Sai-Wing Tsang

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117 6,037 41 75 g-index

127 6,651 9.8 5.84 ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
117	High-efficiency inverted dithienogermole E hienopyrrolodione-based polymer solar cells. <i>Nature Photonics</i> , 2012 , 6, 115-120	33.9	874
116	Solution-Processed Nickel Oxide Hole Transport Layers in High Efficiency Polymer Photovoltaic Cells. <i>Advanced Functional Materials</i> , 2013 , 23, 2993-3001	15.6	395
115	Metal oxides for interface engineering in polymer solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 24202		301
114	Decomposition of Organometal Halide Perovskite Films on Zinc Oxide Nanoparticles. <i>ACS Applied Materials & Acs Applied & Acs App</i>	9.5	235
113	Application of admittance spectroscopy to evaluate carrier mobility in organic charge transport materials. <i>Journal of Applied Physics</i> , 2006 , 99, 013706	2.5	191
112	Inverted Polymer Solar Cells with Reduced Interface Recombination. <i>Advanced Energy Materials</i> , 2012 , 2, 1333-1337	21.8	187
111	Interface design for high-efficiency non-fullerene polymer solar cells. <i>Energy and Environmental Science</i> , 2017 , 10, 1784-1791	35.4	149
110	Properties of interlayer for organic photovoltaics. <i>Materials Today</i> , 2013 , 16, 424-432	21.8	136
109	Morphology control in polycarbazole based bulk heterojunction solar cells and its impact on device performance. <i>Applied Physics Letters</i> , 2011 , 98, 253301	3.4	130
108	Alternating Copolymers of Cyclopenta[2,1-b;3,4-b?]dithiophene and Thieno[3,4-c]pyrrole-4,6-dione for High-Performance Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2011 , 21, 3331-3336	15.6	109
107	Aluminum doped zinc oxide for organic photovoltaics. <i>Applied Physics Letters</i> , 2009 , 94, 213301	3.4	109
106	Chlorine Incorporation for Enhanced Performance of Planar Perovskite Solar Cell Based on Lead Acetate Precursor. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 23110-6	9.5	102
105	Infrared colloidal lead chalcogenide nanocrystals: synthesis, properties, and photovoltaic applications. <i>Nanoscale</i> , 2012 , 4, 2187-201	7.7	94
104	On the degradation mechanisms of quantum-dot light-emitting diodes. <i>Nature Communications</i> , 2019 , 10, 765	17.4	89
103	Alkyl Side Chain Impact on the Charge Transport and Photovoltaic Properties of Benzodithiophene and Diketopyrrolopyrrole-Based Copolymers. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 18002-18009	3.8	88
102	Ultraviolet-ozone surface modification for non-wetting hole transport materials based inverted planar perovskite solar cells with efficiency exceeding 18%. <i>Journal of Power Sources</i> , 2017 , 360, 157-16	65 ^{8.9}	86
101	Dielectric effect on the photovoltage loss in organic photovoltaic cells. <i>Advanced Materials</i> , 2014 , 26, 6125-31	24	83

(2013-2012)

100	High-efficiency inverted solar cells based on a low bandgap polymer with excellent air stability. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 96, 155-159	6.4	77
99	Graphene oxide as an efficient hole-transporting material for high-performance perovskite solar cells with enhanced stability. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9852-9858	13	76
98	18% High-Efficiency Air-Processed Perovskite Solar Cells Made in a Humid Atmosphere of 70% RH. <i>Solar Rrl</i> , 2017 , 1, 1700097	7.1	75
97	Donor-Acceptor Oligothiophenes as Low Optical Gap Chromophores for Photovoltaic Applications. <i>Advanced Materials</i> , 2008 , 20, 4810-4815	24	71
96	Polymeric conducting anode for small organic transporting molecules in dark injection experiments. <i>Journal of Applied Physics</i> , 2006 , 100, 063708	2.5	69
95	Origin of Enhanced Hole Injection in Inverted Organic Devices with Electron Accepting Interlayer. <i>Advanced Functional Materials</i> , 2012 , 22, 3261-3266	15.6	68
94	Development of a new benzo(1,2-b:4,5-bithiophene-based copolymer with conjugated dithienylbenzothiadiazole-vinylene side chains for efficient solar cells. <i>Chemical Communications</i> , 2011 , 47, 9381-3	5.8	62
93	Progress in air-processed perovskite solar cells: from crystallization to photovoltaic performance. <i>Materials Horizons</i> , 2019 , 6, 1611-1624	14.4	61
92	Impact of surface dipole in NiOx on the crystallization and photovoltaic performance of organometal halide perovskite solar cells. <i>Nano Energy</i> , 2019 , 61, 496-504	17.1	60
91	Novel Series of Quasi-2D Ruddlesden-Popper Perovskites Based on Short-Chained Spacer Cation for Enhanced Photodetection. <i>ACS Applied Materials & Enhanced Photodetection</i> (19019-19026)	9.5	58
90	High efficiency and stability of ink-jet printed quantum dot light emitting diodes. <i>Nature Communications</i> , 2020 , 11, 1646	17.4	57
89	Air-processed mixed-cation Cs0.15FA0.85PbI3 planar perovskite solar cells derived from a PbI2tsIBAI intermediate complex. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 7731-7740	13	57
88	Batch-to-Batch Variation of Polymeric Photovoltaic Materials: its Origin and Impacts on Charge Carrier Transport and Device Performances. <i>Advanced Energy Materials</i> , 2014 , 4, 1400768	21.8	56
87	Porphyrin-based thick-film bulk-heterojunction solar cells for indoor light harvesting. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 9111-9118	7.1	55
86	Using Ultralow Dosages of Electron Acceptor to Reveal the Early Stage Donor Acceptor Electronic Interactions in Bulk Heterojunction Blends. <i>Advanced Energy Materials</i> , 2017 , 7, 1602360	21.8	54
85	Impact of the Growth Conditions of Colloidal PbS Nanocrystals on Photovoltaic Device Performance. <i>Chemistry of Materials</i> , 2011 , 23, 1805-1810	9.6	54
84	Rational Design of Dopant-Free Coplanar D-ED Hole-Transporting Materials for High-Performance Perovskite Solar Cells with Fill Factor Exceeding 80%. <i>Advanced Energy Materials</i> , 2019 , 9, 1901268	21.8	52
83	Loss Mechanisms in Thick-Film Low-Bandgap Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 909-916	21.8	48

82	PEDOT:PSS polymeric conducting anode for admittance spectroscopy. Organic Electronics, 2006, 7, 474-	4 7 9	45
81	Naphthodithiophene-2,1,3-benzothiadiazole copolymers for bulk heterojunction solar cells. <i>Chemical Communications</i> , 2011 , 47, 9471-3	5.8	44
8o	Highly efficient cross-linked PbS nanocrystal/C60 hybrid heterojunction photovoltaic cells. <i>Applied Physics Letters</i> , 2009 , 95, 183505	3.4	44
79	The detrimental effect of excess mobile ions in planar CH3NH3PbI3 perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 12748-12755	13	42
78	Spectroscopic study on the impact of methylammonium iodide loading time on the electronic properties in perovskite thin films. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 561-567	13	42
77	Impact of Solvent Additive on Carrier Transport in Polymer:Fullerene Bulk Heterojunction Photovoltaic Cells. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500166	4.6	41
76	Hole transfer from PbS nanocrystal quantum dots to polymers and efficient hybrid solar cells utilizing infrared photons. <i>Organic Electronics</i> , 2012 , 13, 2773-2780	3.5	41
75	Balanced Electric Field Dependent Mobilities: A Key to Access High Fill Factors in Organic Bulk Heterojunction Solar Cells. <i>Solar Rrl</i> , 2018 , 2, 1700239	7.1	38
74	Charge injection and transport studies of poly(2,7-carbazole) copolymer PCDTBT and their relationship to solar cell performance. <i>Organic Electronics</i> , 2012 , 13, 850-855	3.5	38
73	Impact of Nonfullerene Molecular Architecture on Charge Generation, Transport, and Morphology in PTB7-Th-Based Organic Solar Cells. <i>Advanced Functional Materials</i> , 2018 , 28, 1802702	15.6	37
72	Hole transport in molecularly doped naphthyl diamine. <i>Journal of Applied Physics</i> , 2007 , 102, 093705	2.5	36
71	Room-Temperature Red©reenBlue Whispering-Gallery Mode Lasing and White-Light Emission from Cesium Lead Halide Perovskite (CsPbX3, X = Cl, Br, I) Microstructures. <i>Advanced Optical Materials</i> , 2018 , 6, 1700993	8.1	33
70	Suppressing Ion Migration across Perovskite Grain Boundaries by Polymer Additives. <i>Advanced Functional Materials</i> , 2021 , 31, 2006802	15.6	33
69	On the Study of Exciton Binding Energy with Direct Charge Generation in Photovoltaic Polymers. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600200	6.4	32
68	Energy level alignment and sub-bandgap charge generation in polymer:fullerene bulk heterojunction solar cells. <i>Advanced Materials</i> , 2013 , 25, 2434-9	24	32
67	Revealing the Degradation and Self-Healing Mechanisms in Perovskite Solar Cells by Sub-Bandgap External Quantum Efficiency Spectroscopy. <i>Advanced Materials</i> , 2021 , 33, e2006170	24	32
66	Improving the conductivity of solgel derived NiOx with a mixed oxide composite to realize over 80% fill factor in inverted planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 9578-9.	586	31
65	Simple fabrication of perovskite solar cells using lead acetate as lead source at low temperature. Organic Electronics, 2015, 27, 12-17	3.5	31

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64	Efficient ternary bulk heterojunction solar cells with PCDTBT as hole-cascade material. <i>Nano Energy</i> , 2016 , 19, 476-485	17.1	30	
63	Bulk heterojunction solar cells based on a new low-band-gap polymer: Morphology and performance. <i>Organic Electronics</i> , 2011 , 12, 1211-1215	3.5	30	
62	Thick-Film High-Performance Bulk-Heterojunction Solar Cells Retaining 90% PCEs of the Optimized Thin Film Cells. <i>Advanced Electronic Materials</i> , 2017 , 3, 1700007	6.4	29	
61	Direct observation of cation-exchange in liquid-to-solid phase transformation in FA1MMAxPbI3 based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 9081-9088	13	29	
60	Evidence of Molecular Structure Dependent Charge Transfer between Isoindigo-Based Polymers and Fullerene. <i>Chemistry of Materials</i> , 2016 , 28, 2433-2440	9.6	29	
59	Naphthalene diimide-difluorobenzene-based polymer acceptors for all-polymer solar cells. <i>Chemical Communications</i> , 2017 , 53, 3249-3252	5.8	26	
58	Charge transfer-induced photoluminescence in ZnO nanoparticles. <i>Nanoscale</i> , 2019 , 11, 8736-8743	7.7	26	
57	Revealing the crystallization process and realizing uniform 1.8 eV MA-based wide-bandgap mixed-halide perovskites via solution engineering. <i>Nano Research</i> , 2019 , 12, 1033-1039	10	26	
56	Charge-carrier induced barrier-height reduction at organic heterojunction. <i>Physical Review B</i> , 2008 , 78,	3.3	26	
55	Charge-Transfer State Energy and Its Relationship with Open-Circuit Voltage in an Organic Photovoltaic Device. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 14059-14068	3.8	25	
54	Engineering carrier transport across organic heterojunctions by interface doping. <i>Applied Physics Letters</i> , 2007 , 90, 132115	3.4	25	
53	Enhanced performance of perovskite solar cells based on vertical TiO2 nanotube arrays with full filling of CH3NH3PbI3. <i>Applied Surface Science</i> , 2018 , 451, 250-257	6.7	24	
52	Enhanced Performance of Polymeric Bulk Heterojunction Solar Cells via Molecular Doping with TFSA. <i>ACS Applied Materials & amp; Interfaces</i> , 2015 , 7, 13415-21	9.5	23	
51	Low Temperature Sonochemical Synthesis of Morphology Variable MoO3 Nanostructures for Performance Enhanced Lithium Ion Battery Applications. <i>Electrochimica Acta</i> , 2015 , 185, 83-89	6.7	22	
50	FA-Assistant Iodide Coordination in Organic-Inorganic Wide-Bandgap Perovskite with Mixed Halides. <i>Small</i> , 2020 , 16, e1907226	11	22	
49	Broadband Ce(III)-Sensitized Quantum Cutting in Core-Shell Nanoparticles: Mechanistic Investigation and Photovoltaic Application. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 5099-5104	6.4	21	
48	Ag Nanoparticles on Boron Doped Multi-walled Carbon Nanotubes as a Synergistic Catalysts for Oxygen Reduction Reaction in Alkaline Media. <i>Electrochimica Acta</i> , 2015 , 174, 919-924	6.7	21	
47	Porous and Intercrossed PbI-CsI Nanorod Scaffold for Inverted Planar FA-Cs Mixed-Cation Perovskite Solar Cells. <i>ACS Applied Materials & Description</i> (2019), 11, 6126-6135	9.5	20	

46	Comparison of processing windows and electronic properties between CH3NH3PbI3 perovskite fabricated by one-step and two-step solution processes. <i>Organic Electronics</i> , 2018 , 63, 159-165	3.5	20
45	Direct Free Carrier Photogeneration in Single Layer and Stacked Organic Photovoltaic Devices. <i>Advanced Materials</i> , 2017 , 29, 1606909	24	19
44	Sub-Band Gap Turn-On Near-Infrared-to-Visible Up-Conversion Device Enabled by an Organic-Inorganic Hybrid Perovskite Photovoltaic Absorber. <i>ACS Applied Materials & Description</i> (2018, 10, 15920-15925)	9.5	19
43	Self-organized phase segregation between inorganic nanocrystals and PC61BM for hybrid high-efficiency bulk heterojunction photovoltaic cells. <i>Applied Physics Letters</i> , 2010 , 96, 243104	3.4	18
42	Origin of Subthreshold Turn-On in Quantum-Dot Light-Emitting Diodes. ACS Nano, 2019 , 13, 8229-8236	16.7	17
41	Bulk-heterojunction solar cells with enriched polymer contents. <i>Organic Electronics</i> , 2017 , 40, 1-7	3.5	17
40	Abnormal charge injection behavior at metal-organic interfaces. <i>Physical Review B</i> , 2008 , 78,	3.3	17
39	Photoelectric effect and transport properties of a single CdS nanoribbon. <i>Ultramicroscopy</i> , 2005 , 105, 275-280	3.1	16
38	Highly Efficient Sky-Blue Perovskite Light-Emitting Diode Via Suppressing Nonradiative Energy Loss. <i>Chemistry of Materials</i> , 2021 , 33, 4154-4162	9.6	15
37	Synergistic Effect of Pseudo-Halide Thiocyanate Anion and Cesium Cation on Realizing High-Performance Pinhole-Free MA-Based Wide-Band Gap Perovskites. <i>ACS Applied Materials & Materials (ACS Applied Materials ACS Applied Materials ACS Applied Materials ACS Applied Materials (ACS Applied Materials ACS Applied Materials ACS ACS Applied Materials ACS ACS Applied Materials (ACS ACS APPLIED ACS ACS ACS ACS ACS ACS ACS ACS ACS ACS</i>	9.5	14
36	Charge transport study of semiconducting polymers and their bulk heterojunction blends by capacitance measurements. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 649-658	2.6	14
35	Boosting the photovoltaic thermal stability of fullerene bulk heterojunction solar cells through charge transfer interactions. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 23662-23670	13	13
34	Vertical OrganicInorganic Hybrid Perovskite Schottky Junction Transistors. <i>Advanced Electronic Materials</i> , 2018 , 4, 1800039	6.4	12
33	Investigation of the Role of the Acceptor Molecule in Bulk Heterojunction Photovoltaic Cells Using Impedance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 13798-13804	3.8	12
32	Probing the Energy Level Alignment and the Correlation with Open-Circuit Voltage in Solution-Processed Polymeric Bulk Heterojunction Photovoltaic Devices. <i>ACS Applied Materials & Materials</i> 8, 7283-90	9.5	12
31	The Role of Diammonium Cation on the Structural and Optoelectronic Properties in 3D Cesium E ormamidinium Mixed-Cation Perovskite Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1900140	7.1	11
30	Enhanced Self-Assembly of Crystalline, Large-Area, and Periodicity-Tunable TiO Nanotube Arrays on Various Substrates. <i>ACS Applied Materials & Enhances</i> , 2017 , 9, 6265-6272	9.5	10
29	Enhanced efficiency of organic solar cells by mixed orthogonal solvents. <i>Organic Electronics</i> , 2014 , 15, 2007-2013	3.5	10

28	Temperature dependence of carrier injection across organic heterojunctions. <i>Journal of Applied Physics</i> , 2011 , 109, 023711	2.5	10
27	Nearly ohmic injection contacts from PEDOT:PSS to phenylamine compounds with high ionization potentials 2006 ,		10
26	Evidence of Delocalization in Charge-Transfer State Manifold for Donor:Acceptor Organic Photovoltaics. <i>ACS Applied Materials & Donor: Acceptor Organic Research</i> 2016, 8, 21798-805	9.5	10
25	Positive Aging Effect of ZnO Nanoparticles Induced by Surface Stabilization. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 5863-5870	6.4	8
24	Solution processable small molecule based organic light-emitting devices prepared by dip-coating method. <i>Organic Electronics</i> , 2018 , 55, 1-5	3.5	8
23	Low temperature fabrication of formamidinium based perovskite solar cells with enhanced performance by chlorine incorporation. <i>Organic Electronics</i> , 2016 , 38, 144-149	3.5	8
22	Homogeneous Grain Boundary Passivation in Wide-Bandgap Perovskite Films Enables Fabrication of Monolithic Perovskite/Organic Tandem Solar Cells with over 21% Efficiency. <i>Advanced Functional Materials</i> ,2112126	15.6	8
21	Effects of Hydrogen Bonds between Polymeric Hole-Transporting Material and Organic Cation Spacer on Morphology of Quasi-Two-Dimensional Perovskite Grains and Their Performance in Light-Emitting Diodes. <i>ACS Applied Materials & Diodes amp; Interfaces</i> , 2020 , 12, 9440-9447	9.5	7
20	TFSA doped interlayer for efficient organic solar cells. <i>Organic Electronics</i> , 2014 , 15, 3702-3709	3.5	6
19	Inverted Polymer Solar Cells. <i>IEEE Photonics Journal</i> , 2012 , 4, 625-628	1.8	6
18	Effects of graphene defect on electronic structures of its interface with organic semiconductor. <i>Applied Physics Letters</i> , 2015 , 106, 133502	3.4	5
17	A generalized Stark effect electromodulation model for extracting excitonic properties in organic semiconductors. <i>Nature Communications</i> , 2019 , 10, 5089	17.4	5
16	Probing Bulk Transport, Interfacial Disorders, and Molecular Orientations of Amorphous Semiconductors in a Thin-Film Transistor Configuration. <i>Advanced Electronic Materials</i> , 2016 , 2, 150027.	3 ^{6.4}	5
15	Impact of interfacial dipole on carrier transport in bulk heterojunction poly(3-hexylthiophene) and [6,6]-phenyl C61-butyric acid methyl ester blends. <i>Applied Physics Letters</i> , 2010 , 97, 153306	3.4	4
14	Direct Observation of the Charge Transfer States from a Non-Fullerene Organic Solar Cell with a Small Driving Force. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 10595-10602	6.4	4
13	Two-Step Chemical Vapor Deposition-Synthesized Lead-Free All-Inorganic CsSbBr Perovskite Microplates for Optoelectronic Applications. <i>ACS Applied Materials & Description (Note of Section 19</i>) 13, 35930-35	59450	4
12	Trilayer organic narrowband photodetector with electrically-switchable spectral range and color sensing ability. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 3814-3819	7.1	4
	Evidence on Enhanced Exciton Polarizability in Donor/Acceptor Bulk Heterojunction Organic		

10	Direct determination of carrier mobilities of OLED materials by admittance spectroscopy 2006 , 6333, 214		3
9	Efficient Perovskite White Light-Emitting Diode Based on an Interfacial Charge-Confinement Structure. <i>ACS Applied Materials & Structure. ACS Applied Materials & Structure.</i> 13, 44991-45000	9.5	3
8	Locking the morphology with a green, fast and efficient physical cross-linking approach for organic electronic applications. <i>Organic Electronics</i> , 2016 , 28, 53-58	3.5	2
7	A Family of Small Molecular Materials Enabling Consistently Lower Recombination Losses in Organic Photovoltaic Devices. <i>Solar Rrl</i> , 2020 , 4, 2000245	7.1	2
6	Energy Level Alignment and Sub-Bandgap Charge Generation in Polymer:Fullerene Bulk Heterojunction Solar Cells (Adv. Mater. 17/2013). <i>Advanced Materials</i> , 2013 , 25, 2433-2433	24	1
5	Record-high near-band-edge optical nonlinearities and two-level model correction of poled polymers by spectroscopic electromodulation and ellipsometry. <i>Science China Chemistry</i> , 2022 , 65, 584	7.9	1
4	Flexibility of Room-Temperature-Synthesized Amorphous CdO-InO Alloy Films and Their Application as Transparent Conductors in Solar Cells. <i>ACS Applied Materials & Description</i> 13, 43795-43805	9.5	1
3	Amorphous CdO-In 2 O 3 Electrode for Perovskite-Based Bifacial and Tandem Photovoltaic Technologies with High Energy Production. <i>Solar Rrl</i> ,2100809	7.1	O
2	44.4: Invited Paper: Study on the Degradation Mechanisms of Quantum-Dot Light-Emitting Diodes. <i>Digest of Technical Papers SID International Symposium</i> , 2019 , 50, 491-491	0.5	
1	23.1: Invited Paper: High efficiency and Stability of Ink-jet Printed Quantum Dot Light Emitting Diodes via Dual Ionic Surface Passivation. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 145-145	0.5	