Chih-Wei Chu

List of Publications by Citations

254 papers	15,918 citations	60 h-index	120 g-index
264 ext. papers	17,337 ext. citations	7.7 avg, IF	6.61 L-index

#	Paper	IF	Citations
254	On the mechanism of conductivity enhancement in poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) film through solvent treatment. *Polymer*, **2004**, 45, 8443-8450	3.9	983
253	Transition metal oxides as the buffer layer for polymer photovoltaic cells. *Applied Physics Letters*, **2006**, 88, 073508	3.4	877
252	NANOELECTRONICS. Epitaxial growth of a monolayer WSe2-MoS2 lateral p-n junction with an atomically sharp interface. *Science*, **2015**, 349, 524-8	33.3	811
251	Programmable polymer thin film and non-volatile memory device. *Nature Materials*, **2004**, 3, 918-22	27	774
250	Efficient inverted polymer solar cells. *Applied Physics Letters*, **2006**, 88, 253503	3.4	684
249	Highly conductive PEDOT:PSS electrode by simple film treatment with methanol for ITO-free polymer solar cells. *Energy and Environmental Science*, **2012**, 5, 9662	35.4	589
248	Wafer-scale MoS2 thin layers prepared by MoO3 sulfurization. *Nanoscale*, **2012**, 4, 6637-41	7.7	538
247	Electrical Switching and Bistability in Organic/Polymeric Thin Films and Memory Devices. *Advanced Functional Materials*, **2006**, 16, 1001-1014	15.6	517
246	Organic Donor-Acceptor System Exhibiting Electrical Bistability for Use in Memory Devices. *Advanced Materials*, **2005**, 17, 1440-1443	24	371
245	High-performance organic thin-film transistors with metal oxide/metal bilayer electrode. *Applied Physics Letters*, **2005**, 87, 193508	3.4	315
244	Highly conductive PEDOT:PSS treated with formic acid for ITO-free polymer solar cells. *ACS Applied Materials & Interfaces*, **2014**, 6, 2292-9	9.5	212
243	A highly stable nonbiofouling surface with well-packed grafted zwitterionic polysulfobetaine for plasma protein repulsion. *Langmuir*, **2008**, 24, 5453-8	4	197
242	Opening an electrical band gap of bilayer graphene with molecular doping. *ACS Nano*, **2011**, 5, 7517-24	16.7	191
241	Surfactant-free water-processable photoconductive all-carbon composite. *Journal of the American Chemical Society*, **2011**, 133, 4940-7	16.4	191
240	Layer-by-layer graphene/TCNQ stacked films as conducting anodes for organic solar cells. *ACS Nano* , **2012**, 6, 5031-9	16.7	187
239	Effect of molecular weight of additives on the conductivity of PEDOT:PSS and efficiency for ITO-free organic solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 9907	13	183
238	Control of the nanoscale crystallinity and phase separation in polymer solar cells. *Applied Physics Letters*, **2008**, 92, 103306	3.4	183

237	Organic thin-film transistors with nanocomposite dielectric gate insulator. *Applied Physics Letters*, **2004**, 85, 3295-3297	3.4	182
236	Enhanced thermoelectric performance of PEDOT:PSS flexible bulky papers by treatment with secondary dopants. *ACS Applied Materials & Interfaces*, **2015**, 7, 94-100	9.5	162
235	Synergistic improvements in stability and performance of lead iodide perovskite solar cells incorporating salt additives. *Journal of Materials Chemistry A*, **2016**, 4, 1591-1597	13	158
234	Electric-field-induced charge transfer between gold nanoparticle and capping 2-naphthalenethiol and organic memory cells. *Applied Physics Letters*, **2005**, 86, 123507	3.4	143
233	Effective work function modulation of graphene/carbon nanotube composite films as transparent cathodes for organic optoelectronics. *ACS Nano*, **2011**, 5, 6262-71	16.7	142
232	Effective connecting architecture for tandem organic light-emitting devices. *Applied Physics Letters*, **2005**, 87, 241121	3.4	141
231	Photoluminescence Enhancement and Structure Repairing of Monolayer MoSe2 by Hydrohalic Acid Treatment. *ACS Nano*, **2016**, 10, 1454-61	16.7	137
230	Modified buffer layers for polymer photovoltaic devices. *Applied Physics Letters*, **2007**, 90, 063509	3.4	131
229	Tuning acceptor energy level for efficient charge collection in copper-phthalocyanine-based organic solar cells. *Applied Physics Letters*, **2006**, 88, 153504	3.4	125
228	Hemocompatible mixed-charge copolymer brushes of pseudozwitterionic surfaces resistant to nonspecific plasma protein fouling. *Langmuir*, **2010**, 26, 3522-30	4	123
227	Solution-processable antimony-based light-absorbing materials beyond lead halide perovskites. *Journal of Materials Chemistry A*, **2017**, 5, 20843-20850	13	118
226	Efficient photovoltaic energy conversion in tetracene-C60 based heterojunctions. *Applied Physics Letters*, **2005**, 86, 243506	3.4	115
225	Conducting polymer-based counter electrode for a quantum-dot-sensitized solar cell (QDSSC) with a polysulfide electrolyte. *Electrochimica Acta*, **2011**, 57, 277-284	6.7	111
224	Improving the Light Trapping Efficiency of Plasmonic Polymer Solar Cells through Photon Management. *Journal of Physical Chemistry C*, **2012**, 116, 20731-20737	3.8	110
223	Multiscale molecular simulations of the nanoscale morphologies of P3HT:PCBM blends for bulk heterojunction organic photovoltaic cells. *Energy and Environmental Science*, **2011**, 4, 4124	35.4	109
222	Dual-thermoresponsive phase behavior of blood compatible zwitterionic copolymers containing nonionic poly(N-isopropyl acrylamide). *Biomacromolecules*, **2009**, 10, 2092-100	6.9	107
221	Planar Heterojunction Perovskite Solar Cells Incorporating Metal-Organic Framework Nanocrystals. *Advanced Materials*, **2015**, 27, 7229-35	24	105
220	Efficient inverted solar cells using TiO(2) nanotube arrays. *Nanotechnology*, **2008**, 19, 255202	3.4	105

219	A ternary cascade structure enhances the efficiency of polymer solar cells. *Journal of Materials Chemistry*, **2010**, 20, 2820		103
218	Tunable Novel Cyclopentadithiophene-Based Copolymers Containing Various Numbers of Bithiazole and Thienyl Units for Organic Photovoltaic Cell Applications. *Macromolecules*, **2009**, 42, 3681-3693	5.5	98
217	Gold nanoparticle-decorated graphene oxides for plasmonic-enhanced polymer photovoltaic devices. *Nanoscale*, **2014**, 6, 1573-9	7.7	90
216	Organic Memory Device Fabricated Through Solution Processing. *Proceedings of the IEEE*, **2005**, 93, 1287-1296	14.3	88
215	Converting graphene oxide monolayers into boron carbonitride nanosheets by substitutional doping. *Small*, **2012**, 8, 1384-91	11	87
214	Electrochemical characterization of the solvent-enhanced conductivity of poly(3,4-ethylenedioxythiophene) and its application in polymer solar cells. *Journal of Materials Chemistry*, **2009**, 19, 3704		87
213	Photovoltaic Performance of Vapor-Assisted Solution-Processed Layer Polymorph of CsSbI. *ACS Applied Materials & Interfaces*, **2018**, 10, 2566-2573	9.5	84
212	Annealing effect of polymer bulk heterojunction solar cells based on polyfluorene and fullerene blend. *Organic Electronics*, **2009**, 10, 27-33	3.5	84
211	A high performance electrochemical sensor for acetaminophen based on a rGO-PEDOT nanotube composite modified electrode. *Journal of Materials Chemistry A*, **2014**, 2, 7229-7237	13	82
210	Synthesis and applications of novel low bandgap star-burst molecules containing a triphenylamine core and dialkylated diketopyrrolopyrrole arms for organic photovoltaics. *Journal of Materials Chemistry*, **2012**, 22, 7945		81
209	Towards solution processed all-carbon solar cells: a perspective. *Energy and Environmental Science*, **2012**, 5, 7810	35.4	81
208	Solution-processed zinc oxide nanoparticles as interlayer materials for inverted organic solar cells. *Solar Energy Materials and Solar Cells*, **2013**, 108, 156-163	6.4	81
207	Using an airbrush pen for layer-by-layer growth of continuous perovskite thin films for hybrid solar cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 2359-66	9.5	76
206	Nanoparticle-induced negative differential resistance and memory effect in polymer bistable light-emitting device. *Applied Physics Letters*, **2006**, 88, 123506	3.4	76
205	High quantity and quality few-layers transition metal disulfide nanosheets from wet-milling exfoliation. *RSC Advances*, **2013**, 3, 13193	3.7	69
204	Modified Separator Performing Dual Physical/Chemical Roles to Inhibit Polysulfide Shuttle Resulting in Ultrastable Li-S Batteries. *ACS Nano*, **2017**, 11, 12436-12445	16.7	68
203	Bifunctional separator as a polysulfide mediator for highly stable Li-S batteries. *Journal of Materials Chemistry A*, **2016**, 4, 9661-9669	13	67
202	Synthesis and characterization of a narrow-bandgap polymer containing alternating cyclopentadithiophene and diketo-pyrrolo-pyrrole units for solar cell applications. *Journal of Polymer Science Part A*, **2010**, 48, 1669-1675	2.5	66

201	2-Alkyl-5-thienyl-substituted benzo[1,2-b:4,5-b']dithiophene-based donor molecules for solution-processed organic solar cells. *ACS Applied Materials & Interfaces*, **2013**, 5, 9494-500	9.5	65
200	Nucleation and crystal growth control for scalable solution-processed organic–inorganic hybrid perovskite solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 1578-1603	13	64
199	Efficiency Enhancement of Hybrid Perovskite Solar Cells with MEH-PPV Hole-Transporting Layers. *Scientific Reports*, **2016**, 6, 34319	4.9	63
198	Depth profiling of organic films with X-ray photoelectron spectroscopy using C60+ and Ar+ co-sputtering. *Analytical Chemistry*, **2008**, 80, 3412-5	7.8	61
197	Integration of organic light-emitting diode and organic transistor via a tandem structure. *Applied Physics Letters*, **2005**, 86, 253503	3.4	61
196	The influence of charge trapping on the electrochromic performance of poly(3,4-alkylenedioxythiophene) derivatives. *ACS Applied Materials & Interfaces*, **2010**, 2, 351-9	9.5	60
195	Synthesis and applications of low-bandgap conjugated polymers containing phenothiazine donor and various benzodiazole acceptors for polymer solar cells. *Journal of Polymer Science Part A*, **2010**, 48, 4823-4834	2.5	60
194	Polymer Optoelectronic Devices with High-Conductivity Poly(3,4-Ethylenedioxythiophene) Anodes. *Journal of Macromolecular Science - Pure and Applied Chemistry*, **2004**, 41, 1497-1511	2.2	60
193	Nanographite/polyaniline composite films as the counter electrodes for dye-sensitized solar cells. *Journal of Materials Chemistry*, **2011**, 21, 10384		58
192	Fabrication of multilayer organic solar cells through a stamping technique. *Journal of Materials Chemistry*, **2009**, 19, 4077		58
191	rGO/SWCNT composites as novel electrode materials for electrochemical biosensing. *Biosensors and Bioelectronics*, **2013**, 43, 173-9	11.8	57
190	Flexible fullerene field-effect transistors fabricated through solution processing. *Advanced Materials*, **2009**, 21, 4845-9	24	56
189	Transparent electrodes based on conducting polymers for display applications. *Displays*, **2013**, 34, 301-314	3.4	54
188	Complementary inverter circuits based on p-SnO2 and n-In2O3 thin film transistors. *Applied Physics Letters*, **2008**, 92, 232103	3.4	54
187	Solution-Processed Small-Molecule Bulk Heterojunction Ambipolar Transistors. *Advanced Functional Materials*, **2014**, 24, 2057-2063	15.6	51
186	Solution-processable bismuth iodide nanosheets as hole transport layers for organic solar cells. *Solar Energy Materials and Solar Cells*, **2014**, 121, 35-41	6.4	50
185	Synthesis and characterization of novel low-bandgap triphenylamine-based conjugated polymers with main-chain donors and pendent acceptors for organic photovoltaics. *Journal of Polymer Science Part A*, **2010**, 48, 5812-5823	2.5	50
184	Dibenzo[f,h]thieno[3,4-b] quinoxaline-based small molecules for efficient bulk-heterojunction solar cells. *Organic Letters*, **2009**, 11, 4898-901	6.2	48

183	Direct conversion of multilayer molybdenum trioxide to nanorods as multifunctional electrodes in lithium-ion batteries. *Nanoscale*, **2014**, 6, 5484-90	7.7	47
182	Liquid Lenses and Driving Mechanisms: A Review. *Journal of Adhesion Science and Technology*, **2012**, 26, 1773-1788	2	46
181	Anomalous p-channel amorphous oxide transistors based on tin oxide and their complementary circuits. *Applied Physics Letters*, **2008**, 92, 122113	3.4	46
180	Realization of In2O3 thin film transistors through reactive evaporation process. *Applied Physics Letters*, **2007**, 91, 132111	3.4	46
179	Preparation of metal halide perovskite solar cells through a liquid droplet assisted method. *Journal of Materials Chemistry A*, **2015**, 3, 9257-9263	13	45
178	Using a low temperature crystallization process to prepare anatase TiO2 buffer layers for air-stable inverted polymer solar cells. *Energy and Environmental Science*, **2010**, 3, 654	35.4	45
177	Solvent-annealing-induced self-organization of poly(3-hexylthiophene), a high-performance electrochromic material. *ACS Applied Materials & Interfaces*, **2009**, 1, 2821-8	9.5	45
176	Suppression of surface defects to achieve hysteresis-free inverted perovskite solar cells via quantum dot passivation. *Journal of Materials Chemistry A*, **2020**, 8, 5263-5274	13	45
175	A counter electrode based on hollow spherical particles of polyaniline for a dye-sensitized solar cell. *Journal of Materials Chemistry*, **2012**, 22, 14727		44
174	Facile synthesis of composite tin oxide nanostructures for high-performance planar perovskite solar cells. *Nano Energy*, **2019**, 60, 275-284	17.1	43
173	Hierarchical supramolecular hydrogels: self-assembly by peptides and photo-controlled release via host-guest interaction. *Chemical Communications*, **2017**, 53, 12450-12453	5.8	43
172	Effects of nanomorphological changes on the performance of solar cells with blends of poly[9,9Ǫdioctyl-fluorene-co-bithiophene] and a soluble fullerene. *Nanotechnology*, **2009**, 20, 025202	3.4	43
171	Enhancement of tetracene photovoltaic devices with heat treatment. *Applied Physics Letters*, **2007**, 90, 103501	3.4	43
170	Facile synthesis of carbon/MoO 3 nanocomposites as stable battery anodes. *Journal of Power Sources*, **2017**, 348, 270-280	8.9	42
169	Lead-Free Antimony-Based Light-Emitting Diodes through the Vapor-Anion-Exchange Method. *ACS Applied Materials & Interfaces*, **2019**, 11, 35088-35094	9.5	42
168	Efficient ternary bulk heterojunction solar cells based on small molecules only. *Journal of Materials Chemistry A*, **2015**, 3, 10512-10518	13	42
167	Solution-processed benzotrithiophene-based donor molecules for efficient bulk heterojunction solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 7767	13	41
166	Efficient bilayer polymer solar cells possessing planar mixed-heterojunction structures. *Journal of Materials Chemistry*, **2010**, 20, 3295		41

165	Plasma-assisted electrochemical exfoliation of graphite for rapid production of graphene sheets. *RSC Advances*, **2014**, 4, 6946	3.7	40
164	Modulation of Donor–Acceptor Interface through Thermal Treatment for Efficient Bilayer Organic Solar Cells. *Journal of Physical Chemistry C*, **2010**, 114, 2764-2768	3.8	40
163	The investigation of donor-acceptor compatibility in bulk-heterojunction polymer systems. *Applied Physics Letters*, **2013**, 103, 043304	3.4	39
162	Balanced carrier transport in organic solar cells employing embedded indium-tin-oxide nanoelectrodes. *Applied Physics Letters*, **2011**, 98, 073308	3.4	39
161	Synthesis and applications of main-chain Ru(II) metallo-polymers containing bis-terpyridyl ligands with various benzodiazole cores for solar cells. *Journal of Materials Chemistry*, **2011**, 21, 1196-1205		38
160	Controlled mechanical cleavage of bulk niobium diselenide to nanoscaled sheet, rod, and particle structures for Pt-free dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 11382-11390	13	37
159	Monitoring the 3D nanostructures of bulk heterojunction polymer solar cells using confocal lifetime imaging. *Analytical Chemistry*, **2010**, 82, 1669-73	7.8	37
158	Synthesis and applications of 2,7-carbazole-based conjugated main-chain copolymers containing electron deficient bithiazole units for organic solar cells. *Journal of Polymer Science Part A*, **2010**, 48, 5479-5489	2.5	37
157	A Design Based on a Charge-Transfer Bilayer as an Electron Transport Layer for Improving the Performance and Stability in Planar Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2018**, 122, 236-244	3.8	37
156	Role of a hydrophobic scaffold in controlling the crystallization of methylammonium antimony iodide for efficient lead-free perovskite solar cells. *Nano Energy*, **2018**, 45, 330-336	17.1	36
155	Manipulating location, polarity, and outgrowth length of neuron-like pheochromocytoma (PC-12) cells on patterned organic electrode arrays. *Lab on A Chip*, **2011**, 11, 3674-80	7.2	36
154	Synthesis and application of H-Bonded cross-linking polymers containing a conjugated pyridyl H-Acceptor side-chain polymer and various carbazole-based H-Donor dyes bearing symmetrical cyanoacrylic acids for organic solar cells. *Polymer*, **2010**, 51, 6182-6192	3.9	36
153	Bifacial Perovskite Solar Cells Featuring Semitransparent Electrodes. *ACS Applied Materials & Interfaces*, **2017**, 9, 32635-32642	9.5	34
152	Achieving ambipolar vertical organic transistors via nanoscale interface modification. *Applied Physics Letters*, **2007**, 91, 083507	3.4	34
151	Transparent and Flexible Inorganic Perovskite Photonic Artificial Synapses with Dual-Mode Operation. *Advanced Functional Materials*, **2021**, 31, 2008259	15.6	34
150	Wet-milled transition metal oxide nanoparticles as buffer layers for bulk heterojunction solar cells. *RSC Advances*, **2012**, 2, 7487	3.7	33
149	Enhanced spectral response in polymer bulk heterojunction solar cells by using active materials with complementary spectra. *Solar Energy Materials and Solar Cells*, **2010**, 94, 22-28	6.4	33
148	Organic single-crystal complementary inverter. *Applied Physics Letters*, **2006**, 89, 222111	3.4	33

147	High performance dye-sensitized solar cells based on platinum nanoparticle/multi-wall carbon nanotube counter electrodes: The role of annealing. *Journal of Power Sources*, **2012**, 203, 274-281	8.9	32
146	Achieving efficient poly(3,4-ethylenedioxythiophene)-based supercapacitors by controlling the polymerization kinetics. *Electrochimica Acta*, **2011**, 56, 7228-7234	6.7	31
145	Label-free detection of DNA using novel organic-based electrolyte-insulator-semiconductor. *Biosensors and Bioelectronics*, **2010**, 25, 2706-10	11.8	31
144	Dependence of channel thickness on the performance of In2O3thin film transistors. *Journal Physics D: Applied Physics*, **2008**, 41, 092006	3	31
143	Perovskite Quantum Dot Lasing in a Gap-Plasmon Nanocavity with Ultralow Threshold. *ACS Nano*, **2020**, 14, 11670-11676	16.7	31
142	Solution-processable electron transport layer for efficient hybrid perovskite solar cells beyond fullerenes. *Solar Energy Materials and Solar Cells*, **2017**, 169, 78-85	6.4	30
141	Cost-effective dopant-free star-shaped oligo-aryl amines for high performance perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 14209-14221	13	30
140	Efficient molecular solar cells processed from green solvent mixtures. *Journal of Materials Chemistry A*, **2017**, 5, 571-582	13	29
139	Correlation between Exciton Lifetime Distribution and Morphology of Bulk Heterojunction Films after Solvent Annealing. *Journal of Physical Chemistry C*, **2010**, 114, 9062-9069	3.8	29
138	Charge transporting enhancement of NiO photocathodes for p-type dye-sensitized solar cells. *Electrochimica Acta*, **2012**, 66, 210-215	6.7	28
137	Bioinspired hole-conducting polymers for application in organic light-emitting diodes. *Journal of Materials Chemistry*, **2012**, 22, 18127		28
136	New Helicene-Type Hole-Transporting Molecules for High-Performance and Durable Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 41439-41449	9.5	28
135	Light-Responsive Arylazopyrazole Gelators: From Organic to Aqueous Media and from Supramolecular to Dynamic Covalent Chemistry. *Chemistry - A European Journal*, **2019**, 25, 6131-6140	4.8	26
134	A novel ball milling technique for room temperature processing of TiO2 nanoparticles employed as the electron transport layer in perovskite solar cells and modules. *Journal of Materials Chemistry A*, **2018**, 6, 7114-7122	13	26
133	Highly branched green phosphorescent tris-cyclometalated iridium(III) complexes for solution-processed organic light-emitting diodes. *Organic Electronics*, **2009**, 10, 594-606	3.5	26
132	Enhancement of photovoltaic properties in supramolecular polymer networks featuring a solar cell main-chain polymer H-bonded with conjugated cross-linkers. *Polymer*, **2012**, 53, 1219-1228	3.9	25
131	Organic solar cells featuring nanobowl structures. *Energy and Environmental Science*, **2013**, 6, 1192	35.4	25
130	A lithium passivated MoO nanobelt decorated polypropylene separator for fast-charging long-life Li-S batteries. *Nanoscale*, **2019**, 11, 2892-2900	7.7	24

129	New bioinspired hole injection/transport materials for highly efficient solution-processed phosphorescent organic light-emitting diodes. *Nano Energy*, **2015**, 13, 1-8	17.1	24
128	Nanoscale Correlation between Exciton Dissociation and Carrier Transport in Silole-Containing Cyclopentadithiophene-Based Bulk Heterojunction Films. *Journal of Physical Chemistry C*, **2011**, 115, 2398-2405	3.8	24
127	Layered perovskite materials: key solutions for highly efficient and stable perovskite solar cells. *Reports on Progress in Physics*, **2020**, 83, 086502	14.4	23
126	Top Illuminated Hysteresis-Free Perovskite Solar Cells Incorporating Microcavity Structures on Metal Electrodes: A Combined Experimental and Theoretical Approach. *ACS Applied Materials & Interfaces*, **2018**, 10, 17973-17984	9.5	23
125	Production of few-layer MoS2 nanosheets through exfoliation of liquid N2□quenched bulk MoS2. *RSC Advances*, **2014**, 4, 15586-15589	3.7	23
124	A new supramolecular film formed from a silsesquioxane derivative for application in proton exchange membranes. *Journal of Materials Chemistry*, **2012**, 22, 731-734		23
123	Facile Transfer Method for Fabricating Light-Harvesting Systems for Polymer Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 11864-11870	3.8	23
122	Coral-like perovskite nanostructures for enhanced light-harvesting and accelerated charge extraction in perovskite solar cells. *Nano Energy*, **2019**, 58, 138-146	17.1	22
121	Molecular-weight-dependent nanoscale morphology in silole-containing cyclopentadithiophene polymer and fullerene derivative blends. *Organic Electronics*, **2011**, 12, 1755-1762	3.5	21
120	Three-dimensional nanoscale imaging of polymer bulk-heterojunction by scanning electrical potential microscopy and C60(+) cluster ion slicing. *Analytical Chemistry*, **2009**, 81, 8936-41	7.8	21
119	Controlled Growth of Nanofiber Network Hole Collection Layers with Pore Structure for Polymer□ullerene Solar Cells. *Journal of Physical Chemistry C*, **2008**, 112, 19125-19130	3.8	21
118	Toward environmentally compatible molecular solar cells processed from halogen-free solvents. *Journal of Materials Chemistry A*, **2016**, 4, 7341-7351	13	21
117	High-Performance Organic Photovoltaics Incorporating an Active Layer with a Few Nanometer-Thick Third-Component Layer on a Binary Blend Layer. *Nano Letters*, **2021**, 21, 2207-2215	11.5	21
116	Flexible Organic Thin Film Transistors Incorporating a Biodegradable CO-Based Polymer as the Substrate and Dielectric Material. *Scientific Reports*, **2018**, 8, 8146	4.9	21
115	Influence of In doping on the thermoelectric properties of an AgSbTe2 compound with enhanced figure of merit. *Journal of Materials Chemistry A*, **2014**, 2, 2839	13	20
114	Efficiency enhancement of flexible organic light-emitting devices by using antireflection nanopillars. *Optics Express*, **2011**, 19 Suppl 3, A295-302	3.3	20
113	A strategic buffer layer of polythiophene enhances the efficiency of bulk heterojunction solar cells. *ACS Applied Materials & Interfaces*, **2010**, 2, 1281-5	9.5	20
112	The effect of solvent induced crystallinity of polymer layer on poly(3-hexylthiophene)/C70 bilayer solar cells. *Solar Energy Materials and Solar Cells*, **2011**, 95, 419-422	6.4	20

111	Synthesis and characterization of a thiadiazole/benzoimidazole-based copolymer for solar cell applications. *Journal of Polymer Science Part A*, **2010**, 48, 4456-4464	2.5	20
110	High-performance graphene/sulphur electrodes for flexible Li-ion batteries using the low-temperature spraying method. *Nanoscale*, **2015**, 7, 8093-100	7.7	19
109	Flexible polymer solar cells prepared using hard stamps for the direct transfer printing of polymer blends with self-organized interfaces. *Journal of Materials Chemistry*, **2011**, 21, 11378		19
108	The 3 D Structure of Twisted Benzo[ghi]perylene-Triimide Dimer as a Non-Fullerene Acceptor for Inverted Perovskite Solar Cells. *ChemSusChem*, **2018**, 11, 415-423	8.3	19
107	Synergistic Effects of Morphological Control and Complementary Absorption in Efficient All-Small-Molecule Ternary-Blend Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 22542-50	9.5	18
106	Highly efficient organic□organic electroluminescence materials for solution-processed blue organic light-emitting diodes. *Journal of Materials Chemistry C*, **2016**, 4, 6461-6465	7.1	18
105	A dual-functional additive improves the performance of molecular bulk heterojunction photovoltaic cells. *RSC Advances*, **2014**, 4, 9401	3.7	18
104	Synthesis of main-chain metallo-copolymers containing donor and acceptor bis-terpyridyl ligands for photovoltaic applications. *Macromolecular Rapid Communications*, **2012**, 33, 528-33	4.8	18
103	Organic Base Modulation Triodes and Their Inverters on Flexible Substrates. *Advanced Materials*, **2009**, 21, 1860-1864	24	18
102	Pentacene Thin-Film Transistor with PVP-Capped High-k MgO Dielectric Grown by Reactive Evaporation. *Electrochemical and Solid-State Letters*, **2008**, 11, H118		18
101	Understanding and harnessing biomimetic molecular machines for NEMS actuation materials. *IEEE Transactions on Automation Science and Engineering*, **2006**, 3, 254-259	4.9	18
100	Graphene Nanosheets/Poly(3,4-ethylenedioxythiophene) Nanotubes Composite Materials for Electrochemical Biosensing Applications. *Electrochimica Acta*, **2015**, 172, 61-70	6.7	17
99	Modified Separators with Ultrathin Graphite Coating Simultaneously Mitigate the Issues of Metal Dendrites and Lithium Polysulfides to Provide Stable Lithium□Sulfur Batteries. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 16604-16611	8.3	16
98	Bilayer polymer solar cells prepared with transfer printing of active layers from controlled swelling/de-swelling of PDMS. *Nano Energy*, **2019**, 63, 103826	17.1	16
97	Natural polymers for disposable organic thin film transistors. *Organic Electronics*, **2018**, 54, 154-160	3.5	16
96	Nucleobase-grafted polycaprolactones as reversible networks in a novel biocompatible material. *RSC Advances*, **2013**, 3, 12598	3.7	16
95	Synthesis, Photophysical Properties, and Field-Effect Characteristics of (Ethynylphenyl)benzimidazole-Decorated Anthracene and Perylene Bisimide Derivatives. *European Journal of Organic Chemistry*, **2012**, 2012, 2906-2915	3.2	16
94	Realization of ambipolar pentacene thin film transistors through dual interfacial engineering. *Journal of Applied Physics*, **2008**, 103, 094519	2.5	16

93	Improved performance in n-channel organic thin film transistors by nanoscale interface modification. *Organic Electronics*, **2008**, 9, 262-266	3.5	16
92	UV- and NIR-Protective Semitransparent Smart Windows Based on Metal Halide Solar Cells. *ACS Applied Energy Materials*, **2018**, 1, 632-637	6.1	15
91	Interfacial engineering affects the photocatalytic activity of poly(3-hexylthiophene)-modified TiO2. *RSC Advances*, **2013**, 3, 26438	3.7	15
90	Highly Conductive PEDOT: PSS Electrode Treated with Polyethylene Glycol for ITO-Free Polymer Solar Cells. *ECS Transactions*, **2013**, 58, 49-56	1	15
89	Supramolecular assembly of H-bonded side-chain polymers containing conjugated pyridyl H-acceptor pendants and various low-band-gap H-donor dyes bearing cyanoacrylic acid groups for organic solar cell applications. *Journal of Polymer Science Part A*, **2009**, 47, 5998-6013	2.5	15
88	Circular Dichroism Control of Tungsten Diselenide (WSe) Atomic Layers with Plasmonic Metamolecules. *ACS Applied Materials & Interfaces*, **2018**, 10, 15996-16004	9.5	14
87	New self-assembled supramolecular polymers formed by self-complementary sextuple hydrogen bond motifs. *RSC Advances*, **2012**, 2, 9952	3.7	14
86	Efficient bulk heterjunction solar cells based on a low-bandgap polyfluorene copolymers and fullerene derivatives. *Organic Electronics*, **2009**, 10, 1109-1115	3.5	14
85	Enhanced omnidirectional photon coupling via quasi-periodic patterning of indium-tin-oxide for organic thin-film solar cells. *Organic Electronics*, **2011**, 12, 886-890	3.5	14
84	Synthesis of novel dithienothiophene- and 2,7-carbazole-based conjugated polymers and H-bonded effects on electrochromic and photovoltaic properties. *Journal of Polymer Science Part A*, **2012**, 50, 5011-5022	2.5	13
83	Modulating Performance and Stability of Inorganic Lead-Free Perovskite Solar Cells via Lewis-Pair Mediation. *ACS Applied Materials & Interfaces*, **2020**, 12, 32649-32657	9.5	12
82	Electrocatalytic SiC Nanoparticles/PEDOT:PSS Composite Thin Films as the Counter Electrodes of Dye-Sensitized Solar Cells. *ChemElectroChem*, **2014**, 1, 1031-1039	4.3	12
81	Plasma electrolysis allows the facile and efficient production of graphite oxide from recycled graphite. *RSC Advances*, **2013**, 3, 17402	3.7	12
80	Fine Tuning of HOMO Energy Levels for Low-Band-Gap Photovoltaic Copolymers Containing Cyclopentadithienopyrrole and Bithiazole Units. *Macromolecular Chemistry and Physics*, **2011**, 212, 1960-1970	2.6	12
79	Balancing the ambipolar conduction for pentacene thin film transistors through bifunctional electrodes. *Applied Physics Letters*, **2008**, 92, 253307	3.4	12
78	High-Performance Organic Solar Cells Featuring Double Bulk Heterojunction Structures with Vertical-Gradient Selenium Heterocyclic Nonfullerene Acceptor Concentrations. *ACS Applied Materials & Interfaces*, **2021**, 13, 27227-27236	9.5	12
77	Mitigating Metal Dendrite Formation in Lithium-Sulfur Batteries via Morphology-Tunable Graphene Oxide Interfaces. *ACS Applied Materials & Interfaces*, **2019**, 11, 2060-2070	9.5	12
76	Panchromatic heterojunction solar cells for Pb-free all-inorganic antimony based perovskite. *Chemical Engineering Journal*, **2021**, 419, 129424	14.7	12

75	Synthesis of fluorinated benzotriazole (BTZ)- and benzodithiophene (BDT)-based low-bandgap conjugated polymers for solar cell applications. *Dyes and Pigments*, **2017**, 139, 349-360	4.6	11
74	Performance of chromophore-type electrochromic devices employing indium tin oxide nanorod optical amplification. *Solar Energy Materials and Solar Cells*, **2012**, 98, 191-197	6.4	11
73	Dual-color electrochromic films incorporating a periodic polymer nanostructure. *RSC Advances*, **2012**, 2, 4746	3.7	11
72	Efficient reduction of graphene oxide catalyzed by copper. *Physical Chemistry Chemical Physics*, **2012**, 14, 3083-8	3.6	11
71	Perovskite Quantum Wells Formation Mechanism for Stable Efficient Perovskite Photovoltaics-A Real-Time Phase-Transition Study. *Advanced Materials*, **2021**, 33, e2006238	24	11
70	Novel metallo-dendrimers containing various Ru core ligands and dendritic thiophene arms for photovoltaic applications. *Polymer Chemistry*, **2014**, 5, 5423-5435	4.9	10
69	Synthesis and applications of cyano-vinylene-based polymers containing cyclopentadithiophene and dithienosilole units for photovoltaic cells. *Journal of Polymer Science Part A*, **2011**, 49, 3417-3425	2.5	10
68	Dibenzo[f,h]thieno[3,4-b] quinoxaline fullerene heterojunction bilayer solar cells with complementary spectrum coverage. *Solar Energy Materials and Solar Cells*, **2010**, 94, 1767-1771	6.4	10
67	Upconversion Plasmonic Lasing from an Organolead Trihalide Perovskite Nanocrystal with Low Threshold. *ACS Photonics*, **2021**, 8, 335-342	6.3	10
66	NbSe interlayers decrease interfacial recombination in BiI3-based hybrid solar cells. *FlatChem*, **2017**, 5, 18-24	5.1	9
65	Controlling vertical alignment of phthalocyanine nanofibers on transparent graphene-coated ITO electrodes for organic field emitters. *Journal of Materials Chemistry*, **2012**, 22, 7837		9
64	Low-voltage complementary inverters employing organic vertical-type triodes. *Organic Electronics*, **2010**, 11, 692-695	3.5	9
63	Ambipolar transport behavior in In2O3/pentacene hybrid heterostructure and their complementary circuits. *Applied Physics Letters*, **2008**, 93, 033306	3.4	9
62	Complementary hydrogen bonding interaction-mediated hole injection in organic light-emitting devices. *Journal of Materials Chemistry C*, **2017**, 5, 4736-4741	7.1	8
61	Pyrene-SH functionalized OTFT for detection of Hg2+ ions in aquatic environments. *Organic Electronics*, **2019**, 69, 275-280	3.5	8
60	Quantitative Characterization and Mechanism of Formation of Multilength-scale Bulk Heterojunction Structures in Highly Efficient Solution-Processed Small-Molecule Organic Solar Cells. *Journal of Physical Chemistry C*, **2015**, 119, 16507-16517	3.8	8
59	Stimuli-responsive polymer as gate dielectric for organic transistor sensors. *Organic Electronics*, **2020**, 85, 105818	3.5	8
58	Star-shaped self-assembly of an organic thin film transistor sensor in the presence of Cu2+ and CN⁻ ions. *Organic Electronics*, **2014**, 15, 582-589	3.5	8

57	Influence of molecular weight on silole-containing cyclopentadithiophene polymer and its impact on the electrochromic properties. *Solar Energy Materials and Solar Cells*, **2012**, 98, 300-307	6.4	8
56	Bioinspired assembly of functional block-copolymer nanotemplates. *Soft Matter*, **2013**, 9, 9608-14	3.6	8
55	Organic thin film transistors as selective sensing platforms for Hg□+ ions and the amino acid cysteine. *Biosensors and Bioelectronics*, **2013**, 42, 76-9	11.8	8
54	1-(3-Methoxycarbonyl)propyl-2-selenyl-[6,6]-methanofullerene as a n-Type Material for Organic Solar Cells. *Synthetic Metals*, **2011**, 161, 1264-1269	3.6	8
53	Enhance the light-harvesting capability of the ITO-free inverted small molecule solar cell by ZnO nanorods. *Optics Express*, **2016**, 24, 17910-5	3.3	8
52	Wet-milled anatase titanium oxide nanoparticles as a buffer layer for air-stable bulk heterojunction solar cells. *Progress in Photovoltaics: Research and Applications*, **2015**, 23, 1017-1024	6.8	7
51	Efficiency enhancement of organic solar cells using peroxo-polytitanic acid coated silver nanowires as transparent electrodes. *RSC Advances*, **2015**, 5, 18990-18996	3.7	7
50	Stable organic thin film transducers for biochemical and label-free sensing under physiological conditions. *Journal of Materials Chemistry*, **2012**, 22, 16506		7
49	Star Poly(N-isopropylacrylamide) Tethered to Polyhedral Oligomeric Silsesquioxane (POSS) Nanoparticles by a Combination of ATRP and Click Chemistry. *Journal of Nanomaterials*, **2012**, 2012, 1-10	3.2	7
48	Synthesis and applications of a novel supramolecular polymer network with multiple H-bonded melamine pendants and uracil crosslinkers. *Journal of Polymer Science Part A*, **2012**, 50, 967-975	2.5	7
47	Using metal/organic junction engineering to prepare an efficient organic base-modulation triode and its inverter. *Organic Electronics*, **2009**, 10, 1636-1640	3.5	7
46	Improve efficiency of white organic light-emitting diodes by using nanosphere arrays in color conversion layers. *Optics Express*, **2012**, 20, 3005-14	3.3	7
45	Recent Advances on Supramolecular Gels: From Stimuli-Responsive Gels to Co-Assembled and Self-Sorted Systems. *Organic Materials*, **2021**, 03, 025-040	1.9	7
44	Enhanced Organic Solar Cell Performance by Lateral Side Chain Engineering on Benzodithiophene-Based Small Molecules. *ACS Applied Energy Materials*, **2018**, 1, 3684-3692	6.1	6
43	Water-soluble fullerene-functionalized polymer micelles for efficient aqueous-processed conductive devices. *Polymer Chemistry*, **2017**, 8, 7469-7474	4.9	6
42	A cascade energy band structure enhances the carrier energy in organic vertical-type triodes. *Organic Electronics*, **2013**, 14, 2284-2289	3.5	6
41	Applications of novel dithienothiophene- and 2,7-carbazole-based conjugated polymers with surface-modified ZnO nanoparticles for organic photovoltaic cells. *Thin Solid Films*, **2011**, 519, 5212-5218	2.2	6
40	In situ infrared spectroscopic studies of molecular behavior in nanoelectronic devices		6

39	Fabrication of flexible indium tin oxide-free polymer solar cells with silver nanowire transparent electrode. *Japanese Journal of Applied Physics*, **2018**, 57, 03DD01	1.4	5
38	Study on Oxidation State Dependent Electrocatalytic Ability for I⁻/I3⁻ Redox Reaction of Reduced Graphene Oxides. *Electroanalysis*, **2014**, 26, 147-155	3	5
37	Reduced optical loss in mechanically stacked multi-junction organic solar cells exhibiting complementary absorptions. *Optics Express*, **2014**, 22 Suppl 2, A481-90	3.3	5
36	Hybrid TiOx/fluoropolymer bi-layer dielectrics for low-voltage complementary inverters. *Organic Electronics*, **2010**, 11, 154-158	3.5	5
35	Low-temperature processed bipolar metal oxide charge transporting layers for highly efficient perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2021**, 221, 110870	6.4	5
34	Asymmetric Benzotrithiophene-Based Hole Transporting Materials Provide High-Efficiency Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**,	9.5	4
33	Dion–Jacobson Phase Perovskite Ca2Nan−3NbnO3n+1 (n = 4–6) Nanosheets as High-Performance Photovoltaic Electrode Materials in a Solar Water-Splitting Cell. *ACS Applied Nano Materials*, **2020**, 3, 6367-6375	5.6	4
32	Core-Twisted Tetrachloroperylenediimides: Low-Cost and Efficient Non-Fullerene Organic Electron-Transporting Materials for Inverted Planar Perovskite Solar Cells. *ChemSusChem*, **2020**, 13, 3686-3695	8.3	4
31	Capillarity-Assisted Electrostatic Assembly of Hierarchically Functional 3D Graphene: TiO2 Hybrid Photoanodes. *Advanced Materials Interfaces*, **2015**, 2, 1500292	4.6	4
30	Efficient organic optoelectronics with multilayer structures. *Journal of Materials Chemistry*, **2012**, 22, 1364-1369		4
29	Optimization of polymer light emitting devices using TiOx electron transport layers and prism sheets. *Organic Electronics*, **2012**, 13, 2667-2670	3.5	4
28	Few-layer fluorine-functionalized graphene hole-selective contacts for efficient inverted perovskite solar cells. *Chemical Engineering Journal*, **2022**, 430, 132831	14.7	4
27	Long-lifespan lithium–metal batteries obtained using a perovskite intercalation layer to stabilize the lithium electrode. *Journal of Materials Chemistry A*, **2020**, 8, 9137-9145	13	4
26	Perfluorinated ionomer and poly(3,4-ethylenedioxythiophene) colloid as a hole transporting layer for optoelectronic devices. *Journal of Materials Chemistry A*, **2021**, 9, 17967-17977	13	4
25	Solution-Processed Perovskite/Perovskite Heterostructure Via a Grafting-Assisted Transfer Technique. *ACS Applied Energy Materials*, **2021**, 4, 1962-1971	6.1	4
24	Improved conversion efficiency of perovskite solar cells converted from thermally deposited lead iodide with dimethyl sulfoxide-treated poly(3,4-ethylenedioxythiophene) poly(styrene sulfonate). *Organic Electronics*, **2019**, 73, 266-272	3.5	3
23	Well-aligned Vertically Oriented ZnO Nanorod Arrays and their Application in Inverted Small Molecule Solar Cells. *Journal of Visualized Experiments*, **2018**,	1.6	3
22	Ubiquitous carrier harvesting in organic solar cells with embedded indium–tin-oxide nano-electrodes. *Solar Energy Materials and Solar Cells*, **2013**, 118, 102-108	6.4	3

21	Benzodithiophene-based small molecules with various termini as hole transporting materials in efficient planar perovskite solar cells. *Organic Electronics*, **2021**, 89, 106010	3.5	3
20	Efficient and stable polymer solar cells prepared using plasmonic graphene oxides as anode buffers. *Semiconductor Science and Technology*, **2015**, 30, 085013	1.8	2
19	Ultrafast dynamics of quasiparticles and coherent acoustic phonons in slightly underdoped (BaK)Fe2As2. *Scientific Reports*, **2016**, 6, 25962	4.9	2
18	Perspective on Predominant Metal Oxide Charge Transporting Materials for High-Performance Perovskite Solar Cells. *Frontiers in Materials*, **2021**, 8,	4	2
17	Design of a Metal□Organic Framework-Derived Co9S8/S Material for Achieving High Durability and High Performance of Lithium□Sulfur Batteries. *ChemElectroChem*, **2021**, 8, 3040-3048	4.3	2
16	Oxygen-Enriched □MoO3□ nanobelts suppress lithium dendrite formation in stable lithium-metal batteries. *Journal of Power Sources*, **2021**, 507, 230306	8.9	2
15	Modulation of work function of ITO by self-assembled monolayer and its effect on device characteristics of inverted perovskite solar cells. *Organic Electronics*, **2021**, 98, 106297	3.5	2
14	Photoanodes: Capillarity-Assisted Electrostatic Assembly of Hierarchically Functional 3D Graphene: TiO2 Hybrid Photoanodes (Adv. Mater. Interfaces 17/2015). *Advanced Materials Interfaces*, **2015**, 2,	4.6	1
13	P-117: High Efficient Color Conversion Layers for White Organic Light-Emitting Diodes using Polystyrene Nanosphere Monolayers. *Digest of Technical Papers SID International Symposium*, **2012**, 43, 1499-1502	0.5	1
12	Microstructural intra-granular cracking in Cu2ZnSnS4@C thin-film anode enhanced the electrochemical performance in lithium-ion battery applications. *Materials Advances*, **2021**, 2, 5672-5685	3.3	1
11	Electrochemical Performance of Orthorhombic CsPbI Perovskite in Li-Ion Batteries. *Materials*, **2021**, 14,	3.5	1
10	Core-twisted tetrachloroperylenediimide additives improve the crystallinity of perovskites to provide efficient perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2022**, 243, 111779	6.4	1
9	Sequential stacking of a thin BHJ layer acting as a morphology regulator for efficiency enhancement in non-fullerene ternary solar cells. *Chemical Engineering Journal*, **2022**, 433, 134337	14.7	0
8	Discrete Metal-Oxide Clusters with Organofunctionalization as High-Performance Anode Materials. *ACS Applied Energy Materials*, **2021**, 4, 643-654	6.1	0
7	Enhancing the Areal Capacity and Stability of CuZnSnS Anode Materials by Carbon Coating: Mechanistic and Structural Studies During Lithiation and Delithiation.. *ACS Omega*, **2022**, 7, 9152-9163	3.9	0
6	Sweetening Lithium Metal Interface by High Surface and Adhesive Energy Coating of Crystalline □ d -Glucose Film to Inhibit Dendrite Growth. *Small*,2201349	11	0
5	Electrocatalytic SiC Nanoparticles/PEDOT:PSS Composite Thin Films as the Counter Electrodes of Dye-Sensitized Solar Cells. *ChemElectroChem*, **2014**, 1, 961-961	4.3	
4	P-179: Efficiency Enhancement of PLED by Using TiOx Electron Transport Layer with Prism Sheet Attachment. *Digest of Technical Papers SID International Symposium*, **2011**, 42, 1770-1772	0.5	

3 P-113: Efficiency and Image Enhancement of Flexible Organic Light-Emitting Devices by Using Antireflection Nanopillars. *Digest of Technical Papers SID International Symposium*, **2011**, 42, 1531-1534 0.5

2 All-Carbon Composite for Photovoltaics. *Materials Research Society Symposia Proceedings*, **2011**, 1344, 1

1 Polymer electrical bistable device and memory cells. *Materials Research Society Symposia Proceedings*, **2004**, 830, 323