Jie Jiang

List of Publications by Year in Descending Order

107 papers	2,307 citations	26 h-index	42 g-index
112 ext. papers	2,896 ext. citations	5 avg, IF	5.48 L-index

#	Paper	IF	Citations
107	Anisotropic 2D materials for post-Moore photoelectric devices. *Journal of Semiconductors*, **2022**, 43, 010201	2.3	1
106	A biopolymer-gated ionotronic junctionless oxide transistor array for spatiotemporal pain-perception emulation in nociceptor network.. *Nanoscale*, **2022**,	7.7	11
105	Tailoring micro/nanostructured porous polytetrafluoroethylene surfaces for dual-reversible transition of wettability and transmittance. *Chemical Engineering Journal*, **2022**, 434, 134756	14.7	13
104	Water-induced dual ultrahigh mobilities over 400 cm2 V−1 s−1 in 2D MoS2 transistors for ultralow-voltage operation and photoelectric synapse perception. *Journal of Materials Chemistry C*, **2022**, 10, 5249-5256	7.1	1
103	Polarization-perceptual anisotropic two-dimensional ReS neuro-transistor with reconfigurable neuromorphic vision.. *Materials Horizons*, **2022**,	14.4	7
102	Femtosecond Laser Thermal Accumulation-Triggered Micro-/Nanostructures with Patternable and Controllable Wettability Towards Liquid Manipulating.. *Nano-Micro Letters*, **2022**, 14, 97	19.5	12
101	MoS2-based Multiterminal Ionic Transistor with Orientation-dependent STDP Learning Rules. *Solid-State Electronics*, **2022**, 108386	1.7	0
100	High-sensitivity detection of Concanavalin A using MoS2-based field effect transistor biosensor. *Journal Physics D: Applied Physics*, **2021**, 54, 245401	3	3
99	Flexible Vertical Photogating Transistor Network with an Ultrashort Channel for In-Sensor Visual Nociceptor. *Advanced Functional Materials*, **2021**, 31, 2104327	15.6	25
98	Recent Progress in Anisotropic 2D Semiconductors: From Material Properties to Photoelectric Detection. *Physica Status Solidi (A) Applications and Materials Science*, **2021**, 218, 2100204	1.6	4
97	Ion Migration Accelerated Reaction between Oxygen and Metal Halide Perovskites in Light and Its Suppression by Cesium Incorporation. *Advanced Energy Materials*, **2021**, 11, 2002552	21.8	26
96	Photoelectric Visual Adaptation Based on 0D-CsPbBr3-Quantum-Dots/2D-MoS2 Mixed-Dimensional Heterojunction Transistor. *Advanced Functional Materials*, **2021**, 31, 2010655	15.6	31
95	2D transition metal dichalcogenides for neuromorphic vision system. *Journal of Semiconductors*, **2021**, 42, 090203	2.3	3
94	Low threshold optical bistability in graphene/waveguide hybrid structure at terahertz frequencies. *Optics Communications*, **2021**, 499, 127282	2	2
93	Recent progress on two-dimensional neuromorphic devices and artificial neural network. *Current Applied Physics*, **2021**, 31, 182-198	2.6	8
92	Modification of FA0.85MA0.15Pb(I0.85Br0.15)3 Films by NH2-POSS. *Crystals*, **2021**, 11, 1544	2.3	1
91	Modification of C60 nano-interlayers on organic field-effect transistors based on 2,7-diocty[1]benzothieno-[3,2-b]benzothiophene (C8-BTBT)/SiO2. *Results in Physics*, **2020**, 19, 103590	3.7	4

90	Polymer-Decorated 2D MoS2 Synaptic Transistors for Biological Bipolar Metaplasticities Emulation. *Chinese Physics Letters*, **2020**, 37, 088501	1.8	18
89	Research progress on hybrid organic□inorganic perovskites for photo-applications. *Chinese Chemical Letters*, **2020**, 31, 3055-3064	8.1	15
88	Type-II Interface Band Alignment in the vdW PbI-MoSe Heterostructure. *ACS Applied Materials & Interfaces*, **2020**, 12, 32099-32105	9.5	8
87	High-Sensitivity Terahertz Refractive Index Sensor in a Multilayered Structure with Graphene. *Nanomaterials*, **2020**, 10,	5.4	12
86	Solution-processed ultra-flexible C8-BTBT organic thin-film transistors with the corrected mobility over 18□cm2/(V s). *Science Bulletin*, **2020**, 65, 791-795	10.6	11
85	Poly(vinyl alcohol)-gated junctionless Al-Zn-O phototransistor for photonic and electric hybrid neuromorphic computation. *Solid-State Electronics*, **2020**, 165, 107767	1.7	20
84	Graphene-based low-threshold and tunable optical bistability in one-dimensional photonic crystal Fano resonance heterostructure at optical communication band. *Optics Express*, **2020**, 28, 34948-34959	3.3	7
83	Photoemission studies of C8-BTBT/La0.67Sr0.33MnO3 interface. *Synthetic Metals*, **2020**, 260, 116261	3.6	6
82	A Sub-10 nm Vertical Organic/Inorganic Hybrid Transistor for Pain-Perceptual and Sensitization-Regulated Nociceptor Emulation. *Advanced Materials*, **2020**, 32, e1906171	24	74
81	The effect of air exposure on device performance of flexible C8-BTBT organic thin-film transistors with hygroscopic insulators. *Science China Materials*, **2020**, 63, 2551-2559	7.1	3
80	Enhanced and tunable terahertz spin hall effect of reflected light due to tamm plasmons with topological insulators. *Results in Physics*, **2020**, 19, 103392	3.7	1
79	Vertical 0D-Perovskite/2D-MoS van der Waals Heterojunction Phototransistor for Emulating Photoelectric-Synergistically Classical Pavlovian Conditioning and Neural Coding Dynamics. *Small*, **2020**, 16, e2005217	11	46
78	Emerging uniform Cu2O nanocubes for 251st harmonic ultrashort pulse generation. *Journal of Materials Chemistry C*, **2020**, 8, 14386-14392	7.1	22
77	Neuromorphic Photoelectric Devices: Vertical 0D-Perovskite/2D-MoS2 van der Waals Heterojunction Phototransistor for Emulating Photoelectric-Synergistically Classical Pavlovian Conditioning and Neural Coding Dynamics (Small 45/2020). *Small*, **2020**, 16, 2070244	11	1
76	Effective passivation of black phosphorus against atmosphere by quasi-monolayer of F4TCNQ molecules. *Applied Physics Letters*, **2020**, 117, 061602	3.4	6
75	Hardware implementation of photoelectrically modulated dendritic arithmetic and spike-timing-dependent plasticity enabled by an ion-coupling gate-tunable vertical 0D-perovskite/2D-MoS hybrid-dimensional van der Waals heterostructure. *Nanoscale*, **2020**, 12, 21798-21811	7.7	27
74	Modification of an ultrathin C interlayer on the electronic structure and molecular packing of C8-BTBT on HOPG. *Physical Chemistry Chemical Physics*, **2020**, 22, 25264-25271	3.6	3
73	2D electric-double-layer phototransistor for photoelectronic and spatiotemporal hybrid neuromorphic integration. *Nanoscale*, **2019**, 11, 1360-1369	7.7	132

72	Proton‐electron-coupled MoS2 synaptic transistors with a natural renewable biopolymer neurotransmitter for brain-inspired neuromorphic learning. *Journal of Materials Chemistry C*, **2019**, 7, 682-691	7.1	43
71	Lightweight flexible indium-free oxide TFTs with AND logic function employing chitosan biopolymer as self-supporting layer. *Solid-State Electronics*, **2019**, 153, 16-22	1.7	34
70	A homogeneous p-n junction diode by selective doping of few layer MoSe using ultraviolet ozone for high-performance photovoltaic devices. *Nanoscale*, **2019**, 11, 13469-13476	7.7	26
69	FeO nanoparticles as a saturable absorber for giant chirped pulse generation. *Beilstein Journal of Nanotechnology*, **2019**, 10, 1065-1072	3	15
68	Interface Energy-Level Alignment between Black Phosphorus and F16CuPc Molecular Films. *Journal of Physical Chemistry C*, **2019**, 123, 10443-10450	3.8	10
67	PbI-MoS Heterojunction: van der Waals Epitaxial Growth and Energy Band Alignment. *Journal of Physical Chemistry Letters*, **2019**, 10, 4203-4208	6.4	16
66	Lead sulfide nanoparticles for dual-wavelength ultrashort pulse generation. *Nanotechnology*, **2019**, 31, 085202	3.4	5
65	In situ surface modification of TiO2 by CaTiO3 to improve the UV stability and power conversion efficiency of perovskite solar cells. *Applied Physics Letters*, **2019**, 115, 213501	3.4	16
64	Interfacial electronic structures of MoOx/mixed perovskite photodetector. *Organic Electronics*, **2019**, 65, 162-169	3.5	22
63	Low-power logic computing realized in a single electric-double-layer MoS2 transistor gated with polymer electrolyte. *Solid-State Electronics*, **2018**, 144, 1-6	1.7	10
62	From MoO2@MoS2 Core‐Shell Nanorods to MoS2 Nanobelts. *Physica Status Solidi (B): Basic Research*, **2018**, 255, 1800254	1.3	15
61	Coplanar Multigate MoS Electric-Double-Layer Transistors for Neuromorphic Visual Recognition. *ACS Applied Materials & Interfaces*, **2018**, 10, 25943-25948	9.5	74
60	Transient security transistors self-supported on biodegradable natural-polymer membranes for brain-inspired neuromorphic applications. *Nanoscale*, **2018**, 10, 14893-14901	7.7	69
59	Interface Electronic Structure between Au and Black Phosphorus. *Journal of Physical Chemistry C*, **2018**, 122, 18405-18411	3.8	5
58	Famatinite Cu3SbS4 nanocrystals as hole transporting material for efficient perovskite solar cells. *Journal of Materials Chemistry C*, **2018**, 6, 7989-7993	7.1	14
57	Energy Level Evolution and Oxygen Exposure of Fullerene/Black Phosphorus Interface. *Journal of Physical Chemistry Letters*, **2018**, 9, 5254-5261	6.4	11
56	Electronic Structures and Nanofilm Growth of 2,7-Dioctyl[1]Benzothieno[3,2-b]Benzothiophene on Black Phosphorus. *Journal of Nanoscience and Nanotechnology*, **2018**, 18, 4332-4336	1.3	2
55	Low-voltage electric-double-layer MoS2 transistor gated via water solution. *Solid-State Electronics*, **2018**, 150, 8-15	1.7	24

54	PbS Nanoparticles for Ultrashort Pulse Generation in Optical Communication Region. *Particle and Particle Systems Characterization*, **2018**, 35, 1800341	3.1	62
53	Initial photochemical stability in perovskite solar cells based on the Cu electrode and the appropriate charge transport layers. *Synthetic Metals*, **2018**, 246, 101-107	3.6	16
52	Recent Progress on Neuromorphic Synapse Electronics: From Emerging Materials, Devices, to Neural Networks. *Journal of Nanoscience and Nanotechnology*, **2018**, 18, 8003-8015	1.3	11
51	Bidirectionally-trigged 2D MoS2 synapse through coplanar-gate electric-double-layer polymer coupling for neuromorphic complementary spatiotemporal learning. *Organic Electronics*, **2018**, 63, 120-128	3.5	53
50	Vertical organic-inorganic hybrid transparent oxide TFTs gated by biodegradable electric-double-layer biopolymer. *Organic Electronics*, **2017**, 44, 1-5	3.5	31
49	Fullerene (C60) interlayer modification on the electronic structure and the film growth of 2,7-diocty[1]benzothieno-[3,2-b]benzothiophene on SiO2. *Synthetic Metals*, **2017**, 229, 1-6	3.6	13
48	2D MoS Neuromorphic Devices for Brain-Like Computational Systems. *Small*, **2017**, 13, 1700933	11	200
47	Observation of abnormal mobility enhancement in multilayer MoS 2 transistor by synergy of ultraviolet illumination and ozone plasma treatment. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 87, 150-154	3	18
46	The correlations of the electronic structure and film growth of 2,7-diocty[1]benzothieno[3,2-b]benzothiophene (C8-BTBT) on SiO. *Physical Chemistry Chemical Physics*, **2017**, 19, 1669-1676	3.6	24
45	Enhanced performance of multilayer MoS2 transistor employing a polymer capping layer. *Organic Electronics*, **2017**, 40, 75-78	3.5	23
44	Tuning the threshold voltage from depletion to enhancement mode in a multilayer MoS2 transistor via oxygen adsorption and desorption. *Physical Chemistry Chemical Physics*, **2016**, 18, 685-9	3.6	17
43	Dual-Gate MoS2 FET With a Coplanar-Gate Engineering. *IEEE Transactions on Electron Devices*, **2016**, 63, 573-577	2.9	8
42	Chitosan-gated low-voltage transparent indium-free aluminum-doped zinc oxide thin-film transistors. *Organic Electronics*, **2016**, 33, 311-315	3.5	33
41	Tuning the hysteresis voltage in 2D multilayer MoS2 FETs. *Physica B: Condensed Matter*, **2016**, 498, 76-81	2.8	21
40	Solution-processed natural gelatin was used as a gate dielectric for the fabrication of oxide field-effect transistors. *Organic Electronics*, **2016**, 38, 357-361	3.5	30
39	Bio-inspired coplanar-gate-coupled ITO-free oxide-based transistors employing natural nontoxic bio-polymer electrolyte. *Organic Electronics*, **2016**, 37, 474-478	3.5	16
38	Chitosan solid electrolyte as electric double layer in multilayer MoS2 transistor for low-voltage operation. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 2219-2225	1.6	21
37	Thermal oxidation of Ni films for p-type thin-film transistors. *Physical Chemistry Chemical Physics*, **2013**, 15, 6875-8	3.6	46

36	Flexible Dual-Gate Oxide TFTs Gated by Chitosan Film on Paper Substrates. *IEEE Electron Device Letters*, **2013**, 34, 259-261	4.4	21
35	Flexible protonic/electronic coupled neuron transistors self-assembled on paper substrates for logic applications. *Applied Physics Letters*, **2013**, 102, 093509	3.4	35
34	Indium-tin-oxide thin film transistor biosensors for label-free detection of avian influenza virus H5N1. *Analytica Chimica Acta*, **2013**, 773, 83-88	6.6	49
33	Transparent Junctionless Electric-Double-Layer Transistors Gated by a Reinforced Chitosan-Based Biopolymer Electrolyte. *IEEE Transactions on Electron Devices*, **2013**, 60, 1951-1957	2.9	18
32	Low-Voltage Oxide-Based TFTs Self-Assembled on Paper Substrates With Tunable Threshold Voltage. *IEEE Transactions on Electron Devices*, **2012**, 59, 380-384	2.9	2
31	Junctionless Flexible Oxide-Based Thin-Film Transistors on Paper Substrates. *IEEE Electron Device Letters*, **2012**, 33, 65-67	4.4	28
30	Low-Voltage Oxide-Based Electric-Double-Layer TFTs Gated by Stacked $hbox{SiO}_{2}$ Electrolyte/Chitosan Hybrid Dielectrics. *IEEE Electron Device Letters*, **2012**, 33, 848-850	4.4	11
29	In-plane-gate indium-tin-oxide thin-film transistors self-assembled on paper substrates. *Applied Physics Letters*, **2011**, 98, 113507	3.4	27
28	Flexible Low-Voltage Electric-Double-Layer TFTs Self-Assembled on Paper Substrates. *IEEE Electron Device Letters*, **2011**, 32, 518-520	4.4	16
27	. *IEEE Transactions on Electron Devices*, **2011**, 58, 547-552	2.9	18
26	Low-Voltage Transparent Indium□Zinc□Oxide Coplanar Homojunction TFTs Self-Assembled on Inorganic Proton Conductors. *IEEE Transactions on Electron Devices*, **2011**, 58, 764-768	2.9	9
25	Anomalous Threshold Voltage Shift and Surface Passivation of Transparent Indium□Zinc□Oxide Electric-Double-Layer TFTs. *IEEE Electron Device Letters*, **2011**, 32, 910-912	4.4	5
24	Low-Voltage Electric-Double-Layer TFTs on $ hbox{SiO}_{2}$-Covered Paper Substrates. *IEEE Electron Device Letters*, **2011**, 32, 1543-1545	4.4	6
23	Ultralow-Voltage Transparent $hbox{In}_{2} hbox{O}_{3}$ Nanowire Electric-Double-Layer Transistors. *IEEE Electron Device Letters*, **2011**, 32, 315-317	4.4	9
22	Junctionless in-plane-gate transparent thin-film transistors. *Applied Physics Letters*, **2011**, 99, 193502	3.4	18
21	Low-Voltage Organic/Inorganic Hybrid Transparent Thin-Film Transistors Gated by Chitosan-Based Proton Conductors. *IEEE Electron Device Letters*, **2011**, 32, 1549-1551	4.4	25
20	Density-of-State and Trap Modeling of Low-Voltage Electric-Double-Layer TFTs. *IEEE Electron Device Letters*, **2011**, 32, 512-514	4.4	1
19	. *IEEE Electron Device Letters*, **2011**, 32, 1710-1712	4.4	2

18	Dual in-plane-gate oxide-based thin-film transistors with tunable threshold voltage. *Applied Physics Letters*, **2011**, 99, 113504	3.4	14
17	Self-Assembled In-Plane Gate Oxide-Based Homojunction Thin-Film Transistors. *IEEE Electron Device Letters*, **2011**, 32, 500-502	4.4	16
16	Electrostatic modification of oxide semiconductors by electric double layers of microporous SiO2-based solid electrolyte. *Journal of Applied Physics*, **2011**, 109, 054501	2.5	7
15	Modeling of low-voltage oxide-based electric-double-layer thin-film transistors fabricated at room temperature. *Applied Physics Letters*, **2011**, 98, 093506	3.4	8
14	Low-voltage transparent electric-double-layer ZnO-based thin-film transistors for portable transparent electronics. *Applied Physics Letters*, **2010**, 96, 043114	3.4	42
13	Microporous SiO2-based solid electrolyte with improved polarization response for 0.8 V transparent thin-film transistors. *Journal Physics D: Applied Physics*, **2010**, 43, 295103	3	2
12	Low-Voltage Oxide Homojunction Electric-Double-Layer Transistors Gated by Ion-Incorporated Inorganic Solid Electrolytes. *Japanese Journal of Applied Physics*, **2010**, 49, 110201	1.4	5
11	Vertical low-voltage oxide transistors gated by microporous SiO2/LiCl composite solid electrolyte with enhanced electric-double-layer capacitance. *Applied Physics Letters*, **2010**, 97, 052104	3.4	12
10	. *IEEE Electron Device Letters*, **2010**,	4.4	1
9	One-Shadow-Mask Self-Assembled Ultralow-Voltage Coplanar Homojunction Thin-Film Transistors. *IEEE Electron Device Letters*, **2010**, 31, 1137-1139	4.4	47
8	Low-voltage transparent SnO2 nanowire transistors gated by microporous SiO2 solid-electrolyte with improved polarization response. *Journal of Materials Chemistry*, **2010**, 20, 8010		30
7	One-Volt Oxide Thin-Film Transistors on Paper Substrates Gated by $hbox{SiO}_{2}$-Based Solid Electrolyte With Controllable Operation Modes. *IEEE Transactions on Electron Devices*, **2010**, 57, 2258-2263	2.9	20
6	Low-voltage electric-double-layer paper transistors gated by microporous SiO2 processed at room temperature. *Applied Physics Letters*, **2009**, 95, 222108	3.4	50
5	Ultralow-voltage transparent electric-double-layer thin-film transistors processed at room-temperature. *Applied Physics Letters*, **2009**, 95, 152114	3.4	76
4	Microporous SiO2 with huge electric-double-layer capacitance for low-voltage indium tin oxide thin-film transistors. *Applied Physics Letters*, **2009**, 95, 222905	3.4	48
3	Automated elicitation of inclusion dependencies from the source code for database transactions. *Journal of Software: Evolution and Process*, **2003**, 15, 379-392		4
2	Software cost estimation through conceptual requirement **2003**,		4
1	From Pain to Fear Recognition via Pavlovian Learning in an Organic/Inorganic Hybrid Neuromorphic Transistor. *Advanced Electronic Materials*,2101174	6.4	0