Taiho Park

List of Publications by Year in Descending Order

161 papers	7,152 citations	47 h-index	78 g-index
177 ext. papers	8,371 ext. citations	13.5 avg, IF	6.37 L-index

#	Paper	IF	Citations
161	Solid-solvent hybrid additive for the simultaneous control of the macro- and micro-morphology in non-fullerene-based organic solar cells. *Nano Energy*, **2022**, 93, 106878	17.1	9
160	Designs and understanding of small molecule-based non-fullerene acceptors for realizing commercially viable organic photovoltaics. *Chemical Science*, **2021**, 12, 14004-14023	9.4	4
159	A Facile Surface Passivation Enables Thermally Stable and Efficient Planar Perovskite Solar Cells Using a Novel IDTT-Based Small Molecule Additive. *Advanced Energy Materials*, **2021**, 11, 2003829	21.8	27
158	Monodisperse Perovskite Colloidal Quantum Dots Enable High-Efficiency Photovoltaics. *ACS Energy Letters*, **2021**, 6, 2229-2237	20.1	7
157	Understanding of Face-On Crystallites Transitioning to Edge-On Crystallites in Thiophene-Based Conjugated Polymers. *Chemistry of Materials*, **2021**, 33, 4541-4550	9.6	4
156	Selective Defect Passivation and Topographical Control of 4-Dimethylaminopyridine at Grain Boundary for Efficient and Stable Planar Perovskite Solar Cells. *Advanced Energy Materials*, **2021**, 11, 2003382	21.8	34
155	Charge Trapping in a Low-Crystalline High-Mobility Conjugated Polymer and Its Effects on the Operational Stability of Organic Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2021**, 13, 16722-16731	9.5	7
154	Roles and Impacts of Ancillary Materials for Multi-Component Blend Organic Photovoltaics towards High Efficiency and Stability. *ChemSusChem*, **2021**, 14, 3475-3487	8.3	3
153	Blending isomers of fluorine-substituted sulfonyldibenzene as hole transport materials to achieve high efficiency beyond 21% in perovskite solar cells. *Chemical Engineering Journal*, **2021**, 424, 130396	14.7	7
152	Various metal (Fe, Mo, V, Co)-doped Ni2P nanowire arrays as overall water splitting electrocatalysts and their applications in unassisted solar hydrogen production with STH 14 %. *Applied Catalysis B: Environmental*, **2021**, 297, 120434	21.8	12
151	Heat dissipation effects on the stability of planar perovskite solar cells. *Energy and Environmental Science*, **2020**, 13, 5059-5067	35.4	17
150	Recent Progress and Challenges of Electron Transport Layers in Organic–Inorganic Perovskite Solar Cells. *Energies*, **2020**, 13, 5572	3.1	26
149	Organic Field-Effect Transistors: Donor–Acceptor-Conjugated Polymer for High-Performance Organic Field-Effect Transistors: A Progress Report (Adv. Funct. Mater. 20/2020). *Advanced Functional Materials*, **2020**, 30, 2070130	15.6	2
148	Hydrophobic stabilizer-anchored fully inorganic perovskite quantum dots enhance moisture resistance and photovoltaic performance. *Nano Energy*, **2020**, 75, 104985	17.1	36
147	Aggregation-induced phosphorescence enhancement in deep-red and near-infrared emissive iridium(III) complexes for solution-processable OLEDs. *Journal of Materials Chemistry C*, **2020**, 8, 4789-4800	7.1	16
146	Ionic Conductors: Water-Processable, Stretchable, Self-Healable, Thermally Stable, and Transparent Ionic Conductors for Actuators and Sensors (Adv. Mater. 7/2020). *Advanced Materials*, **2020**, 32, 2070048	24	3
145	Strategic Halogen Substitution to Enable High-Performance Small-Molecule-Based Tandem Solar Cell with over 15% Efficiency. *Advanced Energy Materials*, **2020**, 10, 1903846	21.8	8

144	Effective Management of Nucleation and Crystallization Processes in Perovskite Formation via Facile Control of Antisolvent Temperature. *ACS Applied Energy Materials*, **2020**, 3, 1506-1514	6.1	21
143	Hole Transport Materials in Conventional Structural (n-i-p) Perovskite Solar Cells: From Past to the Future. *Advanced Energy Materials*, **2020**, 10, 1903403	21.8	103
142	Nonaromatic Green-Solvent-Processable, Dopant-Free, and Lead-Capturable Hole Transport Polymers in Perovskite Solar Cells with High Efficiency. *Advanced Energy Materials*, **2020**, 10, 1902662	21.8	73
141	Suppression of hydroxylation on the surface of colloidal quantum dots to enhance the open-circuit voltage of photovoltaics. *Journal of Materials Chemistry A*, **2020**, 8, 4844-4849	13	9
140	Stabilizing Surface Passivation Enables Stable Operation of Colloidal Quantum Dot Photovoltaic Devices at Maximum Power Point in an Air Ambient. *Advanced Materials*, **2020**, 32, e1906497	24	23
139	Efficiency Limit of Colloidal Quantum Dot Solar Cells: Effect of Optical Interference on Active Layer Absorption. *ACS Energy Letters*, **2020**, 5, 248-251	20.1	16
138	Water-Processable, Stretchable, Self-Healable, Thermally Stable, and Transparent Ionic Conductors for Actuators and Sensors. *Advanced Materials*, **2020**, 32, e1906679	24	66
137	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. *Nature Communications*, **2020**, 11, 103	17.4	110
136	Novel cathode interfacial layer using creatine for enhancing the photovoltaic properties of perovskite solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 21721-21728	13	14
135	Design Strategy of Quantum Dot Thin-Film Solar Cells. *Small*, **2020**, 16, e2002460	11	11
134	Green-solvent-processable organic semiconductors and future directions for advanced organic electronics. *Journal of Materials Chemistry A*, **2020**, 8, 21455-21473	13	18
133	Improved Eco-Friendly Photovoltaics Based on Stabilized AgBiS2 Nanocrystal Inks. *Chemistry of Materials*, **2020**, 32, 10007-10014	9.6	10
132	A Tuned Alternating D-A Copolymer Hole-Transport Layer Enables Colloidal Quantum Dot Solar Cells with Superior Fill Factor and Efficiency. *Advanced Materials*, **2020**, 32, e2004985	24	25
131	Efficient and Stable Colloidal Quantum Dot Solar Cells with a Green-Solvent Hole-Transport Layer. *Advanced Energy Materials*, **2020**, 10, 2002084	21.8	9
130	Monolithic Organic/Colloidal Quantum Dot Hybrid Tandem Solar Cells via Buffer Engineering. *Advanced Materials*, **2020**, 32, e2004657	24	7
129	A Review on Reducing Grain Boundaries and Morphological Improvement of Perovskite Solar Cells from Methodology and Material-Based Perspectives. *Small Methods*, **2020**, 4, 1900569	12.8	26
128	Donor–Acceptor-Conjugated Polymer for High-Performance Organic Field-Effect Transistors: A Progress Report. *Advanced Functional Materials*, **2020**, 30, 1904545	15.6	133
127	A Short Review on Interface Engineering of Perovskite Solar Cells: A Self-Assembled Monolayer and Its Roles. *Solar Rrl*, **2020**, 4, 1900251	7.1	43

126	Organic Photovoltaics: Study of Burn-In Loss in Green Solvent-Processed Ternary Blended Organic Photovoltaics Derived from UV-Crosslinkable Semiconducting Polymers and Nonfullerene Acceptors (Adv. Energy Mater. 34/2019). *Advanced Energy Materials*, **2019**, 9, 1970133	21.8	
125	Electron trapping and extraction kinetics on carrier diffusion in metal halide perovskite thin films. *Journal of Materials Chemistry A*, **2019**, 7, 25838-25844	13	4
124	Alkali acetate-assisted enhanced electronic coupling in CsPbI3 perovskite quantum dot solids for improved photovoltaics. *Nano Energy*, **2019**, 66, 104130	17.1	54
123	Controlling Ambipolar Charge Transport in Isoindigo-Based Conjugated Polymers by Altering Fluorine Substitution Position for High-Performance Organic Field-Effect Transistors. *Advanced Functional Materials*, **2019**, 29, 1805994	15.6	35
122	Improving the Photovoltaic Performance and Mechanical Stability of Flexible All-Polymer Solar Cells via Tailoring Intermolecular Interactions. *Chemistry of Materials*, **2019**, 31, 5047-5055	9.6	34
121	Improving the Electrical Connection of n-Type Conjugated Polymers through Fluorine-Induced Robust Aggregation. *Chemistry of Materials*, **2019**, 31, 4864-4872	9.6	18
120	A Facet-Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. *Advanced Materials*, **2019**, 31, e1805580	24	55
119	Ancillary ligand-assisted robust deep-red emission in iridium(III) complexes for solution-processable phosphorescent OLEDs. *Journal of Materials Chemistry C*, **2019**, 7, 4143-4154	7.1	14
118	In-depth optical characterization of poly(3-hexylthiophene) after formation of nanosecond laser-induced periodic surface structures. *Nanoscale*, **2019**, 11, 7567-7571	7.7	2
117	The effect of irregularity from asymmetric random □conjugated polymers on the photovoltaic performance of fullerene-free organic solar cells. *Polymer Chemistry*, **2019**, 10, 4407-4412	4.9	9
116	Study of Burn-In Loss in Green Solvent-Processed Ternary Blended Organic Photovoltaics Derived from UV-Crosslinkable Semiconducting Polymers and Nonfullerene Acceptors. *Advanced Energy Materials*, **2019**, 9, 1901829	21.8	28
115	NiMoFe and NiMoFeP as Complementary Electrocatalysts for Efficient Overall Water Splitting and Their Application in PV-Electrolysis with STH 12.3. *Small*, **2019**, 15, e1905501	11	27
114	Control of Crystallite Orientation in Diketopyrrolopyrrole-Based Semiconducting Polymers via Tuning of Intermolecular Interactions. *ACS Applied Materials & Interfaces*, **2019**, 11, 10751-10757	9.5	13
113	Effect of the length of a symmetric branched side chain on charge transport in thienoisoindigo-based polymer field-effect transistors. *Organic Electronics*, **2019**, 65, 251-258	3.5	10
112	Perovskite Solar Cells: Donor□Acceptor Type Dopant-Free, Polymeric Hole Transport Material for Planar Perovskite Solar Cells (19.8%) (Adv. Energy Mater. 4/2018). *Advanced Energy Materials*, **2018**, 8, 1870018	21.8	9
111	Solar Cells: p-Type CuI Islands on TiO2 Electron Transport Layer for a Highly Efficient Planar-Perovskite Solar Cell with Negligible Hysteresis (Adv. Energy Mater. 5/2018). *Advanced Energy Materials*, **2018**, 8, 1870020	21.8	7
110	Green-solvent processable semiconducting polymers applicable in additive-free perovskite and polymer solar cells: molecular weights, photovoltaic performance, and thermal stability. *Journal of Materials Chemistry A*, **2018**, 6, 5538-5543	13	35
109	Improving the Performance and Stability of Inverted Planar Flexible Perovskite Solar Cells Employing a Novel NDI-Based Polymer as the Electron Transport Layer. *Advanced Energy Materials*, **2018**, 8, 1702872	21.8	83

108	Surface modified fullerene electron transport layers for stable and reproducible flexible perovskite solar cells. *Nano Energy*, **2018**, 49, 324-332	17.1	36
107	Exploiting π-Stacking for Stretchable Semiconducting Polymers. *Macromolecules*, **2018**, 51, 2572-2579	5.5	69
106	p-Type CuI Islands on TiO2 Electron Transport Layer for a Highly Efficient Planar-Perovskite Solar Cell with Negligible Hysteresis. *Advanced Energy Materials*, **2018**, 8, 1702235	21.8	94
105	Donor–Acceptor Type Dopant-Free, Polymeric Hole Transport Material for Planar Perovskite Solar Cells (19.8%). *Advanced Energy Materials*, **2018**, 8, 1701935	21.8	93
104	Solution Processable Inorganic–Organic Double-Layered Hole Transport Layer for Highly Stable Planar Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1801386	21.8	55
103	Study on the Aging Mechanism of Boron Potassium Nitrate (BKNO) for Sustainable Efficiency in Pyrotechnic Mechanical Devices. *Scientific Reports*, **2018**, 8, 11745	4.9	14
102	Thermally stable, planar hybrid perovskite solar cells with high efficiency. *Energy and Environmental Science*, **2018**, 11, 3238-3247	35.4	216
101	A donor–acceptor semiconducting polymer with a random configuration for efficient, green-solvent-processable flexible solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 24580-24587	13	16
100	Infrared Cavity-Enhanced Colloidal Quantum Dot Photovoltaics Employing Asymmetric Multilayer Electrodes. *ACS Energy Letters*, **2018**, 3, 2908-2913	20.1	12
99	Substituents engineered deep-red to near-infrared phosphorescence from tris-heteroleptic iridium(III) complexes for solution processable red-NIR organic light-emitting diodes. *Journal of Materials Chemistry C*, **2018**, 6, 10640-10658	7.1	34
98	Boosting the performance and stability of quasi-two-dimensional tin-based perovskite solar cells using the formamidinium thiocyanate additive. *Journal of Materials Chemistry A*, **2018**, 6, 18173-18182	13	110
97	Activated Electron-Transport Layers for Infrared Quantum Dot Optoelectronics. *Advanced Materials* , **2018**, 30, e1801720	24	34
96	Role of Disorder in the Extent of Interchain Delocalization and Polaron Generation in Polythiophene Crystalline Domains. *Journal of Physical Chemistry Letters*, **2018**, 9, 3173-3180	6.4	7
95	A comparative study on the thermal- and microwave-assisted Stille coupling polymerization of a benzodithiophene-based donor–acceptor polymer (PTB7). *Journal of Materials Chemistry A*, **2017**, 5, 3330-3335	13	13
94	Simple post annealing-free method for fabricating uniform, large grain-sized, and highly crystalline perovskite films. *Nano Energy*, **2017**, 34, 181-187	17.1	40
93	Highly Efficient and Uniform 1 cm Perovskite Solar Cells with an Electrochemically Deposited NiO Hole-Extraction Layer. *ChemSusChem*, **2017**, 10, 2660-2667	8.3	67
92	Enhanced Efficiency and Stability of an Aqueous Lead-Nitrate-Based Organometallic Perovskite Solar Cell. *ACS Applied Materials & Interfaces*, **2017**, 9, 14023-14030	9.5	21
91	Amine-Functionalized Covalent Organic Framework for Efficient SO Capture with High Reversibility. *Scientific Reports*, **2017**, 7, 557	4.9	52

90	Freestanding doubly open-ended TiO2 nanotubes for efficient photocatalytic degradation of volatile organic compounds. *Applied Catalysis B: Environmental*, **2017**, 205, 386-392	21.8	60
89	Systematically Optimized Bilayered Electron Transport Layer for Highly Efficient Planar Perovskite Solar Cells (η = 21.1%). *ACS Energy Letters*, **2017**, 2, 2667-2673	20.1	139
88	Enhanced Open-Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivity-Controlled Solution-Phase Ligand Exchange. *Advanced Materials*, **2017**, 29, 1703627	24	42
87	A Highly Versatile and Adaptable Artificial Leaf with Floatability and Planar Compact Design Applicable in Various Natural Environments. *Advanced Materials*, **2017**, 29, 1702431	24	9
86	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. *Advanced Materials*, **2017**, 29, 1702350	24	97
85	Morphological Control of Donor/Acceptor Interfaces in All-Polymer Solar Cells Using a Pentafluorobenzene-Based Additive. *Chemistry of Materials*, **2017**, 29, 6793-6798	9.6	44
84	Gradated Mixed Hole Transport Layer in a Perovskite Solar Cell: Improving Moisture Stability and Efficiency. *ACS Applied Materials & Interfaces*, **2017**, 9, 27720-27726	9.5	72
83	Green-Solvent-Processable, Dopant-Free Hole-Transporting Materials for Robust and Efficient Perovskite Solar Cells. *Journal of the American Chemical Society*, **2017**, 139, 12175-12181	16.4	156
82	Inducing swift nucleation morphology control for efficient planar perovskite solar cells by hot-air quenching. *Journal of Materials Chemistry A*, **2017**, 5, 3812-3818	13	52
81	Visible-light-induced activation of periodate that mimics dye-sensitization of TiO2: Simultaneous decolorization of dyes and production of oxidizing radicals. *Applied Catalysis B: Environmental*, **2017**, 203, 475-484	21.8	62
80	Programmable dual electrochromism in azine linked conjugated polymer. *Optical Materials Express*, **2017**, 7, 2117	2.6	7
79	Cross-Linkable Fullerene Derivatives for Solution-Processed n–p Perovskite Solar Cells. *ACS Energy Letters*, **2016**, 1, 648-653	20.1	60
78	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. *Solar Energy*, **2016**, 140, 27-33	6.8	4
77	Pt-Free Counter Electrodes with Carbon Black and 3D Network Epoxy Polymer Composites. *Scientific Reports*, **2016**, 6, 22987	4.9	22
76	High-Performance Small Molecule via Tailoring Intermolecular Interactions and its Application in Large-Area Organic Photovoltaic Modules. *Advanced Energy Materials*, **2016**, 6, 1600228	21.8	61
75	Electron-Transfer Kinetics through Interfaces between Electron-Transport and Ion-Transport Layers in Solid-State Dye-Sensitized Solar Cells Utilizing Solid Polymer Electrolyte. *Journal of Physical Chemistry C*, **2016**, 120, 2494-2500	3.8	12
74	Cyanoacetic acid tethered thiophene for well-matched LUMO level in Ru(II)-terpyridine dye sensitized solar cells. *Dyes and Pigments*, **2016**, 126, 270-278	4.6	7
73	Interfacial electron accumulation for efficient homo-junction perovskite solar cells. *Nano Energy*, **2016**, 28, 269-276	17.1	49

72	Well-Defined Nanostructured, Single-Crystalline TiO2 Electron Transport Layer for Efficient Planar Perovskite Solar Cells. *ACS Nano*, **2016**, 10, 6029-36	16.7	161
71	High-Field-Effect Mobility of Low-Crystallinity Conjugated Polymers with Localized Aggregates. *Journal of the American Chemical Society*, **2016**, 138, 8096-103	16.4	173
70	Requirements for Forming Efficient 3-D Charge Transport Pathway in Diketopyrrolopyrrole-Based Copolymers: Film Morphology vs Molecular Packing. *ACS Applied Materials & Interfaces*, **2016**, 8, 12307-15	9.5	19
69	Dopant-free polymeric hole transport materials for highly efficient and stable perovskite solar cells. *Energy and Environmental Science*, **2016**, 9, 2326-2333	35.4	265
68	Stereoisomers of an azine-linked donor–acceptor conjugated polymer: the impact of molecular conformation on electrical performance. *RSC Advances*, **2016**, 6, 44272-44278	3.7	5
67	Morphological study of polymer/fullerene interfaces via benzene–PC70BM interaction. *Organic Electronics*, **2015**, 26, 230-238	3.5	4
66	Effect of ion-chelating chain lengths in thiophene-based monomers on in situ photoelectrochemical polymerization and photovoltaic performances. *ACS Applied Materials & Interfaces*, **2015**, 7, 11482-9	9.5	6
65	Switchable Photovoltaic Effects in Hexagonal Manganite Thin Films Having Narrow Band Gaps. *Chemistry of Materials*, **2015**, 27, 7425-7432	9.6	46
64	Highly Efficient Solar Water Splitting from Transferred TiO2 Nanotube Arrays. *Nano Letters*, **2015**, 15, 5709-15	11.5	85
63	Effects of Regioregularity and Molecular Weight on the Growth of Polythiophene Nanofibrils and Mixes of Short and Long Nanofibrils To Enhance the Hole Transport. *ACS Applied Materials & Interfaces*, **2015**, 7, 27694-702	9.5	17
62	A Strategy to Design a Donor–Acceptor Polymeric Hole Conductor for an Efficient Perovskite Solar Cell. *Advanced Energy Materials*, **2015**, 5, 1500471	21.8	50
61	Concentration-Dependent Pyrene-Driven Self-Assembly in Benzo[1,2-b:4,5-b?]dithiophene (BDT)–Thienothiophene (TT)–Pyrene Copolymers. *Macromolecules*, **2015**, 48, 3509-3515	5.5	19
60	New Hybrid Hole Extraction Layer of Perovskite Solar Cells with a Planar p–i–n Geometry. *Journal of Physical Chemistry C*, **2015**, 119, 27285-27290	3.8	68
59	Thickness of the hole transport layer in perovskite solar cells: performance versus reproducibility. *RSC Advances*, **2015**, 5, 99356-99360	3.7	61
58	A Competitive Electron Transport Mechanism in Hierarchical Homogeneous Hybrid Structures Composed of TiO2 Nanoparticles and Nanotubes. *Chemistry of Materials*, **2015**, 27, 1359-1366	9.6	28
57	Dye-Sensitized Solar Cells: Physically Stable Polymer-Membrane Electrolytes for Highly Efficient Solid-State Dye-Sensitized Solar Cells with Long-Term Stability (Adv. Energy Mater. 3/2014). *Advanced Energy Materials*, **2014**, 4, n/a-n/a	21.8	2
56	Positioning lithium ions by host–guest chemistry combined with self-assembly using a thiophene-based all-conjugated amphiphilic block copolymer. *Journal of Polymer Science Part A*, **2014**, 52, 1068-1074	2.5	5
55	Physically Stable Polymer-Membrane Electrolytes for Highly Efficient Solid-State Dye-Sensitized Solar Cells with Long-Term Stability. *Advanced Energy Materials*, **2014**, 4, 1300489	21.8	24

54	A diketopyrrolopyrrole-containing hole transporting conjugated polymer for use in efficient stable organic–inorganic hybrid solar cells based on a perovskite. *Energy and Environmental Science*, **2014**, 7, 1454	35.4	337
53	In situ modulation of the vertical distribution in a blend of P3HT and PC(60)BM via the addition of a composition gradient inducer. *Nanoscale*, **2014**, 6, 2440-6	7.7	33
52	Solar Cells: Triple-Layer Structured Composite Separator Membranes with Dual Pore Structures and Improved Interfacial Contact for Sustainable Dye-Sensitized Solar Cells (Adv. Energy Mater. 13/2014). *Advanced Energy Materials*, **2014**, 4, n/a-n/a	21.8	1
51	Ruthenium(II) quasi-solid state dye sensitized solar cells with 8% efficiency using a supramolecular oligomer-based electrolyte. *Journal of Materials Chemistry A*, **2014**, 2, 13338-13344	13	4
50	Triple-Layer Structured Composite Separator Membranes with Dual Pore Structures and Improved Interfacial Contact for Sustainable Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1400477	21.8	11
49	Doubly open-ended TiO2 nanotube arrays decorated with a few nm-sized TiO2 nanoparticles for highly efficient dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 14380	13	16
48	Dye-sensitized solar cells employing doubly or singly open-ended TiO2 nanotube arrays: structural geometry and charge transport. *ACS Applied Materials & Interfaces*, **2014**, 6, 15388-94	9.5	21
47	Well-defined all-conducting block copolymer bilayer hybrid nanostructure: selective positioning of lithium ions and efficient charge collection. *ACS Nano*, **2014**, 8, 6893-901	16.7	10
46	Optically pumped distributed feedback dye lasing with slide-coated TiO2 inverse-opal slab as Bragg reflector. *Optics Letters*, **2014**, 39, 4743-6	3	5
45	A benzodithiophene-based novel electron transport layer for a highly efficient polymer solar cell. *ACS Applied Materials & Interfaces*, **2014**, 6, 15875-80	9.5	32
44	Composition tuning of a mixture of thienothiophene-based polymer (PTB7) and PC 70 BM using a novel additive, tetrabromothiophene (Br-ADD). *Organic Electronics*, **2014**, 15, 3268-3273	3.5	11
43	Fast cascade neutralization of an oxidized sensitizer by an in situ-generated ionic layer of I3 species on a nanocrystalline TiO2 electrode. *Energy and Environmental Science*, **2014**, 7, 4029-4034	35.4	7
42	Suppressing charge recombination by incorporating 3,6-carbazole into poly[9-(heptadecan-9-yl)-9H-carbazole-2,7-diyl-alt-(5,6-bis-(octyloxy)-4,7-di(thiophen-2-yl)benzo[1,2,5]-thiadiazole)-5,5-di *Journal of Polymer Science Part A*, **2014**, 52, 2047-2056	2.5	6
41	Simultaneously Grasping and Self-Organizing Photoactive Polymers for Highly Reproducible Organic Solar Cells with Improved Efficiency. *Advanced Energy Materials*, **2013**, 3, 1018-1024	21.8	20
40	Bi-functional ion exchangers for enhanced performance of dye-sensitized solar cells. *Chemical Communications*, **2013**, 49, 6671-3	5.8	3
39	Tunable Nanoporous Network Polymer Nanocomposites having Size-Selective Ion Transfer for Dye-Sensitized Solar Cells (Adv. Energy Mater. 2/2013). *Advanced Energy Materials*, **2013**, 3, 183-183	21.8	3
38	Low-bandgap quinoxaline-based DA-type copolymers: Synthesis, characterization, and photovoltaic properties. *Journal of Polymer Science Part A*, **2013**, 51, 372-382	2.5	18
37	Improved photovoltaic performance by enhanced crystallinity of poly(3-hexyl)thiophene. *Organic Electronics*, **2013**, 14, 3046-3051	3.5	14

36	Sulfur-incorporated carbon quantum dots with a strong long-wavelength absorption band. *Journal of Materials Chemistry C*, **2013**, 1, 2002	7.1	58
35	Charge density dependent mobility of organic hole-transporters and mesoporous TiO determined by transient mobility spectroscopy: implications to dye-sensitized and organic solar cells. *Advanced Materials*, **2013**, 25, 3227-33	24	189
34	A novel quasi-solid state dye-sensitized solar cell fabricated using a multifunctional network polymer membrane electrolyte. *Energy and Environmental Science*, **2013**, 6, 1559	35.4	46
33	Aerosol OT/Water System Coupled with Triiodide/Iodide (I3/I) Redox Electrolytes for Highly Efficient Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2013**, 3, 1344-1350	21.8	17
32	Tunable Nanoporous Network Polymer Nanocomposites having Size-Selective Ion Transfer for Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2013**, 3, 184-192	21.8	17
31	Chemical compatibility between a hole conductor and organic dye enhances the photovoltaic performance of solid-state dye-sensitized solar cells. *Journal of Materials Chemistry*, **2012**, 22, 8641		34
30	Recyclable and stable ruthenium catalyst for free radical polymerization at ambient temperature initiated by visible light photocatalysis. *Green Chemistry*, **2012**, 14, 618	10	16
29	Reduced charge recombination by the formation of an interlayer using a novel dendron coadsorbent in solid-state dye-sensitized solar cells. *RSC Advances*, **2012**, 2, 3467	3.7	35
28	Facile fabrication of aligned doubly open-ended TiO2 nanotubes, via a selective etching process, for use in front-illuminated dye sensitized solar cells. *Chemical Communications*, **2012**, 48, 8748-50	5.8	37
27	Exploring the heterogeneous interfaces in organic or ruthenium dye-sensitized liquid- and solid-state solar cells. *ACS Applied Materials & Interfaces*, **2012**, 4, 3141-7	9.5	14
26	Relationship between HOMO energy level and open circuit voltage of polymer solar cells. *Organic Electronics*, **2012**, 13, 2185-2191	3.5	19
25	Synthesis and Self-Assembly of Thiophene-Based All-Conjugated Amphiphilic Diblock Copolymers with a Narrow Molecular Weight Distribution. *Macromolecules*, **2012**, 45, 5058-5068	5.5	40
24	3,6-Carbazole Incorporated into Poly[9,9-dioctylfluorene-alt-(bisthienyl)benzothiadiazole]s Improving the Power Conversion Efficiency. *Macromolecules*, **2012**, 45, 3004-3009	5.5	40
23	Stable Dye-Sensitized Solar Cells by Encapsulation of N719-Sensitized TiO2 Electrodes Using Surface-Induced Cross-Linking Polymerization. *Advanced Energy Materials*, **2012**, 2, 219-224	21.8	42
22	Effect of coadsorbent properties on the photovoltaic performance of dye-sensitized solar cells. *Chemical Communications*, **2011**, 47, 4147-9	5.8	84
21	Synthesis of a redox-responsive quadruple hydrogen-bonding unit for applications in supramolecular chemistry. *Journal of the American Chemical Society*, **2011**, 133, 17118-21	16.4	92
20	A novel hole transport material for iodine-free solid state dye-sensitized solar cells. *Chemical Communications*, **2011**, 47, 10395-7	5.8	28
19	Carbazole-Based Copolymers: Effects of Conjugation Breaks and Steric Hindrance. *Macromolecules*, **2011**, 44, 1909-1919	5.5	70

18	Thermodynamic control over the competitive anchoring of N719 dye on nanocrystalline TiO2 for improving photoinduced electron generation. *Langmuir*, **2011**, 27, 14647-53	4	32
17	Free Radical Polymerization Initiated and Controlled by Visible Light Photocatalysis at Ambient Temperature. *Macromolecules*, **2011**, 44, 7594-7599	5.5	146
16	Synthesis and characterization of all-conjugated diblock copolymers consisting of thiophenes with a hydrophobic alkyl and a hydrophilic alkoxy side chain. *Polymer*, **2011**, 52, 3704-3709	3.9	22
15	Parameters influencing the molecular weight of 3,6-carbazole-based D-A-type copolymers. *Journal of Polymer Science Part A*, **2011**, 49, 4368-4378	2.5	19
14	Polymeric vesicles with a hydrophobic interior formed by a thiophene-based all-conjugated amphiphilic diblock copolymer. *Chemical Communications*, **2011**, 47, 4697-9	5.8	40
13	Size-tunable mesoporous spherical TiO2 as a scattering overlayer in high-performance dye-sensitized solar cells. *Journal of Materials Chemistry*, **2011**, 21, 9582		116
12	A supramolecular multi-block copolymer with a high propensity for alternation. *Journal of the American Chemical Society*, **2006**, 128, 13986-7	16.4	145
11	Interface engineering for solid-state dye-sensitised nanocrystalline solar cells: the use of an organic redox cascade. *Chemical Communications*, **2006**, 535-7	5.8	32
10	Formation of a miscible supramolecular polymer blend through self-assembly mediated by a quadruply hydrogen-bonded heterocomplex. *Journal of the American Chemical Society*, **2006**, 128, 11582-90	16.4	220
9	Interplay of fidelity, binding strength, and structure in supramolecular polymers. *Journal of the American Chemical Society*, **2006**, 128, 14236-7	16.4	83
8	A quadruply hydrogen bonded heterocomplex displaying high-fidelity recognition. *Journal of the American Chemical Society*, **2005**, 127, 18133-42	16.4	123
7	A highly stable quadruply hydrogen-bonded heterocomplex useful for supramolecular polymer blends. *Journal of the American Chemical Society*, **2005**, 127, 6520-1	16.4	197
6	Fidelity in the supramolecular assembly of triply and quadruply hydrogen-bonded complexes. *Israel Journal of Chemistry*, **2005**, 45, 381-389	3.4	40
5	Transient optical studies of interfacial energetic disorder at nanostructured dye-sensitised inorganic/organic semiconductor heterojunctions. *ChemPhysChem*, **2003**, 4, 89-93	3.2	59
4	Transient Optical Studies of Interfacial Energetic Disorder at Nanostructured Dye-Sensitised Inorganic/Organic Semiconductor Heterojunctions. *ChemPhysChem*, **2003**, 4, 230-230	3.2	0
3	A supramolecular approach to lithium ion solvation at nanostructured dye sensitised inorganic/organic heterojunctions. *Chemical Communications*, **2003**, 2878-9	5.8	36
2	Characterization of polyisoprene by temperature gradient interaction chromatography. *Macromolecular Chemistry and Physics*, **2000**, 201, 320-325	2.6	33
1	3D Interaction of Zwitterions for Highly Stable and Efficient Inorganic CsPbI 3 Solar Cells. *Advanced Functional Materials*,2112027	15.6	3