

# Chun-Wei Chen

## List of Publications by Year in Descending Order

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

110  
papers

8,670  
citations

40  
h-index

92  
g-index

118  
ext. papers

9,408  
ext. citations

11.2  
avg. IF

5.75  
L-index

#	Paper	IF	Citations
110	Segmented Highly Reversible Thermochromic Layered Perovskite [(CH <sub>2</sub> ) <sub>2</sub> (NH <sub>3</sub> ) <sub>2</sub> ]CuCl <sub>4</sub> Crystal Coupled with an Inverse Magnetocaloric Effect. <i>ACS Applied Electronic Materials</i> , <b>2022</b> , 4, 521-530	4	1
109	Direct investigation of the reorientational dynamics of A-site cations in 2D organic-inorganic hybrid perovskite by solid-state NMR. <i>Nature Communications</i> , <b>2022</b> , 13, 1513	17.4	0
108	Stabilized High-Membered and Phase-Pure 2D All Inorganic Ruddlesden-Popper Halide Perovskites Nanocrystals as Photocatalysts for the CO Reduction Reaction. <i>Small</i> , <b>2022</b> , e2107881	11	0
107	Atomic-Layer Controlled Interfacial Band Engineering at Two-Dimensional Layered PtSe/Si Heterojunctions for Efficient Photoelectrochemical Hydrogen Production. <i>ACS Nano</i> , <b>2021</b> , 15, 4627-4635	16.7	12
106	Metallic Nanowire Coupled CsPbBr <sub>3</sub> Quantum Dots Plasmonic Nanolaser. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102375	15.6	9
105	Two-Dimensional Bis(dithiolene)iron(II) Self-Powered UV Photodetectors with Ultrahigh Air Stability. <i>Advanced Science</i> , <b>2021</b> , 8, 2100564	13.6	3
104	Strong Excitonic Magneto-Optic Effects in Two-Dimensional Organic-Inorganic Hybrid Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 10279-10286	9.5	5
103	Self-assembly nuclei with a preferred orientation at the extended hydrophobic surface toward textured growth of ZnO nanorods in aqueous chemical bath deposition. <i>Nanotechnology</i> , <b>2021</b> , 32, 175603	7.4	1
102	Atomically Resolved Quantum-Confined Electronic Structures at Organic-Inorganic Interfaces of Two-Dimensional Ruddlesden-Popper Halide Perovskites. <i>Nano Letters</i> , <b>2021</b> , 21, 8066-8072	11.5	5
101	Interlayer Interaction Induced Layer-Dependent Catalytic Activity toward a Hydrogen Evolution Reaction on Two-Dimensional PtSe <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 19716-19723	3.8	1
100	Visualizing band alignment across 2D/3D perovskite heterointerfaces of solar cells with light-modulated scanning tunneling microscopy. <i>Nano Energy</i> , <b>2021</b> , 89, 106362	17.1	3
99	Lithographic in-mold patterning for CsPbBr <sub>3</sub> nanocrystals distributed Bragg reflector single-mode laser. <i>Nanoscale</i> , <b>2021</b> , 13, 15830-15836	7.7	2
98	Clean water generation through a multifunctional activated carbon-TiO <sub>2</sub> interfacial solar distillation system. <i>RSC Advances</i> , <b>2021</b> , 11, 23036-23044	3.7	1
97	Self-Patterned CsPbBr <sub>3</sub> Nanocrystal Based Plasmonic Hot-Carrier Photodetector at Telecommunications Wavelengths (Advanced Optical Materials 24/2021). <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2170099	8.1	
96	A Quinone-Based Electrode for High-Performance Rechargeable Aluminum-Ion Batteries with a Low-Cost AlCl <sub>3</sub> /Urea Ionic Liquid Electrolyte. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 25853-25860	8.5	22
95	Exploring the Origin of Phase-Transformation Kinetics of CsPbI <sub>3</sub> Perovskite Nanocrystals Based on Activation Energy Measurements. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 3287-3293	6.4	14
94	Fast growth of large-grain and continuous MoS <sub>2</sub> films through a self-capping vapor-liquid-solid method. <i>Nature Communications</i> , <b>2020</b> , 11, 3682	17.4	36

93	Unravelling the origin of the photocarrier dynamics of fullerene-derivative passivation of SnO <sub>2</sub> electron transporters in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 23607-23616	13	14
92	Quantum-assisted photoelectric gain effects in perovskite solar cells. <i>NPG Asia Materials</i> , <b>2020</b> , 12,	10.3	9
91	Origin of Extended UV Stability of 2D Atomic Layer Titania-Based Perovskite Solar Cells Unveiled by Ultrafast Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 21473-21480	9.5	6
90	Creation of 3D Textured Graphene/Si Schottky Junction Photocathode for Enhanced Photo-Electrochemical Efficiency and Stability. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901022	21.8	10
89	Photodrive Dipole Reordering: Key to Carrier Separation in Metalorganic Halide Perovskites. <i>ACS Nano</i> , <b>2019</b> , 13, 4402-4409	16.7	26
88	Water Splitting: Creation of 3D Textured Graphene/Si Schottky Junction Photocathode for Enhanced Photo-Electrochemical Efficiency and Stability (Adv. Energy Mater. 29/2019). <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1970115	21.8	2
87	Unveiling the Nanoparticle-Seeded Catalytic Nucleation Kinetics of Perovskite Solar Cells by Time-Resolved GIXS. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1902582	15.6	18
86	Oxidized-monolayer tunneling barrier for strong Fermi-level depinning in layered InSe transistors. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	8
85	Multilayer-graphene-stabilized lithium deposition for anode-free lithium-metal batteries. <i>Nanoscale</i> , <b>2019</b> , 11, 2710-2720	7.7	60
84	Magnetic Dipole Resonance and Coupling Effects Directly Enhance the Raman Signals of As-Grown Graphene on Copper Foil by over One Hundredfold. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 1472-1483	9.6	3
83	Low-Threshold Lasing from 2D Homologous Organic-Inorganic Hybrid Ruddlesden-Popper Perovskite Single Crystals. <i>Nano Letters</i> , <b>2018</b> , 18, 3221-3228	11.5	124
82	Self-Assembly Atomic Stacking Transport Layer of 2D Layered Titania for Perovskite Solar Cells with Extended UV Stability. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1701722	21.8	41
81	Facile Synthesis of spiro[fluorene-9,9'-spiroanthrene-10,10'-dione] in Donor-Acceptor-Donor Hole-Transporting Materials for Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2018</b> , 11, 3225-3233	8.3	33
80	Intrinsic Carrier Transport of Phase-Pure Homologous 2D Organolead Halide Hybrid Perovskite Single Crystals. <i>Small</i> , <b>2018</b> , 14, e1803763	11	26
79	Spatially and Precisely Controlled Large-Scale and Persistent Optical Gating in a TiO <sub>2</sub> -MoS <sub>2</sub> Heterostructure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 38319-38325	9.5	0
78	High-Performance InSe Transistors with Ohmic Contact Enabled by Nonrectifying Barrier-Type Indium Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 33450-33456	9.5	20
77	Effects of surface oxidation of Cu substrates on the growth kinetics of graphene by chemical vapor deposition. <i>Nanoscale</i> , <b>2017</b> , 9, 2324-2329	7.7	14
76	Spatially Resolved Imaging on Photocarrier Generations and Band Alignments at Perovskite/PbI <sub>2</sub> Heterointerfaces of Perovskite Solar Cells by Light-Modulated Scanning Tunneling Microscopy. <i>Nano Letters</i> , <b>2017</b> , 17, 1154-1160	11.5	41

75	Advanced rechargeable aluminium ion battery with a high-quality natural graphite cathode. <i>Nature Communications</i> , <b>2017</b> , 8, 14283	17.4	358
74	Environment-insensitive and gate-controllable photocurrent enabled by bandgap engineering of MoS junctions. <i>Scientific Reports</i> , <b>2017</b> , 7, 44768	4.9	10
73	Surface Oxidation Doping to Enhance Photogenerated Carrier Separation Efficiency for Ultrahigh Gain Indium Selenide Photodetector. <i>ACS Photonics</i> , <b>2017</b> , 4, 2930-2936	6.3	34
72	Critical Intermediate Structure That Directs the Crystalline Texture and Surface Morphology of Organo-Lead Trihalide Perovskite. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 36897-36906	9.5	17
71	High-Mobility InSe Transistors: The Role of Surface Oxides. <i>ACS Nano</i> , <b>2017</b> , 11, 7362-7370	16.7	132
70	Observation of quantum Hall plateau-plateau transition and scaling behavior of the zeroth Landau level in graphene p-n junctions. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	4
69	Dual Functional Polymer Interlayer for Facilitating Ion Transport and Reducing Charge Recombination in Dye-Sensitized Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 33666-33672	9.5	2
68	Tunable Photoinduced Carrier Transport of a Black Phosphorus Transistor with Extended Stability Using a Light-Sensitized Encapsulated Layer. <i>ACS Photonics</i> , <b>2016</b> , 3, 1102-1108	6.3	16
67	Intermixing-seeded growth for high-performance planar heterojunction perovskite solar cells assisted by precursor-capped nanoparticles. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 1282-1289	35.4	125
66	Iron Pyrite/Titanium Dioxide Photoanode for Extended Near Infrared Light Harvesting in a Photoelectrochemical Cell. <i>Scientific Reports</i> , <b>2016</b> , 6, 20397	4.9	23
65	Wavelength-dependent optical transition mechanisms for light-harvesting of perovskite MAPbI <sub>3</sub> solar cells using first-principles calculations. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 5248-5254	7.1	9
64	Highly active and stable hybrid catalyst of cobalt-doped FeS <sub>2</sub> nanosheets-carbon nanotubes for hydrogen evolution reaction. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 1587-92	16.4	699
63	Graphene-Based Integrated Photovoltaic Energy Harvesting/Storage Device. <i>Small</i> , <b>2015</b> , 11, 2929-37	11	76
62	Bulk intermixing-type perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> nanorod hybrid solar cells. <i>Nanoscale</i> , <b>2015</b> , 7, 14532-7	7.7	15
61	Extrinsic Origin of Persistent Photoconductivity in Monolayer MoS <sub>2</sub> Field Effect Transistors. <i>Scientific Reports</i> , <b>2015</b> , 5, 11472	4.9	94
60	Antibacterial property of Ag nanoparticle-impregnated N-doped titania films under visible light. <i>Scientific Reports</i> , <b>2015</b> , 5, 11978	4.9	41
59	Wavelength-selective dual p- and n-type carrier transport of an organic/graphene/inorganic heterostructure. <i>Advanced Materials</i> , <b>2015</b> , 27, 282-7	24	21
58	Photoluminescence quenching of graphene oxide by metal ions in aqueous media. <i>Carbon</i> , <b>2015</b> , 82, 24-30	10.4	21

57	Precisely Controlled Ultrastrong Photoinduced Doping at Graphene-Heterostructures Assisted by Trap-State-Mediated Charge Transfer. <i>Advanced Materials</i> , <b>2015</b> , 27, 7809-15	24	34
56	Sunlight-activated graphene-heterostructure transparent cathodes: enabling high-performance n-graphene/p-Si Schottky junction photovoltaics. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 2085-2092	35.4	32
55	Self-crack-filled graphene films by metallic nanoparticles for high-performance graphene heterojunction solar cells. <i>Advanced Materials</i> , <b>2015</b> , 27, 1724-9	24	58
54	Stoichiometric dependence of TiO <sub>x</sub> as a cathode modifier on band alignment of polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2014</b> , 125, 233-238	6.4	10
53	Superconductivity observed in platinum-silicon interface. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 211604	3.4	1
52	Residue-free fabrication of high-performance graphene devices by patterned PMMA stencil mask. <i>AIP Advances</i> , <b>2014</b> , 4, 067129	1.5	9
51	Layer-by-layer thin film of reduced graphene oxide and gold nanoparticles as an effective sample plate in laser-induced desorption/ionization mass spectrometry. <i>Analytica Chimica Acta</i> , <b>2014</b> , 809, 97-103	6.6	25
50	Polymer/metal-oxide hybrid solar cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 10574	13	56
49	Biologically inspired graphene-chlorophyll phototransistors with high gain. <i>Carbon</i> , <b>2013</b> , 63, 23-29	10.4	83
48	Interactions between fluorescence of atomically layered graphene oxide and metallic nanoparticles. <i>Nanoscale</i> , <b>2013</b> , 5, 1687-91	7.7	6
47	Correlation of nanoscale organizations of polymer and nanocrystals in polymer/inorganic nanocrystal bulk heterojunction hybrid solar cells: insights from multiscale molecular simulations. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 307-315	35.4	16
46	Clean-lifting transfer of large-area residual-free graphene films. <i>Advanced Materials</i> , <b>2013</b> , 25, 4521-6	24	139
45	Atomic-scale interfacial band mapping across vertically phased-separated polymer/fullerene hybrid solar cells. <i>Nano Letters</i> , <b>2013</b> , 13, 2387-92	11.5	46
44	FeS <sub>2</sub> nanocrystal ink as a catalytic electrode for dye-sensitized solar cells. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 6694-8	16.4	212
43	FeS <sub>2</sub> Nanocrystal Ink as a Catalytic Electrode for Dye-Sensitized Solar Cells. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 6826-6830	3.6	22
42	Dependence of Nanocrystal Dimensionality on the Polymer Nanomorphology, Anisotropic Optical Absorption, and Carrier Transport in P3HT:TiO <sub>2</sub> Bulk Heterojunctions. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 25081-25088	3.8	10
41	Transport/magnetotransport of high-performance graphene transistors on organic molecule-functionalized substrates. <i>Nano Letters</i> , <b>2012</b> , 12, 964-9	11.5	54
40	Quantum Dot Light-Emitting Diode Using Solution-Processable Graphene Oxide as the Anode Interfacial Layer. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 10181-10185	3.8	31

39	Self-encapsulated doping of n-type graphene transistors with extended air stability. <i>ACS Nano</i> , <b>2012</b> , 6, 6215-21	16.7	65
38	Solution-processable pyrite FeS(2) nanocrystals for the fabrication of heterojunction photodiodes with visible to NIR photodetection. <i>Advanced Materials</i> , <b>2012</b> , 24, 3415-20	24	99
37	Tunable Photoluminescence from Graphene Oxide. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 6766-6770	3.6	28
36	Tunable photoluminescence from graphene oxide. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 6662-6	16.4	520
35	Studies of Electronic Excitations of Rectangular ZnO Nanorods by Electron Energy-Loss Spectroscopy. <i>Plasmonics</i> , <b>2012</b> , 7, 123-130	2.4	5
34	Enhancement of laser action in ZnO nanorods assisted by surface plasmon resonance of reduced graphene oxide nanoflakes. <i>Optics Express</i> , <b>2012</b> , 20 Suppl 6, A799-805	3.3	25
33	Employing an amphiphilic interfacial modifier to enhance the performance of a poly(3-hexyl thiophene)/TiO <sub>2</sub> hybrid solar cell. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 4450		55
32	Enhanced infrared light harvesting of inorganic nanocrystal photovoltaic and photodetector on graphene electrode. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 263509	3.4	19
31	Electric field-assisted self-organization of polymer:fullerene hybrids on the photovoltaic performance. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2134	35.4	38
30	Top laminated graphene electrode in a semitransparent polymer solar cell by simultaneous thermal annealing/releasing method. <i>ACS Nano</i> , <b>2011</b> , 5, 6564-70	16.7	172
29	Growth and Optical Properties of Nonpolar ( $\bar{1}00$ ) Zn <sub>1-x</sub> CoxO Epitaxial Film on a $\alpha$ -LiAlO <sub>2</sub> Substrate. <i>Chemical Vapor Deposition</i> , <b>2011</b> , 17, 88-92		1
28	Solution processable nanocarbon platform for polymer solar cells. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 3521	35.4	43
27	Interplay of three-dimensional morphologies and photocarrier dynamics of polymer/TiO <sub>2</sub> bulk heterojunction solar cells. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 11614-20	16.4	64
26	Anisotropic surface plasmon excitation in Au/silica nanowire. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 263106	3.4	4
25	Nanoscale Morphology Control of Polymer/TiO <sub>2</sub> Nanocrystal Hybrids: Photophysics, Charge Generation, Charge Transport, and Photovoltaic Properties. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 18717-18724	3.8	24
24	Influence of Solvent on the Dispersion of Single-Walled Carbon Nanotubes in Polymer Matrix and the Photovoltaic Performance. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 10932-10936	3.8	15
23	Solution-processable graphene oxide as an efficient hole transport layer in polymer solar cells. <i>ACS Nano</i> , <b>2010</b> , 4, 3169-74	16.7	668
22	Polymer/Metal Oxide Nanocrystals Hybrid Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2010</b> , 16, 1635-1640	3.8	20

21	Blue photoluminescence from chemically derived graphene oxide. <i>Advanced Materials</i> , <b>2010</b> , 22, 505-9	24	1643
20	Quantitative nanoscale monitoring the effect of annealing process on the morphology and optical properties of poly(3-hexylthiophene)/[6,6]-phenyl C61-butyric acid methyl ester thin film used in photovoltaic devices. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 034506	2.5	37
19	Enhanced Charge Separation by Sieve-Layer Mediation in High-Efficiency Inorganic-Organic Solar Cells. <i>Advanced Materials</i> , <b>2009</b> , 21, 759-763	24	36
18	Growth behavior and microstructure of ZnO epilayer on $\alpha$ -LiAlO <sub>2</sub> (100) substrate by chemical vapor deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2009</b> , 206, 215-219	1.6	7
17	A first-principles study of nitrogen- and boron-assisted platinum adsorption on carbon nanotubes. <i>Carbon</i> , <b>2009</b> , 47, 850-855	10.4	172
16	Interfacial nanostructuring on the performance of polymer/TiO <sub>2</sub> nanorod bulk heterojunction solar cells. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 3644-9	16.4	277
15	The influence of interface modifier on the performance of nanostructured ZnO/polymer hybrid solar cells. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 063308	3.4	111
14	Regioregularity effects in the chain orientation and optical anisotropy of composite polymer/fullerene films for high-efficiency, large-area organic solar cells. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 5554		42
13	Extended red light harvesting in a poly(3-hexylthiophene)/iron disulfide nanocrystal hybrid solar cell. <i>Nanotechnology</i> , <b>2009</b> , 20, 405207	3.4	83
12	Transparent and conducting electrodes for organic electronics from reduced graphene oxide. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 233305	3.4	336
11	Improved charge separation and transport efficiency in poly(3-hexylthiophene)/TiO <sub>2</sub> nanorod bulk heterojunction solar cells. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 2201		58
10	Enhancing photoluminescence quenching and photoelectric properties of CdSe quantum dots with hole accepting ligands. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 675		210
9	Near-ultraviolet photodetector based on hybrid polymer/zinc oxide nanorods by low-temperature solution processes. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 233301	3.4	101
8	Investigation of nanoscale morphological changes in organic photovoltaics during solvent vapor annealing. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 306-312		269
7	Nanoscale morphology and performance of molecular-weight-dependent poly(3-hexylthiophene)/TiO <sub>2</sub> nanorod hybrid solar cells. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 4097		35
6	Polarization-dependent confocal Raman microscopy of an individual ZnO nanorod. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 223102	3.4	40
5	Substituent Effect on the Optoelectronic Properties of Alternating Fluorene-Cyclopentadithiophene Copolymers. <i>Macromolecules</i> , <b>2008</b> , 41, 6664-6671	5.5	69
4	Growth and characterization of nonpolar ZnO (101 $\bar{1}$ ) epitaxial film on $\alpha$ -LiAlO <sub>2</sub> substrate by chemical vapor deposition. <i>Journal of Crystal Growth</i> , <b>2007</b> , 308, 412-416	1.6	41

3	Nanostructured metal oxide/conjugated polymer hybrid solar cells by low temperature solution processes. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 4571		101
2	Gas molecule effects on field emission properties of single-walled carbon nanotube. <i>Diamond and Related Materials</i> , <b>2004</b> , 13, 1306-1313	3.5	22
1	Self-Patterned CsPbBr <sub>3</sub> Nanocrystal Based Plasmonic Hot-Carrier Photodetector at Telecommunications Wavelengths. <i>Advanced Optical Materials</i> , 2101474	8.1	1