic solar cells. 2017 , 5, 12015-12021	9
957	A New Electron-Rich Unit for Polymer Electron Acceptors: 4,4-Difluoro-4H-cyclopenta[2,1-b:3,4-b']dithiophene. 2017 , 23, 9486-9490	21
956	Two compatible nonfullerene acceptors with similar structures as alloy for efficient ternary polymer solar cells. 2017 , 38, 510-517	137
955	Polymer with conjugated alkylthiophenylthienyl side chains for efficient photovoltaic cells. 2017 , 48, 298-307	3
954	Non-fullerene acceptors based on central naphthalene diimide flanked by rhodanine or 1,3-indanedione. 2017 , 53, 7080-7083	30
953	Benzodichalcogenophene-diketopyrrolopyrrole small molecules as donors for efficient solution processable solar cells. 2017 , 493, 77-84	8
952	Interface design for high-efficiency non-fullerene polymer solar cells. 2017 , 10, 1784-1791	149

951	Towards high performance broad spectral response fullerene based photosensitive organic field-effect transistors with tricomponent bulk heterojunctions. 2017 , 118, 666-674	26
950	Optimization of the power conversion efficiency in high bandgap pyridopyridinedithiophene-based conjugated polymers for organic photovoltaics by the random terpolymer approach. 2017 , 91, 92-99	6
949	Side-chain engineering for efficient non-fullerene polymer solar cells based on a wide-bandgap polymer donor. 2017 , 5, 9204-9209	64
948	Effects of including electron-withdrawing atoms on the physical and photovoltaic properties of indacenodithieno[3,2-b]thiophene-based donor\(\text{B}\)cceptor polymers: towards an acceptor design for efficient polymer solar cells. \(\textbf{2017}\), 7, 20440-20450	14
947	Theoretical design of three-dimensional non-fullerene acceptor materials based on an arylenediimide unit towards high efficiency organic solar cells. 2017 , 41, 3857-3864	12
946	High-Performance Non-Fullerene Polymer Solar Cells Based on Fluorine Substituted Wide Bandgap Copolymers Without Extra Treatments. 2017 , 1, 1700020	94
945	Comparing the device physics, dynamics and morphology of polymer solar cells employing conventional PCBM and non-fullerene polymer acceptor N2200. 2017 , 35, 251-262	72
944	Synergistic effect of processing additives and thermal annealing in organic solar cells: the "Morphology of Magic". 2017 , 19, 10581-10589	13
943	Recent Advances in Wide-Bandgap Photovoltaic Polymers. 2017 , 29, 1605437	249
942	Achieving Highly Efficient Nonfullerene Organic Solar Cells with Improved Intermolecular Interaction and Open-Circuit Voltage. 2017 , 29, 1700254	314
941	Regioregular narrow-bandgap-conjugated polymers for plastic electronics. 2017 , 8, 14047	157
940	Synthesis and optical and electrochemical properties of a bispyrimidinium-dibenzothiophene-S,S-dioxide-based cationic conjugated polymer. 2017 , 73, 2649-2655	2
939	Efficient Polymer Solar Cells with High Open-Circuit Voltage Containing Diketopyrrolopyrrole-Based Non-Fullerene Acceptor Core End-Capped with Rhodanine Units. 2017 , 9, 11739-11748	38
938	Towards a bright future: polymer solar cells with power conversion efficiencies over 10%. 2017 , 60, 571-582	104
937	Synthesis of Fluoromethyl-Substituted Isoxazolines via Transition Metal-Free Oxyfluorination of Alkenyl Oximes. 2017 , 359, 1626-1630	23
936	The cyclopropanation of [60]fullerobenzofurans via electrosynthesis. 2017 , 15, 3248-3254	9
935	A new fluoropyrido[3,4-b]pyrazine based polymer for efficient photovoltaics. 2017 , 8, 2227-2234	3
934	Towards designing polymers for photovoltaic applications: A DFT and experimental study of polyazomethines with various chemical structures. 2017 , 181, 208-217	10

933	9.73% Efficiency Nonfullerene All Organic Small Molecule Solar Cells with Absorption-Complementary Donor and Acceptor. 2017 , 139, 5085-5094	270
932	Design, synthesis, and structural characterization of the first dithienocyclopentacarbazole-based n-type organic semiconductor and its application in non-fullerene polymer solar cells. 2017 , 5, 7451-7461	60
931	Synthesis and photovoltaic properties of the copolymers containing zinc porphyrin derivatives as pendant groups. 2017 , 223, 205-211	9
930	Ag-Assisted Fluorination of Unprotected 4,6-Disubstituted 2-Aminopyrimidines with Selectfluor. 2017 , 82, 1260-1265	21
929	The effect of the length of alkyl side-chains on the molecular aggregation and photovoltaic performance of the isoindigo-based polymers. 2017 , 139, 403-411	11
928	Cyclopentadithiophene organic core in small molecule organic solar cells: morphological control of carrier recombination. 2017 , 19, 3640-3648	6
927	Highly efficient random terpolymers for photovoltaic applications with enhanced absorption and molecular aggregation. 2017 , 35, 249-260	18
926	Rylene diimide and dithienocyanovinylene copolymers for polymer solar cells. 2017 , 35, 230-238	18
925	Enhancing performance of non-fullerene organic solar cells via side chain engineering of fused-ring electron acceptors. 2017 , 139, 627-634	40
924	Non-planar perylenediimide acceptors with different geometrical linker units for efficient non-fullerene organic solar cells. 2017 , 5, 1713-1723	47
923	D-A copolymers based on lactam acceptor unit and thiophene derivatives for efficient polymer solar cells. 2017 , 139, 201-207	11
922	Investigations into inward positioned 3,3?-Dihexylditheinylbenzothiadiazole (DTBTh)-Benzodithiophene (BDT) based polymer solar cells by controlling molecular weight and alkyl side chain. 2017 , 42, 293-302	1
921	Indolo[3,2-b]indole-Containing DonorAcceptor Copolymers for High-Efficiency Organic Solar Cells. 2017 , 29, 2135-2140	35
920	Synthesis and optical and electrochemical properties of water-soluble cationic fluorophores based on bispyridinium and dibenzothiophene-S,S-dioxide. 2017 , 41, 1696-1703	5
919	Positional effects of fluorination in conjugated side chains on photovoltaic properties of donor-acceptor copolymers. 2017 , 53, 1176-1179	32
918	Controlled self-aggregation of perylene bisimide and its application in thick photoconductive interlayers for high performance polymer solar cells. 2017 , 1, 1087-1092	10
917	Simulating charge transport in organic semiconductors and devices: a review. 2017 , 80, 026502	44
916	Molecular electron acceptors for efficient fullerene-free organic solar cells. 2017 , 19, 3440-3458	101

915	Influence of polymer side chains on the photovoltaic performance of non-fullerene organic solar cells. 2017 , 5, 937-942	13
914	Improving the Compatibility of Donor Polymers in Efficient Ternary Organic Solar Cells via Post-Additive Soaking Treatment. 2017 , 9, 618-627	44
913	Asymmetric thiophene/pyridine flanked diketopyrrolopyrrole polymers for high performance polymer ambipolar field-effect transistors and solar cells. 2017 , 5, 566-572	38
912	A-D-A-type small molecular acceptor with one hexyl-substituted thiophene as Ibridge for fullerene-free organic solar cells. 2017 , 60, 49-56	9
911	Synthesis of fluorinated benzotriazole (BTZ)- and benzodithiophene (BDT)-based low-bandgap conjugated polymers for solar cell applications. 2017 , 139, 349-360	11
910	Syntheses and photovoltaic properties of 6-(2-thienyl)-4H-thieno[3,2-b]indole based conjugated polymers containing fluorinated benzothiadiazole. 2017 , 109, 115-125	12
909	Head-to-Head Linkage Containing Dialkoxybithiophene-Based Polymeric Semiconductors for Polymer Solar Cells with Large Open-Circuit Voltages. 2017 , 50, 137-150	27
908	Photosystem II Based Multilayers. 2017 , 109-133	
907	Fine-Tuning LUMO Energy Levels of Conjugated Polymers Containing a B<-N Unit. 2017 , 50, 8521-8528	36
906	Evolving molecular architectures of donor\(\text{lcceptor conjugated polymers for photovoltaic} \) applications: from one-dimensional to branched to two-dimensional structures. \(\text{2017}, 5, 24051-24075 \)	77
905	Angular-Shaped Dithienonaphthalene-Based Nonfullerene Acceptor for High-Performance Polymer Solar Cells with Large Open-Circuit Voltages and Minimal Energy Losses. 2017 , 29, 9775-9785	52
904	Novel thienoisoindigo-based dyes for near-infrared organic photovoltaics - A combination of theoretical and experimental study. 2017 , 51, 410-421	4
903	Insertion of double bond Ebridges of ADA acceptors for high performance near-infrared polymer solar cells. 2017 , 5, 22588-22597	50
902	The optoelectronic properties of organic materials based on triphenylamine that are relevant to organic solar photovoltaic cells. 2017 , 41, 13336-13346	26
901	Radical Aromatic Trifluoromethylthiolation: Photoredox Catalysis vs. Base Mediation. 2017 , 2017, 6722-6725	21
900	Thiacalix[3]Triazine-centered regioregular poly(3-hexylthiophene) star: synthesis, structure and anion binding. 2017 , 24, 1	3
899	A universal approach to improve electron mobility without significant enlarging phase separation in IDT-based non-fullerene acceptor organic solar cells. 2017 , 41, 609-617	43
898	An approach to high open-circuit voltage polymer solar cells via alcohol/water-soluble cathode interlayers based on anthrathiadiazole derivatives. 2017 , 41, 13166-13174	3

897	High-performance nonfullerene polymer solar cells based on a fluorinated wide bandgap copolymer with a high open-circuit voltage of 1.04 V. 2017 , 5, 22180-22185	55
896	A Ladder-type Heteroheptacene 12H-Dithieno[2',3':4,5]thieno[3,2-b:2',3'-h]fluorene Based D-A Copolymer with Strong Intermolecular Interactions toward Efficient Polymer Solar Cells. 2017 , 9, 35159-3516	8 9
895	Highly Efficient Ternary-Blend Polymer Solar Cells Enabled by a Nonfullerene Acceptor and Two Polymer Donors with a Broad Composition Tolerance. 2017 , 29, 1704271	196
894	Improved performance of photoconductive gain hybrid UV detector by trap state engineering of ZnO nanoparticles. 2017 , 122, 154501	17
893	Regular conjugated DA copolymer containing two benzotriazole and benzothiadiazole acceptors and dithienosilole donor units for photovoltaic application. 2017 , 7, 49204-49214	3
892	Ladder-Type Dithienonaphthalene-Based Small-Molecule Acceptors for Efficient Nonfullerene Organic Solar Cells. 2017 , 29, 7942-7952	96
891	Thieno[3,2-b]pyrrolo-Fused Pentacyclic Benzotriazole-Based Acceptor for Efficient Organic Photovoltaics. 2017 , 9, 31985-31992	99
890	Hydrogen Bonding: Regulator for Nucleophilic Fluorination. 2017 , 23, 17850-17861	46
889	Evaluation of photovoltaic properties and effective conjugated length of DTTTD-based polymers as donor in BHJ solar cells; quantum chemical approach. 2017 , 126, 162-176	9
888	Counterion-tunable n-type conjugated polyelectrolytes for the interface engineering of efficient polymer solar cells. 2017 , 5, 19447-19455	28
887	Synthesis, properties, and photovoltaic characteristics of p-type donor copolymers having fluorine-substituted benzodioxocyclohexene-annelated thiophene. 2017 , 5, 19773-19780	8
886	Two-Dimensional BDT-Based Wide Band Gap Polymer Donor for Efficient Non-Fullerene Organic Solar Cells. 2017 , 121, 19634-19641	16
885	Pushing to the low limits: tetraazaanthracenes with very low-lying LUMO levels and near-infrared absorption. 2017 , 53, 10220-10223	4
884	Cellular Architecture-Based All-Polymer Flexible Thin-Film Photodetectors with High Performance and Stability in Harsh Environment. 2017 , 2, 1700185	6
883	Efficient strategies to improve photovoltaic performance of A-D-A type small molecules by introducing rigidly fluorinated central cores. 2017 , 147, 505-513	15
882	Side Chain Engineering on Medium Bandgap Copolymers to Suppress Triplet Formation for High-Efficiency Polymer Solar Cells. 2017 , 29, 1703344	182
881	Recent development of perylene diimide-based small molecular non-fullerene acceptors in organic solar cells. 2017 , 28, 2105-2115	51
880	Investigating Working Mechanism of Metallophthalocyanine Derivatives as a Cathode Interlayer in Polymer Solar Cells by Photoemission Spectroscopy. 2017 , 121, 21244-21251	1

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879	molecule donors for organic solar cells. 2017 , 60, 1340-1348	19
878	PTB7-Th based organic solar cell with a high V oc of 1.05 V by modulating the LUMO energy level of benzotriazole-containing non-fullerene acceptor. 2017 , 62, 1275-1282	24
877	Naphthalene diimide-based non-fullerene acceptors flanked by open-ended and aromatizable acceptor functionalities. 2017 , 53, 11157-11160	20
876	Conjugated Polymers Based on Difluorobenzoxadiazole toward Practical Application of Polymer Solar Cells. 2017 , 7, 1702033	30
875	Black Phosphorus Quantum Dots Used for Boosting Light Harvesting in Organic Photovoltaics. 2017 , 56, 13717-13721	95
874	Charge mobility enhancement for diketopyrrolopyrrole-based conjugated polymers by partial replacement of branching alkyl chains with linear ones. 2017 , 1, 2547-2553	33
873	Solution-Processed Organic Solar Cells Using New Electron Acceptor Derived from Naphthalene and Fluorene Unit. 2017 , 2, 7913-7917	2
872	Effect of Non-fullerene Acceptors' Side Chains on the Morphology and Photovoltaic Performance of Organic Solar Cells. 2017 , 9, 33906-33912	56
871	Black Phosphorus Quantum Dots Used for Boosting Light Harvesting in Organic Photovoltaics. 2017 , 129, 13905-13909	10
870	Synthesis of Salts of 1,2,5,6- and 1,4,5,8-Naphthalenetetramine. 2017 , 2, 6023-6030	1
869	Construction of a 9,9?-bifluorenylidene-based small molecule acceptor materials by screening conformation, steric configuration and repeating unit number: a theoretical design and characterization. 2017 , 5, 10343-10352	16
868	Highly efficient and thickness-tolerable bulk heterojunction polymer solar cells based on P3HT donor and a low-bandgap non-fullerene acceptor. 2017 , 364, 426-431	6
867	Regulating Molecular Aggregations of Polymers via Ternary Copolymerization Strategy for Efficient Solar Cells. 2017 , 9, 32126-32134	23
866	Versatile Device Architectures for High-Performing Light-Soaking-Free Inverted Polymer Solar Cells. 2017 , 9, 32678-32687	17
865	A difluorobenzothiadiazole-based conjugated polymer with alkylthiophene as the side chains for efficient, additive-free and thick-film polymer solar cells. 2017 , 5, 20473-20481	15
864	A theoretical investigation of the structural, electronic and UVII is absorption spectra of fullerene derivatives based on PC61B-NHCS compound. 2017 , 199, 597-608	1
863	Design of Hexabenzocoronene Derivatives as Non-Fullerene Acceptors in Organic Photovoltaics by Bridging Dimers and Modulating Structural Twists. 2017 , 1, 1700060	18
862	Small compounds based on 2,7-silafluorene and 4,7-di (2?-thienyl) for heterojunction organic solar cells: DFT study. 2017 , 14, 2167-2176	2

861	Two Regioisomeric Econjugated Small Molecules: Synthesis, Photophysical, Packing, and Optoelectronic Properties. 2017 , 27, 1701942	23
860	High Efficiency Nonfullerene Polymer Solar Cells with Thick Active Layer and Large Area. 2017 , 29, 1702291	175
859	Efficient Organic Solar Cells with Non-Fullerene Acceptors. 2017 , 13, 1701120	185
858	Designing Benzodithiophene-Based Donor Materials with Favorable Photovoltaic Parameters for Bulk Heterojunction Organic Solar Cells. 2017 , 2, 5628-5639	10
857	Viologen-templated bromoplumbate: a new in situ synthetic method and energy gap engineering. 2017 , 19, 4476-4479	15
856	High-Efficiency Nonfullerene Organic Solar Cells with a Parallel Tandem Configuration. 2017 , 29, 1702547	64
855	Medium Bandgap Polymer Donor Based on Bi(trialkylsilylthienyl-benzo[1,2-b:4,5-b?]-difuran) for High Performance Nonfullerene Polymer Solar Cells. 2017 , 7, 1700746	62
854	Alternating polymers based on fluorinated alkoxyphenyl-substituted benzo[1,2-b:4,5-b?]dithiophene and isoindigo derivatives for polymer solar cells. 2017 , 146, 529-536	10
853	Copper-Catalyzed Electrophilic Polyhydroamination of Internal Alkynes. 2017 , 50, 5719-5728	14
852	Hybrid Organic Tandem Solar Cell Comprising Small-Molecule Bottom and Polymer:Fullerene Top Subcells Fabricated by Thin-Film Transfer. 2017 , 7, 1942	12
851	Structural variations to a donor polymer with low energy losses. 2017 , 5, 18618-18626	11
850	High-performance nonfullerene polymer solar cells with open-circuit voltage over 1 V and energy loss as low as 0.54 eV. 2017 , 40, 20-26	58
849	Alcohol soluble cyanopyridine based conjugated donor-acceptor polymers: Synthesis, photophysical and their charge transport behavior. 2017 , 95, 1-10	1
848	Self-doped n-type small molecular electron transport materials for high-performance organic solar cells. 2017 , 60, 1136-1144	29
847	Steric-Hindrance Modulation toward High-Performance 1,3-Bis(thieno[3,4-b]thiophen-6-yl)-4H-thieno[3,4-c]pyrrole-4,6(5H)-dione-Based Polymer Solar Cells with Enhanced Open-Circuit Voltage. 2017 , 3, 1700213	3
846	Donor-acceptor (D-A) terpolymers based on alkyl-DPP and t -BocDPP moieties for polymer solar cells. 2017 , 28, 2223-2226	6
845	Molecular design of organic small molecules based on diindolelliimide with fused aromatic heterocycles as donors for organic solar cells. 2017 , 7, 39899-39905	25
844	Ternary solution-processed organic solar cells incorporating 2D materials. 2017 , 4, 042005	29

843	All-Small-Molecule Nonfullerene Organic Solar Cells with High Fill Factor and High Efficiency over 10%. 2017 , 29, 7543-7553	164
842	Synthesis of Dithienocyclohexanones (DTCHs) as a Family of Building Blocks for £Conjugated Compounds in Organic Electronics. 2017 , 2, 4347-4355	10
841	Environmentally-friendly solvent processed fullerene-free organic solar cells enabled by screening halogen-free solvent additives. 2017 , 60, 697-706	22
840	Significant enhancement of photovoltaic performance through introducing S?N conformational locks. 2017 , 5, 21674-21678	70
839	A polymer electron donor based on isoindigo units bearing branched oligo(ethylene glycol) side chains for polymer solar cells. 2017 , 8, 5496-5503	20
838	Novel benzodithiophene-based polymer acceptors for efficient organic solar cells. 2017 , 19, 23444-23453	19
837	All-Small-Molecule Solar Cells Incorporating NDI-Based Acceptors: Synthesis and Full Characterization. 2017 , 9, 44667-44677	22
836	Synthesis of new 2,6-bis(6-fluoro-2-hexyl-2H-benzotriazol-4-yl)-4,4-bis(2-ethylhexyl)-4H-silolo[3,2-b:4,5-b']dithiophene based D-A conjugated terpolymers for photovoltaic application. 2017 , 133, 195-204	3
835	Exploring what prompts ITIC to become a superior acceptor in organic solar cell by combining molecular dynamics simulation with quantum chemistry calculation. 2017 , 19, 31227-31235	25
834	Impact of benzothiadiazole position on the photovoltaic properties of solution-processable organic molecule materials. 2017 , 234, 47-52	1
833	Simplified Models for Accelerated Structural Prediction of Conjugated Semiconducting Polymers. 2017 , 121, 26528-26538	9
832	Haptacyclic Carbazole-Based Ladder-Type Nonfullerene Acceptor with Side-Chain Optimization for Efficient Organic Photovoltaics. 2017 , 9, 42035-42042	37
831	2,1,3-Benzothiadiazole-5,6-dicarboxylicimide-Based Polymer Semiconductors for Organic Thin-Film Transistors and Polymer Solar Cells. 2017 , 9, 42167-42178	20
830	Layer-by-Layer Assembly of Multilayer Thin Films for Organic Optoelectronic Devices. 2017 , 1, 1700264	29
829	Efficient benzodithiophene and thienopyrroledione containing random polymers as components for organic solar cells. 2017 , 133, 60-67	10
828	Selenophene-Incorporated Quaterchalcogenophene-Based DonorAcceptor Copolymers To Achieve Efficient Solar Cells with Jsc Exceeding 20 mA/cm2. 2017 , 29, 10045-10052	39
827	Synthesis and Photovoltaic Properties of a Series of Narrow Bandgap Organic Semiconductor Acceptors with Their Absorption Edge Reaching 900 nm. 2017 , 29, 10130-10138	83
826	Phthalimide-Based Wide Bandgap Donor Polymers for Efficient Non-Fullerene Solar Cells. 2017 , 50, 8928-893	726

825	A readily-accessible, random perylene diimide copolymer acceptor for all-polymer solar cells. 2017 , 146, 20-26	11
824	High-performance wide-bandgap copolymers based on indacenodithiophene and indacenodithieno[3,2-b]thiophene units. 2017 , 5, 7777-7783	18
823	Dithieno[3,2-b:2',3'-d]pyrrole-benzo[c][1,2,5]thiadiazole conjugate small molecule donors: effect of fluorine content on their photovoltaic properties. 2017 , 19, 20513-20522	6
822	Impact of side-chain fluorination on photovoltaic properties: fine tuning of the microstructure and energy levels of 2D-conjugated copolymers. 2017 , 5, 16702-16711	16
821	Tuning the electronic and optical properties of NDT-based conjugated polymers by adopting fused heterocycles as acceptor units: a theoretical study. 2017 , 23, 225	2
820	What Is the Optoelectronic Effect of the Capsule on the Guest Molecule in Aqueous Host/Guest Complexes? A Combined Computational and Spectroscopic Perspective. 2017 , 121, 15481-15488	12
819	Highly Efficient Inverted D:A:A Ternary Blend Organic Photovoltaics Combining a Ladder-type Non-Fullerene Acceptor and a Fullerene Acceptor. 2017 , 9, 24797-24803	36
818	Enhancing the Efficiency of Polymer Solar Cells by Incorporation of 2,5-Difluorobenzene Units into the Polymer Backbone via Random Copolymerization. 2017 , 9, 23775-23781	6
817	The effect of tuning chemical structure on the open-circuit voltage and photovoltaic performance of narrow band-gap polymers. 2017 , 55, 699-706	2
816	Synthesis and Design of Conjugated Polymers for Organic Electronics. 2017 , 9-61	4
815	Nonfullerene acceptor with strong near-infrared absorption for polymer solar cells. 2017, 137, 553-559	12
814	Controlled Crystallization of Conjugated Polymer Films from Solution and Solvent Vapor for Polymer Electronics. 2017 , 27, 1603083	41
813	Mapping Polymer Donors toward High-Efficiency Fullerene Free Organic Solar Cells. 2017, 29, 1604155	335
812	Computational study on the structural and optoelectronic properties of a carbazole-benzothiadiazole based conjugated oligomer with various alkyl side-chain lengths. 2017 , 43, 222-227	15
811	Synthesis and photovoltaic device studies of azo-linked low-bandgap polymers. 2017, 66, 593-603	8
810	Structure P roperty Relationships from Atomistic Multiscale Simulations of the Relevant Processes in Organic Solar Cells. I. Thermodynamic Aspects. 2017 , 121, 4-25	24
809	Donor Ecceptor conjugated polymers based on two-dimensional thiophene derivatives for bulk heterojunction solar cells. 2017 , 8, 421-430	15
808	Effects of branching position of alkyl side chains on ordering structure and charge transport property in thienothiophenedione- and quinacridone-based semiconducting polymers. 2017 , 49, 169-176	20

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807	Perylene and naphthalene diimide copolymers for all-polymer solar cells: Effect of perylene/naphthalene ratio. 2017 , 55, 682-689	18
806	Toward High-Temperature Stability of PTB7-Based Bulk Heterojunction Solar Cells: Impact of Fullerene Size and Solvent Additive. 2017 , 7, 1601486	46
805	A low band gap conjugated small molecule based on isoindigo flanked with diketopyrrolopyrrole for efficient organic solar cells. 2017 , 137, 512-517	9
804	Design of charge transporting grids for efficient ITO-free flexible up-scaled organic photovoltaics. 2017 , 1, 304-309	16
803	Novel donor ceptor type conjugated polymers based on quinoxalino [6,5-f] quinoxaline for photovoltaic applications. 2017 , 1, 499-506	24
802	Insight into opto-electronic property by modifying optical layers with multi-polar and multi-branched structures. 2017 , 28, 1489-1500	4
801	Reducible fabrication cost for P3HT-based organic solar cells by using one-step synthesized novel fullerene derivative. 2017 , 159, 172-178	6
800	High-performance solution-based CdS-conjugated hybrid polymer solar cells 2018 , 8, 18051-18058	21
799	High-Efficiency All-Small-Molecule Organic Solar Cells Based on an Organic Molecule Donor with Alkylsilyl-Thienyl Conjugated Side Chains. 2018 , 30, e1706361	130
798	Highly Efficient Nonfullerene Polymer Solar Cells Enabled by a Copper(I) Coordination Strategy Employing a 1,3,4-Oxadiazole-Containing Wide-Bandgap Copolymer Donor. 2018 , 30, e1800737	69
797	Unique Energy Alignments of a Ternary Material System toward High-Performance Organic Photovoltaics. 2018 , 30, e1801501	110
796	11% Organic Photovoltaic Devices Based on PTB7-Th: PCBM Photoactive Layers and Irradiation-Assisted ZnO Electron Transport Layers. 2018 , 5, 1700858	29
795	Revealing the effects of molecular packing on the performances of polymer solar cells based on ADIDA type non-fullerene acceptors. 2018 , 6, 12132-12141	80
794	Nonfullerene Acceptor with "Donor-Acceptor Combined Bridge" for Organic Photovoltaics with Large Open-Circuit Voltage. 2018 , 10, 18984-18992	26
793	Regioregular polymers containing benzodithiophene and thienothiophene segments with different electron donating side chains for high-performance polymer solar cells. 2018 , 158, 249-258	3
792	Expression of anti-Kasha's emission from amino benzothiadiazole and its utilization for fluorescent chemosensors and organic light emitting materials. 2018 , 6, 7864-7873	22
791	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
790	A Chlorinated EConjugated Polymer Donor for Efficient Organic Solar Cells. 2018, 2, 1623-1634	130

7 ⁸ 9	Fluorination vs. chlorination: a case study on high performance organic photovoltaic materials. 2018 , 61, 1328-1337	142
788	New Thieno[3,2-b]thiophene-Based Acceptor: Tuning Acceptor Strength of Ladder-Type N-Type Materials to Simultaneously Achieve Enhanced Voc and Jsc of Nonfullerene Solar Cells. 2018 , 3, 1722-1729	50
787	A new polymer donor for efficient polymer solar cells: simultaneously realizing high short-circuit current density and transparency. 2018 , 6, 14700-14708	16
786	Cyanovinylene-based copolymers synthesized by tin-free Knoevenagel polycondensation for high efficiency polymer solar cells. 2018 , 6, 8020-8027	7
785	Angular-Shaped 4,9-Dialkylnaphthodithiophene-Based Octacyclic Ladder-Type Non-Fullerene Acceptors for High Efficiency Ternary-Blend Organic Photovoltaics. 2018 , 30, 4968-4977	34
7 ⁸ 4	Organic Solar Cells. 2018 , 567-597	3
783	Effect of a methyl thiophene-3-carboxylate bridge in an indacenodithiophene-based acceptordonordcceptor-type molecule on the performance of non-fullerene polymer solar cells. 2018 , 6, 7549-7556	17
782	Sensitivity of Molecular Packing and Photovoltaic Performance to Subtle Fluctuation of Steric Distortions within DA Copolymer Backbones. 2018 , 1, 4332-4340	9
781	Highly efficient polymer solar cells via multiple cascade energy level engineering. 2018, 6, 9119-9129	16
78o	Comparison of two functionalized fullerenes for antimicrobial photodynamic inactivation: Potentiation by potassium iodide and photochemical mechanisms. 2018 , 186, 197-206	27
779	Improving Ambipolar Semiconducting Properties of Thiazole-Flanked Diketopyrrolopyrrole-Based Terpolymers by Incorporating Urea Groups in the Side-Chains. 2018 , 51, 6003-6010	22
778	Efficient and thermally stable all-polymer solar cells based on a fluorinated wide-bandgap polymer donor with high crystallinity. 2018 , 6, 16403-16411	23
777	Enhance the performance of polymer solar cells via extension of the flanking end groups of fused ring acceptors. 2018 , 61, 1320-1327	20
776	Chain shape and thin film behaviour of poly(thiophene)-graft-poly(acrylate urethane). 2018 , 14, 6875-6882	3
775	Synergistic Effects of Fluorination and Alkylthiolation on the Photovoltaic Performance of the Poly(benzodithiophene-benzothiadiazole) Copolymers. 2018 , 1, 4686-4694	8
774	Effects of alkyl side chain length of low bandgap naphtho[1,2-c:5,6-c?]bis[1,2,5]thiadiazole-based copolymers on the optoelectronic properties of polymer solar cells. 2018 , 56, 2059-2071	15
773	[60]Fullerene-quinoxaline, benzothiadiazole and benzoselenadiazole based dyads for thermally stable polymer solar cells: anchoring of substituent on fullerene with a poly(3-hexylthiophene) polymer chain. 2018 , 67, 1555-1562	1
772	Synthesis of Indenes by a BFIDEt-Mediated, One-Pot Reaction of Aryl Homopropargyl Alcohols, Aldehydes, and Arenes. 2018 , 20, 4787-4790	13

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771	39, e1800260	5
770	Enhanced photovoltaic performance of inverted polymer solar cells through atomic layer deposited AlO passivation of ZnO-nanoparticle buffer layer. 2018 , 29, 395204	5
769	Inverted Organic Solar Cells with Low-Temperature Al-Doped-ZnO Electron Transport Layer Processed from Aqueous Solution. 2018 , 10,	14
768	The electronic structures and excitation properties of three meso-pentafluorophenyl substituted zinc porphyrinfullerene dyad. 2018 , 1173, 398-405	12
767	Effect of Substituents of Thienylenellinylenellinenylene-Based Conjugated Polymer Donors on the Performance of Fullerene and Nonfullerene Solar Cells. 2018 , 122, 16613-16623	9
766	Alkoxy-Substituted Anthra[1,2-c:5,6-c?]bis([1,2,5]thiadiazole) (ATz): A New Electron-Acceptor Unit in the Semiconducting Polymers for Organic Electronics. 2018 , 51, 5473-5484	8
765	Ternary polymer solar cells based-on two polymer donors with similar HOMO levels and an organic acceptor with absorption extending to 850 nm. 2018 , 62, 89-94	9
764	Density Functional Theory Investigations of D-A-D' Structural Molecules as Donor Materials in Organic Solar Cell. 2018 , 6, 200	9
763	A Wide Band Gap Polymer with a Deep Highest Occupied Molecular Orbital Level Enables 14.2% Efficiency in Polymer Solar Cells. 2018 , 140, 7159-7167	579
762	Synthesis and Photovoltaic Properties of A Dithieno[6,5-b:10,11-b?]-8H-Cyclopentyl[1,2-b:4,3-b?]Diphenanthrene based Donor-Acceptor Alternating Copolymer. 2018 , 33, 288-295	
761	Direct Photolithography on Molecular Crystals for High Performance Organic Optoelectronic Devices. 2018 , 140, 6984-6990	47
760	Two A2-D-A1-D-A2 small molecules with isoindigo as the central core for efficient organic photovoltaics. 2018 , 156, 403-409	5
759	Pt complex-based terpolymer acceptors linked through ancillary ligand for all-polymer solar cells. 2018 , 6, 9903-9913	14
75 ⁸	High-performance photovoltaics by double-charge transporters using graphenic nanosheets and triisopropylsilylethynyl/naphthothiadiazole moieties. 2018 , 68, 293-300	10
757	Small molecule semiconductors for organic photovoltaics: a truncation approach. 2018, 245, 10-17	1
756	Effect of gamma-ray irradiation on the electrical characteristics of Al/C24H12/p-Si nano-structure. 2018 , 93, 095301	12
755	The Research Development of Quantum Dots in Electrochemical Energy Storage. 2018, 14, e1801479	36
754	Structure-Function Relationships in PMA and PMAT Series Copolymers for Polymer Solar Cells. 2018 , 10,	

753	Excited-State Planarization in Donor-Bridge Dye Sensitizers: Phenylene versus Thiophene Bridges. 2018 , 140, 11046-11057	21
75 ²	Hunting for Organic Molecules with Artificial Intelligence: Molecules Optimized for Desired Excitation Energies. 2018 , 4, 1126-1133	64
751	Expeditious Preparation of Open-Cage Fullerenes by Rhodium(I)-Catalyzed [2+2+2] Cycloaddition of Diynes and C: An Experimental and Theoretical Study. 2018 , 24, 10653-10661	19
750	Introducing alkylthio side chains into acceptor units to improve the photovoltaic performance of a quinoxaline based D-A polymer. 2018 , 61, 197-206	6
749	Tuning the dedoping process of PEDOT:PSS films using DBU-solvent complexes. 2018 , 243, 25-33	3
748	Star-like n-type conjugated polymers based on naphthalenediimide for all-polymer solar cells. 2018 , 159, 85-91	11
747	Organic Flexible Electronics. 2018 , 2, 1800070	106
746	Enhancing the Performance of Organic Solar Cells by Hierarchically Supramolecular Self-Assembly of Fused-Ring Electron Acceptors. 2018 , 30, 4307-4312	95
745	Introducing cyclic alkyl chains into small-molecule acceptors for efficient polymer solar cells. 2018 , 6, 7046-7053	20
744	Synthesis and photovoltaic properties of a small molecule acceptor with thienylenevinylene thiophene as [bridge. 2019 , 160, 227-233	5
743	Thieno[3,2-b]indole (TI) bridged A- D - A small molecules: Synthesis, characterizations and organic solar cell applications. 2019 , 160, 16-24	12
742	A versatile small molecular electron donor with 2-dimensional conjugation structure for efficient organic solar cells compatible with both fullerene and non-fullerene electron acceptors. 2019 , 161, 214-220	1
741	Molecular Tuning of Titanium Complexes with Controllable Work Function for Efficient Organic Photovoltaics. 2019 , 123, 20800-20807	2
740	Thiophene copolymer for 1 V high open-circuit voltage semitransparent photovoltaic devices. 2019 , 7, 10868-10875	10
739	Twining Poly(polyoxometalate) Chains into Nanoropes. 2019 , 25, 13396-13401	5
738	Revealing the Position Effect of an Alkylthio Side Chain in Phenyl-Substituted Benzodithiophene-Based Donor Polymers on the Photovoltaic Performance of Non-Fullerene Organic Solar Cells. 2019 , 11, 33173-33178	57
737	Helical assembly of a dithienogermole exhibiting switchable circularly polarized luminescence. 2019 , 55, 10607-10610	9
736	Simultaneously Improved Efficiency and Stability in All-Polymer Solar Cells by a Pi Architecture. 2019 , 4, 2277-2286	89

735	Designing triazatruxene-based donor materials with promising photovoltaic parameters for organic solar cells 2019 , 9, 26402-26418	68
734	Single-Junction Organic Solar Cell Containing a Fluorinated Heptacyclic Carbazole-Based Ladder-Type Acceptor Affords over 13% Efficiency with Solution-Processed Cross-Linkable Fullerene as an Interfacial Layer. 2019 , 11, 31069-31077	23
733	Dramatically different photovoltaic effect induced by siloxane-terminated combinatory side chain in polymer solar cells. 2019 , 256, 116116	7
732	Benzodithiophene-modified terpolymer acceptors with reduced molecular planarity and crystallinity: improved performance and stability for all-polymer solar cells. 2019 , 7, 10338-10351	13
731	Visualizing the Vertical Energetic Landscape in Organic Photovoltaics. 2019 , 3, 2513-2534	16
730	Design of a Rigid Scaffold Structure toward Efficient and Stable Organic Photovoltaics. 2019 , 1, 402-411	8
729	A new building block with intramolecular D-A character for conjugated polymers: ladder structure based on B<-N unit. 2019 , 62, 1387-1392	12
728	Cocrystal Engineering: A Collaborative Strategy toward Functional Materials. 2019 , 31, e1902328	133
727	Enhancing the of P3HT-Based OSCs via a Thiophene-Fused Aromatic Heterocycle as a "Bridge" for A-D-FA-Type Acceptors. 2019 , 11, 26005-26016	17
726	Resolving the Mechanisms of Photocurrent Improvement in Ternary Organic Solar Cells. 2019 , 123, 18294-18	30 ₁₂₅
725	Effects of energy-level offset between a donor and acceptor on the photovoltaic performance of non-fullerene organic solar cells. 2019 , 7, 18889-18897	57
724	Naphthalene flanked diketopyrrolopyrrole: A new DPP family member and its comparative optoelectronic properties with thiophene- and furan- flanked DPP counterparts. 2019 , 74, 290-298	5
723	Realizing Efficient Charge/Energy Transfer and Charge Extraction in Fullerene-Free Organic Photovoltaics via a Versatile Third Component. 2019 , 19, 5053-5061	34
722	Fluorinated Photovoltaic Materials for High-Performance Organic Solar Cells. 2019 , 14, 3085-3095	49
721	Nonfullerene Acceptors for Organic Photovoltaics: From Conformation Effect to Power Conversion Efficiencies Prediction. 2019 , 3, 1900258	10
720	Direct (hetero)arylation polymerization for the synthesis of donor ceptor conjugated polymers based on N-benzoyldithieno [3,2-b:2?,3?-d]pyrrole and diketopyrrolopyrrole toward organic photovoltaic cell application. 2019 , 68, 1776-1786	2
719	Alkyl Chain Length Effects of Polymer Donors on the Morphology and Device Performance of Polymer Solar Cells with Different Acceptors. 2019 , 9, 1901740	60
718	Side chain engineering in DTBDT-based small molecules for efficient organic photovoltaics. 2019 , 11, 13845-13852	2

717	Dithieno[3,2-a:3',2'-j][5,6,11,12]chrysene diimides: a versatile electron-deficient building block for polymeric semiconductors. 2019 , 55, 10234-10237	4
716	Graphene oxide-molybdenum oxide composite with improved hole transport in bulk heterojunction solar cells. 2019 , 9, 075215	8
715	Effect of linear side-chain length on the photovoltaic performance of benzodithiophene-alt-dicarboxylic ester terthiophene polymers. 2019 , 43, 12950-12956	7
714	Efficient Interface Engineering Enhances Photovoltaic Performance of a Bulk-Heterojunction PCDTBT:PC71BM System. 2019 , 9, 1258-1265	5
713	Asymmetric ADA-type nonfullerene small molecule acceptors for efficient organic solar cells. 2019 , 7, 19348-19354	22
712	A series of V-shaped small molecule non-fullerene electron acceptors for efficient bulk-heterojunction devices. 2019 , 171, 107677	12
711	Recent progress and perspectives on dual-ion batteries. 2019 , 1, 100004	72
710	A New Small-Molecule Donor Containing Non-Fused Ring Bridge Enables Efficient Organic Solar Cells with High Open Circuit Voltage and Low Acceptor Content. 2019 , 20, 2674-2682	4
709	Forced coplanarity of dithienofluorene-based non-fullerene acceptors to achieve high-efficiency organic solar cells. 2019 , 7, 17947-17953	11
708	High voltage all polymer solar cells with a polymer acceptor based on NDI and benzotriazole. 2019 , 7, 9031-9037	5
707	Chlorination Strategy-Induced Abnormal Nanomorphology Tuning in High-Efficiency Organic Solar Cells: A Study of Phenyl-Substituted Benzodithiophene-Based Nonfullerene Acceptors. 2019 , 3, 1900262	15
706	Interfacial modification using ultrasonic atomized graphene quantum dots for efficient perovskite solar cells. 2019 , 75, 105415	10
705	Exploring a Fused 2-(Thiophen-2-yl)thieno[3,2-]thiophene (T-TT) Building Block to Construct n-Type Polymer for High-Performance All-Polymer Solar Cells. 2019 , 11, 42412-42419	7
704	Electroactive Composite of FeCl -Doped P3HT/PLGA with Adjustable Electrical Conductivity for Potential Application in Neural Tissue Engineering. 2019 , 19, e1900147	5
703	1 V high open-circuit voltage fluorinated alkoxybiphenyl side-chained benzodithiophene based photovoltaic polymers. 2019 , 257, 116182	1
702	Effect of multiple electron-withdrawing substituents on photovoltaic properties of quinoxaline-based polymers. 2019 , 685, 14-21	2
701	Enhanced photovoltaic performance of quinoxaline-based small molecules through incorporating trifluoromethyl substituents. 2019 , 685, 22-28	
700	Alkyl Chain Tuning of Small Molecule Acceptors for Efficient Organic Solar Cells. 2019 , 3, 3020-3033	504

699	5H-Fluoreno [3,2- b:6,7- b]Dithiophene Based Non-fullerene Small Molecular Acceptors for Polymer Solar Cell Application. 2019 , 34, 1220-1227	1
698	Modulation of Building Block Size in Conjugated Polymers with DA Structure for Polymer Solar Cells. 2019 , 52, 7929-7938	6
697	Random Polymer Donor for High-Performance Polymer Solar Cells with Efficiency over 14. 2019 , 11, 40339-40346	9
696	Synthesis and Spectral Characterization of D-A Based Cyano-Stilbene Derivatives for Organic Solar Cell Applications. 2019 , 31, 2337-2340	
695	A wide bandgap conjugated polymer donor based on alkoxyl-fluorophenyl substituted benzodithiophene for high performance non-fullerene polymer solar cells. 2019 , 7, 1307-1314	17
694	Rational Tuning of Molecular Interaction and Energy Level Alignment Enables High-Performance Organic Photovoltaics. 2019 , 31, e1904215	108
693	Black Phosphorous Quantum Dots Sandwiched Organic Solar Cells. 2019 , 15, e1903977	22
692	Ternary Polymer Solar Cells Facilitating Improved Efficiency and Stability. 2019 , 31, e1904601	71
691	A Computational Predictive Approach for Controlling the Morphology of Functional Molecular Aggregates on Substrates. 2019 , 2, 1900156	4
690	Recent advances in molecular design of functional conjugated polymers for high-performance polymer solar cells. 2019 , 99, 101175	83
689	Friction-induced rehybridization of hydrothermal amorphous carbon in magnesium silicate hydroxide-based nanocomposite. 2019 , 155, 650-659	13
688	New cyclopentadithiophene-based (X-DAD?AD)n conjugated polymers for organic solar cells. 2019 , 193, 66-72	7
687	Evaporation vs Solution Sequential Doping of Conjugated Polymers: F4TCNQ Doping of Micrometer-Thick P3HT Films for Thermoelectrics. 2019 , 123, 22711-22724	27
686	Improving the photovoltaic performance of fluorinated 2,2?-bithiophene core-based D(AAr)2 type small molecules via strategically end-capped heteroaromatic substitution. 2019 , 7, 12217-12230	5
685	Tuning the molecular packing and energy levels of fullerene acceptors for polymer solar cells. 2019 , 7, 12688-12694	2
684	A non-fullerene acceptor based on alkylphenyl substituted benzodithiophene for high efficiency polymer solar cells with a small voltage loss and excellent stability. 2019 , 7, 24366-24373	23
683	Palladium-catalyzed polyannulation of pyrazoles and diynes toward multifunctional poly(indazole)s under monomer non-stoichiometric conditions. 2019 , 10, 5296-5303	8
682	Designing difluoro substituted benzene ring based fullerene free acceptors for small Naphthalene Di-Imide based molecules with DFT approaches. 2019 , 51, 1	9

681	Systematically investigating the influence of inserting alkylthiophene spacers on the aggregation, photo-stability and optoelectronic properties of copolymers from dithieno[2,3-d:2?,3?-d?]benzo[1,2-b:4,5-b?]dithiophene and benzothiadiazole derivatives. 2019 , 10, 972-982	8
680	Towards improved efficiency of polymer solar cells via chlorination of a benzo[1,2-b:4,5-b?]dithiophene based polymer donor. 2019 , 7, 2261-2267	14
679	Effects of water vapor and oxygen on non-fullerene small molecule acceptors. 2019, 7, 879-886	17
678	Multi-length scale morphology of nonfullerene all-small molecule blends and its relation to device function in organic solar cells. 2019 , 3, 137-144	10
677	Conjugated materials containing dithieno[3,2-b:2?,3?-d]pyrrole and its derivatives for organic and hybrid solar cell applications. 2019 , 7, 64-96	104
676	Fine Optimization of Morphology Evolution Kinetics with Binary Additives for Efficient Non-Fullerene Organic Solar Cells. 2019 , 6, 1801560	22
675	15% Efficiency Tandem Organic Solar Cell Based on a Novel Highly Efficient Wide-Bandgap Nonfullerene Acceptor with Low Energy Loss. 2019 , 9, 1803657	120
674	Designing indacenodithiophene based non-fullerene acceptors with a donor-acceptor combined bridge for organic solar cells 2019 , 9, 3605-3617	40
673	Conjugated Donor-Acceptor Terpolymers Toward High-Efficiency Polymer Solar Cells. 2019 , 31, e1807019	89
672	Side-chain effect in ethenylene fused thiophene-vinylene-thiophene (ETVT) based photovoltaic polymers. 2019 , 167, 31-39	3
671	New Benzo[1,2-d:4,5-d?]bis([1,2,3]thiadiazole) (iso-BBT)-Based Polymers for Application in Transistors and Solar Cells. 2019 , 31, 6519-6529	14
670	Simplified synthetic routes for low cost and high photovoltaic performance n-type organic semiconductor acceptors. 2019 , 10, 519	153
669	Tin-Mediated One-Pot Preparation of Errifluoromethyl-Eacylhydrazonyl Carbonyl Compounds. 2019 , 8, 716-721	7
668	Biomass Nanomicelles Assist Conjugated Polymers/Pt Cocatalysts To Achieve High Photocatalytic Hydrogen Evolution. 2019 , 7, 4128-4135	27
667	Fused nonacyclic electron acceptors with additional alkyl side chains for efficient polymer solar cells. 2019 , 68, 151-158	7
666	A novel multi-electrochromic polymer based on selenophene and benzotriazole via electrochemical and chemical polymerization. 2019 , 56, 197-205	2
665	Enabling low voltage losses and high photocurrent in fullerene-free organic photovoltaics. 2019 , 10, 570	260
664	Achieving Balanced Charge Transport and Favorable Blend Morphology in Non-Fullerene Solar Cells via Acceptor End Group Modification. 2019 , 31, 1752-1760	36

663	The Applications of Polymers in Solar Cells: A Review. 2019 , 11,	79
662	A new dialkylthio-substituted naphtho[2,3-c]thiophene-4,9-dione based polymer donor for high-performance polymer solar cells. 2019 , 12, 675-683	61
661	Highly efficient near-infrared and semitransparent polymer solar cells based on an ultra-narrow bandgap nonfullerene acceptor. 2019 , 7, 3745-3751	70
660	The effect of UV light on luminescent blends. 2019 , 253, 94-99	5
659	Effect of electron-withdrawing groups on photovoltaic performance of thiophene-vinyl-thiophene derivative and benzochalcogenadiazole based copolymers: A computational study. 2019 , 119, e25982	5
658	Theoretical Estimation of Donor Strength of Common Conjugated Units for Organic Electronics. 2019 , 123, 5566-5573	4
657	4-Methylthio substitution on benzodithiophene-based conjugated polymers for high open-circuit voltage polymer solar cells. 2019 , 254, 122-127	8
656	Synergistic Effects of Side-Chain Engineering and Fluorination on Small Molecule Acceptors to Simultaneously Broaden Spectral Response and Minimize Voltage Loss for 13.8% Efficiency Organic Solar Cells. 2019 , 3, 1900169	19
655	Improvement of the optoelectronic and photovoltaic properties of a cyanopyrid-2,6-dione-based donor via molecular engineering. 2019 , 170, 107661	2
654	Electronic Excitations of Polythiophene within Many-Body Perturbation Theory with and without the Tamm-Dancoff Approximation. 2019 , 15, 4547-4554	8
653	Efficient photovoltaic performances and enhanced dielectric constants enabled by a fluorinated quinoxaline-based polymer with non-fullerene acceptors. 2019 , 73, 109-114	1
652	Enabling Efficient Tandem Organic Photovoltaics with High Fill Factor via Reduced Charge Recombination. 2019 , 4, 1535-1540	16
651	Over 16% efficiency organic photovoltaic cells enabled by a chlorinated acceptor with increased open-circuit voltages. 2019 , 10, 2515	1093
650	Tuning electronic properties of molecular acceptor-Eporphyrin-Eacceptor donors via Elinkage structural engineering. 2019 , 73, 146-151	7
649	Synthesis of 3-Bromoindenes from 4-Alkynyl Alcohols/Sulfonamides and Aldehydes via Prins Cyclization, Ring-Opening and Friedel-Crafts Reactions. 2019 , 8, 1561-1571	4
648	Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. 2019 , 31, e1900904	117
647	A critical review of reactive vapor deposition for conjugated polymer synthesis. 2019 , 7, 7159-7174	27
646	A nonfullerene acceptor with a 1000 nm absorption edge enables ternary organic solar cells with improved optical and morphological properties and efficiencies over 15%. 2019 , 12, 2529-2536	188

645	Modification of NFA-Conjugated Bridges with Symmetric Structures for High-Efficiency Non-Fullerene PSCs. 2019 , 11,	10
644	Effectiveness of Solvent Vapor Annealing over Thermal Annealing on the Photovoltaic Performance of Non-Fullerene Acceptor Based BHJ Solar Cells. 2019 , 9, 8529	23
643	Fullerene-free polymer solar cells enabled with a PhI-based wide band gap donor polymer: promoting efficiencies via acceptor screening and device engineering. 2019 , 7, 8442-8449	3
642	Benzothienoisoindigo-based polymers for efficient polymer solar cells with an open-circuit voltage of 0.96 V. 2019 , 175, 339-346	5
641	Design of a novel series of small molecule donors for application in organic solar cells. 2019 , 186, 72-83	10
640	Influence of the backbone structure of the donor material and device processing conditions on the photovoltaic properties of small molecular BHJSCs. 2019 , 186, 84-93	7
639	Overcoming the energy loss in asymmetrical non-fullerene acceptor-based polymer solar cells by halogenation of polymer donors. 2019 , 7, 15404-15410	32
638	High-Performance Polymer Solar Cells with Minimal Energy Loss Enabled by a Main-Chain-Twisted Nonfullerene Acceptor. 2019 , 31, 4222-4227	44
637	Dicyano-substituted 2,3-naphthalimide: Synthesis and optoelectronic properties. 2019 , 170, 107564	3
636	MIS-TSC: A combination of the thermally stimulated current method and a metal-insulator-semiconductor device for unipolar trap spectroscopy. 2019 , 114, 152104	1
635	Effect of polymer molecular weight on J51 based organic solar cells 2019 , 9, 14657-14661	4
634	A wide-bandgap DA copolymer donor based on a chlorine substituted acceptor unit for high performance polymer solar cells. 2019 , 7, 14070-14078	51
633	Effects of the core unit on perylene-diimide-based molecular acceptors in fullerene-free organic solar cells. 2019 , 71, 238-245	8
632	Improvement of inverted structure organic solar cells by Ar plasma treatment on P3HT:PC61BM active layer. 2019 , 34, 43-48	3
631	A Wide-Bandgap Conjugated Polymer Based on Quinoxalino[6,5-f]quinoxaline for Fullerene and Non-Fullerene Polymer Solar Cells. 2019 , 40, e1900120	6
630	Thiophene: An eco-friendly solvent for organic solar cells. 2019 , 168, 36-41	2
	Thiophene. An ecomenaty solvene for organic solar cetts. 2017, 100, 30 41	
629	Dithieno[3,2-b:2',3'-d]arsole-containing conjugated polymers in organic photovoltaic devices. 2019 , 48, 6676-6679	7

627	Efficient as-cast semi-transparent organic solar cells with efficiency over 9% and a high average visible transmittance of 27.6. 2019 , 21, 10660-10666	22
626	An efficient, three-dimensional non-fullerene electron acceptor: functionalizing tetraphenylethylene with naphthalene diimides. 2019 , 3, 1231-1237	14
625	Efficient Polymer Solar Cells Having High Open-Circuit Voltage and Low Energy Loss Enabled by a Main-Chain Twisted Small Molecular Acceptor. 2019 , 11, 16795-16803	22
624	A theoretical exploration on why the replacement of hexyl group by alkoxycarbonyl in P3HT could greatly improve the performance of non-fullerene organic solar cell. 2019 , 100, 160-167	1
623	A diketopyrrolopyrrole-based nonfullerene acceptor for organic solar cells with a high open-circuit voltage of 1.17 V. 2019 , 51, 895-904	3
622	High open-circuit voltage organic solar cells enabled by a difluorobenzoxadiazole-based conjugated polymer donor. 2019 , 62, 829-836	10
621	Synthesis of Pyridinothienogermoles as Unsymmetrically Condensed Germoles. 2019, 38, 1606-1613	1
620	Rational design of (D-A) copolymers towards high efficiency organic solar cells: DFT and TD-DFT study. 2019 , 89, 139-146	3
619	Enhanced photovoltaic performances via ternary blend strategy employing a medium-bandgap D-A type alternating copolymer as the single donor. 2019 , 183, 350-355	5
618	Pyran-bridged A-D-A type small molecular acceptors for organic solar cells. 2019 , 183, 463-468	13
617	Thiadiazoloquinoxaline and benzodithiophene bearing polymers for electrochromic and organic photovoltaic applications. 2019 , 194, 937-946	1
616	New Strategy to Prepare Luminescent Blend by Spin Coating. 2019 , 383, 1800023	8
615	Diketopyrrolopyrrole-based conjugated materials for non-fullerene organic solar cells. 2019 , 7, 10174-10199	72
614	Impact of an electron withdrawing group on the thiophene-fused benzotriazole unit on the photovoltaic performance of the derived polymer solar cells. 2019 , 166, 381-389	7
613	Improving Active Layer Morphology of All-Polymer Solar Cells by Dissolving the Two Polymers Individually. 2019 , 52, 2402-2410	35
612	Fluorinated heptacyclic carbazole-based ladder-type acceptors with aliphatic side chains for efficient fullerene-free organic solar cells. 2019 , 3, 829-835	17
611	Electrolytes for Dual-Carbon Batteries. 2019 , 6, 2615-2629	36
610	Synergistic Effect of Chlorination and Selenophene: Achieving Elevated Solar Conversion in Highly Aggregated Systems. 2019 , 52, 2393-2401	14

609	Impact of linker positions for thieno[3,2-b]thiophene in wide band gap benzo[1,2-b:4,5-b?]dithiophene-based photovoltaic polymers. 2019 , 34, 2057-2066	2
608	Synthesis, Properties, and Complex Formation of Antimony- and Bismuth-Bridged Bipyridyls. 2019 , 38, 1516-1523	12
607	Fused Benzothiadiazole: A Building Block for n-Type Organic Acceptor to Achieve High-Performance Organic Solar Cells. 2019 , 31, e1807577	214
606	Ternary System with Intermolecular Hydrogen Bond: Efficient Strategy to High-Performance Nonfullerene Organic Solar Cells. 2019 , 11, 15598-15606	14
605	Zinc-Mediated Reductive Cyclization of [60]Fullerene with Enones and Subsequent Dehydration under Solvent-Free and Ball-Milling Conditions. 2019 , 21, 2625-2628	23
604	Contribution of Fullerene Photocurrent Generation to Organic Solar Cell Performance. 2019 , 123, 11950-119	9588
603	Syntheses and Properties of Random Copolymers Using Thienyl-Thieno-Indole and Bithiophene-Dicarboximide with Different Ratios. 2019 , 27, 470-475	3
602	A Simple Approach to Prepare Chlorinated Polymer Donors with Low-Lying HOMO Level for High Performance Polymer Solar Cells. 2019 , 31, 6558-6567	43
601	Rh(III)-Catalyzed [3 + 2] Annulation via C-H Activation: Direct Access to Trifluoromethyl-Substituted Indenamines and Aminoindanes. 2019 , 21, 2763-2767	17
600	Photocatalytic effect of ZnO on the stability of nonfullerene acceptors and its mitigation by SnO2 for nonfullerene organic solar cells. 2019 , 6, 1438-1443	80
599	Dithienocyclopentadibenzothiophene: a C2v-symmetric core for nonfullerene acceptors with tunable bandgaps. 2019 , 7, 9609-9617	11
598	Fluorination-substitution effect on all-small-molecule organic solar cells. 2019 , 62, 837-844	26
597	Effect of Flank Rotation on the Photovoltaic Properties of Dithieno[2,3-:2',3'-']benzo[1,2-:4,5-']dithiophene-Based Narrow Band Gap Copolymers. 2019 , 11,	6
596	A benzo[1,2-d:4,5-d?]bisthiazole-based wide-bandgap copolymer semiconductor for efficient fullerene-free organic solar cells with a small energy loss of 0.50 eV. 2019 , 7, 5234-5238	9
595	Synthesis of Bithiophene-Based D-AED-AETerpolymers with Different AEMoieties for Polymer Solar Cells via Direct Arylation. 2019 , 11,	4
594	Synthesis and photovoltaic investigation of dithieno[2,3-d:2?,3?-d?]-benzo[1,2-b:3,4-b?:5,6-d?]trithiophene-based conjugated polymer with an enlarged Econjugated system. 2019 , 30, 1290-1302	О
593	Syntheses and optical, electrochemical, and photovoltaic properties of polymers with 6-(2-thienyl)-4H-thieno[2,3-b]indole with a variety of electron-deficient units. 2019 , 136, 47624	4
592	p- and n-Channel Photothermoelectric Conversion Based on Ultralong Near-Infrared Wavelengths Absorbing Polymers. 2019 , 1, 542-551	11

591	A general strategy via chemically covalent combination for constructing heterostructured catalysts with enhanced photocatalytic hydrogen evolution. 2019 , 55, 4150-4153	28
590	Naphthobisthiadiazole-Based Selenophene-Incorporated Quarterchalcogenophene Copolymers for Field-Effect Transistors and Polymer Solar Cells. 2019 , 11, 11674-11683	13
589	Tandem structure: a breakthrough in power conversion efficiency for highly efficient polymer solar cells. 2019 , 3, 910-934	23
588	Enhanced Photovoltaic Performance in D-FA Copolymers Containing Triisopropylsilylethynyl-Substituted Dithienobenzodithiophene by Modulating the Electron-Deficient Units. 2018 , 11,	19
587	Achieving Over 15% Efficiency in Organic Photovoltaic Cells via Copolymer Design. 2019 , 31, e1808356	314
586	Boosting the Performance of Non-Fullerene Organic Solar Cells via Cross-Linked Donor Polymers Design. 2019 , 52, 2214-2221	21
585	Carrier Dynamics and Morphology Regulated by 1,8-Diiodooctane in Chlorinated Nonfullerene Polymer Solar Cells. 2019 , 10, 936-942	12
584	Development of an Electron-Transporting Econjugated Polymer Containing Fluorine-substituted Naphthobisthiadiazole. 2019 , 32, 721-725	1
583	Enhanced performance of ternary organic solar cells with a wide bandgap acceptor as the third component. 2019 , 7, 27423-27431	16
582	Designing dithienonaphthalene based acceptor materials with promising photovoltaic parameters for organic solar cells 2019 , 9, 34496-34505	23
581	High-performance conjugated polymer donor materials for polymer solar cells with narrow-bandgap nonfullerene acceptors. 2019 , 12, 3225-3246	154
580	A 9,9?-bifluorenylidene derivative containing four 1,1-dicyanomethylene-3-indanone end-capped groups as an electron acceptor for organic photovoltaic cells. 2019 , 43, 18110-18119	3
579	A newly designed isoindigo/thiophene medium-sized molecule containing a [[DAD]) bridge with unexpected organic photovoltaic performance. 2019 , 43, 18126-18133	8
578	Energy level modulation of donor\(\text{Bcceptor}\) alternating random conjugated copolymers for achieving high-performance polymer solar cells. \(\textbf{2019}\), 7, 15335-15343	5
577	Functionalizing tetraphenylpyrazine with perylene diimides (PDIs) as high-performance nonfullerene acceptors. 2019 , 7, 14563-14570	6
576	All-small-molecule organic solar cells with over 14% efficiency by optimizing hierarchical morphologies. 2019 , 10, 5393	185
575	Synthesis of ITIC Derivatives with Extended Econjugation as Non-Fullerene Acceptors for Organic Solar Cells. 2019 , 11, 47121-47130	14
574	Electrical simulation of the function of tungsten oxide in polymeric solar cells. 2019 , 6, 126335	1

573	Synthesis and application of amine-containing conjugated small molecules for the automatic formation of an electron transporting layer spontaneous phase separation from the bulk-heterojunction layer 2019 , 9, 31867-31876	1
572	Photophysics of a Bis-Furan-Functionalized 4,7-bis(Phenylethynyl)-2,1,3-benzothiadiazole: A Building Block for Dynamic Polymers. 2019 , 3, 54-60	1
571	Unraveling Sunlight by Transparent Organic Semiconductors toward Photovoltaic and Photosynthesis. 2019 , 13, 1071-1077	89
57°	High lying energy of charge-transfer states and small energetic offsets enabled by fluorinated quinoxaline-based alternating polymer and alkyl-thienyl side-chain modified non-fullerene acceptor. 2019 , 66, 63-69	4
569	Morphology Driven by Molecular Structure of Thiazole-Based Polymers for Use in Field-Effect Transistors and Solar Cells. 2019 , 25, 649-656	7
568	Fullerene-Free Molecular Acceptors for Organic Photovoltaics. 2019 , 221-279	2
567	Efficient organic-inorganic hybrid cathode interfacial layer enabled by polymeric dopant and its application in large-area polymer solar cells. 2019 , 62, 67-73	14
566	High-Performance Fullerene-Free Polymer Solar Cells Featuring Efficient Photocurrent Generation from Dual Pathways and Low Nonradiative Recombination Loss. 2019 , 4, 8-16	49
565	CoreBhell super-structures via smart deposition of naphthothiadiazole and benzodithiophene-possessing polymer backbones onto carbon nanotubes and photovoltaic applications thereof. 2019 , 30, 832-841	5
564	Enhanced open-circuit voltages of trifluoromethylated quinoxaline-based polymer solar cells. 2019 , 65, 363-369	6
563	Organic Photovoltaics with Multiple Donor-Acceptor Pairs. 2019 , 31, e1804762	74
562	A chlorinated polymer promoted analogue co-donors for efficient ternary all-polymer solar cells. 2019 , 62, 238-244	25
561	Synthesis and Photovoltaic Performance of Anthracene-Based Small Molecules for Solution-Processed Organic Solar Cells. 2019 , 4, 752-758	3
560	A Benzobis(thiazole)-Based Copolymer for Highly Efficient Non-Fullerene Polymer Solar Cells. 2019 , 31, 919-926	22
559	Steady Enhancement in Photovoltaic Properties of Fluorine Functionalized Quinoxaline-Based Narrow Bandgap Polymer. 2018 , 24,	4
558	Fluorobenzotriazole (FTAZ)-Based Polymer Donor Enables Organic Solar Cells Exceeding 12% Efficiency. 2019 , 29, 1808828	53
557	A new narrow bandgap polymer as donor material for high performance non-fullerene polymer solar cells. 2019 , 64, 241-246	5
556	Direct connection of an amine to oligothiophene to generate push-pull chromophores for organic photovoltaic applications. 2019 , 162, 315-323	3

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555	Highly efficient and stable organic solar cell modules processed by blade coating with 5.6% module efficiency and active area of 216½m2. 2019 , 27, 264-274	23
554	Synthesis of organic molecule donor for efficient organic solar cells with low acceptor content. 2019 , 64, 54-61	3
553	Ladder-Type Nonacyclic Arene Bis(thieno[3,2-b]thieno)cyclopentafluorene as a Promising Building Block for Non-Fullerene Acceptors. 2019 , 14, 1814-1822	28
552	Palladium-Catalyzed Tandem Carbocyclization and Hetroarylation for the Synthesis of 2-(Trifluoromethyl)indenylmethyleneindoles. 2019 , 84, 307-313	2
551	Angular/linear-shaped indacenodithiophene (IDT) for donor-acceptor copolymers: Geometric shape effects on physical properties and photovoltaic performance. 2019 , 162, 11-19	4
550	Regioisomeric wide-band-gap polymers with different fluorine topologies for non-fullerene organic solar cells. 2019 , 10, 395-402	13
549	Efficient Ternary Organic Solar Cells Enabled by the Integration of Nonfullerene and Fullerene Acceptors with a Broad Composition Tolerance. 2019 , 29, 1807006	70
548	Suppression of Gold Nanoparticle Aggregation on Lipid Membranes Using Nanosized Liposomes To Increase Steric Hindrance. 2019 , 35, 229-236	6
547	Influence of Bridging Groups on the Photovoltaic Properties of Wide-Bandgap Poly(BDTT-alt-BDD)s. 2019 , 11, 1394-1401	5
546	Theoretical characterisation and design of DA star-shaped molecules with triphenylamine as core and diketopyrrolopyrroles as arms for organic solar cells. 2019 , 117, 1825-1832	2
545	Semiconducting Single-Walled Carbon Nanotubes or Very Rigid Conjugated Polymers: A Comparison. 2019 , 5, 1800514	15
544	Steric Engineering of Alkylthiolation Side Chains to Finely Tune Miscibility in Nonfullerene Polymer Solar Cells. 2019 , 9, 1802686	42
543	Versatile Ternary Approach for Novel Organic Solar Cells: A Review. 2019 , 3, 1800263	94
542	Effects of solvent vapour annealing on the performances of benzo[1,2-b:4,5-b?]dithiophene and 4,7-di(4-hexyl-thiophen-2-yl)-5,6-difluorine-2,1,3-benzothiadiazole-based alternating polymer solar cells with different configurations. 2019 , 161, 58-65	7
541	A solution-processed small molecule with optimal side chains for high efficiency non-fullerene organic solar cells. 2019 , 161, 283-287	7
540	Ternary organic solar cells based on polymer donor, polymer acceptor and PCBM components. 2020 , 31, 865-868	31
539	Synthesis and characterization of vinazene end capped dipyrrolo[2,3-b:2?,3?-e]pyrazine-2,6(1H,5H)-dione small molecules as non-fullerene acceptors for bulk heterojunction organic solar cells. 2020 , 240, 122176	5
538	Efficiency enhancement of organic solar cells enabled by interface engineering of sol-gel zinc oxide with an oxadiazole-based material. 2020 , 76, 105483	12

537	Rationally pairing photoactive materials for high-performance polymer solar cells with efficiency of 16.53%. 2020 , 63, 265-271	104
536	Recent Progress in Organic Phototransistors: Semiconductor Materials, Device Structures and Optoelectronic Applications. 2020 , 4, 9-38	25
535	Robust random forest based non-fullerene organic solar cells efficiency prediction. 2020 , 76, 105465	26
534	ITC-2Cl: A Versatile Middle-Bandgap Nonfullerene Acceptor for High-Efficiency Panchromatic Ternary Organic Solar Cells. 2020 , 4, 1900377	20
533	New small organic molecules based on thieno[2,3-b]indole for efficient bulk heterojunction organic solar cells: a computational study. 2020 , 118, e1662956	12
532	Insight into the optoelectronic characteristics of diimide-based acceptors in organic solar cells by performing DFT calculation and molecular dynamics simulation. 2020 , 94, 107488	3
531	Enhancement in the mobility of solution processable polymer based FET by incorporating graphene interlayer. 2020 , 137, 106331	3
530	Impact of alkyl side chain on the photostability and optoelectronic properties of indacenodithieno[3,2-b]thiophene-alt-naphtho[1,2-c:5,6- c?]bis[1,2,5]thiadiazole medium bandgap copolymers. 2020 , 69, 192-205	8
529	A Novel Carbazole-Based Nonfullerene Acceptor for High-Efficiency Polymer Solar Cells. 2020 , 4, 1900417	12
528	Challenges to the Stability of Active Layer Materials in Organic Solar Cells. 2020 , 41, e1900437	37
527	Conjugated polymers for visible-light-driven photocatalysis. 2020 , 13, 24-52	220
526	Chlorinated Fused Nonacyclic Non-Fullerene Acceptor Enables Efficient Large-Area Polymer Solar Cells with High Scalability. 2020 , 32, 1022-1030	20
525	Understanding the Interplay of Transport-Morphology-Performance in PBDB-T-Based Polymer Solar Cells. 2020 , 4, 1900524	21
524	Exciton-to-Charge Dynamics Driven by the Nonuniform Polymer Packing at Donor/Acceptor Interfaces. 2020 , 124, 1898-1906	3
523	Increased conjugated backbone twisting to improve carbonylated-functionalized polymer photovoltaic performance. 2020 , 7, 261-266	8
522	A chlorinated nonacyclic carbazole-based acceptor affords over 15% efficiency in organic solar cells. 2020 , 8, 1131-1137	48
521	Study of photovoltaic performances for asymmetrical and symmetrical chlorinated thiophene-bridge-based conjugated polymers. 2020 , 8, 2301-2306	9
520	Improving the performance of near infrared binary polymer solar cells by adding a second non-fullerene intermediate band-gap acceptor. 2020 , 8, 909-915	39

519	Side-chain engineering of medium bandgap polymer donors for efficient polymer solar cells. 2020 , 78, 105603	3
518	Efficiency enhancement of a fluorinated wide-bandgap polymer for ternary nonfullerene organic solar cells. 2020 , 188, 122131	7
517	Halogenation on benzo[1,2-b:4,5-b?]difuran polymers for solvent additive-free non-fullerene polymer solar cells with efficiency exceeding 11%. 2020 , 8, 139-146	8
516	TCNQ as a volatilizable morphology modulator enables enhanced performance in non-fullerene organic solar cells. 2020 , 8, 44-49	11
515	High Open-Circuit Voltage Organic Photovoltaics Fabricated Using an Alkylidene Fluorene Derivative as a Non-fullerene Acceptor. 2020 , 41, 143-149	1
514	Mixed-Ligand Approach to Palladium-Catalyzed Direct Arylation Polymerization: Synthesis of DonorAcceptor Polymers Containing Unsubstituted Bithiophene Units. 2020 , 53, 158-164	13
513	Synthesis and Photovoltaic Investigation of 8,10-Bis(2-octyldodecyl)-8,10-dihydro-9H-bisthieno[2?,3?:7,8;3?,2?:5,6] naphtho[2,3-d]imidazol-9-one Based Conjugated Polymers Using a Nonfullerene Acceptor. 2020 , 3, 495-505	5
512	Dipolar Substitution Impacts Growth and Electronic Properties of Para-Sexiphenyl Thin Films. 2020 , 7, 1901707	4
511	Boosted photovoltaic performance of indenothiophene-based molecular acceptor via fusing a thiophene. 2020 , 8, 630-636	5
510	A structural study of p-type ADA oligothiophenes: effects of regioregular alkyl sidechains on annealing processes and photovoltaic performances. 2020 , 8, 567-580	3
509	Investigation of post-thermal annealing-induced enhancement in photovoltaic performance for squaraine-based organic solar cells. 2020 , 14, 81-88	
508	High Efficiency Polymer Solar Cells with Efficient Hole Transfer at Zero Highest Occupied Molecular Orbital Offset between Methylated Polymer Donor and Brominated Acceptor. 2020 , 142, 1465-1474	228
507	Following in Situ the Deposition of Gold Electrodes on Low Band Gap Polymer Films. 2020, 12, 1132-1141	10
506	Effects of Monofluorinated Positions at the End-Capping Groups on the Performances of Twisted Non-Fullerene Acceptor-Based Polymer Solar Cells. 2020 , 12, 789-797	18
505	Rational Design of 2D plconjugated Polysquaraines for Both Fullerene and Nonfullerene Polymer Solar Cells. 2020 , 221, 1900439	4
504	Developments of Diketopyrrolopyrrole-Dye-Based Organic Semiconductors for a Wide Range of Applications in Electronics. 2020 , 32, e1903882	124
503	Poly[2,7-(9,9-dihexylfluorene)]-block-poly[2-(dimethylamino)ethylmethacrylate] as resilient cathode interlayers in polymer solar cells: the effect of block ratios. 2020 , 449, 227474	3
502	On the effect of pattern substitution and oligo(ethylene oxide) side-chain modification on thiophene-quinoxaline copolymers and their applications in photovoltaic cells. 2020 , 78, 105612	3

501	High-performance organic second- and third-order nonlinear optical materials for ultrafast information processing. 2020 , 8, 15009-15026	34
500	A theoretical exploration of charge transfer dynamics in PTB7Ir/PC71BM triplet-material-based organic photovoltaics. 2020 , 87, 105956	1
499	Fluorination effect of benzo[c][1,2,5]thiadiazole-alt-oligothiophene-based copolymers involving all straight flexible side chain in photovoltaic application. 2020 , 108, 110321	2
498	Selenium Heterocyclic Electron Acceptor with Small Urbach Energy for As-Cast High-Performance Organic Solar Cells. 2020 , 142, 18741-18745	130
497	Boron(iii) Ediketonate-based small molecules for functional non-fullerene polymer solar cells and organic resistive memory devices. 2020 , 11, 11601-11612	8
496	Material perceptions and advances in molecular heteroacenes for organic solar cells. 2020 , 13, 4738-4793	22
495	Small-molecule electrolytes with different ionic functionalities as a cathode buffer layer for polymer solar cells. 2020 , 8, 15183-15188	1
494	Phenothiazine derivatives, diketopyrrolopyrrole-based conjugated polymers: synthesis, optical and organic field effect transistor properties. 2020 , 27, 1	4
493	Designing spirobifullerene core based three-dimensional cross shape acceptor materials with promising photovoltaic properties for high-efficiency organic solar cells. 2020 , 120, e26377	48
492	Progress in the synthesis of imide-based N-type polymer semiconductor materials 2020 , 10, 41764-41779	2
491	Optical, Electrochemical, Thermal, and Structural Properties of Synthesized Fluorene/Dibenzosilole-Benzothiadiazole Dicarboxylic Imide Alternating Organic Copolymers for Photovoltaic Applications. 2020 , 10, 1147	4
490	Prato reaction derived polythiophene/C60 donor\(\text{donor}\) cceptor double cable polymer, fabrication of photodetectors and evaluation of photocurrent generation. 2020 , 8, 17365-17373	3
489	Theoretical Design of Dithienopicenocarbazole-Based Molecules by Molecular Engineering of Terminal Units Toward Promising Non-fullerene Acceptors. 2020 , 8, 580252	2
488	Panchromatic Triple Organic Semiconductor Heterojunctions for Efficient Solar Cells. 2020 , 3, 12506-12516	1
487	Improved Hole Transfer and Charge Generation in All-Polymer Photovoltaic Blends with a PIN Structure. 2020 , 124, 25262-25269	5
486	Butterfly Effects Arising from Starting Materials in Fused-Ring Electron Acceptors. 2020 , 142, 20124-20133	45
485	Conducting Polymers for Optoelectronic Devices and Organic Solar Cells: A Review. 2020 , 12,	44
484	Delocalization of exciton and electron wavefunction in non-fullerene acceptor molecules enables efficient organic solar cells. 2020 , 11, 3943	222

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483	BODIPY bearing alkylthienyl side chains: a new building block to design conjugated polymers with near infrared absorption for organic photovoltaics. 2020 , 11, 5750-5756	6
482	Quantifying Voc loss induced by alkyl pendants of acceptors in organic solar cells. 2020 , 8, 12568-12577	7
481	Influence of Alkyl Substitution Position on Wide-Bandgap Polymers in High-Efficiency Nonfullerene Polymer Solar Cells. 2020 , 41, e2000170	1
480	How Well Does a Solvated Octa-acid Capsule Shield the Embedded Chromophore? A Computational Analysis Based on an Anisotropic Dielectric Continuum Model. 2020 , 124, 6998-7004	4
479	Low-cost donors based on a dicarboxylic ester side-chain substituted thieno[3,2b]thiophene unit for efficient polymer solar cells. 2020 , 182, 108698	3
478	Effects of Ebridge units on the properties of donor-Eacceptor type benzodithiophene-thienothiophene based polymers for organic solar cells. 2020 , 756, 137810	4
477	Thieno[3,4-]pyrrole-4,6-dione-based conjugated polymers for organic solar cells. 2020 , 56, 10394-10408	12
476	Non-halogenated additive engineering for morphology optimization in environmental-friendly solvent processed non-fullerene organic solar cells. 2020 , 86, 105893	5
475	Structural deformation of elastic polythiophene with disiloxane moieties under stretching. 2020 , 52, 1273-1278	1
474	Crystal Structures and Phosphorescent Properties of Group 14 Dipyridinometalloles and Their Copper Complexes. 2020 , 85, 1912-1918	
473	Chlorinated Carbon-Bridged and Silicon-Bridged Carbazole-Based Nonfullerene Acceptors Manifest Synergistic Enhancement in Ternary Organic Solar Cell with Efficiency over 15%. 2020 , 4, 2000357	13
472	Adding a Third Component with Reduced Miscibility and Higher LUMO Level Enables Efficient Ternary Organic Solar Cells. 2020 , 5, 2711-2720	137
471	A compatible polymer acceptor enables efficient and stable organic solar cells as a solid additive. 2020 , 8, 17706-17712	28
470	Precise Control of Phase Separation Enables 12% Efficiency in All Small Molecule Solar Cells. 2020 , 10, 2001589	25
469	Following the Evolution of Morphology and Optical Properties during Printing of Thin Films for Application in Non-Fullerene Acceptor Based Organic Solar Cells. 2020 , 12, 40381-40392	8
468	A low boiling-point and low-cost fluorinated additive improves the efficiency and stability of organic solar cells. 2020 , 8, 15296-15302	5
467	Quasiparticles and Band Structures in Organized Nanostructures of Donor-Acceptor Copolymers. 2020 , 11, 7177-7183	5
466	Pyrrolo[3,2-]pyrrole-1,4-dione (IsoDPP) End Capped with Napthalimide or Phthalimide: Novel Small Molecular Acceptors for Organic Solar Cells. 2020 , 25,	2

465	The regioisomeric bromination effects of fused-ring electron acceptors: modulation of the optoelectronic property and miscibility endowing the polymer solar cells with 15% efficiency. 2020 , 8, 25101-25108	10
464	Alkylated Indacenodithiophene-Based Non-fullerene Acceptors with Extended EConjugation for High-Performance Large-Area Organic Solar Cells. 2020 , 12, 50638-50647	6
463	Enhancing Open-Circuit Voltage of High-Efficiency Nonfullerene Ternary Solar Cells with a Star-Shaped Acceptor. 2020 , 12, 50660-50667	6
462	Two Birds with One Stone: High Efficiency and Low Synthetic Cost for Benzotriazole-Based Polymer Solar Cells by a Simple Chemical Approach. 2020 , 10, 2002142	15
461	Effect of main and side chain chlorination on the photovoltaic properties of benzodithiophene-alt-benzotriazole polymers. 2020 , 8, 15426-15435	7
460	Synthesis of A-D-A type quinoxaline-based small molecules for organic photovoltaic cells. 2020 , 705, 7-14	1
459	The post-treatment effects on open circuit voltages and device performances in a high efficiency all-small-molecule organic solar cell. 2020 , 8, 15385-15392	9
458	Random terpolymer based on thiophene-thiazolothiazole unit enabling efficient non-fullerene organic solar cells. 2020 , 11, 4612	119
457	Functionalization of spiro[fluorene-9,9?-xanthene] with diketopyrrolopyrrole to generate a promising, three-dimensional non-fullerene acceptor. 2020 , 4, 3209-3215	2
456	Isomerization Strategy of Nonfullerene Small-Molecule Acceptors for Organic Solar Cells. 2020 , 30, 2004477	31
455	Synthesis and characterization of a wide-bandgap polymer based on perfluorinated and alkylthiolated benzodithiophene with a deep highest occupied molecular orbital level for organic photovoltaics. 2020 , 58, 2755-2763	4
454	Comparing Benzodithiophene Unit with Alkylthionaphthyl and Alkylthiobiphenyl Side-Chains in Constructing High-Performance Nonfullerene Solar Cells. 2020 , 12,	O
453	Transparent Hole-Transporting Frameworks: A Unique Strategy to Design High-Performance Semitransparent Organic Photovoltaics. 2020 , 32, e2003891	34
452	Side-Chain Engineering of Benzodithiophene-Bridged Dimeric Porphyrin Donors for All-Small-Molecule Organic Solar Cells. 2020 , 12, 41506-41514	16
451	Enabling High-Performance Tandem Organic Photovoltaic Cells by Balancing the Front and Rear Subcells. 2020 , 32, e2002315	16
45°	The impact of thermal treatment on the performance of benzo[1,2-:4,5-']difuran-based organic solar cells 2020 , 10, 39916-39921	2
449	Improving the Photostability of Small-Molecule-Based Organic Photovoltaics by Providing a Charge Percolation Pathway of Crystalline Conjugated Polymer. 2020 , 12,	3
448	Reducing VOC loss via structure compatible and high lowest unoccupied molecular orbital nonfullerene acceptors for over 17%-efficiency ternary organic photovoltaics. 2020 , 2, e12061	15

(2020-2020)

447	supramolecular solid additive. 2020 , 8, 16551-16560	8
446	The Role of Demixing and Crystallization Kinetics on the Stability of Non-Fullerene Organic Solar Cells. 2020 , 32, e2005348	30
445	Thermodynamic Properties and Molecular Packing Explain Performance and Processing Procedures of Three D18:NFA Organic Solar Cells. 2020 , 32, e2005386	67
444	Enhancement in Photovoltaic Properties of N,N-diethylaniline based Donor Materials by Bridging Core Modifications for Efficient Solar Cells. 2020 , 5, 5022-5034	58
443	Can we utilize the higher Frenkel exciton state in biazulene diimides-based non-fullerene acceptors to promote charge separation at the donor/acceptor interface?. 2020 , 44, 9767-9774	7
442	Effects of alkoxylation position on fused-ring electron acceptors. 2020 , 8, 15128-15134	6
441	Highly efficient non-fullerene polymer solar cells from a benzo[1,2-b:4,5-b?]difuran-based conjugated polymer with improved stabilities. 2020 , 8, 11381-11390	10
440	Electron-Deficient and Quinoid Central Unit Engineering for Unfused Ring-Based A -D-A -D-A -Type Acceptor Enables High Performance Nonfullerene Polymer Solar Cells with High V and PCE Simultaneously. 2020 , 16, e1907681	22
439	High-Performance Nonfullerene Organic Solar Cells with Unusual Inverted Structure. 2020 , 4, 2000115	13
438	Dopant-free hole transporting materials with supramolecular interactions and reverse diffusion for efficient and modular p-i-n perovskite solar cells. 2020 , 63, 987-996	25
437	Designing indenothiophene-based acceptor materials with efficient photovoltaic parameters for fullerene-free organic solar cells. 2020 , 26, 137	62
436	A nonfullerene acceptor incorporating a dithienopyran fused backbone for organic solar cells with efficiency over 14%. 2020 , 75, 104988	18
435	Tuning the electron-deficient core of a non-fullerene acceptor to achieve over 17% efficiency in a single-junction organic solar cell. 2020 , 13, 2459-2466	199
434	Electrochemical regioselective alkylations of a [60]fulleroindoline with bulky alkyl bromides. 2020 , 18, 4783-4787	3
433	Narrowing the Band Gap: The Key to High-Performance Organic Photovoltaics. <i>Accounts of Chemical Research</i> , 2020 , 53, 1218-1228	93
432	Conjugated side-chain engineering of polymer donors enabling improved efficiency for polymer solar cells. 2020 , 8, 15919-15926	4
431	Synthesis and characterization of optical, electrochemical and photovoltaic properties of selenophene bearing benzodithiophene based alternating polymers. 2020 , 862, 114014	4
430	Fine-Tuning Energy Levels via Asymmetric End Groups Enables Polymer Solar Cells with Efficiencies over 17%. 2020 , 4, 1236-1247	237

429	Optoelectronic properties of cyclopentadithiophene-based donorficeptor copolymers as donors in bulk heterojunction organic solar cells: A theoretical study. 2020 , 145, 109532	7
428	Oxytrifluoromethylthiolation of 2,3-Allenoates with Trifluoromethanesulfinyl Chloride: A Synthetic Approach to Trifluoromethylthiolated 4-Oxo-2(E)-alkenoates and Furans. 2020 , 362, 2882-2887	3
427	Wide Band-gap Two-dimension Conjugated Polymer Donors with Different Amounts of Chlorine Substitution on Alkoxyphenyl Conjugated Side Chains for Non-fullerene Polymer Solar Cells. 2020 , 38, 797-805	8
426	Volatilizable and cost-effective quinone-based solid additives for improving photovoltaic performance and morphological stability in non-fullerene polymer solar cells. 2020 , 8, 13049-13058	27
425	Near infrared organic photodetectors based on enhanced charge transfer state absorption by photonic architectures. 2020 , 8, 9688-9696	8
424	Designing N-phenylaniline-triazol configured donor materials with promising optoelectronic properties for high-efficiency solar cells. 2020 , 1186, 112908	62
423	Layer-Dependent Quasiparticle Electronic Structure of the P3HT:PCBM Interface from a First-Principles Substrate Screening GW Approach. 2020 , 124, 13592-13601	2
422	Improved organic solar cell efficiency based on the regulation of an alkyl chain on chlorinated non-fullerene acceptors. 2020 , 4, 2428-2434	18
421	Synergy of Liquid-Crystalline Small-Molecule and Polymeric Donors Delivers Uncommon Morphology Evolution and 16.6% Efficiency Organic Photovoltaics. 2020 , 7, 2000149	41
420	Two dimensional semiconducting polymers. 2020 , 4, 3472-3486	1
419	14.4% efficiency all-polymer solar cell with broad absorption and low energy loss enabled by a novel polymer acceptor. 2020 , 72, 104718	177
418	Two-Dimension Conjugated Acceptors Based on Benzodi(cyclopentadithiophene) Core with Thiophene-Fused Ending Group for Efficient Polymer Solar Cells. 2020 , 4, 2000071	8
417	An Alkoxy-Solubilizing Decacyclic Electron Acceptor for Efficient Ecofriendly As-Cast Blade-Coated Organic Solar Cells. 2020 , 4, 2000108	7
416	DA Copolymer Donor Based on Bithienyl Benzodithiophene D-Unit and Monoalkoxy Bifluoroquinoxaline A-Unit for High-Performance Polymer Solar Cells. 2020 , 32, 3254-3261	26
415	Small-molecular iridium complex based organic solar cells with improved photovoltaic performance through device optimization. 2020 , 8, 5761-5768	6
414	Fluorinated pyrazine-based DA conjugated polymers for efficient non-fullerene polymer solar cells. 2020 , 8, 7083-7089	6
413	Small molecule donor based on alkoxylated benzothiadiazole unit: Synthesis and photovoltaics properties. 2020 , 247, 122874	1

(2020-2020)

411	Theoretical Study of a Class of Organic D-FA Dyes for Polymer Solar Cells: Influence of Various Espacers. 2020 , 10, 163	4
410	Improved Average Figure-of-Merit of High-Efficiency Nonfullerene Solar Cells via Minor Combinatory Side Chain Approach. 2020 , 4, 2000062	25
409	A naphthodithiophene-based nonfullerene acceptor for high-performance polymer solar cells with a small energy loss. 2020 , 8, 6513-6520	10
408	Single-Junction Organic Photovoltaic Cells with Approaching 18% Efficiency. 2020 , 32, e1908205	896
407	Alkyl side-chain dependent self-organization of small molecule and its application in high-performance organic and perovskite solar cells. 2020 , 72, 104708	10
406	Synthesis and organic solar cell application of RNA-nucleobase-complexed CdS nanowires. 2020 , 206, 287-293	3
405	Effects on the photovoltaic properties of copolymers with five-membered chalcogen-Eheterocycle bridges. 2020 , 11, 5019-5028	10
404	A Cross-Linkable Electron-Transport Layer Based on a Fullerene-Benzoxazine Derivative for Inverted Polymer Solar Cells. 2020 , 85, 1534-1541	1
403	High-Performance Ambient-Condition-Processed Polymer Solar Cells and Organic Thin-Film Transistors. 2020 , 5, 2747-2754	7
402	Elevated Photovoltaic Performance in Medium Bandgap Copolymers Composed of Indacenodi-thieno[3,2-]thiophene and Benzothiadiazole Subunits by Modulating the Ebridge. 2020 , 12,	7
401	Efficient electroluminescence from twistacene-modified Econjugated compounds. 2020, 177, 108298	
400	Extension of Econjugation and enhancement of electron-withdrawing ability at terminal indenedione for A-ED-EA small molecules for application in organic solar cells. 2020 , 81, 105679	5
399	Chiral Aluminum Complex Controls Enantioselective Nickel-Catalyzed Synthesis of Indenes: C-CN Bond Activation. 2020 , 59, 7439-7443	19
398	Underlying effects of diiodooctane as additive on the performance of bulk heterojunction organic solar cells based small organic molecule of isatin-core moiety. 2020 , 261, 116304	6
397	Recyclable heterogeneous palladium-catalyzed carbonBarbon coupling polycondensations toward highly purified conjugated polymers. 2020 , 27, 1	40
396	High-Performance Pseudoplanar Heterojunction Ternary Organic Solar Cells with Nonfullerene Alloyed Acceptor. 2020 , 30, 1909760	59
395	Altering alkyl-chains branching positions for boosting the performance of small-molecule acceptors for highly efficient nonfullerene organic solar cells. 2020 , 63, 361-369	99
394	Versatile Phosphole Derivatives with Photovoltaic, Light-Emitting, and Resistive Memory Properties. 2020 , 3, 3059-3070	6

393	High-Performance Ternary Organic Solar Cells with Controllable Morphology via Sequential Layer-by-Layer Deposition. 2020 , 12, 13077-13086	41
392	Single-material organic solar cells with fully conjugated electron-donor alkoxy-substituted bithiophene units and electron-acceptor benzothiadiazole moieties alternating in the main chain. 2020 , 8, 4124-4132	13
391	A New Benzodithiophene Based Donor-Acceptor Econjugated Polymer for Organic Solar Cells. 2020 , 28, 179-183	6
390	Determining the sequence and backbone structure of Bemi-statisticalLopolymers as donorEcceptor polymers in organic solar cells. 2020 , 4, 2026-2034	5
389	Fluorination Effect for Highly Conjugated Alternating Copolymers Involving Thienylenevinylene-Thiophene-Flanked Benzodithiophene and Benzothiadiazole Subunits in Photovoltaic Application. 2020 , 12,	2
388	Chiral Aluminum Complex Controls Enantioselective Nickel-Catalyzed Synthesis of Indenes: CIIN Bond Activation. 2020 , 132, 7509-7513	2
387	Conjugated Random Terpolymer Donors towards High-Efficiency Polymer Solar Cells. 2020 , 38, 601-624	14
386	Tungsten(VI) Complex of N-Fused Porphyrin Absorbing Near-Infrared Light beyond 1000 nm. 2020 , 15, 748-752	5
385	Understanding the Effect of the Third Component PC71BM on Nanoscale Morphology and Photovoltaic Properties of Ternary Organic Solar Cells. 2020 , 4, 1900540	27
384	Synthesis and Photovoltaic Properties of New Conjugated D-A Polymers Based on the Same Fluoro-Benzothiadiazole Acceptor Unit and Different Donor Units. 2020 , 5, 853-863	5
383	Benzothiadiazole Based Cascade Material to Boost the Performance of Inverted Ternary Organic Solar Cells. 2020 , 13, 450	5
382	Graphene oxide-doped PEDOT:PSS as hole transport layer in inverted bulk heterojunction solar cell. 2020 , 31, 3576-3584	5
381	N-doping of fullerene using 1,3,5-trimethylhexahydro-1,3,5-triazine as an electron transport layer for nonfullerene organic solar cells. 2020 , 4, 1984-1990	5
380	Recent developments in the synthesis of regioregular thiophene-based conjugated polymers for electronic and optoelectronic applications using nickel and palladium-based catalytic systems 2020 , 10, 4322-4396	32
379	Significant influence of the benzothiophene ring substitution position on the photovoltaic performance of benzodithiophene-based donor polymers. 2020 , 8, 3183-3191	12
378	Introducing Porphyrin Units by Random Copolymerization Into NDI-Based Acceptor for All Polymer Solar Cells. 2020 , 8, 310	3
377	Comprehensive theoretical and experimental study of near infrared absorbing copolymers based on dithienosilole. 2020 , 11, 3637-3643	2
376	Highly Efficient All-Small-Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. 2020 , 32, e1908373	100

375	Perylene Diimide-Based Conjugated Polymers for All-Polymer Solar Cells. 2020 , 26, 12510-12522	13
374	S?Cl intramolecular interaction: An efficient strategy to improve power conversion efficiency of organic solar cells. 2020 , 179, 108416	7
373	Effect of cyano substituent on photovoltaic properties of quinoxaline-based polymers. 2020 , 86, 244-250	2
372	A thiophene-fused benzotriazole unit as a Ebridgelin A-ED-EA type acceptor to achieve more balanced JSC and VOC for OSCs. 2020 , 82, 105705	10
371	D-A Polymer with a Donor Backbone - Acceptor-side-chain Structure for Organic Solar Cells. 2020 , 9, 1301-1308	3
370	Understanding the langmuir and Langmuir-Schaefer film conformation of low-bandgap polymers and their bulk heterojunctions with PCBM. 2020 , 31, 315712	1
369	Energy Loss in Organic Solar Cells: Mechanisms, Strategies, and Prospects. 2020 , 4, 2000130	36
368	Constructing High-Performance Organic Photovoltaics via Emerging Non-Fullerene Acceptors and Tandem-Junction Structure. 2020 , 10, 2000746	27
367	Synthesis and Characterization of Wide-Bandgap Conjugated Polymers Consisting of Same Electron Donor and Different Electron-Deficient Units and Their Application for Nonfullerene Polymer Solar Cells. 2020 , 221, 2000030	5
366	Optimized Molecular Packing and Nonradiative Energy Loss Based on Terpolymer Methodology Combining Two Asymmetric Segments for High-Performance Polymer Solar Cells. 2020 , 12, 20393-20403	6
365	15.9% organic tandem solar cell with extended near-infrared absorption. 2020, 116, 153501	15
364	Combining chlorination and sulfuration strategies for high-performance all-small-molecule organic solar cells. 2021 , 52, 228-233	11
363	A Near-infrared Non-fullerene Acceptor with Thienopyrrole-expanded Benzo[1,2-b:4,5-b?]dithiophene Core for Polymer Solar Cells. 2021 , 39, 35-42	8
362	A Pyrrole-Fused Asymmetrical Electron Acceptor for Polymer Solar Cells with Approaching 16% Efficiency. 2021 , 2, 2000052	8
361	Designing of benzodithiophene core-based small molecular acceptors for efficient non-fullerene organic solar cells. 2021 , 244, 118873	57
360	Benzobisoxazole Cruciforms: A Cross-conjugated Platform for Designing Tunable Donor/Acceptor Materials. 2021 , 10, 215-223	3
359	17.1 %-Efficient Eco-Compatible Organic Solar Cells from a Dissymmetric 3D Network Acceptor. 2021 , 60, 3238-3246	74
358	Structure evolution from D-A-D type small molecule toward D-A-D-A-D type oligomer for high-efficiency photovoltaic donor materials. 2021 , 186, 108950	5

357	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6 % Efficiency Organic Solar Cells with Enhanced Fill Factor. 2021 , 133, 2352-2359	9
356	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6 % Efficiency Organic Solar Cells with Enhanced Fill Factor. 2021 , 60, 2322-2329	94
355	Effect of Alkoxy Side-Chains on Conjugated Polymer/Non-fullerene Acceptor Interfaces in Organic Solar Cells. 2021 , 50, 1713-1719	
354	Simple (thienylmethylene)oxindole-based polymer materials as donors for efficient non-fullerene polymer solar cells. 2021 , 2, 417-424	
353	Recent progress on all-small molecule organic solar cells using small-molecule nonfullerene acceptors. 2021 , 3, 175-200	45
352	Effects of Different Ring-Expanded Strategies for Nonfullerene Acceptors in Organic Photovoltaics under Donor and Acceptor Excitation. 2021 , 5, 2000615	1
351	Wide bandgap donor polymers containing carbonyl groups for efficient non-fullerene polymer solar cells. 2021 , 186, 108987	О
350	Carboxylate substituted pyrazine: A simple and low-cost building block for novel wide bandgap polymer donor enables 15.3% efficiency in organic solar cells. 2021 , 82, 105679	17
349	A FeNi5P4/FeNi2P heterojunction electrocatalyst for highly efficient solar-to-hydrogen generation. 2021 , 9, 1221-1229	9
348	Dopant-free dicyanofluoranthene-based hole transporting material with low cost enables efficient flexible perovskite solar cells. 2021 , 82, 105701	35
347	Liquid metal technology in solar power generation - Basics and applications. 2021 , 222, 110925	12
346	A small molecular acceptor based on dithienocyclopentaindenefluorene core for efficient fullerene-free polymer solar cells. 2021 , 272, 116667	4
345	Enhancement of air stability and photovoltaic performance in organic solar cells by structural modulation of bis-amide-based donor-acceptor copolymers: A computational insight. 2021 , 121, e26524	3
344	Benzotriazole Based 2D-conjugated Polymer Donors for High Performance Polymer Solar Cells. 2021 , 39, 1-13	39
343	Fundamentals of organic electronic devices. 2021 , 1-25	
342	17.1 %-Efficient Eco-Compatible Organic Solar Cells from a Dissymmetric 3D Network Acceptor. 2021 , 133, 3275-3283	17
341	High electron mobility fluorinated indacenodithiophene small molecule acceptors for organic solar cells. 2021 , 32, 1257-1262	6
340	Polymerized Small-Molecule Acceptors for High-Performance All-Polymer Solar Cells. 2021 , 60, 4422-4433	133

339	Polymerized Small-Molecule Acceptors for High-Performance All-Polymer Solar Cells. 2021 , 133, 4470-4481	12
338	B<-N-Incorporated Dibenzo-azaacene with Selective Near-Infrared Absorption and Visible Transparency. 2021 , 27, 2065-2071	8
337	Influence of end-capped group on structural and electronic properties of the At-EAc-EAt small molecule donor for high-performance organic solar cells. 2021 , 32, 367-377	
336	Designing high performance conjugated materials for photovoltaic cells with the aid of intramolecular noncovalent interactions. 2021 , 57, 302-314	22
335	Nonylbisoxazole-based donor\(\text{\textit{lcceptor copolymers for polymer solar cells.}}\) 2021, 45, 2710-2714	1
334	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. 2021 , 12, 178	52
333	Replacing the cyano (-C[triple bond, length as m-dash]N) group to design environmentally friendly fused-ring electron acceptors. 2021 , 23, 18085-18092	1
332	Benzothiadiazole-based Conjugated Polymers for Organic Solar Cells. 2021 , 39, 525-536	11
331	A pyridinium-pended conjugated polyelectrolyte for efficient photocatalytic hydrogen evolution and organic solar cells. 2021 , 12, 1498-1506	5
330	Indacenodithiophene-based small-molecule donor with strong crystallinity for efficient organic solar cells. 2021 , 57, 10767-10770	3
329	Synthesis of spirodithienogermole with triphenylamine units as a dopant-free hole-transporting material for perovskite solar cells. 2021 , 9, 2001-2007	4
328	Improving the performance of organic solar cells by side chain engineering of fused ring electron acceptors.	5
327	Cyclometalated Ir(III) complexes as potential electron acceptors for organic solar cells. 2021, 50, 9871-9880	2
326	Performance Investigation of a Solar Thermal Collector Based on Nanostructured Energy Materials. 7,	2
325	Synthesis and optical properties of novel unsymmetrically substituted benzothiadiazole-based luminophores. 2021 , 31, 33-35	3
324	Impact of Cyclic Strain on the Structural Relaxation Dynamics of Macrocyclic Thiophenes. 2021 , 125, 1947-195	531
323	Narrow band-gap materials with overlapping absorption simultaneously increase the open circuit voltage and average visible transmittance of semitransparent organic solar cells. 2021 , 9, 5711-5719	13
322	Adenine-based polymer modified zinc oxide for efficient inverted organic solar cells. 2021 , 9, 11851-11858	2

321	Nonfullerene electron acceptors with electron-deficient units containing cyano groups for organic solar cells. 2021 , 5, 5549-5572	7
320	Structural regulation of thiophene-fused benzotriazole as a Ebridgelfor A-ED-EA type acceptor:P3HT-based OSCs to achieve high efficiency. 2021 , 9, 6520-6528	8
319	Structural similarity induced improvement in the performance of organic solar cells based on novel terpolymer donors. 2021 , 9, 9238-9247	9
318	Optimizing kesterite solar cells from Cu2ZnSnS4 to Cu2CdGe(S,Se)4. 2021 , 9, 9882-9897	5
317	Optimizing the Charge Carrier and Light Management of Nonfullerene Acceptors for Efficient Organic Solar Cells with Small Nonradiative Energy Losses. 2021 , 5, 2100008	6
316	High-Performance Organic Photovoltaics Incorporating an Active Layer with a Few Nanometer-Thick Third-Component Layer on a Binary Blend Layer. 2021 , 21, 2207-2215	21
315	Morphology optimization of photoactive layers in organic solar cells. 2021 , 2, e31	8
314	2,4,6-Triphenyl-1,3,5-Triazine Based Covalent Organic Frameworks for Photoelectrochemical H2 Evolution. 2021 , 8, 2002191	10
313	Alcohol-Soluble Zwitterionic 4-(Dimethyl(pyridin-2-yl)ammonio)butane-1-sulfonate Small Molecule as a Cathode Modifier for Nonfullerene Acceptor-Based Organic Solar Cells. 2021 , 13, 10222-10230	7
312	Self-Assembly of a Semiconductive and Photoactive Heterobimetallic Metal©rganic Capsule. 2021 , 133, 10610-10614	2
311	Self-Assembly of a Semiconductive and Photoactive Heterobimetallic Metal-Organic Capsule. 2021 , 60, 10516-10520	8
310	Recent advances of carbazole-based nonfullerene acceptors: Molecular design, optoelectronic properties, and photovoltaic performance in organic solar cells. 2021 , 68, 1186-1196	3
309	Over 14% Efficiency Single-Junction Organic Solar Cells Enabled by Reasonable Conformation Modulating in Naphtho[2,3-b:6,7-b?]difuran Based Polymer. 2021 , 11, 2003954	13
308	An Electron Acceptor Analogue for Lowering Trap Density in Organic Solar Cells. 2021 , 33, e2008134	37
307	High-Performance Ternary Organic Solar Cells Enabled by Synergizing Fullerene and Non-fullerene Acceptors. 2021 , 03, 254-276	1
306	Theoretical studies of new PCPDTBT derivatives as possible electron donor on polymer solar cells. 2021 , 766, 138328	1
305	Photophysical properties of soluble light-harvesting polyhydrofurans from post-polymerization functionalization of polyketones. 2021 , 147, 110302	3
304	Co-Tuned Tin Oxide Interfaces for Enhanced Stability of Organic Solar Cells. 2021 , 37, 3173-3179	3

303	A Quinoxaline-Based D-A Copolymer Donor Achieving 17.62% Efficiency of Organic Solar Cells. 2021 , 33, e2100474	70
302	A Large-Bandgap Guest Material Enabling Improved Efficiency and Reduced Energy Loss for Ternary Polymer Solar Cells. 2021 , 5, 2100013	4
301	Spatially Orthogonal 2D Sidechains Optimize Morphology in All-Small-Molecule Organic Solar Cells. 2021 , 31, 2100750	13
300	Reaction of Dialkylaminosulfur Trifluorides with Eketo Sulfonamides and Eketo Sulfones. 2021 , 6, 3084-3088	
299	Non-equivalent D-A copolymerization strategy towards highly efficient polymer donor for polymer solar cells. 2021 , 64, 1031-1038	7
298	Non-Halogenated-Solvent Processed and Additive-Free Tandem Organic Solar Cell with Efficiency Reaching 16.67%. 2021 , 31, 2102361	16
297	Nanostructured Lateral Boryl Substitution Conjugated Donor-Acceptor Oligomers for Visible-Light-Driven Hydrogen Production. 2021 , 17, e2100132	6
296	Efficient Solar Cells Based on a Polymer Donor with Branching in Trialkylsilyl Side Chains. 2021 , 03, 134-140	
295	High-Efficiency Organic Solar Cells Based on a Low-Cost Fully Non-Fused Electron Acceptor. 2021 , 31, 2101742	32
294	StructureAssemblyProperty Relationships of Simple Ditopic Hydrogen-Bonding-Capable Econjugated Oligomers. 2021 , 03, 302-316	O
293	Conducting Silicone-Based Polymers and Their Application. 2021 , 26,	4
292	Star-shaped small molecular donors based on a Zn-Porphyrin core and DPP arms via different linkers for organic solar cells. 2021 , 188, 109216	6
291	Backbone regulation of a bithiazole-based wide bandgap polymer donor by introducing thiophene bridges towards efficient polymer solar cells. 2021 , 92, 106130	1
2 90	Elucidating End-Group Modifications of Carbazole-Based Nonfullerene Acceptors in Indoor Applications for Achieving a PCE of over 20. 2021 , 13, 26247-26255	3
289	Recent Advances of Nanospheres Lithography in Organic Electronics. 2021 , 17, e2100724	4
288	Molecular Properties and Aggregation Behavior of Small-Molecule Acceptors Calculated by Molecular Simulation. 2021 , 6, 14467-14475	1
287	Two new A-D-A type small molecule acceptors based on C2v-symmetric dithienocyclopentaspiro[fluorene-9,9?-xanthene] core for polymer solar cells. 2021 , 92, 106120	0
286	Replacing alkyl side chain of non-fullerene acceptor with siloxane-terminated side chain enables lower surface energy towards optimizing bulk-heterojunction morphology and high photovoltaic performance. 2021 , 64, 1208-1218	3

285	Tuning Aggregation Behavior of Polymer Donor via Molecular-Weight Control for Achieving 17.1% Efficiency Inverted Polymer Solar Cells. 2021 , 39, 1941-1947	6
284	Recent advances of interface engineering for non-fullerene organic solar cells. 2021 , 93, 106141	8
283	High-Performance Organic Solar Cells Featuring Double Bulk Heterojunction Structures with Vertical-Gradient Selenium Heterocyclic Nonfullerene Acceptor Concentrations. 2021 , 13, 27227-27236	12
282	Achieving over 10 % Efficiency in Poly(3-hexylthiophene)-Based Organic Solar Cells via Solid Additives. 2021 , 14, 3607-3613	20
281	Anthracene-Assisted Morphology Optimization in Photoactive Layer for High-Efficiency Polymer Solar Cells. 2021 , 31, 2103944	15
280	Effects of structural distortion on the optoelectronic properties and reactivity of fullerenes: a DFT study. 1	1
279	Synthesis, photophysical properties, and computational studies of benzothiadiazole and/or phenothiazine based donor/acceptor Econjugated copolymers. 2021 , 28, 1	
278	13.4 % Efficiency from All-Small-Molecule Organic Solar Cells Based on a Crystalline Donor with Chlorine and Trialkylsilyl Substitutions. 2021 , 14, 3535-3543	5
277	Electron Transport Layers Based on Oligo(ethylene glycol)-Incorporated Polymers Enabling Reproducible Fabrication of High-Performance Organic Solar Cells. 2021 , 54, 7102-7112	6
276	Synergistically minimized nonradiative energy loss and optimized morphology achieved via the incorporation of small molecule donor in 17.7% efficiency ternary polymer solar cells. 2021 , 85, 105963	27
275	Redox-active ligands: Recent advances towards their incorporation into coordination polymers and metal-organic frameworks. 2021 , 439, 213891	20
274	17.6%-Efficient Quasiplanar Heterojunction Organic Solar Cells from a Chlorinated 3D Network Acceptor. 2021 , 33, e2102778	20
273	Fluorination strategy enables greatly improved performance for organic solar cells based on polythiophene derivatives. 2021 , 32, 2274-2278	11
272	A Well-Mixed Phase Formed by Two Compatible Non-Fullerene Acceptors Enables Ternary Organic Solar Cells with Efficiency over 18.6. 2021 , 33, e2101733	145
271	Modulating the middle and end-capped units of A2-A1-D-A1-A2 type non-fullerene acceptors for high VOC organic solar cells. 2021 , 95, 106195	1
270	High-performance alloy-like ternary organic solar cells with two compatible non-fullerene acceptors. 2021 , 95, 106201	3
269	Designing four naphthalene di-imide based small organic solar cells with 5,6-difluoro-3-oxo-2,3-dihydro-indene non-fullerene acceptors. 2021 , 53, 1	3
268	Progress in Organic Solar Cells: Materials, Physics and Device Engineering. 2021 , 39, 2607-2625	8

267	A scientometric review of trends in solar photovoltaic waste management research. 2021, 224, 545-562	9
266	Ternary All-Polymer Solar Cells with Two Synergetic Donors Enable Efficiency over 14.5%.	4
265	Incorporation of a Guaiacol-Based Small Molecule Guest Donor Enables Efficient Nonfullerene Acceptor-Based Ternary Organic Solar Cells. 2021 , 5, 2100402	6
264	Efficient tuning of small acceptor chromophores with A1-FA2-FA1 configuration for high efficacy of organic solar cells via end group manipulation. 2021 , 25, 101305	11
263	Tuning the optoelectronic properties of triphenylamine (TPA) based small molecules by modifying central core for photovoltaic applications. 2021 , 27, 237	28
262	Investigating the effect of diverse structural variation of conjugated polymer electrolytes as the interlayer on photovoltaic properties. 2021 , 420, 129895	2
261	Visualization of Interfacial Band Bending in Photomultiplying Organic Photodetectors. 2021 , 21, 8474-8480	5
260	Low-cost and efficient organic solar cells based on polythiophene- and poly(thiophene vinylene)-related donors. e111	6
259	New non-fullerene electron acceptors-based on quinoxaline derivatives for organic photovoltaic cells: DFT computational study. 2021 , 279, 116846	4
258	Designing of benzodithiophene (BDT) based non-fullerene small molecules with favorable optoelectronic properties for proficient organic solar cells. 2021 , 1203, 113359	22
257	Conversion of Radiophotoluminescence Irradiation into Electricity in Photovoltaic Cells. A Review of Theoretical Considerations and Practical Solutions. 2021 , 14, 6186	1
256	Effects of the Center Units of Small-Molecule Donors on the Morphology, Photovoltaic Performance, and Device Stability of All-Small-Molecule Organic Solar Cells. 2021 , 5, 2100515	4
255	Promising small molecule Pechmann dye analogue donors with low interfacial charge recombination for photovoltaic application: A DFT study. 2021 , 28, 102555	1
254	Deciphering the role of invited guest bridges in non-fullerene acceptor materials for high performance organic solar cells. 2021 , 279, 116865	10
253	Synergistic effect of solvent and solid additives on morphology optimization for high-performance organic solar cells. 2021 , 64, 2017	3
252	Fluorination of the Ebridge in a polymer skeleton enables a significant improvement in photovoltaic performance. 2021 , 197, 109834	O
251	PCDTBT8-Doped PffBT4T-2OD-Based Ternary Solar Cells with Enhanced Open-Circuit Voltage, Fill Factor, and Charge Separation Efficiency. 2100670	4
250	Plasmonic nano-particles mediated energy harvesting in thin-Im organic solar cells.	4

249	Highly crystalline acceptor materials based on benzodithiophene with different amount of fluorine substitution on alkoxyphenyl conjugated side chains for organic photovoltaics. 2021 , 1, 100059	0
248	Effectively enhancing the open-circuit voltage via chlorinated substitution in DPP-based polymer donor for polymer solar cells. 2021 , 300, 130222	O
247	Impact of fluorination on photovoltaic performance in high thermo- and photo-stability perylene diimide-based nonfullerene small molecular acceptors. 2021 , 121, 111593	О
246	Near-infrared small molecule acceptors based on 4H-cyclopenta[1,2-b:5,4-b']dithiophene units for organic solar cells. 2021 , 196, 109801	1
245	Tuning the optoelectronic properties of naphthodithiophene (NDT) for designing of A-D-A type photovoltaic materials. 2021 , 247, 167892	7
244	Tuning the optoelectronic properties of benzodithiophene based donor materials and their photovoltaic applications. 2022 , 137, 106150	15
243	Incorporation of a classical visible non-fullerene acceptor into host binary blend enable ternary high-performance semitransparent polymer solar cells. 2022 , 427, 132048	5
242	A screening of properties and application based on dimerized fused-ring non-fullerene acceptors: influence of CC, Ct, spiro-C linkers.	O
241	BODIPY-modified terpolymer donors for efficient fullerene- and nonfullerene-polymer solar cells. 2021 , 9, 7035-7045	2
240	Optimization of active layer morphology by small-molecule donor design enables over 15% efficiency in small-molecule organic solar cells. 2021 , 9, 13653-13660	9
239	Theoretical design of new organic compounds based on diketopyrrolopyrrole and phenyl for organic bulk heterojunction solar cell applications: DFT and TD-DFT study. 2021 , 45, 7334-7343	5
238	Inverted PTB7-Th:PC71BM organic solar cells with 11.8% PCE via incorporation of gold nanoparticles in ZnO electron transport layer. 2021 , 214, 220-230	16
237	Steric effect of benzodifuran based polymers via alkyl side chain manipulation: a simple approach for enhancing the photovoltaic performance.	1
236	Applications of quantum dots in batteries. 2021 , 287-318	O
235	Characterizing the Morphology and Efficiency of Organic Solar Cells by Multiscale Simulations. 2021 , 679-692	
234	Research Advances on Benzotriazole-based Organic Photovoltaic Materials. 2021 , 79, 820	O
233	Microcrystal Electron Diffraction for Molecular Design of Functional Non-Fullerene Acceptor Structures. 2021 , 33, 966-977	5
232	DonorAcceptor Polymers Containing 4,8-Dithienylbenzo[1,2-b:4,5-b?]dithiophene via Highly Selective Direct Arylation Polymerization. 2021 , 3, 830-836	6

231	Improvement of Photovoltaic Performance of Polymer Solar Cells by Rational Molecular Optimization of Organic Molecule Acceptors. 2018 , 8, 1800815	29
230	Inverted Organic Solar Cells (OSCs). 2014 , 215-242	1
229	Recent advances of dithienobenzodithiophene-based organic semiconductors for organic electronics. 2021 , 64, 358-384	13
228	Recent progress of electronic materials based on 2,1,3-benzothiadiazole and its derivatives: synthesis and their application in organic light-emitting diodes. 2021 , 64, 341-357	11
227	Asymmetric indenothienothiophene-based unfused core for A-D-A type nonfullerene acceptors. 2020 , 180, 108495	3
226	Hyperbranched conjugated polymers based on 4,7-di(thiophen-2-yl)benzo[c][1,2,5]thiadiazole for ternary organic solar cells. 2020 , 181, 108524	5
225	Molecular design towards two-dimensional electron acceptors for efficient non-fullerene solar cells. 2020 , 51, 190-198	2
224	Fine-tuning of charge transport properties of porphyrin donors for organic solar cell. 2020 , 312, 113403	3
223	Fine-tuning head-to-head bithiophene-difluorobenzothiadiazole polymers for photovoltaics via side-chain engineering. 2019 , 68, 135-142	4
222	Spin-coated 10.46% and blade-coated 9.52% of ternary semitransparent organic solar cells with 26.56% average visible transmittance. 2020 , 204, 660-666	18
221	Hybrid Nonfused-Ring Electron Acceptors with Fullerene Pendant for High-Efficiency Organic Solar Cells. 2021 , 13, 1603-1611	8
220	Chapter 15:Solid-state NMR of Organic Electronics. 2019 , 325-362	2
219	Efficient polymer solar cells based on a cathode interlayer of dicyanomethylenated indacenodithiophene derivative with large Econjugation and electron-deficient properties. 2018 , 6, 57-65	7
218	A pseudo-two-dimensional conjugated polysquaraine: an efficient p-type polymer semiconductor for organic photovoltaics and perovskite solar cells. 2018 , 6, 13644-13651	36
217	Effect of conjugated polymer electrolytes with diverse acid derivatives as a cathode buffer layer on photovoltaic properties. 2020 , 8, 4562-4569	6
216	Isomeric effect of fluorene-based fused-ring electron acceptors to achieve high-efficiency organic solar cells. 2020 , 8, 5315-5322	23
215	Versatile nature of anthanthrone based polymers as active multifunctional semiconductors for various organic electronic devices. 2020 , 1, 3428-3438	3
214	A comprehensive optical and electrical study of unsymmetrical imine with four thiophene rings and their binary and ternary compositions with PTB7 and PCBM towards organic photovoltaics 2020 , 10, 44958-44972	3

213	Methoxylation of quinoidal bithiophene as a single regioisomer building block for narrow-bandgap conjugated polymers and high-performance organic field-effect transistors. 2020 , 8, 15168-15174	9
212	Solution-Processed Donors. 2014 , 3-69	2
211	Molecular spinphotovoltaic device based on a graphene nanoflake. 2020 , 37, 593	2
210	Optoelectronic Properties and Structural Modification of Conjugated Polymers Based on Benzodithiophene Groups. 2019 , 16, 253-260	2
209	Synthesis and Photovoltaic Properties of Alternating Conjugated Polymers Derived from Thiophene-Benzothiadiazole Block and Fluorene/Indenofluorene Units. 2014 , 35, 505-512	3
208	A Novel Donor-Acceptor-Acceptor-Acceptor Polymer Containing Benzodithiophene and Benzimidazole-Benzothiadiazole-Benzimidazole for PSCs. 2014 , 35, 1098-1104	5
207	Conventional and Inverted Photovoltaic Cells Fabricated Using New Conjugated Polymer Comprising Fluorinated Benzotriazole and Benzodithiophene Derivative. 2014 , 35, 1356-1364	4
206	Synthesis and Characterization of New Dihydroindolo[3,2-b]indole and 5,6-Bis(octyloxy)-4,7-di(thiophen-2-yl)benzo[c][1,2,5]thiadiazole-Based Polymer for Bulk Heterojunction Polymer Solar Cells. 2014 , 35, 1485-1490	6
205	Synthesis and Characterization of Phenothiazine-Isoindigo Copolymers for Photovoltaic Applications. 2014 , 35, 1875-1878	1
204	Hybrid polymer-based solar cells with metal oxides as the main electron acceptor and transporter. 2015 , 64, 038804	3
203	Effect of ZnO electron-transport layer on light-soaking issue in inverted polymer solar cells. 2015 , 64, 088401	2
202	Hydrofluorination to C60 fullerene and its electronic structures in the gas phase using density functional theory study. 2019 , 58, 121001	2
201	PN-Doped tetraphenylnaphthalene: a straightforward synthetic strategy analogous to BN-annulation. 2021 , 57, 12147-12150	0
200	Preparing polythiophene derivative with alternating alkyl and thioalkyl side chains via Kumada coupling for efficient organic solar cells.	O
199	Quinoxaline-Based D-A Copolymers for the Applications as Polymer Donor and Hole Transport Material in Polymer/Perovskite Solar Cells. 2021 , e2104161	6
198	A Universal Nonhalogenated Polymer Donor for High-Performance Organic Photovoltaic Cells. 2021 , e2105803	17
197	Positional Effect of the 2-Ethylhexyl Carboxylate Side Chain on the Thiophene Bridge of Nonfullerene Acceptors for Efficient Organic Solar Cells. 2021 , 4, 11675-11683	2
196	Surface-Coordinated Metal-Organic Framework Thin Films (SURMOFs): From Fabrication to Energy Applications. 2021 , 3, 100065	2

195	Recent Progress in Advanced Organic Photovoltaics: Emerging Techniques and Materials.	1
194	Effects of Heteroatom Substitution on the Photovoltaic Performance of Donor Materials in Organic Solar Cells.	5
193	Fluorescent trifluoromethylated imidazo[1,5-a]pyridines and their application in luminescent down-shifting conversion. 2022 , 242, 118529	2
192	Mixed Solvent as a Critical Factor in Optimizing Phase Separation of All Small Molecule Organic Solar Cells. 2021 , 4, 11769-11776	1
191	Development of new nonacyclic small-molecule acceptors involving two benzo[1,2-b:4,5-b?]dithiophene moieties for efficient polymer solar cells. 2021 , 282, 116922	
190	The light absorption enhancement in polymer solar cells with periodic nano-structures gratings. 2012 , 61, 207204	
189	Energy and Nanomaterials. 147-192	
188	Progress in the blend stacked structure of organic solar cells. 2013 , 62, 027201	5
187	Chlorophyll-Derived, Cyclic Tetrapyrrole-Based Purpurins as Efficient Near-Infrared-Absorption Donor Materials for Dye-Sensitized and Organic Solar Cells. 2014 , 319-355	
186	Effects of bathocuproine/Ag composite anode on the performances of stability polymer photovoltaic devices. 2015 , 64, 108801	
185	Efficient organic ternary solar cells based on PTB7 and PC70BM with Bis-PC70BM. 2016 , 65, 028801	2
184	Innovative architecture design for high performance organic and hybrid multi-junction solar cells. 2017 ,	
183	Synthesis, Properties, and Photovoltaic Characteristics of Donor-Acceptor Copolymers Based on Tetrafluoro-Substituted Benzodioxocyclohexene-Annelated Thiophene. 2018 , 31, 145-150	1
182	Organic photovoltaic integrator with three complementary absorption bands to enhance efficiency. 2018 , 8, 1	
181	Air-Stable Optoelectronic Devices with Metal Oxide Cathodes. 2019 , 413-422	0
180	A thermally activated delayed fluorescence material for efficient ternary organic solar cells. 2019,	O
179	12 Eq uinoxaline[2,3-b]phenoxazines: Synthesis, optical, electrochemical properties and insight into photovoltaic application. 2022 , 197, 109848	0
178	Novel wide bandgap benzodithiophene-based polymer donors with electron-withdrawing indolin-2-one side chains for efficient organic solar cells with high open circuit voltage. 2022 , 197, 109876	O

177	Simple non-fused small-molecule acceptors with bithiazole core: synthesis, crystallinity and photovoltaic properties.	1
176	Theoretical Study of New Compounds (D1-BT-EDOT-BT-D2-A) Based on 3, 4-Ethylenedioxythiophene (EDOT) and Benzothiadiazole (BT) for Dye Sensitized Solar Cells. 2020 , 294-305	2
175	Modifying polymer PM6 by incorporating a component with low synthetic complexity for enhanced short-circuit current density.	1
174	Near-Infrared Nonfullerene Acceptors Based on 4H-Cyclopenta[1,2-b:5,4-b']dithiophene for Organic Solar Cells and Organic Field-Effect Transistors. 2021 ,	2
173	Introducing Low-Cost Pyrazine Unit into Terpolymer Enables High-Performance Polymer Solar Cells with Efficiency of 18.23%. 2109271	14
172	Efficient Organic Solar Cells Enabled by Chlorinated Nonplanar Small Molecules.	3
171	Effects of Alkyl Side Chains of Small Molecule Donors on Morphology and the Photovoltaic Property of All-Small-Molecule Solar Cells. 2021 , 13, 54237-54245	6
170	Recent advances in crystalline hybrid photochromic materials driven by electron transfer. 2022 , 452, 214304	24
169	Synthesis, Properties, and Photovoltaic Characteristics of Arch- and S-shaped Naphthobisthiadiazole-based Acceptors. 2021 , 34, 285-290	1
168	Triphenyleno[1,2-:7,8-']bis([1,2,5]thiadiazole) as a V-Shaped Electron-Deficient Unit to Construct Wide-Bandgap Amorphous Polymers for Efficient Organic Solar Cells. 2021 , 13, 57743-57749	1
167	A Mountaineering Strategy to Excited States: Highly Accurate Energies and Benchmarks for Bicyclic Systems. 2021 , 125, 10174-10188	О
166	Delicately Controlled Polymer Orientation for High-Performance Non-Fullerene Solar Cells with Halogen-Free Solvent Processing. 2021 , 13, 57654-57663	3
165	Adjusting the photovoltaic performance of big fused ring-based small molecules by tailoring with different modifications 2021 , 11, 39625-39635	
164	Crystal structure, surface analysis, and computational investigations of 1-(4-chloro-3-nitrophenyl)-6,7-dihydro-1H-benzo[d][1,2,3]triazol-4(5H)-one as potential acceptor molecule for photovoltaics applications. 2022 , 1254, 132349	1
163	Theoretical exploration of diverse electron-deficient core and terminal groups in ADA?DA type non-fullerene acceptors for organic solar cells.	1
162	Generating Monofluoro-Substituted Amines and Amino Acids by the Interaction of Inexpensive KF and Sulfamidates.	2
161	Exploring the effect of end-capped modifications of carbazole-based fullerene-free acceptor molecules for high-performance indoor organic solar cell applications. 2022 , 21, 40	2
160	Effect of the Side Chain Functionality of the Conjugated Polyelectrolytes as a Cathode Interlayer Material on the Photovoltaic Performances.	O

159	Recent Advances in Hole-Transporting Layers for Organic Solar Cells 2022, 12,	4
158	Influence of altering chlorine substitution positions on the photovoltaic properties of small molecule donors in all-small-molecule organic solar cells. 2022 , 10, 2017-2025	2
157	Low nonradiative energy losses within 0.2 eV in efficient non-fullerene all-small-molecule organic solar cells.	4
156	New medium bandgap donor D-A -D-A type Copolymers Based on Anthra[1,2-b: 4,3-b":6,7-c"'] Trithiophene-8,12-dione Groups for High -Efficient non -fullerene Polymer Solar Cells 2022 , e2100839	4
155	Achieving Efficient Polymer Solar Cells Based on Near-Infrared Absorptive Backbone Twisted Nonfullerene Acceptors through a Synergistic Strategy of an Indacenodiselenophene Fused-Ring Core and a Chlorinated Terminal Group. 2022 , 5, 1322-1330	0
154	Statistical analysis of properties of non-fullerene acceptors for organic photovoltaics.	
153	Diphenylamine Substituted High-performance Fully Nonfused Ring Electron Acceptors: The Effect of Isomerism. 2022 , 435, 134987	2
152	The history and development of Y6. 2022 , 102, 106436	2
151	Efficient organic solar cells with small energy losses based on a wide-bandgap trialkylsilyl-substituted donor polymer and a non-fullerene acceptor. 2022 , 435, 134878	1
150	4,7-Bis(5-(9-hexyl-9H-carbazol-3-yl)thiophen-2-yl)-[1,2,5]thiadiazolo[3,4-d]pyridazine. 2022 , 2022, M1332	
149	ReviewLonjugated Polymer Photovoltaic Materials: Performance and Applications of Organic Semiconductors in Photovoltaics.	0
148	Ternary organic solar cell with 1750 hours half lifetime under UV irradiation with solar intensity.	2
147	Theoretical design and characterization of new terpolymer donors based on PTB7Ir for high-efficiency triplet-material-based organic photovoltaics 2022 , 12, 8578-8587	0
146	Trifluoro alkyl side chains in the non-fullerene acceptors to optimize the phase miscibility and vertical distribution of organic solar cells.	1
145	The Synergistic Effect of Fluorine Atom and Alkyl Chain Positions in Enhancing Organic Photovoltaic Open-circuit Voltage and Morphology Miscibility.	
144	The effect of alkyl substitution position of thienyl outer side chains on photovoltaic performance of ADA?DA type acceptors.	10
143	Molecular Optimization on Polymer Acceptor Enables Efficient all-polymer Solar Cell with High Open-circuit Voltage of 1.10 V 2022 , e2100925	0
142	Impact of Aryl End Group Engineering of Donor Polymers on the Morphology and Efficiency of Halogen-Free Solvent-Processed Nonfullerene Organic Solar Cells 2022 ,	О

Oligomer-Assisted Photoactive Layers Enable >18 % Efficiency of Organic Solar Cells.

140	Oligomer-assisted Photoactive Layers Enable № 18% Efficiency of Organic Solar Cells 2022 ,	6
139	Effects of Mechanical Deformation on the Opto-Electronic Responses, Reactivity, and Performance of Conjugated Polymers: A DFT Study 2022 , 14,	О
138	Identifying correlation between the open-circuit voltage and the frontier orbital energies of non-fullerene organic solar cells based on interpretable machine-learning approaches. 2022 , 234, 360-367	3
137	Pushing the Efficiency of High Open-Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning 2022 , e2200578	9
136	Selectfluor Mediated Difunctionalization of Olefins towards the Synthesis of Fluoromethylated Morpholines.	
135	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers 2022 , e2103428	1
134	Tuning Molecular Interaction in Polymer Solar Cells via a Multifunctional Discotic Component to Enhance Photovoltaic Response. 2200101	Ο
133	Finetuning Hole-Extracting Monolayers for Efficient Organic Solar Cells 2022,	2
132	Impact of Chemical Design on the Molecular Orientation of Conjugated DonorAcceptor Polymers for Field-Effect Transistors. 2022 , 4, 2233-2250	2
131	Perylene-diimide-based cathode interlayer materials for high performance organic solar cells.	6
130	Insight the difference of free charge generation in two small molecular accepter organic solar cells. 2022 , 235, 163-169	1
129	Rhodium-Catalyzed CH Activation/Annulation of Aryl Hydroxamates with Benzothiadiazol-Containing Acetylenes: Access to Isoquinoline-Bridged Donor-Acceptor Luminophores. 2022 , 2022,	1
128	Quantum chemical study of end-capped acceptor and bridge on triphenyl diamine based molecules to enhance the optoelectronic properties of organic solar cells. 2022 , 245, 124675	1
127	An end-capped strategy for crystalline polymer donor to improve the photovoltaic performance of non-fullerene solar cells. 1	1
126	Improving stability of perovskite solar cells using fullerene-polymer composite electron transport layer. 2022 , 286, 117028	1
125	Dual-functional ambipolar non-fused ring electron acceptor as third component and designing similar molecular structure between two acceptors for high-performance ternary organic solar cells. 2022 , 98, 107186	3
124	Direct Evidence of the Internal Deterioration Mechanism due to Molecular Chain Ends in Polymer Solar Cells by Operando Spin Detection. 2022 , 4, 607-617	Ο

123	Perylene-diimide derived organic photovoltaic materials. 2022 , 65, 462-485	10
122	Recent progress in organic solar cells (Part I material science). 2022 , 65, 224-268	48
121	Toward High-Performance Semitransparent Organic Photovoltaics with Narrow-Bandgap Donors and Non-Fullerene Acceptors. 2022 , 12, 2102908	7
120	Fine-Tuning Batch Factors of Polymer Acceptors Enables a Binary All-Polymer Solar Cell with High Efficiency of 16.11%. 2022 , 12, 2103193	8
119	Highly Semitransparent Indoor Nonfullerene Organic Solar Cells Based on Benzodithiophene-Bridged Porphyrin Dimers. 2022 , 10, 2100908	2
118	Stable and Exclusive Formation of CO from CO2 Photoreduction with H2O Facilitated by Linear Fluorene and Naphthalene Diimide-Based Conjugated Polymers. 2022 , 4, 521-526	Ο
117	Towards High-Performance Semitransparent Organic Photovoltaics: Dual-Functional -Type Soft Interlayer 2021 ,	1
116	Effect of electron-donating methoxy groups on photovoltaic properties of triphenylamine-substituted quinoxaline-based polymers. 1-7	
115	Designing of small organic non-fullerene(NFAs) acceptor molecules with an ADA Framework for high performance organic solar cells: A DFT and TD-DFT method.	O
114	Review Plasmonic Nanostructures for Efficiency Enhancement of Organic Solar Cells. 2022 , 100680	1
113	Metal Oxide Based Photoelectrodes in Photoelectrocatalysis: Advances and Challenges 2022 , 87, e2022000	197 0
112	Table_1.DOCX. 2020 ,	
111	Presentation_1.pdf. 2018 ,	
110	Table_1.DOCX. 2018 ,	
109	Image_1.pdf. 2018 ,	
108	Image_2.pdf. 2018 ,	
107	Table_1.pdf. 2018 ,	
106	Table_1.DOC. 2018 ,	

105 Data_Sheet_1.DOCX. **2020**,

104	15.8% efficiency all-small-molecule solar cells enabled by a combination of side-chain engineering and polymer additive.	1
103	Enhanced Intra/Intermolecular Charge Transfer for Efficient Multilevel Resistive Memory.	
102	Nonfullerene Near-Infrared Sensitive Acceptors D ctacyclic Naphtho[1,2-b:5,6-b] Dithiophene Corelfor Organic Solar Cell Applications: In Silico Molecular Engineering.	2
101	Benzo[1,2-b:4,5-b?]dithiophene-Based Conjugated Polymers for Highly Efficient Organic Photovoltaics.	5
100	Anion-Doped Thickness-Insensitive Electron Transport Layer for Efficient Organic Solar Cell 2022 , e2200190	
99	Synthesis, characterizations and photovoltaic applications of a thickness-insensitive benzodifuran based copolymer. 2022 , 172, 111189	0
98	Photophysical characterization and fluorescence cell imaging applications of 4-N-substituted benzothiadiazoles. 2022 , 12, 14544-14550	O
97	PTB7:PC71BM bulk heterojunction solar cells exhibiting 9.64% efficiency via adopting moderate polarity solvent vapor annealing treatment. 1-11	O
96	A[New Diazabenzo[k]fluoranthene-based[D-A Conjugated Polymer Donor for Efficient Organic Solar Cells 2022 , e2200276	O
95	Multifunctional Sensors Based on Doped Indium Oxide Nanocrystals 2022,	1
94	Tetrazolo[1,5-a]pyridine-Containing EConjugated Systems: Synthesis, Properties, and Semiconducting Characteristics.	
93	Towards High-Performance Organic Photovoltaics: The New Cooperation of Sequential Solution-Processing and Promissing Non-fullerene Acceptors.	6
92	Effects of Energetic Disorder in Bulk Heterojunction Organic Solar Cells.	7
91	Emerging Strategies toward Mechanically Robust Organic Photovoltaics: Focus on Active Layer. 2201087	5
90	Subtle Effect of Alkyl Substituted Ebridges on Dibenzo[a,c]phenazine Based Polymer Donors towards Enhanced Photovoltaic Performance.	О
89	A theoretical study of non-fullerene electron acceptor-based on thiophene derivatives for organic solar cells. 2022 ,	0
88	Usefulness of Polar and Bulky Phosphonate Chain-End Solubilizing Groups in Polymeric Semiconductors.	1

87	Photoinduced Polaron Formation in a Polymerized Electron-Acceptor Semiconductor. 5143-5150	
86	Highly Efficient Ternary Solar Cells with Reduced Non-radiative Energy Loss and Enhanced Stability via Two Compatible Non-fullerene Acceptors.	5
85	Realizing the efficiency-stability balance for all-polymer photovoltaic blends.	1
84	Physicochemical insights into the rational designing of new acceptor molecules by donor bridge modifications for efficient solar cells: In silico chemistry.	O
83	Position Dependent Effects of the Aza-Substitution on the Electronic Properties and Crystal Structures Based on Hexaazaphenalene Isomers.	О
82	A Thiazole-Based Polymer Donor for Efficient Organic Solar Cells.	1
81	Tuning the photovoltaic parameters of spiro[fluorenexanthene]-diol (SFX-OH)-based crosslinked donor materials for efficient organic solar cells. 2022 , 1214, 113778	
80	Enhanced intra/intermolecular charge transfer for efficient multilevel resistive memory. 2022 , 599, 153877	1
79	A polymer acceptor containing a B <- N unit with strong fluorescence for organic photovoltaics.	1
78	Photo-Induced Charge Transfer of Fullerene and Non-Fullerene Conjugated Polymer Blends via Ab Initio Excited-State Dynamics.	O
77	Conjugated polymers based on metalla-aromatic building blocks. 2022 , 119,	O
76	Solution Processable Benzotrithiophene (BTT)-Based Organic Semiconductors: Recent Advances and Review. 2200473	1
75	Recent Progress of Y6-Derived Asymmetric Fused Ring Electron Acceptors. 2205115	18
74	Syntheses of Thiophene and Thiazole-Based Building Blocks and Their Utilization in the Syntheses of A-D-A Type Organic Semiconducting Materials with Dithienosilolo Central Unit. 2022 , 7, 26328-26335	
73	Renewed Prospects for Organic Photovoltaics.	25
7 ²	Side-chain engineering of regioregular copolymers for high-performance polymer solar cells processed with nonhalogenated solvents.	
71	Large-area Flexible Organic Solar Cells: Printing Technologies and Modular Design.	2
70	A simple structure copolymer donor based on carboxylated benzodithiophene for polymer solar cells.	1

69	Medium Bandgap Small Molecule Acceptors With Isomer-Free Chlorinated End Groups Enabling High-Performance Tandem Organic Solar Cells. 2204720	0
68	High-Performance Nonfused Ring Electron Acceptors with V-Shaped Side Chains. 2203454	O
67	Photovoltaic properties and enhancement in near-infrared light absorption capabilities of acceptor materials for organic solar cell applications: A quantum chemical perspective via DFT. 2022 , 171, 110996	3
66	Computational chemistry-assisted design of a non-fullerene acceptor enables 17.4% efficiency in high-boiling-point solvent processed binary organic solar cells.	1
65	Recent Advances of Benzodifuran Based Photovoltaics Materials.	0
64	Molecular tuning non-fullerene electron acceptor in organic photovoltaics: a theoretical study.	O
63	Wavelength and Solvent Controlled Energy and Charge Transfer in Donor-Acceptor Substituted Platinum Acetylide Complexes.	0
62	BODIPY Dyes in Solar Energy. 2022 , 119-142	O
61	PBDB-T-Based Binary-OSCs Achieving over 15.83% Efficiency via End-Group Functionalization and Alkyl-Chain Engineering of Quinoxaline-Containing Non-Fullerene Acceptors. 2022 , 14, 41264-41274	O
60	Revisiting the Bithiophene Imide-Based Polymer Donor: Molecular Aggregation and Orientation Control Enabling New Polymer Donors for High-Performance All-Polymer Solar Cells.	O
59	Wavelength and Solvent Controlled Energy and Charge Transfer in Donor-Acceptor Substituted Platinum Acetylide Complexes. 2022 , 114303	0
58	High performance polymerized small molecule acceptor by synergistic optimization on Ebridge linker and side chain. 2022 , 13,	9
57	Palladium-Catalyzed Transient Chirality Transfer and Atroposelective C-H Functionalization to Access Quaternary Stereocenters.	0
56	Palladium-Catalyzed Transient Chirality Transfer and Atroposelective C-H Functionalization to Access Quaternary Stereocenters.	O
55	Impact of isomers on the photovoltaic properties of polymerized small-molecule acceptors. 2022, 100008	0
54	Toward Stable and Efficient Solar Cells with Electropolymerized Films.	1
53	Benzonitrile-Functionalized Non-Fullerene Acceptors for Organic Solar Cells with Low Non-Radiative Loss.	1
52	Terpolymer Donor with Inside Alkyl Substituents on Thiophene 🛭 Bridges toward Thiazolothiazole A 2 -Unit Enables 18.21% Efficiency of Polymer Solar Cells. 2203513	2

51	Improvement of photovoltaic properties of benzo[1,2-b:4,5-b?]difuran-conjugated polymer by side-chain modification. 2022 ,	О
50	Design Principles for the Acceptor Units in DonorAcceptor Conjugated Polymers. 2022, 7, 38969-38978	Ο
49	Rational control of sequential morphology evolution and vertical distribution toward 17.18% efficiency all-small-molecule organic solar cells. 2022 ,	6
48	Latest progress on fully non-fused electron acceptors for high-performance organic solar cells. 2022 , 107968	1
47	Impact of fluorination of central thiophene linking core in thermostable perylene-diimide-based dimeric acceptors on molecular configuration and photovoltaic performance. 2022 , 134, 113126	О
46	Novel A-ED-EA-type non-fullerene acceptors for solution-processed organic photovoltaic cells: A DFT study. 2022 , 123714	O
45	The Perfluoroalkylthiolation Reaction of Indoles and Activated Arenes with Perfluoroalkanesulfenic Acids. 2022 , 2022,	О
44	Small-Molecule Acceptor with Unsymmetric Substituents and Fused Rings for High-Performance Organic Solar Cells with Enhanced Mobility and Reduced Energy Losses.	O
43	Rhodium(III)-catalyzed Construction of D-A Type Polyheteroaromatics with Fluorinated Benzothiadiazole as a Modifiable Acceptor Block.	O
42	Phase-controllable topochemical polymerizations of liquid crystalline epoxy according to spacer length.	Ο
41	Molecularly understanding and regulating carrier injection behavior of ETL/perovskite towards high performance PeLEDs. 2023 , 456, 141077	O
40	Carbazole and Diketopyrrolopyrrole-Based D-A EConjugated Oligomers Accessed via Direct CH Arylation for Opto-Electronic Property and Performance Study. 2022 , 27, 9031	1
39	A Flexible, High-Voltage (>100៤) Generating Device Based on Zebra-like Asymmetrical Photovoltaic Cascade. 2209482	О
38	Morphology Optimization of the Photoactive Layer through Crystallinity and Miscibility Regulation for High-performance Polymer Solar Cells.	O
37	Incorporating a weak acceptor unit into PTB7-Th to tune the open circuit voltage for non-fullerene polymer solar cells. 2022 , 133214	O
36	The tribovoltaic effect. 2022 ,	O
35	Morphology Optimization of the Photoactive Layer through Crystallinity and Miscibility Regulation for High-performance Polymer Solar Cells.	0
34	A Simple Cathode Interfacial Material Performs Well in Organic Solar Cells. 2200986	O

33	Palladium-Catalyzed Transient Chirality Transfer and Atroposelective CII Functionalization to Access Quaternary Stereocenters. 2022 , 42, 4358	Ο
32	Efficient Organic Solar Cells Based on Terpolymer Donors via a Monomer-Ratio Insensitive Side-Chain Hybridization Strategy.	O
31	Synthesis of naphtho[1,2-d:5,6-d']bis([1,2,3]triazole)-based wide-bandgap alternating copolymers for polymer solar cells and field-effect transistors.	0
30	Compatible Solution-Processed Interface Materials for Improved Efficiency of Polymer Solar Cells. 2201740	O
29	Effect of terminal fluorine substitution of nonfullerene small molecular acceptor on the thermal stability of organic solar cells.	0
28	Terminal Groups of Nonfullerene Acceptors: Design and Application.	O
27	Amorphous Silicon particles/Polyaniline composites for hybrid photovoltaic solar cell: An experimental feasibility study.	0
26	Recent progress of indoor organic photovoltaics - From device performance to multifunctional applications. 2023 , 114, 106736	O
25	Efficient small-molecule organic solar cells by modulating fluorine substitution position of donor material.	0
24	Computational Investigation of Near-Infrared-Absorbing Indeno[1,2-b]indole Analogues as Acceptors in Organic Photovoltaic Devices. 2023 , 8, 1430-1442	O
23	Quinoxaline-based Polymers with Asymmetric Aromatic Side Chain Enables 16.27% Efficiency for Organic Solar Cells.	0
22	Recent Developments of Polymer Solar Cells with Photovoltaic Performance over 17%. 2213324	1
21	Monomer morphology selection rules for an accurate design of bulk heterojunction: An updated theoretical account.	0
20	Quantum modeling of dimethoxyl-indaceno dithiophene based acceptors for the development of semiconducting acceptors with outstanding photovoltaic potential. 2023 , 13, 4641-4655	O
19	Benzothiadiazole-based materials for organic solar cells. 2023 , 108438	0
18	Theoretical studies of new iridium-based terpolymer donors for high-efficiency triplet-material-based organic photovoltaics: Incorporation of different iridium(III) complexes. 2023 , 127780	O
17	Flexible side-chain optimization in polymer donor enables improved photovoltaic performance. 2023 , 116, 106765	O
16	Synthesis, Photophysical properties and OFET application of thienothiophene and benzothiadiazole based Donor-EAcceptor-[[D-[]A-]]type conjugated polymers. 2023 , 191, 112028	Ο

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15	Investigation of difluorobenzene bridged cross-conjugated benzodithiophene-based small molecules with efficient photovoltaic parameters. 2023 , 34,	0
14	Stable radical based conjugated electrolytes as a cathode interlayer for organic solar cells with thickness-insensitive fill factors. 2023 , 11, 6574-6580	O
13	Heteroatom conjugated-shoulder side-chains-based non-fullerene acceptors for organic solar cells. 2023 , 4, 101303	O
12	Regulating the activity of intrinsic sites in covalent organic frameworks by introducing electro-withdrawing groups towards highly selective H2O2 electrosynthesis. 2023 , 49, 101792	O
11	Spectral Engineering: The Key to High-Performance Semitransparent Organic Photovoltaics. 2300037	0
10	Nitrofluorene-based ADA electron acceptors for organic photovoltaics.	O
9	Recent Research Progress of n-Type Conjugated Polymer Acceptors and All-Polymer Solar Cells.	0
8	Synthesis, characterization and exploration of photovoltaic behavior of hydrazide based scaffolds: a concise experimental and DFT study. 2023 , 13, 7237-7249	O
7	Stable Radical TEMPO Terminated Perylene Bisimide(PBI) Based Small Molecule as Cathode Interlayer for Efficient Organic Solar Cells. 2023 , 39, 213-218	O
6	Enhancing the Photovoltaic Properties via Incorporation of Selenophene Units in Organic Chromophores with A2-2-A1-1-A2 Configuration: A DFT-Based Exploration. 2023 , 15, 1508	O
5	Solution-Processable Donor Acceptor Copolymer Thin Films for Efficient Visible-Light-Driven Photocatalytic Hydrogen Evolution. 2023 , 12, 468-474	O
4	Reducing Energy Loss in Polymer Solar Cell through Optimization of Novel Metal Nanocomposite. 2023 , 37, 6129-6137	O
3	Introduction to advanced electronic materials for clean energy applications. 2023, 3-26	O
2	Theoretical and experimental investigation of bridging atom effect on the fluorene and silafluorene based trimeric monomers and their corresponding polymers. 2023 , 216, 111320	O
1	Recent Research Progress in Random Copolymerization of Polymer Photovoltaic Materials for High-Performance Polymer Solar Cells.	О