

# Zhong-Ming Wei

## 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.

172 papers	6,200 citations	46 h-index	72 g-index
188 ext. papers	7,783 ext. citations	9.1 avg, IF	6.16 L-index

#	Paper	IF	Citations
172	Twist-angle two-dimensional superlattices and their application in (opto)electronics. <i>Journal of Semiconductors</i> , <b>2022</b> , 43, 011001	2.3	2
171	Polarimetric Image Sensor and Fermi Level Shifting Induced Multichannel Transition Based on 2D PdPS (Adv. Mater. 2/2022). <i>Advanced Materials</i> , <b>2022</b> , 34, 2270016	24	
170	Recombination Time Mismatch and Spin Dependent Photocurrent at a Ferromagnetic-Metal-Semiconductor Tunnel Junction.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 057701	7.4	1
169	Band-Like Charge Transport in Small-Molecule Thin Film toward High-Performance Organic Phototransistors at Low Temperature. <i>Advanced Optical Materials</i> , <b>2022</b> , 10, 2102484	8.1	3
168	2D Ultrawide Bandgap Semiconductors: Odyssey and Challenges.. <i>Small Methods</i> , <b>2022</b> , e2101348	12.8	2
167	Recent progress in optoelectronic applications of hybrid 2D/3D silicon-based heterostructures. <i>Science China Materials</i> , <b>2022</b> , 65, 876-895	7.1	0
166	Continuous orientated growth of scaled single-crystal 2D monolayer films. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 6545-6567	5.1	0
165	Integrated polarization-sensitive amplification system for digital information transmission. <i>Nature Communications</i> , <b>2021</b> , 12, 6476	17.4	10
164	Strain-engineering on GeSe: Raman spectroscopy study. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 26997-27004	3.6	0
163	Intrinsic Linear Dichroism of Organic Single Crystals toward High-Performance Polarization-Sensitive Photodetectors. <i>Advanced Materials</i> , <b>2021</b> , e2105665	24	6
162	Polarimetric Image Sensor and Fermi Level Shifting Induced Multichannel Transition Based on 2D PdPS. <i>Advanced Materials</i> , <b>2021</b> , e2107206	24	8
161	Polarizer-free polarimetric image sensor through anisotropic two-dimensional GeSe. <i>Science China Materials</i> , <b>2021</b> , 64, 1230-1237	7.1	6
160	Excitons in two-dimensional van der Waals heterostructures. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 053001	3	3
159	Van der Waals epitaxial growth of air-stable CrSe nanosheets with thickness-tunable magnetic order. <i>Nature Materials</i> , <b>2021</b> , 20, 818-825	27	68
158	Cross-Substitution Promoted Ultrawide Bandgap up to 4.5 eV in a 2D Semiconductor: Gallium Thiophosphate. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008761	24	13
157	The More, the BetterRecent Advances in Construction of 2D Multi-Heterostructures. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102049	15.6	9
156	Birefringence and Dichroism in Quasi-1D Transition Metal Trichalcogenides: Direct Experimental Investigation. <i>Small</i> , <b>2021</b> , 17, e2100457	11	5

155	Short-Wave Near-Infrared Polarization Sensitive Photodetector Based on GaSb Nanowire. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 549-552	4.4	6
154	Low-Noise Dual-Band Polarimetric Image Sensor Based on 1D Bi <sub>2</sub> S <sub>3</sub> Nanowire. <i>Advanced Science</i> , <b>2021</b> , 8, e2100075	13.6	16
153	Transition Metal Trichalcogenides: Birefringence and Dichroism in Quasi-1D Transition Metal Trichalcogenides: Direct Experimental Investigation (Small 21/2021). <i>Small</i> , <b>2021</b> , 17, 2170098	11	
152	Ferroelectric-tuned van der Waals heterojunction with band alignment evolution. <i>Nature Communications</i> , <b>2021</b> , 12, 4030	17.4	18
151	Photodetectors: Cross-Substitution Promoted Ultrawide Bandgap up to 4.5 eV in a 2D Semiconductor: Gallium Thiophosphate (Adv. Mater. 22/2021). <i>Advanced Materials</i> , <b>2021</b> , 33, 2170169	24	
150	Large Perpendicular Magnetic Anisotropy in Ta/CoFeB/MgO on Full-Coverage Monolayer MoS <sub>2</sub> and First-Principles Study of Its Electronic Structure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 32579-32589 <sup>1</sup>	9.5	1
149	Application of transition metal dichalcogenides in mid-infrared fiber laser. <i>Nano Select</i> , <b>2021</b> , 2, 37-46	3.1	5
148	Extrinsic Photoconduction Induced Short-Wavelength Infrared Photodetectors Based on Ge-Based Chalcogenides. <i>Small</i> , <b>2021</b> , 17, e2006765	11	9
147	In-Plane Optical and Electrical Anisotropy of 2D Black Arsenic. <i>ACS Nano</i> , <b>2021</b> , 15, 1701-1709	16.7	14
146	Direct Polarimetric Image Sensor and Wide Spectral Response Based on Quasi-1D Sb <sub>2</sub> S <sub>3</sub> Nanowire. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006601	15.6	16
145	Effectively modulating thermal activated charge transport in organic semiconductors by precise potential barrier engineering. <i>Nature Communications</i> , <b>2021</b> , 12, 21	17.4	18
144	Direct Synthesis and Enhanced Rectification of Alloy-to-Alloy 2D Type-II MoS <sub>2</sub> /SnS <sub>2</sub> Heterostructures. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006908	24	7
143	Vertical Heterostructures: Direct Synthesis and Enhanced Rectification of Alloy-to-Alloy 2D Type-II MoS <sub>2</sub> (1-x)Se <sub>2</sub> x/SnS <sub>2</sub> (1-y)Se <sub>2</sub> y Heterostructures (Adv. Mater. 8/2021). <i>Advanced Materials</i> , <b>2021</b> , 33, 2170059	24	1
142	Flexible Sensors Based on Organic-Inorganic Hybrid Materials. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2000889	6.8	10
141	Quantum Confinement Effects on Excitonic Properties in the 2D vdW quantum system: The ZnO/WSe <sub>2</sub> Case. <i>Advanced Photonics Research</i> , <b>2021</b> , 2, 2000114	1.9	0
140	Nondegenerate P-Type In-Doped SnS <sub>2</sub> Monolayer Transistor. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2001168	6.4	6
139	Intermediate anomalous Hall states induced by noncollinear spin structure in the magnetic topological insulator MnBi <sub>2</sub> Te <sub>4</sub> . <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	2
138	Decoupling of the Electrical and Thermal Transports in Strongly Coupled Interlayer Materials. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 7832-7839	6.4	1

- 137 Tunable Alloying Improved Wide Spectrum UV-Vis-NIR and Polarization-Sensitive Photodetector Based on Sb<sub>2</sub>Se<sub>3</sub> Nanowires. *IEEE Transactions on Electron Devices*, **2021**, 68, 3887-3893 2.9 5
- 136 Strain driven band alignment transition of the ferromagnetic VS<sub>2</sub>/C<sub>3</sub>N van der Waals heterostructure\*. *Chinese Physics B*, **2021**, 30, 097507 1.2 1
- 135 Gate-controlled ambipolar transport in b-AsP crystals and their VIS-NIR photodetection. *Nanoscale*, **2021**, 13, 10579-10586 7.7 4
- 134 When graphene meets white graphene - recent advances in the construction of graphene and h-BN heterostructures. *Nanoscale*, **2021**, 13, 13174-13194 7.7 3
- 133 Reversible Half Wave Rectifier Based on 2D InSe/GeSe Heterostructure with Near-Broken Band Alignment. *Advanced Science*, **2021**, 8, 1903252 13.6 13
- 132 Preparation and Properties of 2D Semiconductors **2020**, 79-98
- 131 Visible Phototransistors Based on Vertical Nanolayered Heterostructures of SnS/SnS<sub>2</sub> p/n and SnSe<sub>2</sub>/SnS<sub>2</sub> n/p Nanoflakes. *ACS Applied Nano Materials*, **2020**, 3, 6847-6854 5.6 7
- 130 Orbital localization induced magnetization in nonmetal-doped phosphorene. *Journal Physics D: Applied Physics*, **2020**, 53, 155001 3 1
- 129 From negative to positive magnetoresistance in the intrinsic magnetic topological insulator MnBi<sub>2</sub>Te<sub>4</sub>. *Physical Review B*, **2020**, 101,
- 128 Recent Advances of 2D Materials in Nonlinear Photonics and Fiber Lasers. *Advanced Optical Materials*, **2020**, 8, 1901631 8.1 78
- 127 Saturable absorption properties and femtosecond mode-locking application of titanium trisulfide. *Applied Physics Letters*, **2020**, 116, 061901 3.4 36
- 126 Polarization-Sensitive Photodetectors: Symmetry-Reduction Enhanced Polarization-Sensitive Photodetection in Core/Shell SbI<sub>3</sub>/Sb<sub>2</sub>O<sub>3</sub> van der Waals Heterostructure (Small 7/2020). *Small*, **2020**, 16, 2070036 11 0
- 125 Symmetry-Reduction Enhanced Polarization-Sensitive Photodetection in Core-Shell SbI<sub>3</sub>/Sb<sub>2</sub>O<sub>3</sub> van der Waals Heterostructure. *Small*, **2020**, 16, e1907172 11 18
- 124 Preparing two-dimensional crystalline conjugated polymer films by synergetic polymerization and self-assembly at air/water interface. *Polymer Chemistry*, **2020**, 11, 1572-1579 4.9 5
- 123 Properties of 2D Alloying and Doping **2020**, 99-122
- 122 Non-layered ZnSb nanoplates for room temperature infrared polarized photodetectors. *Journal of Materials Chemistry C*, **2020**, 8, 6388-6395 7.1 14
- 121 Temperature dependence of charge transport in solid-state molecular junctions based on oligo(phenylene ethynylene)s. *Nanotechnology*, **2020**, 31, 164001 3.4 2
- 120 Recent advances in low-dimensional semiconductor nanomaterials and their applications in high-performance photodetectors. *Information Materials*, **2020**, 2, 291-317 23.1 54

119	Iron-doping induced multiferroic in two-dimensional In <sub>2</sub> Se <sub>3</sub> . <i>Science China Materials</i> , <b>2020</b> , 63, 421-428	7.1	16
118	Relieving the Photosensitivity of Organic Field-Effect Transistors. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906122	4	34
117	Quasiparticle Band Structure and Optical Properties of the Janus Monolayer and Bilayer SnSSe. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 23832-23838	3.8	9
116	Intercalation of Two-dimensional Layered Materials. <i>Chemical Research in Chinese Universities</i> , <b>2020</b> , 36, 584-596	2.2	10
115	Spin-Valve Effect in FeGeTe/MoS/FeGeTe van der Waals Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 43921-43926	9.5	39
114	Strong Anisotropy and Piezo-Phototronic Effect in SnO <sub>2</sub> Microwires. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901441	6.4	7
113	Transport Properties of Two-Dimensional Materials	<b>2020</b> , 55-78	1
112	Two-dimensional X Se <sub>2</sub> (X = Mn, V) based magnetic tunneling junctions with high Curie temperature. <i>Chinese Physics B</i> , <b>2019</b> , 28, 107504	1.2	12
111	Perseverance of direct bandgap in multilayer 2D PbI <sub>2</sub> under an experimental strain up to 7.69%. <i>2D Materials</i> , <b>2019</b> , 6, 025014	5.9	14
110	A ternary SnSSe alloy for flexible broadband photodetectors.. <i>RSC Advances</i> , <b>2019</b> , 9, 14352-14359	3.7	4
109	Optical and electrical properties of two-dimensional anisotropic materials. <i>Journal of Semiconductors</i> , <b>2019</b> , 40, 061001	2.3	42
108	Multifunctional Photodetectors Based on Nanolayered Black Phosphorus/SnS <sub>0.5</sub> Se <sub>1.5</sub> Heterostructures. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 3548-3555	5.6	5
107	Metal Chalcogenides: Versatile Crystal Structures and (Opto)electronic Applications of the 2D Metal Mono-, Di-, and Tri-Chalcogenide Nanosheets (Adv. Funct. Mater. 24/2019). <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1970161	15.6	2
106	Highly Polarized Photoelectrical Response in vdW ZrS <sub>3</sub> Nanoribbons. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900419	6.4	29
105	Influence of solid-state electrolyte on 2D SnS <sub>2</sub> field effect transistors. <i>Materials Research Express</i> , <b>2019</b> , 6, 086320	1.7	3
104	Thickness-Dependent Ultrafast Photonics of SnS <sub>2</sub> Nanolayers for Optimizing Fiber Lasers. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 2697-2705	5.6	35
103	Versatile Crystal Structures and (Opto)electronic Applications of the 2D Metal Mono-, Di-, and Tri-Chalcogenide Nanosheets. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900040	15.6	37
102	2D Functional Systems: Recent Advances in the Functional 2D Photonic and Optoelectronic Devices (Advanced Optical Materials 3/2019). <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1970010	8.1	

101	Mixed-Valence-Driven Quasi-1D SnIISnVS <sub>3</sub> with Highly Polarization-Sensitive UV-Vis-NIR Photoresponse. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904416	15.6	22
100	Direct Wide Bandgap 2D GeSe <sub>2</sub> Monolayer toward Anisotropic UV Photodetection. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900622	8.1	36
99	Electronic structures, magnetic properties and lattice strain effects of quaternary Heusler alloys RuMnCrZ (Z = P, As, Sb). <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 505003	3	1
98	Machine learning in materials science. <i>Information Materials</i> , <b>2019</b> , 1, 338-358	23.1	141
97	Nonvolatile memristor based on heterostructure of 2D room-temperature ferroelectric Hn <sub>2</sub> Se <sub>3</sub> and WSe <sub>2</sub> . <i>Science China Information Sciences</i> , <b>2019</b> , 62, 1	3.4	16
96	Recent progress in polarization-sensitive photodetectors based on low-dimensional semiconductors. <i>Wuli Xuebao/Acta Physica Sinica</i> , <b>2019</b> , 68, 163201	0.6	5
95	Magnetic and transport properties of a ferromagnetic layered semiconductor MnIn <sub>2</sub> Se <sub>4</sub> . <i>Applied Physics Letters</i> , <b>2019</b> , 115, 222101	3.4	2
94	p-MoS/n-InSe van der Waals heterojunctions and their applications in all-2D optoelectronic devices.. <i>RSC Advances</i> , <b>2019</b> , 9, 35039-35044	3.7	7
93	Band-like transport in small-molecule thin films toward high mobility and ultrahigh detectivity phototransistor arrays. <i>Nature Communications</i> , <b>2019</b> , 10, 12	17.4	107
92	The Coulomb interaction in van der Waals heterostructures. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2019</b> , 62, 1	3.6	19
91	Tunable Schottky barrier width and enormously enhanced photoresponsivity in Sb doped SnS <sub>2</sub> monolayer. <i>Nano Research</i> , <b>2019</b> , 12, 463-468	10	50
90	Press-engineered funnel effect in MoS <sub>2</sub> monolayer homojunction. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 055103	3	1
89	Electronic structure and exciton shifts in Sb-doped MoS <sub>2</sub> monolayer. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	56
88	Growth of two-dimensional materials on hexagonal boron nitride (h-BN). <i>Nanotechnology</i> , <b>2019</b> , 30, 034003	9.4	11
87	Recent Advances in the Functional 2D Photonic and Optoelectronic Devices. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801274	8.1	158
86	Multistate Logic Inverter Based on Black Phosphorus/SnSeS Heterostructure. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800416	6.4	16
85	Graphyne and Its Family: Recent Theoretical Advances. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 2692-2706	9.5	82
84	Highly polarization sensitive photodetectors based on quasi-1D titanium trisulfide (TiS <sub>3</sub> ). <i>Nanotechnology</i> , <b>2018</b> , 29, 184002	3.4	40

83	Type-I Transition Metal Dichalcogenides Lateral Homojunctions: Layer Thickness and External Electric Field Effects. <i>Small</i> , <b>2018</b> , 14, e1800365	11	30
82	Tunable electric properties of bilayer InSe with different interlayer distances and external electric field. <i>Semiconductor Science and Technology</i> , <b>2018</b> , 33, 034002	1.8	8
81	Toward High-Performance Photodetectors Based on 2D Materials: Strategy on Methods. <i>Small Methods</i> , <b>2018</b> , 2, 1700349	12.8	83
80	Two-dimensional n-InSe/p-GeSe(SnS) van der Waals heterojunctions: High carrier mobility and broadband performance. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	79
79	Diamine anchored molecular junctions of oligo(phenylene ethynylene) cruciform. <i>Chinese Chemical Letters</i> , <b>2018</b> , 29, 271-275	8.1	6
78	Various Structures of 2D Transition-Metal Dichalcogenides and Their Applications. <i>Small Methods</i> , <b>2018</b> , 2, 1800094	12.8	49
77	Type-II InSe/MoSe <sub>2</sub> (WSe <sub>2</sub> ) van der Waals heterostructures: vertical strain and electric field effects. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 10010-10019	7.1	38
76	Highly anisotropic solar-blind UV photodetector based on large-size two-dimensional $\alpha$ -MoO <sub>3</sub> atomic crystals. <i>2D Materials</i> , <b>2018</b> , 5, 035033	5.9	32
75	Black Arsenic: A Layered Semiconductor with Extreme In-Plane Anisotropy. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800754	24	109
74	Chemical vapor deposition growth of two-dimensional heterojunctions. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2018</b> , 61, 1	3.6	42
73	Perpendicular Optical Reversal of the Linear Dichroism and Polarized Photodetection in 2D GeAs. <i>ACS Nano</i> , <b>2018</b> , 12, 12416-12423	16.7	100
72	Large tunneling magnetoresistance in magnetic tunneling junctions based on two-dimensional CrX (X = Br, I) monolayers. <i>Nanoscale</i> , <b>2018</b> , 10, 22196-22202	7.7	26
71	Field-Effect Transistors: Thickness-Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic (Adv. Funct. Mater. 43/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870312	15.6	1
70	Thickness-Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802581	15.6	80
69	Tunable electronic and optical properties of InSe/InTe van der Waals heterostructures toward optoelectronic applications. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 7201-7206	7.1	63
68	Turning a disadvantage into an advantage: synthesizing high-quality organometallic halide perovskite nanosheet arrays for humidity sensors. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 2504-2508	7.1	52
67	Tunable Schottky Barrier at MoSe <sub>2</sub> /Metal Interfaces with a Buffer Layer. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 9305-9311	3.8	31
66	A type-II GeSe/SnS heterobilayer with a suitable direct gap, superior optical absorption and broad spectrum for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 13400-13410	13	108



65	Light induced double band state anti-ambipolar behavior and self-driven photoswitching in p-WSe <sub>2</sub> /n-SnS <sub>2</sub> heterostructures. <i>2D Materials</i> , <b>2017</b> , 4, 025097	5.9	46
64	High-performance photodetectors based on SbS <sub>2</sub> nanowires: wavelength dependence and wide temperature range utilization. <i>Nanoscale</i> , <b>2017</b> , 9, 12364-12371	7.7	52
63	Electric field induced electronic properties modification of ZrS <sub>2</sub> /HfS <sub>2</sub> van der Waals heterostructure. <i>RSC Advances</i> , <b>2017</b> , 7, 14625-14630	3.7	22
62	Large-scale 2D PbI <sub>2</sub> monolayers: experimental realization and their indirect band-gap related properties. <i>Nanoscale</i> , <b>2017</b> , 9, 3736-3741	7.7	75
61	Short-Wave Near-Infrared Linear Dichroism of Two-Dimensional Germanium Selenide. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 14976-14982	16.4	191
60	A two-dimensional Fe-doped SnS magnetic semiconductor. <i>Nature Communications</i> , <b>2017</b> , 8, 1958	17.4	214
59	Type-I Ca(OH) <sub>2</sub> /BMoTe <sub>2</sub> vdW heterostructure for ultraviolet optoelectronic device applications: electric field effects. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 12629-12634	7.1	20
58	Role of defects in enhanced Fermi level pinning at interfaces between metals and transition metal dichalcogenides. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	20
57	Tunable Electronic Structures of GeSe Nanosheets and Nanoribbons. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 14373-14379	3.8	44
56	Electric field-tunable electronic structures of 2D alkaline-earth metal hydroxide/graphene heterostructures. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 7230-7235	7.1	20
55	Electrostatic gating dependent multiple-band alignments in a high-temperature ferromagnetic Mg(OH) <sub>2</sub> /VS <sub>2</sub> heterobilayer. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	24
54	Composition-tunable 2D SnSe <sub>2</sub> (1-x)S <sub>2</sub> x alloys towards efficient bandgap engineering and high performance (opto)electronics. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 84-90	7.1	64
53	Co-nucleus 1D/2D Heterostructures with Bi <sub>2</sub> S <sub>3</sub> Nanowire and MoS <sub>2</sub> Monolayer: One-Step Growth and Defect-Induced Formation Mechanism. <i>ACS Nano</i> , <b>2016</b> , 10, 8938-46	16.7	55
52	Gate-tunable diode-like current rectification and ambipolar transport in multilayer van der Waals ReSe <sub>2</sub> /WS <sub>2</sub> p-n heterojunctions. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 27750-27753	3.6	23
51	Large-Size 2D Bi <sub>2</sub> S <sub>3</sub> Nanosheets with Giant Phase Transition Temperature Lowering (120 K) Synthesized by a Novel Method of Super-Cooling Chemical-Vapor-Deposition. <i>Advanced Materials</i> , <b>2016</b> , 28, 8271-8276	24	46
50	Anti-Ambipolar Field-Effect Transistors Based On Few-Layer 2D Transition Metal Dichalcogenides. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 15574-81	9.5	56
49	Enhanced rectification, transport property and photocurrent generation of multilayer ReSe <sub>2</sub> /MoS <sub>2</sub> p-n heterojunctions. <i>Nano Research</i> , <b>2016</b> , 9, 507-516	10	107
48	Wavelength dependent UV-Vis photodetectors from SnS <sub>2</sub> flakes. <i>RSC Advances</i> , <b>2016</b> , 6, 422-427	3.7	48



47	Tuned polarity and enhanced optoelectronic performances of few-layer Nb <sub>0.125</sub> Re <sub>0.875</sub> Se <sub>2</sub> flakes. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 112102	3.4	6
46	Flexible photodetectors based on phase dependent PbI <sub>2</sub> single crystals. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 6492-6499	7.1	77
45	Direct Vapor Phase Growth and Optoelectronic Application of Large Band Offset SnS <sub>2</sub> /MoS <sub>2</sub> Vertical Bilayer Heterostructures with High Lattice Mismatch. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1600298	6.4	128
44	An Efficient and Low-Cost Photolithographic-Pattern-Transfer Technique to Fabricate Electrode Arrays for Micro-/Nanoelectronics. <i>Advanced Materials Technologies</i> , <b>2016</b> , 1, 1600001	6.8	23
43	Synthesis and transport properties of large-scale alloy Co(0.16)Mo(0.84)S <sub>2</sub> bilayer nanosheets. <i>ACS Nano</i> , <b>2015</b> , 9, 1257-62	16.7	64
42	Electric-Field Tunable Band Offsets in Black Phosphorus and MoS <sub>2</sub> van der Waals p-n Heterostructure. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 2483-8	6.4	153
41	Novel Optical and Electrical Transport Properties in Atomically Thin WSe <sub>2</sub> /MoS <sub>2</sub> p-n Heterostructures. <i>Advanced Electronic Materials</i> , <b>2015</b> , 1, 1400066	6.4	52
40	Role of redox centre in charge transport investigated by novel self-assembled conjugated polymer molecular junctions. <i>Nature Communications</i> , <b>2015</b> , 6, 7478	17.4	37
39	Thickness-dependent Raman spectra, transport properties and infrared photoresponse of few-layer black phosphorus. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 10974-10980	7.1	85
38	Ultra-sensitive humidity sensors based on ZnSb <sub>2</sub> O <sub>4</sub> nanoparticles. <i>RSC Advances</i> , <b>2015</b> , 5, 2429-2433	3.7	10
37	High-performance single crystalline UV photodetectors of BiGa <sub>2</sub> O <sub>3</sub> . <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 619, 572-575	5.7	90
36	Strain induced piezoelectric effect in black phosphorus and MoS <sub>2</sub> van der Waals heterostructure. <i>Scientific Reports</i> , <b>2015</b> , 5, 16448	4.9	73
35	Tunable Polarity Behavior and Self-Driven Photoswitching in p-WSe <sub>2</sub> /n-WSiHeterojunctions. <i>Small</i> , <b>2015</b> , 11, 5430-8	11	84
34	Gate-Tunable Ultrahigh Photoresponsivity of 2D Heterostructures Based on Few Layer MoS <sub>2</sub> and Solution-Processed rGO. <i>Advanced Electronic Materials</i> , <b>2015</b> , 1, 1500267	6.4	25
33	Improving the field-effect performance of Bi <sub>2</sub> S <sub>3</sub> single nanowires by an asymmetric device fabrication. <i>ChemPhysChem</i> , <b>2015</b> , 16, 99-103	3.2	15
32	Molecular Heterojunctions of Oligo(phenylene ethynylene)s with Linear to Cruciform Framework. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 1700-1708	15.6	25
31	Gas-dependent photoresponse of SnS nanoparticles-based photodetectors. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 1397-1402	7.1	76
30	Photoresponsive and gas sensing field-effect transistors based on multilayer WSi nanoflakes. <i>Scientific Reports</i> , <b>2014</b> , 4, 5209	4.9	313

29	Low temperature electrical transport and photoresponsive properties of H-doped MoO <sub>3</sub> nanosheets. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 1034-1040	7.1	25
28	Oxygen-induced abnormal photoelectric behavior of a MoO <sub>3</sub> /graphene heterocomposite. <i>RSC Advances</i> , <b>2014</b> , 4, 49873-49878	3.7	10
27	Novel and Enhanced Optoelectronic Performances of Multilayer MoS <sub>2</sub> /WS <sub>2</sub> Heterostructure Transistors. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 7025-7031	15.6	320
26	From MoS <sub>2</sub> Microspheres to MoO <sub>3</sub> Nanoplates: Growth Mechanism and Photocatalytic Activities. <i>European Journal of Inorganic Chemistry</i> , <b>2014</b> , 2014, 3245-3251	2.3	36
25	Effect of electrical contact on the performance of Bi <sub>2</sub> Se <sub>3</sub> single nanowire photodetectors. <i>ChemPhysChem</i> , <b>2014</b> , 15, 2510-6	3.2	17
24	Triazatriangulene as binding group for molecular electronics. <i>Langmuir</i> , <b>2014</b> , 30, 14868-76	4	24
23	Effect of the thickness of Bi <sub>2</sub> Se <sub>3</sub> sheets on the morphologies of Bi <sub>2</sub> Se <sub>3</sub> /SnS nanocomposites and improved photoresponsive characteristic. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2013</b> , 24, 4197-4203	2.1	4
22	Abnormal low-temperature behavior of a continuous photocurrent in Bi <sub>2</sub> S <sub>3</sub> nanowires. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 5866	7.1	17
21	Ultrathin reduced graphene oxide films as transparent top-contacts for light switchable solid-state molecular junctions. <i>Advanced Materials</i> , <b>2013</b> , 25, 4164-70	24	68
20	Solution-processed ultrathin chemically derived graphene films as soft top contacts for solid-state molecular electronic junctions. <i>Advanced Materials</i> , <b>2012</b> , 24, 1333-9	24	75
19	Synthesis, experimental and theoretical characterization, and field-effect transistor properties of a new class of dibenzothiophene derivatives: From linear to cyclic architectures. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 1313-1325		40
18	Molecular junctions based on SAMs of cruciform oligo(phenylene ethynylene)s. <i>Langmuir</i> , <b>2012</b> , 28, 4016-23	4.23	33
17	Inkjet-Printed Organic Electrodes for Bottom-Contact Organic Field-Effect Transistors. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 786-791	15.6	26
16	Ultrasensitive water-processed monolayer photodetectors. <i>Chemical Science</i> , <b>2011</b> , 2, 796	9.4	60
15	Development of organic field-effect properties by introducing aryl-acetylene into benzodithiophene. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 10931		24
14	Blending induced stack-ordering and performance improvement in a solution-processed n-type organic field-effect transistor. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 1203-1207		26
13	Biphase micro/nanometer sized single crystals of organic semiconductors: Control synthesis and their strong phase dependent optoelectronic properties. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 143302	3.4	44
12	Organic single crystal field-effect transistors based on 6H-pyrrolo[3,2-b:4,5-b']bis[1,4]benzothiazine and its derivatives. <i>Advanced Materials</i> , <b>2010</b> , 22, 2458-62	24	48

11	High-Performance Langmuir-Blodgett Monolayer Transistors with High Responsivity. <i>Angewandte Chemie</i> , <b>2010</b> , 122, 6463-6467	3.6	30
10	Langmuir-Blodgett monolayer transistors of copper phthalocyanine. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 033304	3.4	21
9	Synthesis and Properties of Heteroacenes Containing Pyrrole and Thiazine Rings as Promising n-Type Organic Semiconductor Candidates. <i>Chinese Journal of Chemistry</i> , <b>2009</b> , 27, 846-849	4.9	4
8	Nanowire crystals of a rigid rod conjugated polymer. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 17315-20	16.4	123
7	Langmuir-Blodgett monolayer as an efficient p-conducting channel of ambipolar organic transistors and a template for n-type molecular alignment. <i>Langmuir</i> , <b>2009</b> , 25, 3349-51	4	31
6	Air-stable ambipolar organic field-effect transistor based on a novel bi-channel structure. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 2420		17
5	6H-Pyrrolo[3,2-b:4,5-b']bis[1,4]benzothiazines: facilely synthesized semiconductors for organic field-effect transistors. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 4814		27
4	Tetrathia[22]annulene[2,1,2,1]: physical properties, crystal structure and application in organic field-effect transistors. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 4377		37
3	Polarization Sensitive Solar-Blind Ultraviolet Photodetectors Based on Ultrawide Bandgap KNb <sub>3</sub> O <sub>8</sub> Nanobelt with Fringe-Like Atomic Lattice. <i>Advanced Functional Materials</i> , 2111673	15.6	10
2	Polarization-sensitive and wide-spectrum photovoltaic detector based on quasi-1D ZrGeTe <sub>4</sub> nanoribbon. <i>Informa Materials</i> ,	23.1	2
1	Cation-Alloying-Induced Blue-Shifted and Wide-Spectrum Polarization-Sensitive Photodetection in Quasi-1D SbBiS <sub>3</sub> . <i>Small Structures</i> , 2200061	8.7	0