

# Huipeng 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.

112  
papers

1,920  
citations

26  
h-index

37  
g-index

118  
ext. papers

2,501  
ext. citations

8.3  
avg, IF

5.32  
L-index

#	Paper	IF	Citations
112	Printed Organic Synaptic Transistor Array for One-to-many Neural Response. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	1
111	Neuromorphic display system for intelligent display. <i>Nano Energy</i> , <b>2022</b> , 94, 106931	17.1	3
110	Flexible multi-level quasi-volatile memory based on organic vertical transistor. <i>Nano Research</i> , <b>2022</b> , 15, 386	10	0
109	Synaptic transistor with tunable synaptic behavior based on a thermo-denatured polar polymer material. <i>Journal of Materials Chemistry C</i> , <b>2022</b> , 10, 5534-5541	7.1	1
108	Transparent Organic Nonvolatile Memory and Volatile Synaptic Transistors based on Floating Gate Structure. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	
107	Negative Phototransistors with Ultrahigh Sensitivity and Weak-Light Detection Based on 1D/2D Molecular Crystal p-n Heterojunctions and their Application in Light Encoders.. <i>Advanced Materials</i> , <b>2022</b> , e2201364	24	5
106	Neuron Based Driving Circuit for Flat Panel Display. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	
105	Multifunctional Memory-Synaptic Hybrid Optoelectronic Transistors for Neuromorphic Computing. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-5	2.9	2
104	Oxygen-Assisted Anisotropic Chemical Etching of MoSe <sub>2</sub> for Enhanced Phototransistors. <i>Chemistry of Materials</i> , <b>2022</b> , 34, 4212-4223	9.6	2
103	Low-voltage solution-processed artificial optoelectronic hybrid-integrated neuron based on 2D MXene for multi-task spiking neural network. <i>Nano Energy</i> , <b>2022</b> , 99, 107418	17.1	2
102	Micron-scale Resolution Image Sensor Based on Flexible Organic Thin Film Transistor Arrays via Femtosecond Laser Processing. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 1-1	4.4	
101	Heterostructured Vertical Organic Transistor for High-Performance Optoelectronic Memory and Artificial Synapse. <i>ACS Photonics</i> , <b>2021</b> , 8, 3094-3103	6.3	11
100	High-Performance Vertical Organic Phototransistors Enhanced by Ferroelectrics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 1035-1042	9.5	2
99	High-Density Reconfigurable Synaptic Transistors Targeting a Minimalist Neural Network. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 28564-28573	9.5	2
98	Artificial multisensory integration nervous system with haptic and iconic perception behaviors. <i>Nano Energy</i> , <b>2021</b> , 85, 106000	17.1	31
97	Band-tailored van der Waals heterostructure for multilevel memory and artificial synapse. <i>Information Materials</i> , <b>2021</b> , 3, 917-928	23.1	15
96	Nanoscale channel organic ferroelectric synaptic transistor array for high recognition accuracy neuromorphic computing. <i>Nano Energy</i> , <b>2021</b> , 85, 106010	17.1	26

95	An optoelectronic synaptic transistor with efficient dual modulation by light illumination. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 3412-3420	7.1	11
94	Bi-mode electrolyte-gated synaptic transistor additional ion doping and its application to artificial nociceptors. <i>Materials Horizons</i> , <b>2021</b> , 8, 2797-2807	14.4	5
93	Tuning the synaptic behaviors of biocompatible synaptic transistor through ion-doping. <i>Organic Electronics</i> , <b>2021</b> , 89, 106019	3.5	14
92	Vertical Channel Inorganic/Organic Hybrid Electrochemical Phototransistors with Ultrahigh Responsivity and Fast Response Speed. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 7498-7509	9.5	8
91	High-Performance Organic Synaptic Transistors with an Ultrathin Active Layer for Neuromorphic Computing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 8672-8681	9.5	11
90	Controlling Native Oxidation of HfS for 2D Materials Based Flash Memory and Artificial Synapse. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 10639-10649	9.5	12
89	Photonic Synaptic Transistor Based on P-Type Organic Semiconductor Blending With N-Type Organic Semiconductor. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1180-1183	4.4	3
88	A one-structure-layer PDMS/Mxenes based stretchable triboelectric nanogenerator for simultaneously harvesting mechanical and light energy. <i>Nano Energy</i> , <b>2021</b> , 86, 106118	17.1	23
87	Complementary of Ferroelectric and Floating Gate Structure for High Performance Organic Nonvolatile Memory. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100599	6.4	2
86	High Performance Organic Phototransistor Doped With MXene. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1358-1361	4.4	2
85	Noise Detection System Based on Noise Triboelectric Nanogenerator and Synaptic Transistors. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1334-1337	4.4	2
84	Bioinspired kinesthetic system for human-machine interaction. <i>Nano Energy</i> , <b>2021</b> , 88, 106283	17.1	12
83	Direct Fabrication of Stretchable Electronics on a Programmable Stiffness Substrate With 100% Strain Isolation. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1484-1487	4.4	3
82	Stretchable vertical organic transistors and their applications in neurologically systems. <i>Nano Energy</i> , <b>2021</b> , 90, 106497	17.1	6
81	A full transparent high-performance flexible phototransistor with an ultra-short channel length. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 1604-1613	7.1	4
80	An organic synaptic transistor with integration of memory and neuromorphic computing. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 9972-9981	7.1	3
79	Polymer bulk-heterojunction synaptic field-effect transistors with tunable decay constant. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 4854-4861	7.1	2
78	An intrinsically healing artificial neuromorphic device. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 6869-6876	7.1	6

77	Stretchable synaptic transistors with tunable synaptic behavior. <i>Nano Energy</i> , <b>2020</b> , 75, 104952	17.1	40
76	High-performance Nonvolatile Organic Photoelectronic Transistor Memory Based on Bulk Heterojunction Structure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 31716-31724	9.5	19
75	Electret-Based Organic Synaptic Transistor for Neuromorphic Computing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 15446-15455	9.5	41
74	A novel post-processed surface modified double-network polymer layer for a triboelectric nanogenerator. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 6328-6336	13	14
73	Improved stability and performance of all inorganic perovskite quantum dots synthesized directly with N-alkylmonoamine ligands for light-erasable transistor memory. <i>Organic Electronics</i> , <b>2020</b> , 86, 105869	3.5	8
72	Modulation of the plasticity of an all-metal oxide synaptic transistor via laser irradiation. <i>Nanotechnology</i> , <b>2020</b> , 31, 215202	3.4	5
71	Self-powered high-sensitivity sensory memory actuated by triboelectric sensory receptor for real-time neuromorphic computing. <i>Nano Energy</i> , <b>2020</b> , 75, 104930	17.1	38
70	A multilevel vertical photonic memory transistor based on organic semiconductor/inorganic perovskite quantum dot blends. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 2861-2869	7.1	21
69	Gate-tunable all-inorganic QLED with enhanced charge injection balance. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 1280-1285	7.1	6
68	High-Performance Organic Electrochemical Transistors with Nanoscale Channel Length and Their Application to Artificial Synapse. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 49915-49925	9.5	18
67	High-resolution organic field-effect transistors manufactured by electrohydrodynamic inkjet printing of doped electrodes. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 15219-15223	7.1	9
66	Quantitative characterization of interface stress using a nanoindentation technique for high performance flexible electronics. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 12155-12163	7.1	1
65	Artificial Indium-Tin-Oxide Synaptic Transistor by Inkjet Printing Using Solution-Processed ZrOx Gate Dielectric. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2020</b> , 217, 2000314	1.6	4
64	Nonvolatile Multilevel Photomemory Based on Lead-Free Double Perovskite CsAgBiBr Nanocrystals Wrapped Within SiO as a Charge Trapping Layer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 43967-43975	9.5	13
63	Self-powered artificial auditory pathway for intelligent neuromorphic computing and sound detection. <i>Nano Energy</i> , <b>2020</b> , 78, 105403	17.1	34
62	All-metal oxide synaptic transistor with modulatable plasticity. <i>Nanotechnology</i> , <b>2020</b> , 31, 065201	3.4	9
61	Improvement of Device Performance of Organic Photovoltaics via Laser Irradiation. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 22058-22065	3.8	3
60	Gelatin-hydrogel based organic synaptic transistor. <i>Organic Electronics</i> , <b>2019</b> , 75, 105409	3.5	24

59	A multi-input light-stimulated synaptic transistor for complex neuromorphic computing. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 12523-12531	7.1	46
58	High-Performance Quantum-Dot Light-Emitting Transistors Based on Vertical Organic Thin-Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 35888-35895	9.5	19
57	Flexible ultra-short channel organic ferroelectric non-volatile memory transistors. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 998-1005	7.1	43
56	High performance n-type vertical organic phototransistors. <i>Organic Electronics</i> , <b>2019</b> , 67, 200-207	3.5	11
55	High-Performance Low-Voltage Flexible Photodetector Arrays Based on All-Solid-State Organic Electrochemical Transistors for Photosensing and Imaging. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20214-20224	9.5	26
54	Defect Self-Compensation for High-Mobility Bilayer InGaZnO/In <sub>2</sub> O <sub>3</sub> Thin-Film Transistor. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900125	6.4	27
53	A universal strategy to improve the mechanical stability of flexible organic thin film transistors. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 6323-6331	7.1	6
52	High-Performance Organic Phototransistors With Vertical Structure Design. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 1815-1818	2.9	13
51	Improving device performance of n-type organic field-effect transistors via doping with a p-type organic semiconductor. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 4543-4550	7.1	22
50	Self-powered artificial synapses actuated by triboelectric nanogenerator. <i>Nano Energy</i> , <b>2019</b> , 60, 377-384	7.1	73
49	Impact of new skeletal isomerization in polymer semiconductors. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 10860-10867	7.1	5
48	The effect of light environment during the film formation process on the morphology and function of organic photovoltaics. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 10581-10588	7.1	1
47	Ultra-high stability of cesium lead halide nanocrystals synthesized by a simple one-pot method. <i>Materials and Design</i> , <b>2019</b> , 181, 108100	8.1	7
46	High performance flexible multilevel optical memory based on a vertical organic field effect transistor with ultrashort channel length. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 9229-9240	7.1	34
45	Low-temperature solution-processed flexible metal oxide thin-film transistors via laser annealing. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 385105	3	11
44	High-Performance All-Inorganic Perovskite-Quantum-Dot-Based Flexible Organic Phototransistor Memory with Architecture Design. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900864	6.4	21
43	Synaptic Transistor Capable of Accelerated Learning Induced by Temperature-Facilitated Modulation of Synaptic Plasticity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 46008-46016	9.5	50
42	Flexible metal oxide synaptic transistors using biomass-based hydrogel as gate dielectric. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 484002	3	18

41	Solution-Processed Oxide Complementary Inverter via Laser Annealing and Inkjet Printing. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 4888-4893	2.9	8
40	High performance inkjet-printed metal oxide thin film transistors via addition of insulating polymer with proper molecular weight. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 012102	3.4	21
39	A Postalignment Method for High-Mobility Organic Thin-Film Transistors. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1101-1106	2.9	12
38	Design of Highly Stable Tungsten-Doped IZO Thin-Film Transistors With Enhanced Performance. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1018-1022	2.9	19
37	High Performance Flexible Organic Phototransistors with Ultrashort Channel Length. <i>ACS Photonics</i> , <b>2018</b> , 5, 3712-3722	6.3	47
36	Enhanced Reliability of InGaZnO Thin-Film Transistors Through Design of Dual Passivation Layers. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 2844-2849	2.9	26
35	Modification of polymer gate dielectrics for organic thin-film transistor from inkjet printing. <i>Applied Physics A: Materials Science and Processing</i> , <b>2018</b> , 124, 1	2.6	2
34	Interface engineering with double-network dielectric structure for flexible organic thin film transistors. <i>Organic Electronics</i> , <b>2018</b> , 52, 213-221	3.5	8
33	High-Performance All-Solution-Processed Flexible Photodetector Arrays Based on Ultrashort Channel Amorphous Oxide Semiconductor Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 40631-40640	9.5	24
32	Regioregular and Regioirregular Poly(selenophene-perylene diimide) Acceptors for Polymer-Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 32397-32403	9.5	13
31	Inkjet-Printed Vertical Organic Field-Effect Transistor Arrays and Their Image Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 30587-30595	9.5	47
30	Modulation of bulk heterojunction morphology through small bridge changes for polymer solar cells with enhanced performance. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 5999-6007	7.1	5
29	Solution-Processed Organic Thin-Film Transistor Arrays with the Assistance of Laser Ablation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 3849-3856	9.5	22
28	Effects of Nitrogen and Hydrogen Codoping on the Electrical Performance and Reliability of InGaZnO Thin-Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 10798-10804	9.5	41
27	Importance of Solvent Removal Rate on the Morphology and Device Performance of Organic Photovoltaics with Solvent Annealing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 20679-20685	9.5	15
26	Surface Infused Interpenetrating Network as Gate Dielectric for High Performance Thin Film Transistors. <i>Macromolecular Materials and Engineering</i> , <b>2017</b> , 302, 1600562	3.9	4
25	Low-Frequency Noise in High-Mobility $\alpha$ -InGaZnO/InSnO Nanowire Composite Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1540-1542	4.4	10
24	Solution-processed metal oxide arrays using femtosecond laser ablation and annealing for thin-film transistors. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 9273-9280	7.1	28

23	Morphology of a Ternary Blend Solar Cell Based on Small Molecule:Conjugated Polymer:Fullerene Fabricated by Blade Coating. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1703268	15.6	24
22	High Performance Flexible Nonvolatile Memory Based on Vertical Organic Thin Film Transistor. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1703541	15.6	82
21	High-Performance Nonvolatile Organic Transistor Memory Using Quantum Dots-Based Floating Gate. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 3816-3821	2.9	21
20	Impact of Fullerene Structure on Nanoscale Morphology and Miscibility and Correlation of Performance on Small Molecules: Fullerene Solar Cell. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 21317-21324	3.8	14
19	Improving Charge Mobility of Polymer Transistors by Judicious Choice of the Molecular Weight of Insulating Polymer Additive. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 17282-17289	3.8	23
18	Importance of domain purity in semi-conducting polymer/insulating polymer blends transistors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2016</b> , 54, 1760-1766	2.6	17
17	Boost up the electrical performance of InGaZnO thin film transistors by inserting an ultrathin InGaZnO:H layer. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 213501	3.4	51
16	Tuning the Morphology and Performance of Low Bandgap Polymer:Fullerene Heterojunctions via Solvent Annealing in Selective Solvents. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5129-5136	15.6	41
15	The Impact of Fullerene Structure on Its Miscibility with P3HT and Its Correlation of Performance in Organic Photovoltaics. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 3993-4003	9.6	23
14	Control of morphology and function of low band gap polymerBis-fullerene mixed heterojunctions in organic photovoltaics with selective solvent vapor annealing. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 9883	13	28
13	Distinguishing the Importance of Fullerene Phase Separation from Polymer Ordering in the Performance of Low Band Gap Polymer:Bis-Fullerene Heterojunctions. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 7284-7290	15.6	19
12	The Role of Fullerene Mixing Behavior in the Performance of Organic Photovoltaics: PCBM in Low-Bandgap Polymers. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 140-150	15.6	50
11	Influence of thermal history on mesoscale ordering in polydomain smectic networks. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2013</b> , 51, 225-230	2.6	1
10	Correlation of polymeric compatibilizer structure to its impact on the morphology and function of P3HT:PCBM bulk heterojunctions. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 5309	13	30
9	Precise Structural Development and its Correlation to Function in Conjugated Polymer: Fullerene Thin Films by Controlled Solvent Annealing. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 1701-1710	15.6	64
8	Solution templating of Au and Ag nanoparticles by linear poly[2-(diethylamino)ethyl methacrylate]. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1	2.3	3
7	Surface infusion micropatterning of elastomeric substrates. <i>Microfluidics and Nanofluidics</i> , <b>2012</b> , 12, 451-484	4.8	5
6	The miscibility and depth profile of PCBM in P3HT: thermodynamic information to improve organic photovoltaics. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 5635-41	3.6	68

5	Influence of strain rate and temperature on necking transition in a polydomain smectic main chain elastomer. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2011</b> , 49, 591-598	2.6	6
4	Multifunctional MoTe <sub>2</sub> Fe-FET Enabled by Ferroelectric Polarization-Assisted Charge Trapping. <i>Advanced Functional Materials</i> , 2110415	15.6	5
3	Floating-gate based PN blending optoelectronic synaptic transistor for neural machine translation. <i>Science China Materials</i> , 1	7.1	1
2	Recent advances in stretchable field-effect transistors. <i>Journal of Materials Chemistry C</i> ,	7.1	5
1	A light-emitting electrochemical artificial synapse with dual output of photoelectric signals. <i>Science China Materials</i> , 1	7.1	1