

# Giant bandgap renormalization and excitonic effects in dichalcogenide semiconductor

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Citation Report



#	ARTICLE	IF	CITATIONS
28	Electrical Tuning of Exciton Binding Energies in Monolayer $WS_2$ Physical Review Letters, 2015, 115, 126802.	2.9	323
29	Signatures of Bloch-Band Geometry on Excitons: Nonhydrogenic Spectra in Transition-Metal Dichalcogenides. Physical Review Letters, 2015, 115, 166802.	2.9	122
30	Experimental Evidence for Dark Excitons in Monolayer $WSe_2$ Physical Review Letters, 2015, 115, 257403.	2.9	376
31	Intervalley biexcitons and many-body effects in monolayer $MoS_2$ Physical Review B, 2015, 92, .	1.1	49
32	Excitonic effects in two-dimensional semiconductors: Path integral Monte Carlo approach. Physical Review B, 2015, 92, .	1.1	49
33	Systematic study of structural, electronic, and optical properties of atomic-scale defects in the two-dimensional transition metal dichalcogenides		

#	ARTICLE	IF	CITATIONS
46	Band renormalization and spin polarization of MoS <sub>2</sub> in graphene/MoS <sub>2</sub> heterostructures. Physica Status Solidi - Rapid Research Letters, 2015, 9, 701-706.	1.2	17
47	Revealing Optical Properties of Reduced-Dimensionality Materials at Relevant Length Scales. Advanced Materials, 2015, 27, 5693-5719.	11.1	29
48	Exciton Mapping at Subwavelength Scales in Two-Dimensional Materials. Physical Review Letters, 2015, 114, 107601.	2.9	79
49	Magneto-optics in transition metal diselenide monolayers. 2D Materials, 2015, 2, 034002.	2.0	126
50	Van der Waals Epitaxy of Two-Dimensional MoS <sub>2</sub> –Graphene Heterostructures in Ultrahigh Vacuum. ACS Nano, 2015, 9, 6502-6510.	7.3	153
51	Charge Transfer Excitons at van der Waals Interfaces. Journal of the American Chemical Society, 2015, 137, 8313-8320.	6.6	252
52	Robust Excitons and Trions in Monolayer MoTe <sub>2</sub> . ACS Nano, 2015, 9, 6603-6609.	7.3	148
53	Spin-orbit engineering in transition metal dichalcogenide alloy monolayers. Nature Communications, 2015, 6, 10110.	5.8	176
54	Vibrational and optical properties of MoS <sub>2</sub> : From monolayer to bulk. Surface Science Reports, 2015, 70, 554-586.	3.8	178
55	Chemical Vapor Deposition Growth of Graphene and Related Materials. Journal of the Physical Society of Japan, 2015, 84, 121013.	0.7	24
56	Exciton states in monolayer MoSe <sub>2</sub> : impact on interband transitions. 2D Materials, 2015, 2, 045005.	2.0	71
57	Resonant Raman and photoluminescence spectra of suspended molybdenum disulfide. 2D Materials, 2015, 2, 044003.	2.0	35
58	Quasiparticle energies, excitons, and optical spectra of few-layer black phosphorus. 2D Materials, 2015, 2, 044014.	2.0	77
59	Nonanalyticity, Valley Quantum Phases, and Lightlike Exciton Dispersion in Monolayer Transition Metal Dichalcogenides: Theory and First-Principles Calculations. Physical Review Letters, 2015, 115, 176801.	2.9	196
60	Effects of substrates on the nonlinear optical responses of two-dimensional materials. Optics Express, 2015, 23, 31817.	1.7	16
61	Observation of Excitonic Fine Structure in a 2D Transition-Metal Dichalcogenide Semiconductor. ACS Nano, 2015, 9, 647-655.	7.3	288
62	Carrier Plasmon Induced Nonlinear Band Gap Renormalization in Two-Dimensional Semiconductors. Physical Review Letters, 2015, 114, 063001.	2.9	118
63	Bandgap tunability at single-layer molybdenum disulphide grain boundaries. Nature Communications, 2015, 6, 6298.	5.8	358

#	ARTICLE	IF	CITATIONS
64	Field Effect Transistors with Current Saturation and Voltage Gain in Ultrathin ReS <sub>2</sub> . ACS Nano, 2015, 9, 363-370.	7.3	169
65	Electronic Structure of Epitaxial Single-Layer MoS <sub>2</sub> . Physical Review Letters, 2015, 114, 046802.	2.9	140
66	Magnetic control of valley pseudospin in monolayer WSe <sub>2</sub> . Nature Physics, 2015, 11, 148-152.	6.5	720
67	Valley excitons in two-dimensional semiconductors. National Science Review, 2015, 2, 57-70.	4.6	254
68	Graphdiyne metal contacts and graphdiyne transistors. Nanoscale, 2015, 7, 2116-2127.	2.8	94
69	Giant Enhancement of the Optical Second-Harmonic Emission of WSe <sub>2</sub> by Laser Excitation at Exciton Resonances. Physical Review Letters, 2015, 114, 097403.	2.9	464
70	Population inversion and giant bandgap renormalization in atomically thin WS <sub>2</sub> layers. Nature Photonics, 2015, 9, 466-470.	15.6	366
71	Tuning the Schottky Barrier at the Graphene/MoS <sub>2</sub> Interface by Electron Doping: Density Functional Theory and Many-Body Calculations. Journal of Physical Chemistry C, 2015, 119, 19928-19933.	1.5	89
72	Engineering Optical and Electronic Properties of WS <sub>2</sub> by Varying the Number of Layers. ACS Nano, 2015, 9, 6854-6860.	7.3	105
73	Molecular-beam epitaxy of monolayer and bilayer WSe <sub>2</sub> : a scanning tunneling microscopy/spectroscopy study and deduction of exciton binding energy. 2D Materials, 2015, 2, 034004.	2.0	128
74	Edge effects in second-harmonic generation in nanoscale layers of transition-metal dichalcogenides. Semiconductors, 2015, 49, 791-796.	0.2	8
75	Resonant internal quantum transitions and femtosecond radiative decay of excitons in monolayer WSe <sub>2</sub> . Nature Materials, 2015, 14, 889-893.	13.3	298
76	Anisotropic Particle-Hole Excitations in Black Phosphorus. Physical Review Letters, 2015, 115, 026404.	2.9	75
77	A sustainable future for photonic colloidal nanocrystals. Chemical Society Reviews, 2015, 44, 5897-5914.	18.7	115
78	Atomically thin resonant tunnel diodes built from synthetic van der Waals heterostructures. Nature Communications, 2015, 6, 7311.	5.8	382
79	Synthesis, properties and applications of 2D non-graphene materials. Nanotechnology, 2015, 26, 292001.	1.3	101
80	Population Pulsation Resonances of Excitons in Monolayer MoSe <sub>2</sub> . Physical Review Letters, 2015, 114, 137402.	2.9	25
81	An optical spectroscopic study on two-dimensional group-VI transition metal dichalcogenides. Chemical Society Reviews, 2015, 44, 2629-2642.	18.7	159

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82	Highly anisotropic and robust excitons in monolayer black phosphorus. <i>Nature Nanotechnology</i> , 2015, 10, 517-521.	15.6	1,204
83	Computational 2D Materials Database: Electronic Structure of Transition-Metal Dichalcogenides and Oxides. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13169-13183.	1.5	902
84	Exciton Binding Energy of Monolayer WS <sub>2</sub> . <i>Scientific Reports</i> , 2015, 5, 9218.	1.6	596
85	Electrical control of second-harmonic generation in a WSe <sub>2</sub> monolayer transistor. <i>Nature Nanotechnology</i> , 2015, 10, 407-411.	15.6	406
86	Beyond Graphene: Progress in Novel Two-Dimensional Materials and van der Waals Solids. <i>Annual Review of Materials Research</i> , 2015, 45, 1-27.	4.3	537
87	Probing the Role of Interlayer Coupling and Coulomb Interactions on Electronic Structure in Few-Layer MoSe <sub>2</sub> Nanostructures. <i>Nano Letters</i> , 2015, 15, 2594-2599.	4.5	136
88	$k \cdot p$ theory for two-dimensional transition metal dichalcogenide semiconductors. <i>2D Materials</i> , 2015, 2, 022001.	2.0	676
89	Observation of biexcitons in monolayer WSe <sub>2</sub> . <i>Nature Physics</i> , 2015, 11, 477-481.	6.5	531
90	Multivalency-Induced Band Gap Opening at MoS <sub>2</sub> Edges. <i>Chemistry of Materials</i> , 2015, 27, 3326-3331.	3.2	50
91	Comprehensive structural and optical characterization of MBE grown MoSe <sub>2</sub> on graphite, CaF <sub>2</sub> and graphene. <i>2D Materials</i> , 2015, 2, 024007.	2.0	120
92	Exciton dynamics and annihilation in WS <sub>2</sub> 2D semiconductors. <i>Nanoscale</i> , 2015, 7, 7402-7408.	2.8	388
93	Observation of Excitonic Rydberg States in Monolayer MoS <sub>2</sub> and WS <sub>2</sub> by Photoluminescence Excitation Spectroscopy. <i>Nano Letters</i> , 2015, 15, 2992-2997.	4.5	327
94	Excited Biexcitons in Transition Metal Dichalcogenides. <i>Nano Letters</i> , 2015, 15, 7002-7005.	4.5	99
95	Negative electronic compressibility and tunable spin splitting in WSe <sub>2</sub> . <i>Nature Nanotechnology</i> , 2015, 10, 1043-1047.	15.6	85
96	Probing Critical Point Energies of Transition Metal Dichalcogenides: Surprising Indirect Gap of Single Layer WSe <sub>2</sub> . <i>Nano Letters</i> , 2015, 15, 6494-6500.	4.5	175
97	Two-dimensional exciton "polariton" light guiding by transition metal dichalcogenide monolayers. <i>Optica</i> , 2015, 2, 740.	4.8	35
98	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015, 9, 11509-11539.	7.3	2,069
99	Linear Scaling of the Exciton Binding Energy versus the Band Gap of Two-Dimensional Materials. <i>Physical Review Letters</i> , 2015, 115, 066403.	2.9	175

#	ARTICLE	IF	CITATIONS
100	Polarization and time-resolved photoluminescence spectroscopy of excitons in MoSe <sub>2</sub> monolayers. Applied Physics Letters, 2015, 106, .	1.5	136
101	Electronic structures of in-plane two-dimensional transition-metal dichalcogenide heterostructures. Physical Chemistry Chemical Physics, 2015, 17, 29380-29386.	1.3	34
102	Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities. Nature Communications, 2015, 6, 8579.	5.8	377
103	Synthesis of Epitaxial Single-Layer MoS <sub>2</sub> on Au(111). Langmuir, 2015, 31, 9700-9706.	1.6	119
104	Observation of Ultrafast Free Carrier Dynamics in Single Layer MoS <sub>2</sub> . Nano Letters, 2015, 15, 5883-5887.	4.5	138
105	Efficient Excitonic Photoluminescence in Direct and Indirect Band Gap Monolayer MoS <sub>2</sub> . Nano Letters, 2015, 15, 6841-6847.	4.5	171
106	Effect of processing parameters on microstructure of MoS <sub>2</sub> ultra-thin films synthesized by chemical vapor deposition method. AIP Advances, 2015, 5, 067119.	0.6	11
107	Photonic band gap in 1D multilayers made by alternating SiO <sub>2</sub> or PMMA with MoS <sub>2</sub> or WS <sub>2</sub> monolayers. Optical Materials, 2015, 48, 267-270.	1.7	7
108	Observation of intervalley quantum interference in epitaxial monolayer tungsten diselenide. Nature Communications, 2015, 6, 8180.	5.8	55
109	Strong Optical Absorption and Photocarrier Relaxation in 2-D Semiconductors. IEEE Journal of Quantum Electronics, 2015, 51, 1-6.	1.0	21
110	Cr-Doped TiSe <sub>2</sub> - A Layered Dichalcogenide Spin Glass. Chemistry of Materials, 2015, 27, 6810-6817.	3.2	24
111	Optoelectronic Devices Based on Atomically Thin Transition Metal Dichalcogenides. Applied Sciences (Switzerland), 2016, 6, 78.	1.3	96
112	Dirac Cones in Graphene, Interlayer Interaction in Layered Materials, and the Band Gap in MoS <sub>2</sub> . Crystals, 2016, 6, 143.	1.0	38
113	Two-Dimensional Semiconductor Optoelectronics Based on van der Waals Heterostructures. Nanomaterials, 2016, 6, 193.	1.9	107
114	Graphene and monolayer transition-metal dichalcogenides: properties and devices. Journal of Materials Research, 2016, 31, 845-877.	1.2	15
115	Layer-Controlled Chemical Vapor Deposition Growth of MoS <sub>2</sub> Vertical Heterostructures via van der Waals Epitaxy. ACS Nano, 2016, 10, 7039-7046.	7.3	122
116	Study on the high spectral intensity at the Dirac energy of single-layer graphene on an SiC substrate. New Journal of Physics, 2016, 18, 043005.	1.2	6
117	Recent Advances in Controlling Syntheses and Energy Related Applications of MX <sub>2</sub> and MX <sub>2</sub> /Graphene Heterostructures. Advanced Energy Materials, 2016, 6, 1600459.	10.2	43

#	ARTICLE	IF	CITATIONS
118	1s-intraexcitonic dynamics in monolayer MoS <sub>2</sub> probed by ultrafast mid-infrared spectroscopy. Nature Communications, 2016, 7, 10768.	5.8	72
119	Nearly-free-electron system of monolayer Na on the surface of single-crystal HfSe <sub>2</sub> . Physical Review B, 2016, 94, .	1.1	1
120	Exciton formation assisted by longitudinal optical phonons in monolayer transition metal dichalcogenides. Journal of Applied Physics, 2016, 120, .	1.1	34
121	Epitaxial growth of monolayer MoSe <sub>2</sub> on GaAs. Applied Physics Express, 2016, 9, 115501.	1.1	17
122	Determination of the band parameters of bulk 2H-MX <sub>2</sub> (M = Mo, W; X = S, Se) by angle-resolved photoemission spectroscopy. Scientific Reports, 2016, 6, 36389.	1.6	25
123	Ripples near edge terminals in MoS <sub>2</sub> few layers and pyramid nanostructures. Applied Physics Letters, 2016, 108, .	1.5	14
124	Layer specific optical band gap measurement at nanoscale in MoS <sub>2</sub> and ReS <sub>2</sub> van der Waals compounds by high resolution electron energy loss spectroscopy. Journal of Applied Physics, 2016, 119, .	1.1	58
125	2D materials advances: from large scale synthesis and controlled heterostructures to improved characterization techniques, defects and applications. 2D Materials, 2016, 3, 042001.	2.0	408
126	Enhancing charge-density-wave order in 1T-TiSe <sub>2</sub> nanosheet by encapsulation with hexagonal boron nitride. Applied Physics Letters, 2016, 109, 141902.	1.5	19
127	Electric field tuning of band offsets in transition metal dichalcogenides. Physical Review B, 2016, 94, .	1.1	24
128	Excitonic Stark effect in MoS <sub>2</sub> . Physical Review B, 2016, 94, .	1.1	1
129	Screening effects due to carrier doping on valley relaxation in transition metal dichalcogenide monolayers. Applied Physics Letters, 2016, 109, .	1.5	25
130	Optical study of local strain related disordering in CVD-grown MoSe <sub>2</sub> monolayers. Applied Physics Letters, 2016, 109, .	1.5	21
131	Large Bandgap Shrinkage from Doping and Dielectric Interface in Semiconducting Carbon Nanotubes. Scientific Reports, 2016, 6, 28520.	1.6	10
132	Absorption edges of black phosphorus: A comparative analysis. Physica Status Solidi (B): Basic Research, 2016, 253, 2509-2514.	0.7	24
133	Determination of band offsets at GaN/single-layer MoS <sub>2</sub> heterojunction. Applied Physics Letters, 2016, 109, .	1.5	64
134	Scanning Tunneling Microscopy of Atomic Scale Phonon Standing Waves in Quasi-freestanding WSe <sub>2</sub> Monolayers. MRS Advances, 2016, 1, 1645-1650.	0.5	1
135	Bandgap renormalization and work function tuning in MoSe <sub>2</sub> /hBN/Ru(0001) heterostructures. Nature Communications, 2016, 7, 13843.	5.8	55



#	ARTICLE	IF	CITATIONS
136	Photodetection in p-n junctions formed by electrolyte-gated transistors of two-dimensional crystals. Applied Physics Letters, 2016, 109, .	1.5	15
137	Spiral growth of few-layer MoS <sub>2</sub> by chemical vapor deposition. Applied Physics Letters, 2016, 109, 051604.	1.5	22
138	Ultrafast exciton relaxation in monolayer transition metal dichalcogenides. Journal of Applied Physics, 2016, 119, .	1.1	17
139	Controlled Exfoliation of MoS <sub>2</sub> Crystals into Trilayer Nanosheets. Journal of the American Chemical Society, 2016, 138, 5143-5149.	6.6	207
140	Photonics and optoelectronics of 2D semiconductor transition metal dichalcogenides. Nature Photonics, 2016, 10, 216-226.	15.6	2,779
141	Quantum confined colloidal nanorod heterostructures for solar-to-fuel conversion. Chemical Society Reviews, 2016, 45, 3781-3810.	18.7	246
142	Valley-Coherent Hot Carriers and Thermal Relaxation in Monolayer Transition Metal Dichalcogenides. Journal of Physical Chemistry Letters, 2016, 7, 2032-2038.	2.1	9
143	Exciton formation in monolayer transition metal dichalcogenides. Nanoscale, 2016, 8, 11681-11688.	2.8	149
144	Width and Crystal Orientation Dependent Band Gap Renormalization in Substrate-Supported Graphene Nanoribbons. Journal of Physical Chemistry Letters, 2016, 7, 1526-1533.	2.1	47
145	Atomic-Scale Spectroscopy of Gated Monolayer MoS <sub>2</sub> . Nano Letters, 2016, 16, 3148-3154.	4.5	30
146	Charge density wave order in 1D mirror twin boundaries of single-layer MoSe <sub>2</sub> . Nature Physics, 2016, 12, 751-756.	6.5	209
147	Quantum spin Hall insulators in functionalized arsenene (AsX, X = F, OH and CH <sub>3</sub> ) monolayers with pronounced light absorption. Nanoscale, 2016, 8, 9657-9666.	2.8	63
148	Interfacial Interaction between HfO <sub>2</sub> and MoS <sub>2</sub> : From Thin Films to Monolayer. Journal of Physical Chemistry C, 2016, 120, 9804-9810.	1.5	27
149	Tailoring photoluminescence of monolayer transition metal dichalcogenides. Current Applied Physics, 2016, 16, 1159-1174.	1.1	34
150	Atomically-thin layered films for device applications based upon 2D TMDC materials. Thin Solid Films, 2016, 616, 482-501.	0.8	104
151	Indirect Bandgap Puddles in Monolayer MoS <sub>2</sub> by Substrate-Induced Local Strain. Advanced Materials, 2016, 28, 9378-9384.	11.1	120
152	Spin-resolved photoemission study of epitaxially grown MoSe <sub>2</sub> and WSe <sub>2</sub> thin films. Journal of Physics Condensed Matter, 2016, 28, 454001.	0.7	30
153	Inverse Funnel Effect of Excitons in Strained Black Phosphorus. Physical Review X, 2016, 6, .	2.8	34

#	ARTICLE	IF	CITATIONS
154	Stable monolayer honeycomb-like structures of $\text{RuX}_2$ . Physical Review B, 2016, 94, .	4.1	30
155	Probing the Influence of Dielectric Environment on Excitons in Monolayer $\text{WSe}_2$ : Insight from High Magnetic Fields. Nano Letters, 2016, 16, 7054-7060.	4.5	198
156	Davydov Splitting and Excitonic Resonance Effects in Raman Spectra of Few-Layer $\text{MoSe}_2$ . ACS Nano, 2016, 10, 8113-8120.	7.3	103
157	Excitons. Springer Series in Materials Science, 2016, , 321-363.	0.4	3
158	Dynamical Excitonic Effects in Doped Two-Dimensional Semiconductors. Nano Letters, 2016, 16, 5568-5573.	4.5	79
159	Crystalline and electronic structure of single-layer $\text{TaS}_2$ . Physical Review B, 2016, 94, .	1.1	1
160	Performance Upper Limit of sub-10 nm Monolayer $\text{MoS}_2$ Transistors. Advanced Electronic Materials, 2016, 2, 1600191.	2.6	97
161	Electronic Structure and Luminescence of Quasi-Freestanding $\text{MoS}_2$ Nanopatches on Au(111). Nano Letters, 2016, 16, 5163-5168.	4.5	61
162	Narrow-Gap Quantum Wires Arising from the Edges of Monolayer $\text{MoS}_2$ Synthesized on Graphene. Advanced Materials Interfaces, 2016, 3, 1600332.	1.9	30
163	Optical absorption by Dirac excitons in single-layer transition-metal dichalcogenides. Physical Review B, 2016, 94, .	1.1	39
164	Review of photo response in semiconductor transition metal dichalcogenides based photosensitive devices. Optical Materials Express, 2016, 6, 2313.	1.6	44
165	Electronic Band Structure of 2D TMDCs. Springer Series in Materials Science, 2016, , 165-226.	0.4	1
166	Electronic band gaps and exciton binding energies in monolayer $\text{M}_2\text{X}$ . Physical Review B, 2016, 94, .	1.1	80
167	Direct versus indirect band gap emission and exciton-exciton/annihilation in atomically thin molybdenum ditelluride $\text{MoTe}_2$ . Physical Review B, 2016, 94, .	1.1	57
168	Exciton dynamics in monolayer transition metal dichalcogenides. Journal of the Optical Society of America B: Optical Physics, 2016, 33, C39.	0.9	135
169	Synthesis, Properties, and Stacking of Two-Dimensional Transition Metal Dichalcogenides. Semiconductors and Semimetals, 2016, 95, 189-219.	0.4	12
170	Transition-Metal Substitution Doping in Synthetic Atomically Thin Semiconductors. Advanced Materials, 2016, 28, 9735-9743.	11.1	208
171	Controllable growth of layered selenide and telluride heterostructures and superlattices using molecular beam epitaxy. Journal of Materials Research, 2016, 31, 900-910.	1.2	85

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172	Theoretical Study of Transition Metal Dichalcogenides. , 2016, , 157-178.		1
173	Tunable and long-range energy transfer efficiency through a graphene nanodisk. Physical Review B, 2016, 93, .	1.1	28
174	Optical properties of GaS-Ca(OH) <sub>2</sub> bilayer heterostructure. Physical Review B, 2016, 93, .	1.1	18
175	First-principles study of van der Waals interactions and lattice mismatch at MoS <sub>2</sub> /graphene heterostructure. Physical Review B, 2016, 93, .	1.1	18
176	Binding energies and structures of two-dimensional excitonic complexes in transition metal dichalcogenides. Physical Review B, 2016, 93, .	1.1	87
177	Trivial and inverted Dirac bands and the emergence of quantum spin Hall states in graphene on transition-metal dichalcogenides. Physical Review B, 2016, 93, .	1.1	227
178	Resonance effects in the Raman scattering of monolayer and few-layer MoS <sub>2</sub> /graphene heterostructure. Physical Review B, 2016, 93, .	1.1	18
179	Fundamental limits of exciton-exciton annihilation for light emission in transition metal dichalcogenide monolayers. Physical Review B, 2016, 93, .	1.1	129
180	Exciton radiative lifetime in transition metal dichalcogenide monolayers. Physical Review B, 2016, 93, .	1.1	335
181	First-principles investigation of two-dimensional trichalcogenide and sesquichalcogenide monolayers. Physical Review B, 2016, 93, .	1.1	44
182	Simple Screened Hydrogen Model of Excitons in Two-Dimensional Materials. Physical Review Letters, 2016, 116, 056401.	2.9	167
183	Exciton Band Structure in Two-Dimensional Materials. Physical Review Letters, 2016, 116, 066803.	2.9	112
184	High performance MoS <sub>2</sub> -based field-effect transistor enabled by hydrazine doping. Nanotechnology, 2016, 27, 225201.	1.3	11
185	Isoelectronic Tungsten Doping in Monolayer MoSe <sub>2</sub> for Carrier Type Modulation. Advanced Materials, 2016, 28, 8240-8247.	11.1	85
186	Splitting between bright and dark excitons in transition metal dichalcogenide monolayers. Physical Review B, 2016, 93, .	1.1	212
187	Strong interlayer coupling mediated giant two-photon absorption in MoS <sub>2</sub> /graphene oxide heterostructure: Quenching of exciton bands. Physical Review B, 2016, 93, .	1.1	57
188	Single-layer MoS <sub>2</sub> /Au(111): Band gap renormalization and substrate interaction. Physical Review B, 2016, 93, .	1.1	120
189	Screening and many-body effects in two-dimensional crystals: Monolayer MoS <sub>2</sub> /graphene heterostructure. Physical Review B, 2016, 93, .	1.1	298

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190	Stark shift and electric-field-induced dissociation of excitons in monolayer MoS <sub>2</sub> and BN. Nature Reviews Materials, 2016, 1, .	1.1	47
191	Valleytronics in 2D materials. Nature Reviews Materials, 2016, 1, .	23.3	1,712
192	Exciton-phonon relaxation bottleneck and radiative decay of thermal exciton reservoir in two-dimensional materials. Physical Review B, 2016, 94, .	1.1	21
193	Optical properties of single-layer and bilayer arsenene phases. Physical Review B, 2016, 94, .	1.1	67
194	Cascaded emission of single photons from the biexciton in monolayered WSe <sub>2</sub> . Nature Communications, 2016, 7, 13409.	5.8	86
195	A review of recent theoretical studies in nonlinear crystals: towards the design of new materials. Semiconductor Science and Technology, 2016, 31, 123002.	1.0	12
196	Photonics and optoelectronics of two-dimensional materials beyond graphene. Nanotechnology, 2016, 27, 462001.	1.3	259
197	Control of Exciton Valley Coherence in Transition Metal Dichalcogenide Monolayers. Physical Review Letters, 2016, 117, 187401.	2.9	126
198	Room-temperature Tamm-plasmon exciton-polaritons with a WSe <sub>2</sub> monolayer. Nature Communications, 2016, 7, 13328.	5.8	214
199	Photoluminescence of monolayer transition metal dichalcogenides integrated with VO <sub>2</sub> . Journal of Physics Condensed Matter, 2016, 28, 504001.	0.7	10
200	Engineering the Charge Transfer in all 2D Graphene-Nanoplatelets Heterostructure Photodetectors. Scientific Reports, 2016, 6, 24909.	1.6	49
201	Strongly bound Mott-Wannier excitons in GeS and GeSe monolayers. Physical Review B, 2016, 94, .	1.1	76
202	Two-dimensional hexagonal semiconductors beyond graphene. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2016, 7, 043001.	0.7	19
203	Monolayer MoS <sub>2</sub> Bandgap Modulation by Dielectric Environments and Tunable Bandgap Transistors. Scientific Reports, 2016, 6, 29184.	1.6	212
204	Strain dependence of band gaps and exciton energies in pure and mixed transition-metal dichalcogenides. Physical Review B, 2016, 94, .	1.1	94
205	Speeding up GW Calculations to Meet the Challenge of Large Scale Quasiparticle Predictions. Scientific Reports, 2016, 6, 36849.	1.6	60
206	Spatially Resolved Electronic Properties of Single-Layer WS <sub>2</sub> on Transition Metal Oxides. ACS Nano, 2016, 10, 10058-10067.	7.3	31
207	Extraordinarily Strong Interlayer Interaction in 2D Layered PtS <sub>2</sub> . Advanced Materials, 2016, 28, 2399-2407.	11.1	415

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208	Engineering Substrate Interactions for High Luminescence Efficiency of Transition-Metal Dichalcogenide Monolayers. <i>Advanced Functional Materials</i> , 2016, 26, 4733-4739.	7.8	154
209	Ohmic Contacts to 2D Semiconductors through van der Waals Bonding. <i>Advanced Electronic Materials</i> , 2016, 2, 1500405.	2.6	91
210	Ultrafast Band Structure Control of a Two-Dimensional Heterostructure. <i>ACS Nano</i> , 2016, 10, 6315-6322.	7.3	90
211	Evidence for Fast Interlayer Energy Transfer in MoSe <sub>2</sub> /WS <sub>2</sub> Heterostructures. <i>Nano Letters</i> , 2016, 16, 4087-4093.	4.5	205
212	Band Alignment in MoS <sub>2</sub> /WS <sub>2</sub> Transition Metal Dichalcogenide Heterostructures Probed by Scanning Tunneling Microscopy and Spectroscopy. <i>Nano Letters</i> , 2016, 16, 4831-4837.	4.5	242
213	Computing optical properties of ultra-thin crystals. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2016, 6, 351-368.	6.2	15
214	Gate-induced superconductivity in atomically thin MoS <sub>2</sub> crystals. <i>Nature Nanotechnology</i> , 2016, 11, 339-344.	15.6	297
215	Direct Measurement of the Tunable Electronic Structure of Bilayer MoS <sub>2</sub> by Interlayer Twist. <i>Nano Letters</i> , 2016, 16, 953-959.	4.5	113
216	Rotationally Commensurate Growth of MoS <sub>2</sub> on Epitaxial Graphene. <i>ACS Nano</i> , 2016, 10, 1067-1075.	7.3	176
217	Electronic Structure, Surface Doping, and Optical Response in Epitaxial WSe <sub>2</sub> Thin Films. <i>Nano Letters</i> , 2016, 16, 2485-2491.	4.5	147
218	Scanning Tunneling Microscopy and Spectroscopy of Air Exposure Effects on Molecular Beam Epitaxy Grown WSe <sub>2</sub> Monolayers and Bilayers. <i>ACS Nano</i> , 2016, 10, 4258-4267.	7.3	72
219	A polarizing situation: Taking an in-plane perspective for next-generation near-field studies. <i>Frontiers of Physics</i> , 2016, 11, 1.	2.4	8
220	Coherent quantum dynamics of excitons in monolayer transition metal dichalcogenides. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
221	Tunable Lattice Constant and Band Gap of Single- and Few-Layer ZnO. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1335-1340.	2.1	107
222	Hexagonal Planar CdS Monolayer Sheet for Visible Light Photocatalysis. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7052-7060.	1.5	132
223	Point Defects and Grain Boundaries in Rotationally Commensurate MoS <sub>2</sub> on Epitaxial Graphene. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20798-20805.	1.5	99
224	Chemically Tailoring Semiconducting Two-Dimensional Transition Metal Dichalcogenides and Black Phosphorus. <i>ACS Nano</i> , 2016, 10, 3900-3917.	7.3	232
225	Heterointerface Screening Effects between Organic Monolayers and Monolayer Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2016, 10, 2476-2484.	7.3	87

#	ARTICLE	IF	CITATIONS
226	Quantum Coherence Facilitates Efficient Charge Separation at a MoS <sub>2</sub> /MoSe <sub>2</sub> van der Waals Junction. Nano Letters, 2016, 16, 1996-2003.	4.5	225
227	Differences in Chemical Doping Matter: Superconductivity in Ti <sub>1-x</sub> Ta <sub>x</sub> Se <sub>2</sub> but Not in Ti <sub>1-x</sub> Nb <sub>x</sub> Se <sub>2</sub> . Chemistry of Materials, 2016, 28, 1927-1935.	3.2	40
228	Exciton diamagnetic shifts and valley Zeeman effects in monolayer WS <sub>2</sub> and MoS <sub>2</sub> to 65% Tesla. Nature Communications, 2016, 7, 10643.	5.8	253
229	Stark Effect Spectroscopy of Mono- and Few-Layer MoS <sub>2</sub> . Nano Letters, 2016, 16, 1554-1559.	4.5	80
230	An ultrafast terahertz probe of the transient evolution of the charged and neutral phase of photo-excited electron-hole gas in a monolayer semiconductor. 2D Materials, 2016, 3, 014001.	2.0	18
231	Synthesis, doping and properties of two-dimensional materials. Proceedings of SPIE, 2016, , .	0.8	0
232	Periodic Modulation of the Doping Level in Striped MoS <sub>2</sub> Superstructures. ACS Nano, 2016, 10, 3461-3468.	7.3	37
233	Two-Dimensional Heterojunctions from Nonlocal Manipulations of the Interactions. Nano Letters, 2016, 16, 2322-2327.	4.5	80
234	Direct measurement of exciton valley coherence in monolayer WSe <sub>2</sub> . Nature Physics, 2016, 12, 677-682.	6.5	223
235	Triangular lattice exciton model. Physical Chemistry Chemical Physics, 2016, 18, 8579-8586.	1.3	9
236	Structural and Electrical Properties of MoTe <sub>2</sub> and MoSe <sub>2</sub> Grown by Molecular Beam Epitaxy. ACS Applied Materials & Interfaces, 2016, 8, 7396-7402.	4.0	189
237	Extraordinarily Bound Quasi-One-Dimensional Trions in Two-Dimensional Phosphorene Atomic Semiconductors. ACS Nano, 2016, 10, 2046-2053.	7.3	92
238	Excitonic luminescence upconversion in a two-dimensional semiconductor. Nature Physics, 2016, 12, 323-327.	6.5	187
239	Probing Spin-Orbit Coupling and Interlayer Coupling in Atomically Thin Molybdenum Disulfide Using Hydrostatic Pressure. ACS Nano, 2016, 10, 1619-1624.	7.3	47
240	Novel hetero-bilayered materials for photovoltaics. Applied Materials Today, 2016, 2, 24-31.	2.3	23
241	Photo-Induced Bandgap Renormalization Governs the Ultrafast Response of Single-Layer MoS <sub>2</sub> . ACS Nano, 2016, 10, 1182-1188.	7.3	272
242	Using dark states for exciton storage in transition-metal dichalcogenides. Journal of Physics Condensed Matter, 2016, 28, 034005.	0.7	8
243	Synthesis of metal oxide nanosheets through a novel approach for energy applications. Journal of Materials Chemistry A, 2016, 4, 781-784.	5.2	29

#	ARTICLE	IF	CITATIONS
244	Characterization of collective ground states in single-layer NbSe <sub>2</sub> . Nature Physics, 2016, 12, 92-97.	6.5	536
245	Synergistic electrocatalytic activity of a spinel ZnCo <sub>2</sub> O <sub>4</sub> /reduced graphene oxide hybrid towards oxygen reduction reaction. Journal of Solid State Electrochemistry, 2016, 20, 285-291.	1.2	25
246	Optical and Electronic Properties of Two-Dimensional Layered Materials. Nanophotonics, 2017, 6, 479-493.	2.9	145
247	Brightening of dark excitons in monolayers of semiconducting transition metal dichalcogenides. 2D Materials, 2017, 4, 021003.	2.0	192
248	Substrate induced changes in atomically thin 2-dimensional semiconductors: Fundamentals, engineering, and applications. Applied Physics Reviews, 2017, 4, 011301.	5.5	97
249	Electronic properties of MoS <sub>2</sub> nanoribbon with strain using tight-binding method. Physica Status Solidi (B): Basic Research, 2017, 254, 1600565.	0.7	11
250	Large Area Synthesis of 1D MoSe <sub>2</sub> Using Molecular Beam Epitaxy. Advanced Materials, 2017, 29, 1605641.	11.1	54
251	Molecular beam epitaxy growth of atomically ultrathin MoTe <sub>2</sub> lateral heterophase homojunctions on graphene substrates. Carbon, 2017, 115, 526-531.	5.4	42
252	Alloy engineering of electronic and optical properties of tetragonal monolayer zinc chalcogenides. Journal of Alloys and Compounds, 2017, 695, 1392-1396.	2.8	16
253	Temperature-Related Morphological Evolution of MoS <sub>2</sub> Domains on Graphene and Electron Transfer within Heterostructures. Small, 2017, 13, 1603549.	5.2	20
254	Slow cooling and efficient extraction of C-exciton hot carriers in MoS <sub>2</sub> monolayer. Nature Communications, 2017, 8, 13906.	5.8	132
255	Magneto photoluminescence measurements of tungsten disulphide monolayers. Journal of Physics Condensed Matter, 2017, 29, 08LT02.	0.7	10
256	Inter-Layer Coupling Induced Valence Band Edge Shift in Mono- to Few-Layer MoS <sub>2</sub> . Scientific Reports, 2017, 7, 40559.	1.6	32
257	Many-body effects in nonlinear optical responses of 2D layered semiconductors. 2D Materials, 2017, 4, 025024.	2.0	35
258	Band Alignment at GaN/Single-Layer WSe <sub>2</sub> Interface. ACS Applied Materials & Interfaces, 2017, 9, 9110-9117.	4.0	72
259	Enhanced optical activity of atomically thin MoSe <sub>2</sub> proximal to nanoscale plasmonic slot-waveguides. 2D Materials, 2017, 4, 021011.	2.0	13
260	Semiconductor-to-Metal Transition and Quasiparticle Renormalization in Doped Graphene Nanoribbons. Advanced Electronic Materials, 2017, 3, 1600490.	2.6	33
261	Synthetic Two-Dimensional Polymers. Annual Review of Materials Research, 2017, 47, 361-389.	4.3	58



#	ARTICLE	IF	CITATIONS
262	Vastly enhancing the chemical stability of phosphorene by employing an electric field. <i>Nanoscale</i> , 2017, 9, 4219-4226.	2.8	22
263	Valley-Polarized Exciton Dynamics in Exfoliated Monolayer $WSe_2$ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 6409-6413.	1.5	25
264	Control of interlayer valley excitons in atomically-thin $MoSe_2$ - $WSe_2$ heterostructures. , 2017, , .		0
265	Many-body Effect, Carrier Mobility, and Device Performance of Hexagonal Arsenene and Antimonene. <i>Chemistry of Materials</i> , 2017, 29, 2191-2201.	3.2	244
266	Atomistic mechanisms of van der Waals epitaxy and property optimization of layered materials. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2017, 7, e1300.	6.2	14
267	Direct Observation of Ultrafast Exciton Formation in a Monolayer of $WSe_2$ . <i>Nano Letters</i> , 2017, 17, 1455-1460.	4.5	171
268	Determination of band offsets, hybridization, and exciton binding in 2D semiconductor heterostructures. <i>Science Advances</i> , 2017, 3, e1601832.	4.7	293
269	Gate-Tunable Giant Stark Effect in Few-Layer Black Phosphorus. <i>Nano Letters</i> , 2017, 17, 1970-1977.	4.5	144
270	Identifying and Visualizing the Edge Terminations of Single-Layer $MoSe_2$ Island Epitaxially Grown on Au(111). <i>ACS Nano</i> , 2017, 11, 1689-1695.	7.3	48
271	Topological superconductivity in monolayer transition metal dichalcogenides. <i>Nature Communications</i> , 2017, 8, 14985.	5.8	148
272	Optical properties of atomically thin transition metal dichalcogenides: observations and puzzles. <i>Nanophotonics</i> , 2017, 6, 1289-1308.	2.9	165
273	Substrate dependent electronic structure variations of van der Waals heterostructures of $MoSe_2$ or $MoSe_2(1\hat{a}^{\sim}x</i> ) Te_2</i> grown by van der Waals epitaxy. 2D Materials, 2017, 4, 025094.$	2.0	19
274	Strongly bound excitons in anatase $TiO_2$ single crystals and nanoparticles. <i>Nature Communications</i> , 2017, 8, 13.	5.8	148
275	Progress in Controllable Construction and Energy-Related Applications of $MX_2$ /Graphene and $MX_2$ / $MX_2$ Heterostructures. <i>ChemNanoMat</i> , 2017, 3, 340-351.	1.5	5
276	Review of ultrafast spectroscopy studies of valley carrier dynamics in two-dimensional semiconducting transition metal dichalcogenides. <i>Chinese Physics B</i> , 2017, 26, 037801.	0.7	25
277	Valley polarized relaxation and upconversion luminescence from Tamm-plasmon trion polaritons with a $MoSe_2$ monolayer. <i>2D Materials</i> , 2017, 4, 025096.	2.0	36
278	Giant Gating Tunability of Optical Refractive Index in Transition Metal Dichalcogenide Monolayers. <i>Nano Letters</i> , 2017, 17, 3613-3618.	4.5	81
279	Interlayer exciton dynamics in a dichalcogenide monolayer heterostructure. <i>2D Materials</i> , 2017, 4, 025112.	2.0	146



#	ARTICLE	IF	CITATIONS
280	Room temperature observation of biexcitons in exfoliated WS <sub>2</sub> monolayers. Applied Physics Letters, 2017, 110, .	1.5	54
281	Chalcogenide Nanosheets: Optical Signatures of Many-Body Effects and Electronic Band Structure. Nanostructure Science and Technology, 2017, , 133-162.	0.1	2
282	Fabrication of MoSe <sub>2</sub> nanoribbons via an unusual morphological phase transition. Nature Communications, 2017, 8, 15135.	5.8	70
283	Coulomb engineering of the bandgap and excitons in two-dimensional materials. Nature Communications, 2017, 8, 15251.	5.8	526
284	Interplay between many body effects and Coulomb screening in the optical bandgap of atomically thin MoS <sub>2</sub> . Nanoscale, 2017, 9, 10647-10652.	2.8	23
285	Room-Temperature Ferromagnetism in Two-Dimensional Fe <sub>2</sub> Si Nanosheet with Enhanced Spin-Polarization Ratio. Nano Letters, 2017, 17, 2771-2777.	4.5	200
286	Metallic Twin Grain Boundaries Embedded in MoSe <sub>2</sub> Monolayers Grown by Molecular Beam Epitaxy. ACS Nano, 2017, 11, 5130-5139.	7.3	83
287	Systematic study of electronic structure and band alignment of monolayer transition metal dichalcogenides in Van der Waals heterostructures. 2D Materials, 2017, 4, 015026.	2.0	160
288	Observation of Exciton Redshiftâ€“Blueshift Crossover in Monolayer WS <sub>2</sub> . Nano Letters, 2017, 17, 4210-4216.	4.5	107
289	The Zeeman splitting of bulk 2H-MoTe <sub>2</sub> single crystal in high magnetic field. Applied Physics Letters, 2017, 110, 102102.	1.5	8
290	Molecular Beam Epitaxy of Highly Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride. Journal of the American Chemical Society, 2017, 139, 9392-9400.	6.6	167
291	Exciton center-of-mass localization and dielectric environment effect in monolayer WS <sub>2</sub> . Journal of Applied Physics, 2017, 121, 235702.	1.1	20
292	Heterostructures containing dichalcogenides-new materials with predictable nanoarchitectures and novel emergent properties. Semiconductor Science and Technology, 2017, 32, 093004.	1.0	26
293	Tailoring the optical properties of atomically-thin WS <sub>2</sub> via ion irradiation. Nanoscale, 2017, 9, 11027-11034.	2.8	84
294	Influence of exciton-phonons coupling on the exciton binding energy in monolayer transition metal dichalcogenides. Applied Physics Letters, 2017, 110, 231603.	1.5	11
295	Manipulating Coherent Plasmonâ€“Exciton Interaction in a Single Silver Nanorod on Monolayer WSe <sub>2</sub> . Nano Letters, 2017, 17, 3809-3814.	4.5	270
296	Highly Oriented Atomically Thin Ambipolar MoSe <sub>2</sub> Grown by Molecular Beam Epitaxy. ACS Nano, 2017, 11, 6355-6361.	7.3	64
297	Tuning the catalytic functionality of transition metal dichalcogenides grown by chemical vapour deposition. Journal of Materials Chemistry A, 2017, 5, 14950-14968.	5.2	38

#	ARTICLE	IF	CITATIONS
298	Electronic and optical properties of nanostructured MoS <sub>2</sub> materials: influence of reduced spatial dimensions and edge effects. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15891-15902.	1.3	25
299	Two-Dimensional MoS <sub>2</sub> -Graphene-Based Multilayer van der Waals Heterostructures: Enhanced Charge Transfer and Optical Absorption, and Electric-Field Tunable Dirac Point and Band Gap. <i>Chemistry of Materials</i> , 2017, 29, 5504-5512.	3.2	131
300	2D transition metal dichalcogenides. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	3,689
301	Electrical Tuning of Exciton-Plasmon Polariton Coupling in Monolayer MoS <sub>2</sub> Integrated with Plasmonic Nanoantenna Lattice. <i>Nano Letters</i> , 2017, 17, 4541-4547.	4.5	117
302	Angle-resolved photoemission spectroscopy for the study of two-dimensional materials. <i>Nano Convergence</i> , 2017, 4, .	6.3	41
303	Enabling valley selective exciton scattering in monolayer WSe <sub>2</sub> through upconversion. <i>Nature Communications</i> , 2017, 8, 14927.	5.8	124
304	WS <sub>2</sub> /Silicon Heterojunction Solar Cells: A CVD Process for the Fabrication of WS <sub>2</sub> Films on p-Si Substrates for Photovoltaic and Spectral Responses. <i>IEEE Nanotechnology Magazine</i> , 2017, 11, 33-38.	0.9	21
305	Calculating excitons, plasmons, and quasiparticles in 2D materials and van der Waals heterostructures. <i>2D Materials</i> , 2017, 4, 022004.	2.0	189
306	Band structure engineering in van der Waals heterostructures via dielectric screening: the G <sup>W</sup> method. <i>2D Materials</i> , 2017, 4, 025059.	2.0	71
307	Two-dimensional materials for ultrafast lasers. <i>Chinese Physics B</i> , 2017, 26, 034202.	0.7	28
308	Excitonic effects in the optical properties of 2D materials: an equation of motion approach. <i>2D Materials</i> , 2017, 4, 025086.	2.0	45
309	Atomic-Scale Imaging and Spectroscopy of Electroluminescence at Molecular Interfaces. <i>Chemical Reviews</i> , 2017, 117, 5174-5222.	23.0	126
310	Optical selection rules for excitonic Rydberg series in the massive Dirac cones of hexagonal two-dimensional materials. <i>Physical Review B</i> , 2017, 95, .	1.1	23
311	Raman-like resonant secondary emission causes valley coherence in CVD-grown monolayer MoS <sub>2</sub> . <i>Physical Review B</i> , 2017, 95, .	1.1	7
312	Hybrid metal-organic chalcogenide nanowires with electrically conductive inorganic core through diamondoid-directed assembly. <i>Nature Materials</i> , 2017, 16, 349-355.	13.3	79
313	Interlayer Excitons and Band Alignment in MoS <sub>2</sub> /hBN/WSe <sub>2</sub> van der Waals Heterostructures. <i>Nano Letters</i> , 2017, 17, 938-945.	4.5	174
314	Electric Field Effect in Two-Dimensional Transition Metal Dichalcogenides. <i>Advanced Functional Materials</i> , 2017, 27, 1602404.	7.8	57
315	Ultrafast Laser Spectroscopy of Two-Dimensional Materials Beyond Graphene. <i>Advanced Functional Materials</i> , 2017, 27, 1604509.	7.8	122

#	ARTICLE	IF	CITATIONS
316	Cubine, a Quasi Two-Dimensional Copper-Bismuth Nanosheet. Chemistry of Materials, 2017, 29, 9819-9828.	3.2	11
317	Van der Waals Materials for Atomically-Thin Photovoltaics: Promise and Outlook. ACS Photonics, 2017, 4, 2962-2970.	3.2	241
318	Dependence of topological and optical properties on surface-terminated groups in two-dimensional molybdenum dinitride and tungsten dinitride nanosheets. Physical Chemistry Chemical Physics, 2017, 19, 30301-30309.	1.3	9
319	Exciton fission in monolayer transition metal dichalcogenide semiconductors. Nature Communications, 2017, 8, 1166.	5.8	142
320	Interface dipole and band bending in the hybrid heterojunction $\text{MoS}_2/\text{GaN}$ . Physical Review B, 2017, 96, .	1.1	57
321	Electronic Properties of Bulk and Monolayer TMDs: Theoretical Study Within DFT Framework (GV) Tj ETQq1 1.0784314, rgBT / Ote	0.8	277
322	Exciton broadening in $\text{WS}_2/\text{graphene}$ heterostructures. Physical Review B, 2017, 96, .	1.1	56
323	Proximity Effects in Bilayer Graphene on Monolayer $\text{WS}_2$ : Field-Effect Spin Valley Locking, Spin-Orbit Valve, and Spin Transistor. Physical Review Letters, 2017, 119, 146401.	1.1	100
324	Charge Transfer Exciton and Spin Flipping at Organic-Transition-Metal Dichalcogenide Interfaces. ACS Nano, 2017, 11, 10184-10192.	7.3	94
325	Direct exciton emission from atomically thin transition metal dichalcogenide heterostructures near the lifetime limit. Scientific Reports, 2017, 7, 12383.	1.6	122
326	Weakly Trapped, Charged, and Free Excitons in Single-Layer $\text{MoS}_2$ in the Presence of Defects, Strain, and Charged Impurities. ACS Nano, 2017, 11, 11206-11216.	7.3	44
327	Fabrication and Properties of a Free-Standing Two-Dimensional Titania. Journal of the American Chemical Society, 2017, 139, 15414-15419.	6.6	58
328	Atomically precise graphene nanoribbon heterojunctions from a single molecular precursor. Nature Nanotechnology, 2017, 12, 1077-1082.	15.6	162
329	Fine structure and lifetime of dark excitons in transition metal dichalcogenide monolayers. Physical Review B, 2017, 96, .	1.1	141
330	Ultrafast exciton dynamics in chemical heterogenous $\text{WSe}_2$ monolayer. Journal Physics D: Applied Physics, 2017, 50, 485109.	1.3	5
331	Quasiparticle energy bands and Fermi surfaces of monolayer $\text{NbSe}_2$ . Physical Review B, 2017, 96, .	1.1	17
332	Optical valley Hall effect based on transitional metal dichalcogenide cavity polaritons. Physical Review B, 2017, 96, .	1.1	27
333	Polaron effect on the bandgap modulation in monolayer transition metal dichalcogenides. Journal of Physics Condensed Matter, 2017, 29, 485001.	0.7	16

#	ARTICLE	IF	CITATIONS
334	Optically Discriminating Carrier-Induced Quasiparticle Band Gap and Exciton Energy Renormalization in Monolayer $\text{MoS}_2$ . Physical Review Letters, 2017, 119, 087401.	2.9	74
335	Excitonic resonance effects and Davydov splitting in circularly polarized Raman spectra of few-layer $\text{WSe}_2$ . 2D Materials, 2017, 4, 045002.	2.0	31
336	Temperature dependence of band gap in $\text{MoSe}_2$ grown by molecular beam epitaxy. Nanoscale Research Letters, 2017, 12, 492.	3.1	38
337	Layer-by-Layer Epitaxial Growth of Scalable $\text{WSe}_2$ on Sapphire by Molecular Beam Epitaxy. Nano Letters, 2017, 17, 5595-5599.	4.5	105
338	Enhancing Multifunctionalities of Transition-Metal Dichalcogenide Monolayers <i>via</i> Cation Intercalation. ACS Nano, 2017, 11, 9390-9396.	7.3	35
339	Quantum many-body simulation using monolayer exciton-polaritons in coupled-cavities. Journal of Physics Condensed Matter, 2017, 29, 445703.	0.7	5
340	Phonon-Assisted Ultrafast Charge Transfer at van der Waals Heterostructure Interface. Nano Letters, 2017, 17, 6435-6442.	4.5	204
341	Nucleation and growth of $\text{WSe}_2$ : enabling large grain transition metal dichalcogenides. 2D Materials, 2017, 4, 045019.	2.0	96
342	Optical identification using imperfections in 2D materials. 2D Materials, 2017, 4, 045021.	2.0	24
343	Absence of a Band Gap at the Interface of a Metal and Highly Doped Monolayer $\text{MoS}_2$ . Nano Letters, 2017, 17, 5962-5968.	4.5	37
344	High quality atomically thin $\text{PtSe}_2$ films grown by molecular beam epitaxy. 2D Materials, 2017, 4, 045015.	2.0	142
345	Tailoring photoelectrochemical properties of semiconducting transition metal dichalcogenide nanolayers with porphyrin functionalization. Journal of Materials Chemistry C, 2017, 5, 11233-11238.	2.7	28
346	Giant modulation of the electronic band gap of carbon nanotubes by dielectric screening. Scientific Reports, 2017, 7, 8828.	1.6	16
347	Real-time monitoring of 2D semiconductor film growth with optical spectroscopy. Nanotechnology, 2017, 28, 465601.	1.3	6
348	Excitons and trions in monolayer transition metal dichalcogenides: A comparative study between the multiband model and the quadratic single-band model. Physical Review B, 2017, 96, .	1.1	61
349	Efficient Carrier-to-Exciton Conversion in Field Emission Tunnel Diodes Based on MIS-Type van der Waals Heterostack. Nano Letters, 2017, 17, 5156-5162.	4.5	71
350	Valley-addressable polaritons in atomically thin semiconductors. Nature Photonics, 2017, 11, 497-501.	15.6	169
351	Noninvasive control of excitons in two-dimensional materials. Physical Review B, 2017, 96, .	1.1	16

#	ARTICLE	IF	CITATIONS
352	Room-temperature continuous-wave lasing from monolayer molybdenum ditelluride integrated with a silicon nanobeam cavity. <i>Nature Nanotechnology</i> , 2017, 12, 987-992.	15.6	241
353	Scanning tunneling spectroscopy of van der Waals graphene/semiconductor interfaces: absence of Fermi level pinning. <i>2D Materials</i> , 2017, 4, 035019.	2.0	52
354	Defect Structure of Localized Excitons in a $WSe_2$ Monolayer. <i>Physical Review Letters</i> , 2017, 119, 046101.	2.9	170
355	In-Plane Propagation of Light in Transition Metal Dichalcogenide Monolayers: Optical Selection Rules. <i>Physical Review Letters</i> , 2017, 119, 047401.	2.9	257
356	Two-Dimensional Hexagonal Sheet of $TiO_2$ . <i>Chemistry of Materials</i> , 2017, 29, 8594-8603.	3.2	69
357	Possible electric field induced indirect to direct band gap transition in $MoSe_2$ . <i>Scientific Reports</i> , 2017, 7, 5206.	1.6	23
358	Moiré-related in-gap states in a twisted $MoS_2$ /graphite heterojunction. <i>Npj 2D Materials and Applications</i> , 2017, 1, .	3.9	13
359	van der Waals heterostructures based on allotropes of phosphorene and $MoSe_2$ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22023-22032.	1.3	36
360	First-principles prediction of a novel cadmium disulfide monolayer (penta- $CdS_2$ ): Indirect to direct band gap transition by strain engineering. <i>Chemical Physics Letters</i> , 2017, 685, 310-315.	1.2	45
361	Robust high-temperature trion emission in monolayers of $Mo_2$ alloys. <i>Physical Review B</i> , 2017, 95, .	1.1	26
362	The optical response of monolayer, few-layer and bulk tungsten disulfide. <i>Nanoscale</i> , 2017, 9, 13128-13141.	2.8	97
363	Narrow-band anisotropic electronic structure of $ReS_2$ . <i>Physical Review B</i> , 2017, 96, .	1.1	8
364	Characterization of Rotational Stacking Layers in Large-Area $MoSe_2$ Film Grown by Molecular Beam Epitaxy and Interaction with Photon. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 30786-30796.	4.0	16
365	Direct observation of giant binding energy modulation of exciton complexes in monolayer $MoS_2$ . <i>Physical Review B</i> , 2017, 96, .	1.1	41
366	Temperature-Triggered Sulfur Vacancy Evolution in Monolayer $MoS_2$ /Graphene Heterostructures. <i>Small</i> , 2017, 13, 1602967.	5.2	77
367	Charged excitons in monolayer $WSe_2$ : Experiment and theory. <i>Physical Review B</i> , 2017, 96, .	1.1	20
368	Valley-Spin Physics in 2D Semiconducting Transition Metal Dichalcogenides. , 2017, , 279-294.		1
369	TMDs " Optoelectronic Devices. , 0, , 329-343.		0

#	ARTICLE	IF	CITATIONS
370	Defects in Two-Dimensional Materials. , 2017, , 359-378.		2
371	Photoinduced Bandgap Renormalization and Exciton Binding Energy Reduction in WS <sub>2</sub> . ACS Nano, 2017, 11, 12601-12608.	7.3	112
372	Diversity of trion states and substrate effects in the optical properties of an MoS <sub>2</sub> monolayer. Nature Communications, 2017, 8, 2117.	5.8	144
373	Simple vertex correction improves $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{G} \langle \text{mml:mi} \rangle \text{W} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{band energies of bulk and two-dimensional crystals. Physical Review B, 2017, 96, .$		
374	Observation of macroscopic valley-polarized monolayer exciton-polaritons at room temperature. Physical Review B, 2017, 96, .	1.1	35
375	van der Waals Layered Materials: Opportunities and Challenges. ACS Nano, 2017, 11, 11803-11830.	7.3	394
376	Ultrafast non-radiative dynamics of atomically thin MoSe <sub>2</sub> . Nature Communications, 2017, 8, 1745.	5.8	52
377	Phonon-assisted oscillatory exciton dynamics in monolayer MoSe <sub>2</sub> . Npj 2D Materials and Applications, 2017, 1, .	3.9	50
378	Marrying Excitons and Plasmons in Monolayer Transition-Metal Dichalcogenides. Physical Review X, 2017, 7, .	2.8	41
379	Anisotropic attosecond charge carrier dynamics and layer decoupling in quasi-2D layered SnS <sub>2</sub> . Nature Communications, 2017, 8, 1369.	5.8	27
380	Effect of Substrate symmetry on the dendrite morphology of MoS <sub>2</sub> Film synthesized by CVD. Scientific Reports, 2017, 7, 15166.	1.6	24
381	Coupled relaxation channels of excitons in monolayer MoSe <sub>2</sub> . Nanoscale, 2017, 9, 18546-18551.	2.8	22
382	K $\rightarrow$ crossover transition in the conduction band of monolayer MoS <sub>2</sub> under hydrostatic pressure. Science Advances, 2017, 3, e1700162.	4.7	60
383	Out-of-Plane Strain Induced in a Moiré Superstructure of Monolayer MoS <sub>2</sub> and MoSe <sub>2</sub> on Au(111). Small, 2017, 13, 1700748.	5.2	26
384	Resonantly excited exciton dynamics in two-dimensional $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{MoSe} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{monolayers. Physical Review B, 2017, 96, .$		
385	Observation of forbidden phonons, Fano resonance and dark excitons by resonance Raman scattering in few-layer WS <sub>2</sub> . 2D Materials, 2017, 4, 031007.	2.0	41
386	Atomically Thin $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{Al} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{Films for Tunnel Junctions. Physical Review Applied, 2017, 7, .$		
387	Size-tunable Lateral Confinement in Monolayer Semiconductors. Scientific Reports, 2017, 7, 3324.	1.6	57

#	ARTICLE	IF	CITATIONS
388	Coherent exciton-polariton devices. Semiconductor Science and Technology, 2017, 32, 093003.	1.0	25
389	Environmental Screening Effects in 2D Materials: Renormalization of the Bandgap, Electronic Structure, and Optical Spectra of Few-Layer Black Phosphorus. Nano Letters, 2017, 17, 4706-4712.	4.5	155
390	Poor electronic screening in lightly doped Mott insulators observed with scanning tunneling microscopy. Physical Review B, 2017, 95, .	1.1	27
391	Origin of layer dependence in band structures of two-dimensional materials. Physical Review B, 2017, 95, .	1.1	26
392	Layer dependence of the electronic band alignment of few-layer $\text{MoS}_2$ on $\text{SiO}_2/\text{Si}$ long valley relaxation time of free carriers in monolayer $\text{WSe}_2$ . Physical Review B, 2017, 95, .	1.1	35
393	Tunable quasiparticle band gap in few-layer GaSe/graphene van der Waals heterostructures. Physical Review B, 2017, 96, .	1.1	99
395	Two-dimensional square transition metal dichalcogenides with lateral heterostructures. Nano Research, 2017, 10, 3909-3919.	5.8	17
396	Electronic and optical properties of the monolayer group-IV monochalcogenides $\text{MX}_2$ .		



#	ARTICLE	IF	CITATIONS
406	First-principles study of stability, electronic structure and magnetic properties of Be <sub>2</sub> C nanoribbons. Applied Surface Science, 2017, 394, 315-322.	3.1	1
407	Controllable Synthesis of 2D and 1D MoS <sub>2</sub> Nanostructures on Au Surface. Advanced Functional Materials, 2017, 27, 1603887.	7.8	15
408	Light-Matter Interactions in Two-Dimensional Transition Metal Dichalcogenides: Dominant Excitonic Transitions in Mono- and Few-Layer MoX <sub>2</sub> and Band Nesting. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 219-230.	1.9	46
409	Quasiparticle band gaps and optical spectra of strained monolayer transition-metal dichalcogenides. Physical Review B, 2017, 96, .	1.1	28
410	Self-energy effect and Coulomb potential modulation of the exciton in monolayer MoS <sub>2</sub> on polar substrate. Journal Physics D: Applied Physics, 2017, 50, 475306.	1.3	3
411	Substrate-induced semiconductor-to-metal transition in monolayer $WS_2$ . Physical Review B, 2017, 96, .	1.1	3
412	Spin-Related Micro-Photoluminescence in Fe <sup>3+</sup> Doped ZnSe Nanoribbons. Applied Sciences (Switzerland), 2017, 7, 39.	1.3	10
413	Temperature Dependence of the Dielectric Function of Monolayer MoSe <sub>2</sub> . Scientific Reports, 2018, 8, 3173.	1.6	13
414	Covalent functionalization of black phosphorus nanoflakes by carbon free radicals for durable air and water stability. Nanoscale, 2018, 10, 5834-5839.	2.8	90
415	Two-dimensional transition metal dichalcogenides: interface and defect engineering. Chemical Society Reviews, 2018, 47, 3100-3128.	18.7	604
416	Electronic properties of atomically thin MoS <sub>2</sub> layers grown by physical vapour deposition: band structure and energy level alignment at layer/substrate interfaces. RSC Advances, 2018, 8, 7744-7752.	1.7	22
417	Orbital Symmetry and the Optical Response of Single-Layer MX Monochalcogenides. Nano Letters, 2018, 18, 1925-1929.	4.5	41
418	Saturation of Two-Photon Absorption in Layered Transition Metal Dichalcogenides: Experiment and Theory. ACS Photonics, 2018, 5, 1558-1565.	3.2	79
419	Evolution of the broadband optical transition in large-area $MoS_2$ . Physical Review B, 2018, 97, .	1.1	13
420	Unraveling the Structural and Electronic Properties at the WS <sub>2</sub> –“Graphene Interface for a Rational Design of van der Waals Heterostructures. ACS Applied Nano Materials, 2018, 1, 1131-1140.	2.4	19
421	Probing excitons in transition metal dichalcogenides by Drude-like exciton intraband absorption. Nanoscale, 2018, 10, 9538-9546.	2.8	21
422	Optical absorption by indirect excitons in a transition metal dichalcogenide/hexagonal boron nitride heterostructure. Journal of Physics Condensed Matter, 2018, 30, 225001.	0.7	17
423	Layer-Dependent Ultrafast Carrier and Coherent Phonon Dynamics in Black Phosphorus. Nano Letters, 2018, 18, 3053-3059.	4.5	75



#	ARTICLE	IF	CITATIONS
424	Highly Efficient Photocatalytic Hydrogen Evolution by ReS <sub>2</sub> via a Two-Electron Catalytic Reaction. <i>Advanced Materials</i> , 2018, 30, e1707123.	11.1	90
425	Controlling the electronic properties of van der Waals heterostructures by applying electrostatic design. <i>2D Materials</i> , 2018, 5, 035019.	2.0	18
426	Manifold Coupling Mechanisms of Transition Metal Dichalcogenides to Plasmonic Gold Nanoparticle Arrays. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9663-9670.	1.5	12
427	Effect of Temperature and Doping on Plasmon Excitations for an Encapsulated Double-Layer Graphene Heterostructure. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1700342.	0.7	4
428	Colloquium: Excitons in atomically thin transition metal dichalcogenides. <i>Reviews of Modern Physics</i> , 2018, 90, .	16.4	1,292
429	Band-edges and band-gap in few-layered transition metal dichalcogenides. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 215102.	1.3	9
430	Temperature-driven evolution of critical points, interlayer coupling, and layer polarization in bilayer $S \text{ Mo}_2$ Physical Review B, 2018, 97, .		23
431	Phase Transitions of the Polariton Condensate in 2D Dirac Materials. <i>Physical Review Letters</i> , 2018, 120, 157601.	2.9	3
432	Moiré structure of MoS <sub>2</sub> on Au(111): Local structural and electronic properties. <i>Surface Science</i> , 2018, 678, 136-142.	0.8	45
433	The organic-2D transition metal dichalcogenide heterointerface. <i>Chemical Society Reviews</i> , 2018, 47, 3241-3264.	18.7	158
434	Syntheses and bandgap alterations of MoS <sub>2</sub> induced by stresses in graphene-platinum substrates. <i>Carbon</i> , 2018, 131, 26-30.	5.4	12
435	Tuning Electronic Structure of Single Layer MoS <sub>2</sub> through Defect and Interface Engineering. <i>ACS Nano</i> , 2018, 12, 2569-2579.	7.3	203
436	Photocarrier generation from interlayer charge-transfer transitions in WS <sub>2</sub> -graphene heterostructures. <i>Science Advances</i> , 2018, 4, e1700324.	4.7	160
437	The growth and assembly of organic molecules and inorganic 2D materials on graphene for van der Waals heterostructures. <i>Carbon</i> , 2018, 131, 246-257.	5.4	21
438	DFT study of structural and electronic properties of MoS <sub>2</sub> (1-x)Se <sub>2x</sub> alloy (x=0.25). <i>Journal of Applied Physics</i> , 2018, 123, 161594.	1.1	11
439	Beyond van der Waals Interaction: The Case of MoSe <sub>2</sub> Epitaxially Grown on Few-Layer Graphene. <i>ACS Nano</i> , 2018, 12, 2319-2331.	7.3	46
440	Structural Changes as a Function of Thickness in [(SnSe) <sub>1-x</sub> ]mTiSe <sub>2</sub> Heterostructures. <i>ACS Nano</i> , 2018, 12, 1285-1295.	7.3	11
441	Environmentally sensitive theory of electronic and optical transitions in atomically thin semiconductors. <i>Physical Review B</i> , 2018, 97, .	1.1	93

#	ARTICLE	IF	CITATIONS
442	Influence of the effective layer thickness on the ground-state and excitonic properties of transition-metal dichalcogenide systems. <i>Physical Review B</i> , 2018, 97, .	1.1	48
443	Nonlinear dynamics of trions under strong optical excitation in monolayer MoSe <sub>2</sub> . <i>Scientific Reports</i> , 2018, 8, 2389.	1.6	13
444	Giant excitation induced bandgap renormalization in TMDC monolayers. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	45
445	Engineered MoSe <sub>2</sub> -Based Heterostructures for Efficient Electrochemical Hydrogen Evolution Reaction. <i>Advanced Energy Materials</i> , 2018, 8, 1703212.	10.2	152
446	Broadband nonlinear optical response of monolayer MoSe <sub>2</sub> under ultrafast excitation. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	25
447	The interplay between excitons and trions in a monolayer of MoSe <sub>2</sub> . <i>Applied Physics Letters</i> , 2018, 112, .	1.5	35
448	Charge Versus Energy Transfer in Atomically Thin Graphene-Transition Metal Dichalcogenide van der Waals Heterostructures. <i>Physical Review X</i> , 2018, 8, .	2.8	63
449	Giant spin-splitting and gap renormalization driven by trions in single-layer WS <sub>2</sub> /h-BN heterostructures. <i>Nature Physics</i> , 2018, 14, 355-359.	6.5	83
450	Strongly bound excitons in monolayer PtS <sub>2</sub> and PtSe <sub>2</sub> . <i>Applied Physics Letters</i> , 2018, 112, .	1.5	71
451	Substrate modified thermal stability of mono- and few-layer MoS <sub>2</sub> . <i>Nanoscale</i> , 2018, 10, 3540-3546.	2.8	43
452	Dielectric Engineering of Electronic Correlations in a van der Waals Heterostructure. <i>Nano Letters</i> , 2018, 18, 1402-1409.	4.5	39
453	Superatomic Two-Dimensional Semiconductor. <i>Nano Letters</i> , 2018, 18, 1483-1488.	4.5	41
454	Effects of Excitonic Resonance on Second and Third Order Nonlinear Scattering from Few-Layer MoS <sub>2</sub> . <i>ACS Photonics</i> , 2018, 5, 1235-1240.	3.2	25
455	Optical and Excitonic Properties of Atomically Thin Transition-Metal Dichalcogenides. <i>Annual Review of Condensed Matter Physics</i> , 2018, 9, 379-396.	5.2	68
456	Molecular beam epitaxy of quasi-freestanding transition metal disulphide monolayers on van der Waals substrates: a growth study. <i>2D Materials</i> , 2018, 5, 025005.	2.0	55
457	Nanoscale Heterogeneities in Monolayer MoSe <sub>2</sub> Revealed by Correlated Scanning Probe Microscopy and Tip-Enhanced Raman Spectroscopy. <i>ACS Applied Nano Materials</i> , 2018, 1, 572-579.	2.4	45
458	Resonant Raman and Exciton Coupling in High-Quality Single Crystals of Atomically Thin Molybdenum Diselenide Grown by Vapor-Phase Chalcogenization. <i>ACS Nano</i> , 2018, 12, 740-750.	7.3	34
459	Influence of chalcogen composition on the structural transition and on the electronic and optical properties of the monolayer titanium trichalcogenide ordered alloys. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 1431-1439.	1.3	9

#	ARTICLE	IF	CITATIONS
460	Direct determination of monolayer MoS <sub>2</sub> and WSe <sub>2</sub> exciton binding energies on insulating and metallic substrates. 2D Materials, 2018, 5, 025003.	2.0	142
461	Probing the Dielectric Properties of Ultrathin Al/Al <sub>2</sub> O <sub>3</sub> /Al Trilayers Fabricated Using <i>in Situ</i> Sputtering and Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2018, 10, 3112-3120.	4.0	49
462	First-principles simulation of local response in transition metal dichalcogenides under electron irradiation. Nanoscale, 2018, 10, 2388-2397.	2.8	34
463	Preparation of MoSe <sub>2</sub> /Mo-NPs catalytic films for enhanced hydrogen evolution by pulsed laser ablation of MoSe <sub>2</sub> target. Nuclear Instruments & Methods in Physics Research B, 2018, 416, 30-40.	0.6	12
464	Tuning Hydrogen Adsorption on Graphene by Gate Voltage. Journal of Physical Chemistry C, 2018, 122, 11591-11597.	1.5	16
465	Brightened spin-triplet interlayer excitons and optical selection rules in van der Waals heterobilayers. 2D Materials, 2018, 5, 035021.	2.0	107
466	Interface Engineering of Monolayer MoS <sub>2</sub> /GaN Hybrid Heterostructure: Modified Band Alignment for Photocatalytic Water Splitting Application by Nitridation Treatment. ACS Applied Materials & Interfaces, 2018, 10, 17419-17426.	4.0	214
467	Exciton diffusion in WSe <sub>2</sub> monolayers embedded in a van der Waals heterostructure. Applied Physics Letters, 2018, 112, .	1.5	114
468	Dissociation of two-dimensional excitons in monolayer WSe <sub>2</sub> . Nature Communications, 2018, 9, 1633.	5.8	116
469	Revealing Bound Exciton Physics in Strongly Interacting Band Insulators. Springer Theses, 2018, , 109-168.	0.0	0
470	Electrostatics of electron-hole interactions in van der Waals heterostructures. Physical Review B, 2018, 97, .	1.1	25
471	The Dielectric Impact of Layer Distances on Exciton and Trion Binding Energies in van der Waals Heterostructures. Nano Letters, 2018, 18, 2725-2732.	4.5	113
472	Lateral Heterostructures Formed by Thermally Converting n-Type SnSe <sub>2</sub> to p-Type SnSe. ACS Applied Materials & Interfaces, 2018, 10, 12831-12838.	4.0	37
473	A theoretical perspective of the enhanced photocatalytic properties achieved by forming tetragonal ZnS/ZnSe hetero-bilayer. Physical Chemistry Chemical Physics, 2018, 20, 9950-9956.	1.3	14
474	Determination of layer-dependent exciton binding energies in few-layer black phosphorus. Science Advances, 2018, 4, eaap9977.	4.7	122
475	Chemical synthesis of two-dimensional atomic crystals, heterostructures and superlattices. Chemical Society Reviews, 2018, 47, 3129-3151.	18.7	132
476	Wrinkle-free atomically thin CdS nanosheets for photocatalytic hydrogen evolution. Nanotechnology, 2018, 29, 215402.	1.3	26
477	Resonance Raman effects in transition metal dichalcogenides. Journal of Raman Spectroscopy, 2018, 49, 66-75.	1.2	43

#	ARTICLE	IF	CITATIONS
478	Anomalous dispersion of microcavity trion-polaritons. <i>Nature Physics</i> , 2018, 14, 130-133.	6.5	48
479	d10 coinage metal organic chalcogenolates: From oligomers to coordination polymers. <i>Coordination Chemistry Reviews</i> , 2018, 355, 240-270.	9.5	89
480	Layer- and substrate-dependent charge density wave criticality in $1T\text{-TiSe}_2$ . <i>2D Materials</i> , 2018, 5, 015006.	2.0	39
481	Strong magnetic resonances and largely enhanced second-harmonic generation of colloidal $\text{MoS}_2$ and $\text{ReS}_2$ @Au nanoantennas with assembled 2D nanosheets. <i>Nanoscale</i> , 2018, 10, 124-131.	2.8	11
482	Group 6 transition metal dichalcogenide nanomaterials: synthesis, applications and future perspectives. <i>Nanoscale Horizons</i> , 2018, 3, 90-204.	4.1	309
483	Two-dimensional organic cathode materials for alkali-metal-ion batteries. <i>Journal of Energy Chemistry</i> , 2018, 27, 86-98.	7.1	56
484	Coherent Light-Matter Interactions in Monolayer Transition-Metal Dichalcogenides. Springer Theses, 2018, , .	0.0	9
485	Chemical vapor deposition growth of two-dimensional heterojunctions. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	2.0	52
486	Two-dimensional black phosphorus: its fabrication, functionalization and applications. <i>Nanoscale</i> , 2018, 10, 21575-21603.	2.8	73
487	Spatial control of carrier capture in two-dimensional materials: Beyond energy selection rules. <i>Physical Review B</i> , 2018, 98, .	1.1	9
488	Optical Nano-Imaging of 2D Transition Metal Dichalcogenides. , 2018, , .		0
490	Defect Engineering in Single-Layer $\text{MoS}_2$ Using Heavy Ion Irradiation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 42524-42533.	4.0	138
491	Ultrafast formation and dynamics of interlayer exciton in a large-area CVD-grown $\text{WS}_2/\text{WSe}_2$ heterostructure. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 495701.	0.7	16
492	A SCANNING TUNNELING MICROSCOPY STUDY OF MONOLAYER AND BILAYER TRANSITION-METAL DICHALCOGENIDES GROWN BY MOLECULAR-BEAM EPITAXY. <i>Surface Review and Letters</i> , 2018, 25, 1841002.	0.5	1
493	From Linear to Nonlinear Responses of Thermal Pure Quantum States. <i>Physical Review Letters</i> , 2018, 121, 220601.	2.9	20
494	Spin response and collective modes in simple metal dichalcogenides. <i>Physical Review B</i> , 2018, 98, .	1.1	7
495	Screening of long-range Coulomb interaction in graphene nanoribbons: Armchair versus zigzag edges. <i>Physical Review B</i> , 2018, 98, .	1.1	12
496	Introduction: 2d-Based Quantum Technologies. Springer Theses, 2018, , 1-30.	0.0	0

#	ARTICLE	IF	CITATIONS
497	Excited-State Properties of Thin Silicon Nanowires. , 2018, , 1-18.		1
498	Exciton transport in strained monolayer WSe <sub>2</sub> . Applied Physics Letters, 2018, 113, .	1.5	58
499	Dependence of band structure and exciton properties of encapsulated $\text{WSe}_2$ monolayers on the hBN-layer thickness. Physical Review B, 2018, 98, .	1.1	37
500	Crossover from trion-hole complex to exciton-polaron in $\text{n-doped}$ two-dimensional semiconductor quantum wells. Physical Review B, 2018, 98, .	1.1	40
501	Stark shift of excitons and trions in two-dimensional materials. Physical Review B, 2018, 98, .	1.1	31
502	Excitons and trions in two-dimensional semiconductors based on transition metal dichalcogenides. Physics-Uspexhi, 2018, 61, 825-845.	0.8	47
503	Dynamic theory of nanophotonic control of two-dimensional semiconductor nonlinearities. Physical Review B, 2018, 98, .	1.1	3
504	A- and B-exciton photoluminescence intensity ratio as a measure of sample quality for transition metal dichalcogenide monolayers. APL Materials, 2018, 6, .	2.2	103
505	Intravalley Spin-Flip Relaxation Dynamics in Single-Layer WS <sub>2</sub> . Nano Letters, 2018, 18, 6882-6891.	4.5	82
506	Many-body correlations brought to light in absorption spectra of diluted magnetic semiconductors. Physical Review B, 2018, 98, .	1.1	6
507	Engineering Defect Transition-Levels through the van der Waals Heterostructure. Journal of Physical Chemistry C, 2018, 122, 24475-24480.	1.5	27
508	Coulomb effects in the absorbance spectra of two-dimensional Dirac materials. Physical Review B, 2018, 98, .	1.1	7
509	Mirror twin grain boundaries in molybdenum dichalcogenides. Journal of Physics Condensed Matter, 2018, 30, 493001.	0.7	36
510	Controlling the Charge Density Wave Transition in Monolayer TiSe <sub>2</sub> : Substrate and Doping Effects. Advanced Quantum Technologies, 2018, 1, 1800070.	1.8	17
511	Defect-Induced Modification of Low-Lying Excitons and Valley Selectivity in Monolayer Transition Metal Dichalcogenides. Physical Review Letters, 2018, 121, 167402.	2.9	109
512	Synthesis and Properties of 2D Semiconductors. Springer Theses, 2018, , 21-43.	0.0	1
513	Controlling Lattice Defects and Inter-Exciton Interactions in Monolayer Transition Metal Dichalcogenides for Efficient Light Emission. ACS Photonics, 2018, 5, 4187-4194.	3.2	16
514	Atomically Thin Resonant Tunnel Diodes. Springer Theses, 2018, , 113-125.	0.0	0

#	ARTICLE	IF	CITATIONS
515	Light-Emitting Plexciton: Exploiting Plasmon-Exciton Interaction in the Intermediate Coupling Regime. ACS Nano, 2018, 12, 10393-10402.	7.3	151
516	Revealing the biexciton and trion-exciton complexes in BN encapsulated WSe <sub>2</sub> . Nature Communications, 2018, 9, 3719.	5.8	175
517	Observation of Novel Multifunctionalities in Monolayer CdO. Advanced Theory and Simulations, 2018, 1, 1800107.	1.3	11
518	First-principles study of the nanotubes from the TiO <sub>2</sub> hexagonal sheet. Journal of Materials Science, 2018, 53, 15530-15540.	1.7	4
519	Valley-Selective Response of Nanostructures Coupled to 2D Transition-Metal Dichalcogenides. Applied Sciences (Switzerland), 2018, 8, 1157.	1.3	30
520	Exciton States in Monolayer $\text{MoSe}_2$ and $\text{MoTe}_2$ Probed by Upconversion Spectroscopy. Physical Review X, 2018, 8, .	2.8	56
521	Identifying the Non-Identical Outermost Selenium Atoms and Invariable Band Gaps across the Grain Boundary of Anisotropic Rhenium Diselenide. ACS Nano, 2018, 12, 10095-10103.	7.3	25
522	Exciton physics and device application of two-dimensional transition metal dichalcogenide semiconductors. Npj 2D Materials and Applications, 2018, 2, .	3.9	526
523	Electrical control of excitons in van der Waals heterostructures with type-II band alignment. Physical Review B, 2018, 98, .	1.1	21
524	Decoupling the Interaction between Wet-Transferred $\text{MoS}_2$ and Graphite Substrate by an Interfacial Water Layer. Advanced Materials Interfaces, 2018, 5, 1800641.	1.9	18
525	Dynamics of Photocatalytic Hydrogen Production in Aqueous Dispersions of Monolayer-Rich Tungsten Disulfide. ACS Energy Letters, 2018, 3, 2223-2229.	8.8	26
526	Visualizing electronic structures of quantum materials by angle-resolved photoemission spectroscopy. Nature Reviews Materials, 2018, 3, 341-353.	23.3	58
527	Efficient and Layer-Dependent Exciton Pumping across Atomically Thin Organic-Inorganic Type-II Heterostructures. Advanced Materials, 2018, 30, e1803986.	11.1	79
528	Band-bending induced by charged defects and edges of atomically thin transition metal dichalcogenide films. 2D Materials, 2018, 5, 035034.	2.0	23
529	Construction of bilayer PdSe <sub>2</sub> on epitaxial graphene. Nano Research, 2018, 11, 5858-5865.	5.8	84
530	Phonon-coupled ultrafast interlayer charge oscillation at van der Waals heterostructure interfaces. Physical Review B, 2018, 97, .	1.1	81
531	Dispersion and decay rate of exciton-polaritons and radiative modes in transition metal dichalcogenide monolayers. Physical Review B, 2018, 97, .	1.1	8
532	Phase-matching-free parametric oscillators based on two-dimensional semiconductors. Light: Science and Applications, 2018, 7, 5.	7.7	26

#	ARTICLE	IF	CITATIONS
533	Reverse Saturable Absorption Induced by Phonon-Assisted Anti-Stokes Processes. <i>Advanced Materials</i> , 2018, 30, e1801638.	11.1	57
534	Roadmap on finding chiral valleys: screening 2D materials for valleytronics. <i>Nano Futures</i> , 2018, 2, 032001.	1.0	58
535	Epitaxial growth and physical properties of 2D materials beyond graphene: from monatomic materials to binary compounds. <i>Chemical Society Reviews</i> , 2018, 47, 6073-6100.	18.7	97
536	Biexcitonic optical Stark effects in monolayer molybdenum diselenide. <i>Nature Physics</i> , 2018, 14, 1092-1096.	6.5	48
537	Excitation-induced transition to indirect band gaps in atomically thin transition-metal dichalcogenide semiconductors. <i>Physical Review B</i> , 2018, 98, .	1.1	31
538	Emergence of a Metal-Insulator Transition and High-Temperature Charge-Density Waves in $VSe_2$ at the Monolayer Limit. <i>Nano Letters</i> , 2018, 18, 5432-5438.	4.5	170
539	Photo-induced excitonic structure renormalization and broadband absorption in monolayer tungsten disulphide. <i>Optics Express</i> , 2018, 26, 859.	1.7	32
540	Nanophotonics with 2D transition metal dichalcogenides [Invited]. <i>Optics Express</i> , 2018, 26, 15972.	1.7	134
541	Molecular Beam Epitaxy of Transition Metal Dichalcogenides. , 2018, , 515-531.		19
542	Two-dimensional zigzag-shaped $Cd_2C$ monolayer with a desirable bandgap and high carrier mobility. <i>Journal of Materials Chemistry C</i> , 2018, 6, 9175-9180.	2.7	19
543	Zeeman Splitting and Inverted Polarization of Biexciton Emission in Monolayer $WS_2$ . <i>Physical Review Letters</i> , 2018, 121, 057402.	2.9	70
544	Challenges and Opportunities in Molecular Beam Epitaxy Growth of 2D Crystals. , 2018, , 443-485.		5
545	Light-valley interactions in 2D semiconductors. <i>Nature Photonics</i> , 2018, 12, 451-460.	15.6	316
546	Metallic $MoS_2$ for High Performance Energy Storage and Energy Conversion. <i>Small</i> , 2018, 14, e1800640.	5.2	218
547	Novel single-layer vanadium sulphide phases. <i>2D Materials</i> , 2018, 5, 045009.	2.0	48
548	Band gap temperature-dependence and exciton-like state in copper antimony sulphide, $CuSbS_2$ . <i>APL Materials</i> , 2018, 6, .	2.2	14
549	The effect of strain and functionalization on the optical properties of borophene. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 21043-21050.	1.3	45
550	Electrothermal Local Annealing via Graphite Joule Heating on Two-Dimensional Layered Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 25638-25643.	4.0	3



#	ARTICLE	IF	CITATIONS
551	Molecular Beam Epitaxy of Highly Crystalline MoSe <sub>2</sub> on Hexagonal Boron Nitride. ACS Nano, 2018, 12, 7562-7570.	7.3	70
552	Observation of exciton-phonon coupling in MoSe <sub>2</sub> monolayers. Physical Review B, 2018, 98, .	1.1	10
553	Many-Body Dynamics and Gap Opening in Interacting Periodically Driven Systems. Physical Review Letters, 2018, 121, 036801.	2.9	13
554	Multimodal spectromicroscopy of monolayer WS <sub>2</sub> enabled by ultra-clean van der Waals epitaxy. 2D Materials, 2018, 5, 045010.	2.0	40
555	Interlayer screening effects in WS <sub>2</sub> /WSe <sub>2</sub> van der Waals hetero-bilayer. 2D Materials, 2018, 5, 041003.	2.0	18
556	Nano-optical imaging of monolayer MoSe <sub>2</sub> -WSe <sub>2</sub> lateral heterostructure with subwavelength domains. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, 05G502.	0.9	20
557	Semiconducting van der Waals Interfaces as Artificial Semiconductors. Nano Letters, 2018, 18, 5146-5152.	4.5	25
558	Two-dimensional semiconductors in the regime of strong light-matter coupling. Nature Communications, 2018, 9, 2695.	5.8	256
559	Spectrally narrow exciton luminescence from monolayer MoS <sub>2</sub> and MoSe <sub>2</sub> exfoliated onto epitaxially grown hexagonal BN. Applied Physics Letters, 2018, 113, .	1.5	22
560	Electron doping induced semiconductor to metal transitions in ZrSe <sub>2</sub> layers via copper atomic intercalation. Nano Research, 2018, 11, 4914-4922.	5.8	39
561	First-principles simulation on thermoelectric properties of transition metal dichalcogenide monolayers. Japanese Journal of Applied Physics, 2018, 57, 06HE04.	0.8	4
562	Engineering graphene and TMDs based van der Waals heterostructures for photovoltaic and photoelectrochemical solar energy conversion. Chemical Society Reviews, 2018, 47, 4981-5037.	18.7	344
563	Ultrafast probes of electron-hole transitions between two atomic layers. Nature Communications, 2018, 9, 1859.	5.8	30
564	Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependence. Physical Review B, 2018, 97, .	1.1	45
565	Excitonic structure of the optical conductivity in MoS <sub>2</sub> monolayers. Physical Review B, 2018, 97, .	1.1	15
566	The Computational 2D Materials Database: high-throughput modeling and discovery of atomically thin crystals. 2D Materials, 2018, 5, 042002.	2.0	711
567	Quasiparticle structures and Fermi surfaces of bulk and monolayer NbS <sub>2</sub> . Physical Review B, 2018, 98, .	1.1	15
568	High quality PdTe <sub>2</sub> thin films grown by molecular beam epitaxy. Chinese Physics B, 2018, 27, 086804.	0.7	39



#	ARTICLE	IF	CITATIONS
569	Enhancement of Exciton-Phonon Scattering from Monolayer to Bilayer WS <sub>2</sub> . Nano Letters, 2018, 18, 6135-6143.	4.5	50
570	Light Emission Properties of 2D Transition Metal Dichalcogenides: Fundamentals and Applications. Advanced Optical Materials, 2018, 6, 1800420.	3.6	88
571	Dependence of excited-state properties of tellurium on dimensionality: From bulk to two dimensions to one dimensions. Physical Review B, 2018, 98, .	1.1	27
572	Observation of topologically protected states at crystalline phase boundaries in single-layer WSe <sub>2</sub> . Nature Communications, 2018, 9, 3401.	5.8	107
573	Sub-Monolayer Accuracy in Determining the Number of Atoms per Unit Area in Ultrathin Films Using X-ray Fluorescence. Chemistry of Materials, 2018, 30, 6209-6216.	3.2	35
574	Electronic-dimensionality reduction of bulk MoS <sub>2</sub> by hydrogen treatment. Physical Chemistry Chemical Physics, 2018, 20, 23007-23012.	1.3	6
575	Coupling Single Photons from Discrete Quantum Emitters in WSe <sub>2</sub> to Lithographically Defined Plasmonic Slot Waveguides. Nano Letters, 2018, 18, 6812-6819.	4.5	53
576	Tuning the mechanical properties of silicene nanosheet by auxiliary cracks: a molecular dynamics study. RSC Advances, 2018, 8, 30354-30365.	1.7	20
577	Strain engineering in two-dimensional nanomaterials beyond graphene. Nano Today, 2018, 22, 14-35.	6.2	252
578	Evaporation Rate and Substrate Temperature Dependence of Direct Exciton Transitions in Bil <sub>3</sub> Thin Films Formed by Hot Wall Technique on Al <sub>2</sub> O <sub>3</sub> Substrates. Physica Status Solidi (B): Basic Research, 2018, 255, 1800092.	0.7	1
579	Exciton Relaxation Cascade in two-dimensional Transition Metal Dichalcogenides. Scientific Reports, 2018, 8, 8238.	1.6	82
580	Monolayer Transition Metal Dichalcogenides as Light Sources. Advanced Materials, 2018, 30, e1707627.	11.1	76
581	Excitonic processes in atomically-thin MoSe <sub>2</sub> / MoS <sub>2</sub> vertical heterostructures. 2D Materials, 2018, 5, 031016.	2.0	12
582	THz-induced thermoelectric and thermal transport in atomic monolayers. , 2018, , 473-509.		0
583	High-Performance Solid-State Thermionic Energy Conversion Based on 2D van der Waals Heterostructures: A First-Principles Study. Scientific Reports, 2018, 8, 9303.	1.6	21
584	Luminescence in 2D Materials and van der Waals Heterostructures. Advanced Optical Materials, 2018, 6, 1701296.	3.6	58
585	Doping engineering and functionalization of two-dimensional metal chalcogenides. Nanoscale Horizons, 2019, 4, 26-51.	4.1	238
586	Many-Body Complexes in 2D Semiconductors. Advanced Materials, 2019, 31, e1706945.	11.1	255

#	ARTICLE	IF	CITATIONS
587	Tunable Open-Access Microcavities for Solid-State Quantum Photonics and Polaritonics. <i>Advanced Quantum Technologies</i> , 2019, 2, 1900060.	1.8	30
588	Graphene van der Waals heterostructures for high-performance photodetectors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11056-11067.	2.7	41
589	Two-dimensional materials. , 2019, , 165-189.		0
590	How Substitutional Point Defects in Two-Dimensional WS <sub>2</sub> Induce Charge Localization, Spin-Orbit Splitting, and Strain. <i>ACS Nano</i> , 2019, 13, 10520-10534.	7.3	86
591	Physics of excitons and their transport in two dimensional transition metal dichalcogenide semiconductors. <i>RSC Advances</i> , 2019, 9, 25439-25461.	1.7	24
592	Large Spin-Orbit Splitting of Deep In-Gap Defect States of Engineered Sulfur Vacancies in Monolayer WS <sub>2</sub> . <i>Physical Review Letters</i> , 2019, 123, 076801.	2.9	120
593	Two-Dimensional Transition Metal Dichalcogenides: An Overview. , 2019, , 1-27.		4
594	Ultracompact Photodetection in Atomically Thin MoSe <sub>2</sub> . <i>ACS Photonics</i> , 2019, 6, 1902-1909.	3.2	15
595	Effect of Al <sub>2</sub> O <sub>3</sub> Seed-Layer on the Dielectric and Electrical Properties of Ultrathin MgO Films Fabricated Using <i>In Situ</i> Atomic Layer Deposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 30368-30375.	4.0	10
596	Valley-dependent exciton fine structure and Autler-Townes doublets from Berry phases in monolayer MoSe <sub>2</sub> . <i>Nature Materials</i> , 2019, 18, 1065-1070.	13.3	34
597	Two-dimensional excitons in monolayer transition metal dichalcogenides from radial equation and variational calculations. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 105702.	0.7	11
598	Visualizing electrostatic gating effects in two-dimensional heterostructures. <i>Nature</i> , 2019, 572, 220-223.	13.7	135
599	Ab-initio calculations of strain induced relaxed shape armchair graphene nanoribbon. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 114, 113648.	1.3	7
600	Reversible direct-indirect band transition in alloying TMDs heterostructures via band engineering. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 435503.	0.7	7
601	Giant gate-tunable bandgap renormalization and excitonic effects in a 2D semiconductor. <i>Science Advances</i> , 2019, 5, eaaw2347.	4.7	80
602	Spin dynamics of hot excitons in diluted magnetic semiconductors with spin-orbit interaction. <i>Physical Review B</i> , 2019, 100, .	1.1	1
603	Dual-Wavelength Passively Mode-Locked Yb-Doped Fiber Laser Based on a SnSe <sub>2</sub> -PVA Saturable Absorber. <i>IEEE Photonics Journal</i> , 2019, 11, 1-13.	1.0	4
604	Structural, electronic and optical properties of graphene-like nano-layers MoX <sub>2</sub> (X:S,Se,Te): DFT study. <i>Journal of Theoretical and Applied Physics</i> , 2019, 13, 191-201.	1.4	31

#	ARTICLE	IF	CITATIONS
605	Scanning Tunneling Microscope-Induced Excitonic Luminescence of a Two-Dimensional Semiconductor. <i>Physical Review Letters</i> , 2019, 123, 027402.	2.9	36
606	Nanoscale mapping of quasiparticle band alignment. <i>Nature Communications</i> , 2019, 10, 3283.	5.8	20
607	Widely tunable Bi <sub>2</sub> Se <sub>3</sub> /transition metal dichalcogenide 2D heterostructures for write-read-erase-reuse applications. <i>2D Materials</i> , 2019, 6, 041003.	2.0	9
608	Tunable Moiré Superlattice of Artificially Twisted Monolayers. <i>Advanced Materials</i> , 2019, 31, 1901077.	11.1	27
609	Highly Sensitive, Fast Graphene Photodetector with Responsivity >10 <sup>6</sup> A/W Using a Floating Quantum Well Gate. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 30010-30018.	4.0	23
610	Two-Dimensional Lateral Epitaxy of 2H (MoSe <sub>2</sub> ) <sup>1T</sup> (ReSe <sub>2</sub> ) Phases. <i>Nano Letters</i> , 2019, 19, 6338-6345.	4.5	30
611	Mechanical Exfoliation Assisted by Molecular Tweezers for Production of Sulfur-Based Semiconducting Two-Dimensional Materials. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 14170-14179.	1.8	6
612	Identifying substitutional oxygen as a prolific point defect in monolayer transition metal dichalcogenides. <i>Nature Communications</i> , 2019, 10, 3382.	5.8	196
613	Nonlinear optical selection rules of excitons in monolayer transition metal dichalcogenides. <i>Physical Review B</i> , 2019, 99, .	1.1	33
614	Photo Sensor Based on 2D Materials. , 2019, , 465-479.		0
615	The Effects of Atomic-Scale Strain Relaxation on the Electronic Properties of Monolayer MoS <sub>2</sub> . <i>ACS Nano</i> , 2019, 13, 8284-8291.	7.3	29
616	Enhancing electronic and optical properties of monolayer MoSe <sub>2</sub> via a MoSe <sub>2</sub> /blue phosphorene heterobilayer. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 15760-15766.	1.3	68
617	Research on a Novel Improved KMP Fuzzy Query Algorithm. <i>Journal of Physics: Conference Series</i> , 2019, 1302, 022034.	0.3	0
618	Classifying the Electronic and Optical Properties of Janus Monolayers. <i>ACS Nano</i> , 2019, 13, 13354-13364.	7.3	93
619	Recent Progress on 2D Noble Transition Metal Dichalcogenides. <i>Advanced Functional Materials</i> , 2019, 29, 1904932.	7.8	186
620	The Application of Artificial Intelligence Technology in the Tourism Industry of Jinan. <i>Journal of Physics: Conference Series</i> , 2019, 1302, 032005.	0.3	11
621	Interlayer Excitons in Transition Metal Dichalcogenide Heterobilayers. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900308.	0.7	15
622	Observation of CO <sub>2</sub> Regional Distribution Using an Airborne Infrared Remote Sensing Spectrometer (Air-IRSS) in the North China Plain. <i>Remote Sensing</i> , 2019, 11, 123.	1.8	4

#	ARTICLE	IF	CITATIONS
623	Band Offset and Electron Affinity of Monolayer MoSe <sub>2</sub> by Internal Photoemission. Journal of Electronic Materials, 2019, 48, 6446-6450.	1.0	12
625	Rigid Band Shifts in Two-Dimensional Semiconductors through External Dielectric Screening. Physical Review Letters, 2019, 123, 206403.	2.9	65
626	Metal Nanoclusters Modify the Band Gap and Maintain the Ultrathin Nature of Semiconducting Two-Dimensional Materials. Journal of Physical Chemistry C, 2019, 123, 29856-29865.	1.5	3
627	Band Filling and Cross Quantum Capacitance in Ion-Gated Semiconducting Transition Metal Dichalcogenide Monolayers. Nano Letters, 2019, 19, 8836-8845.	4.5	32
628	Exciton routing in the heterostructure of a transition metal dichalcogenide monolayer on a paraelectric substrate. Physical Review B, 2019, 100, .	1.1	14
629	Effective detection of spatio-temporal carrier dynamics by carrier capture. Journal of Physics Condensed Matter, 2019, 31, 28LT01.	0.7	3
630	Three-Dimensional Resonant Exciton in Monolayer Tungsten Diselenide Actuated by Spin-Orbit Coupling. ACS Nano, 2019, 13, 14529-14539.	7.3	10
631	Electronic structure of exfoliated millimeter-sized monolayer WSe <sub>2</sub> on silicon wafer. Nano Research, 2019, 12, 3095-3100.	5.8	15
632	Modulated interlayer exciton properties in a two-dimensional moiré crystal. Physical Review B, 2019, 100, .	1.1	48
633	MoSe <sub>2</sub> /graphene/6H-SiC heterojunctions: energy band diagram and photodegradation. Semiconductor Science and Technology, 2019, 34, 125007.	1.0	10
634	First-principles study of coupled effect of ripplocations and S-vacancies in MoS <sub>2</sub> . Journal of Applied Physics, 2019, 126, .	1.1	5
635	Probing and Manipulating Valley Coherence of Dark Excitons in Monolayer $WSe_2$ . Physical Review Letters, 2019, 123, 096803.	2.9	49
636	Spectroscopic studies of atomic defects and bandgap renormalization in semiconducting monolayer transition metal dichalcogenides. Nature Communications, 2019, 10, 3825.	5.8	48
637	Research on the characteristics of driver visual behavior in highway extra-long tunnel. IOP Conference Series: Earth and Environmental Science, 2019, 295, 042139.	0.2	3
638	Direct Observation of Gate-Tunable Dark Trions in Monolayer WSe <sub>2</sub> . Nano Letters, 2019, 19, 6886-6893.	4.5	60
639	Tailoring exciton dynamics of monolayer transition metal dichalcogenides by interfacial electron-phonon coupling. Communications Physics, 2019, 2, .	2.0	27
640	Theory of second-order excitonic nonlinearities in transition metal dichalcogenides. Physical Review B, 2019, 100, .	1.1	12
641	First-Principles Study of Structural and Electronic Properties of MoS <sub>1.5</sub> Se <sub>0.5</sub> Alloy. International Journal of Nanoscience, 2019, 18, 1940006.	0.4	0

#	ARTICLE	IF	CITATIONS
642	Influence of Native Defects on the Electronic and Magnetic Properties of CVD Grown MoSe <sub>2</sub> Single Layers. Journal of Physical Chemistry C, 2019, 123, 24855-24864.	1.5	22
643	Stacking-dependent excitonic properties of bilayer blue phosphorene. Physical Review B, 2019, 100, .	1.1	17
644	Polariton hyperspectral imaging of two-dimensional semiconductor crystals. Scientific Reports, 2019, 9, 13756.	1.6	7
645	Phonon Anharmonicity of Tungsten Disulfide. Journal of Physical Chemistry C, 2019, 123, 25509-25514.	1.5	12
646	Measurements of electrically tunable refractive index of MoS <sub>2</sub> monolayer and its usage in optical modulators. Npj 2D Materials and Applications, 2019, 3, .	3.9	55
647	Exciton states and absorption spectra in freestanding monolayer transition metal dichalcogenides: A variationally optimized diagonalization method. Physical Review B, 2019, 100, .	1.1	7
648	Raman intensity enhancement of molecules adsorbed onto HfS <sub>2</sub> flakes up to 200 layers. Nanoscale, 2019, 11, 2179-2185.	2.8	14
649	Long-term stability and sustainability evaluation for mode-locked fiber laser with graphene/PMMA saturable absorbers. Optics Communications, 2019, 435, 251-254.	1.0	8
650	Protected hole valley states in single-layer $\text{MoS}_2$ . Physical Review B, 2019, 99, .	1.1	11
651	Engineering Point-Defect States in Monolayer WSe <sub>2</sub> . ACS Nano, 2019, 13, 1595-1602.	7.3	35
652	Engineering 2D heterojunctions with dielectrics. Nature Electronics, 2019, 2, 54-55.	13.1	16
653	Probing many-body interactions in monolayer transition-metal dichalcogenides. Physical Review B, 2019, 99, .	1.1	56
654	Electron-Driven <i>In Situ</i> Transmission Electron Microscopy of 2D Transition Metal Dichalcogenides and Their 2D Heterostructures. ACS Nano, 2019, 13, 978-995.	7.3	51
655	Resonant Raman Spectroscopy of Two Dimensional Materials Beyond Graphene. Springer Series in Materials Science, 2019, , 185-202.	0.4	1
656	Exciton in phosphorene: Strain, impurity, thickness, and heterostructure. Physical Review B, 2019, 99, .	1.1	17
657	Determination of the In-Plane Exciton Radius in 2D CdSe Nanoplatelets <i>via</i> Magneto-optical Spectroscopy. ACS Nano, 2019, 13, 8589-8596.	7.3	35
658	Trion-Induced Distinct Transient Behavior and Stokes Shift in WS <sub>2</sub> Monolayers. Journal of Physical Chemistry Letters, 2019, 10, 3763-3772.	2.1	13
659	Site-selectively generated photon emitters in monolayer MoS <sub>2</sub> via local helium ion irradiation. Nature Communications, 2019, 10, 2755.	5.8	132

#	ARTICLE	IF	CITATIONS
660	Intrinsic lifetime of higher excitonic states in tungsten diselenide monolayers. <i>Nanoscale</i> , 2019, 11, 12381-12387.	2.8	56
661	High-Energy Gain Upconversion in Monolayer Tungsten Disulfide Photodetectors. <i>Nano Letters</i> , 2019, 19, 5595-5603.	4.5	41
662	Accelerating <i>GW</i> -Based Energy Level Alignment Calculations for Molecule-Metal Interfaces Using a Substrate Screening Approach. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 4218-4227.	2.3	34
663	Charge-Induced Lattice Compression in Monolayer MoS <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2019, 123, 17943-17950.	1.5	14
664	Growth of oxidation-resistive silicene-like thin flakes and Si nanostructures on graphene. <i>Journal of Semiconductors</i> , 2019, 40, 062001.	2.0	9
665	Quasiparticle electronic structure and optical spectra of single-layer and bilayer $\text{PdSe}_2$ : Proximity and defect-induced band gap renormalization. <i>Physical Review B</i> , 2019, 99, .		
666	Anisotropic Enhancement of Second-Harmonic Generation in Monolayer and Bilayer MoS <sub>2</sub> by Integrating with TiO <sub>2</sub> Nanowires. <i>Nano Letters</i> , 2019, 19, 4195-4204.	4.5	56
667	Dark exciton based strain sensing in tungsten-based transition metal dichalcogenides. <i>Physical Review B</i> , 2019, 99, .	1.1	23
668	Role of excited states in the dynamics of excitons and their spins in diluted magnetic semiconductors. <i>Physical Review B</i> , 2019, 99, .	1.1	1
669	The GW Compendium: A Practical Guide to Theoretical Photoemission Spectroscopy. <i>Frontiers in Chemistry</i> , 2019, 7, 377.	1.8	238
670	Tuning the electronic properties of monolayer MoS <sub>2</sub> , MoSe <sub>2</sub> and MoSSe by applying z-axial strain. <i>Chemical Physics Letters</i> , 2019, 730, 191-197.	1.2	29
671	The Role of Oxygen Atoms on Excitons at the Edges of Monolayer WS <sub>2</sub> . <i>Nano Letters</i> , 2019, 19, 4641-4650.	4.5	39
672	Effects of Rb Intercalation on NbSe <sub>2</sub> : Phase Formation, Structure, and Physical Properties. <i>Inorganic Chemistry</i> , 2019, 58, 7564-7570.	1.9	9
673	Quantifying Quasi-Fermi Level Splitting and Mapping its Heterogeneity in Atomically Thin Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2019, 31, e1900522.	11.1	34
674	Tightly bound excitons in two-dimensional semiconductors with a flat valence band. <i>Physical Review B</i> , 2019, 99, .	1.1	10
675	Point Defects and Localized Excitons in 2D WSe <sub>2</sub> . <i>ACS Nano</i> , 2019, 13, 6050-6059.	7.3	127
676	Magnetophotoluminescence of exciton Rydberg states in monolayer WSe <sub>2</sub> . <i>Physical Review B</i> , 2019, 99, .	1.1	40
677	Quasiparticle Levels at Large Interface Systems from Many-Body Perturbation Theory: The XAF-GW Method. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 3824-3835.	2.3	28

#	ARTICLE	IF	CITATIONS
678	Modification of Optical Properties in Monolayer WS <sub>2</sub> on Dielectric Substrates by Coulomb Engineering. Journal of Physical Chemistry C, 2019, 123, 14097-14102.	1.5	29
679	Two-dimensional pnictogens: A review of recent progresses and future research directions. Applied Physics Reviews, 2019, 6, .	5.5	143
680	Cavity Control of Excitons in Two-Dimensional Materials. Nano Letters, 2019, 19, 3473-3479.	4.5	65
681	Two-dimensional innovative materials for photovoltaics. Current Opinion in Green and Sustainable Chemistry, 2019, 17, 49-56.	3.2	6
682	Versatile electrical behavior of $\text{TaTe}_2$ elucidated from a theoretical study. Physical Review B, 2019, 99, .	1.1	0
683	B <sub>3</sub> S monolayer: prediction of a high-performance anode material for lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 12706-12712.	5.2	59
684	Strain-induced exciton decomposition and anisotropic lifetime modulation in a GaAs micromechanical resonator. Physical Review B, 2019, 99, .	1.1	0
685	Proposed Valley Valve from Four-Channel Valley Manipulation. Physical Review Applied, 2019, 11, .	1.5	5
686	Tailoring Photoluminescence from MoS <sub>2</sub> Monolayers by Mie-Resonant Metasurfaces. ACS Photonics, 2019, 6, 1002-1009.	3.2	82
687	Optical orientation with linearly polarized light in transition metal dichalcogenides. Physical Review B, 2019, 99, .	1.1	18
688	A metal-semiconductor transition triggered by atomically flat zigzag edge in monolayer transition-metal dichalcogenides. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1636-1641.	0.9	2
689	Probing the exciton k-space dynamics in monolayer tungsten diselenides. 2D Materials, 2019, 6, 025035.	2.0	4
690	Control of the metal/WS <sub>2</sub> contact properties using 2-dimensional buffer layers. Nanoscale, 2019, 11, 5548-5556.	2.8	16
691	Interlayer exciton dynamics in van der Waals heterostructures. Communications Physics, 2019, 2, .	2.0	103
692	Tuning the Electronic Structures of Atomic Layer MoS <sub>2</sub> on Different Substrates Using Scanning Tunneling Microscopy/Spectroscopy. Journal of Electronic Materials, 2019, 48, 3777-3783.	1.0	0
693	Van der Waals solid phase epitaxy to grow large-area manganese-doped MoSe <sub>2</sub> few-layers on SiO <sub>2</sub> /Si. 2D Materials, 2019, 6, 035019.	2.0	8
694	Microscopic insights into the catalytic mechanisms of monolayer MoS <sub>2</sub> and its heterostructures in hydrogen evolution reaction. Nano Research, 2019, 12, 2140-2149.	5.8	33
695	Growth and Thermo-driven Crystalline Phase Transition of Metastable Monolayer 1Tâ€²-WSe <sub>2</sub> Thin Film. Scientific Reports, 2019, 9, 2685.	1.6	19



#	ARTICLE	IF	CITATIONS
696	Origin of $\pi$ -type conductivity of monolayer $\text{MoS}_2$ . Physical Review B, 2019, 99, .	1.1	72
697	Conformal hexagonal-boron nitride dielectric interface for tungsten diselenide devices with improved mobility and thermal dissipation. Nature Communications, 2019, 10, 1188.	5.8	71
698	Enhanced excitation and emission from 2D transition metal dichalcogenides with all-dielectric nanoantennas. Nanotechnology, 2019, 30, 254004.	1.3	17
699	Distinctive Signatures of the Spin- and Momentum-Forbidden Dark Exciton States in the Photoluminescence of Strained $\text{WSe}_2$ Monolayers under Thermalization. Nano Letters, 2019, 19, 2299-2312.	4.5	34
700	Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP. Advanced Functional Materials, 2019, 29, 1900233.	7.8	37
701	Strong Single- and Two-Photon Luminescence Enhancement by Nonradiative Energy Transfer across Layered Heterostructure. ACS Nano, 2019, 13, 4795-4803.	7.3	18
702	Ultrafast transition between exciton phases in van der Waals heterostructures. Nature Materials, 2019, 18, 691-696.	13.3	168
703	Electronic and magnetic properties of $\text{MoS}_2$ monolayers with antisite defects. Journal of Physics and Chemistry of Solids, 2019, 131, 119-124.	1.9	15
704	Colloidal Synthesis, Optical Properties, and Hole Transport Layer Applications of $\text{Cu}_2\text{BaSnS}_4$ (CBTS) Nanocrystals. ACS Applied Energy Materials, 2019, 2, 3049-3055.	2.5	24
705	Enhancing functionalities of atomically thin semiconductors with plasmonic nanostructures. Nanophotonics, 2019, 8, 577-598.	2.9	26
706	Electron tunneling properties of $\text{Al}_2\text{O}_3$ tunnel barrier made using atomic layer deposition in multilayer devices. AIP Advances, 2019, 9, .	0.6	10
707	Valley-dependent Lorentz force and Aharonov-Bohm phase in strained graphene $p$ - $n$ junction. Physical Review B, 2019, 99, .	1.1	9
708	Dielectric impact on exciton binding energy and quasiparticle bandgap in monolayer $\text{WS}_2$ and $\text{WSe}_2$ . 2D Materials, 2019, 6, 025028.	2.0	44
709	Interlayer charge transport controlled by exciton-trion coherent coupling. Npj 2D Materials and Applications, 2019, 3, .	3.9	15
710	Mechanical properties of molybdenum diselenide revealed by molecular dynamics simulation and support vector machine. Physical Chemistry Chemical Physics, 2019, 21, 9159-9167.	1.3	33
711	Dynamical screening in monolayer transition-metal dichalcogenides and its manifestations in the exciton spectrum. Journal of Physics Condensed Matter, 2019, 31, 203001.	0.7	38
712	A dielectric-defined lateral heterojunction in a monolayer semiconductor. Nature Electronics, 2019, 2, 60-65.	13.1	95
713	Polaritonic manipulation based on the spin-selective optical Stark effect in the $\text{WS}_2$ and Tamm plasmon hybrid structure. Nanoscale, 2019, 11, 4571-4577.	2.8	9



#	ARTICLE	IF	CITATIONS
714	Recent progress in 2D group IV $\alpha$ -IV monochalcogenides: synthesis, properties and applications. Nanotechnology, 2019, 30, 252001.	1.3	104
715	Impact of the stacking sequence on the bandgap and luminescence properties of bulk, bilayer, and monolayer hexagonal boron nitride. APL Materials, 2019, 7, .	2.2	38
716	Ferromagnet/Two-Dimensional Semiconducting Transition-Metal Dichalcogenide Interface with Perpendicular Magnetic Anisotropy. ACS Nano, 2019, 13, 2253-2261.	7.3	31
717	Optical absorption in monolayer $\text{SnO}_2$ . Physical Review B, 2019, 99, .		
718	Two-dimensional magnetic crystals and emergent heterostructure devices. Science, 2019, 363, .	6.0	1,039
719	Space- and time-resolved UV-to-NIR surface spectroscopy and 2D nanoscopy at 1 MHz repetition rate. Review of Scientific Instruments, 2019, 90, 113103.	0.6	23
720	Intravalley Spin-Flip Relaxation Dynamics in Single-Layer WS $_2$ . , 2019, , .		3
721	Phonon-assisted processes in the ultraviolet-transient optical response of graphene. Npj 2D Materials and Applications, 2019, 3, .	3.9	13
722	Size-controlled excitonic effects on electronic and optical properties of Sb $_2$ S $_3$ nanowires. Physical Chemistry Chemical Physics, 2019, 21, 26515-26524.	1.3	14
723	Rich diversity of crystallographic phase formation in 2D Re $_x$ Mo $_1-x$ S $_2$ ( $x \approx 0.5$ ) alloy. Journal of Applied Physics, 2019, 126, .	1.1	3
724	Low-temperature annihilation rate for quasilocalized excitons in monolayer MoS $_2$ . Physical Review B, 2019, 100, .	1.1	1
725	Length- and Thickness-Dependent Optical Response of Liquid-Exfoliated Transition Metal Dichalcogenides. Chemistry of Materials, 2019, 31, 10049-10062.	3.2	57
726	Enhancing exciton diffusion in monolayer $\text{WS}_2$ with $\text{SnO}_2$ . Physical Review B, 2019, 100, .	1.1	15
727	Carrier multiplication in van der Waals layered transition metal dichalcogenides. Nature Communications, 2019, 10, 5488.	5.8	41
728	80% Valley Polarization of Free Carriers in Singly Oriented Single-Layer $\text{WS}_2$ on Au(111). Physical Review Letters, 2019, 123, 236802.	2.9	27
729	Symmetry-breaking and spin-blockage effects on carrier dynamics in single-layer tungsten diselenide. Physical Review B, 2019, 100, .	1.1	3
730	Excitonic magneto-optics in monolayer transition metal dichalcogenides: From nanoribbons to two-dimensional response. Physical Review B, 2019, 100, .	1.1	5
731	Reduced Binding Energy and Layer-Dependent Exciton Dynamics in Monolayer and Multilayer WS $_2$ . ACS Nano, 2019, 13, 14416-14425.	7.3	17

#	ARTICLE	IF	CITATIONS
732	Explaining observed stability of excitons in highly excited CdSe nanoplatelets. <i>Physical Review B</i> , 2019, 100, .	1.1	14
733	Resonant optical Stark effect in monolayer WS <sub>2</sub> . <i>Nature Communications</i> , 2019, 10, 5539.	5.8	46
734	Growth of Nanocrystalline MoSe <sub>2</sub> Monolayers on Epitaxial Graphene from Amorphous Precursors. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800283.	0.7	1
735	Temporally Resolving Synchronous Degenerate and Nondegenerate Two-Photon Absorption in 2D Semiconducting Monolayers. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800225.	4.4	17
736	Novel Insights and Perspectives into Weakly Coupled ReS <sub>2</sub> toward Emerging Applications. <i>CheM</i> , 2019, 5, 505-525.	5.8	68
737	Effect of Ru Doping on the Properties of MoSe <sub>2</sub> Nanoflowers. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1987-1994.	1.5	60
738	Band structure and giant Stark effect in two-dimensional transition-metal dichalcogenides. <i>Electronic Structure</i> , 2019, 1, 015005.	1.0	5
739	Unusual Electronic States and Superconducting Proximity Effect of Bi Films Modulated by a NbSe <sub>2</sub> Substrate. <i>ACS Nano</i> , 2019, 13, 1885-1892.	7.3	23
740	A roadmap for electronic grade 2D materials. <i>2D Materials</i> , 2019, 6, 022001.	2.0	205
741	Predicting ultrarast Dirac transport channel at the one-dimensional interface of the two-dimensional coplanar ZnO/MoS <sub>2</sub> heterostructure. <i>Physical Review B</i> , 2019, 99, 041407.		
742	Electronic structure and exciton shifts in Sb-doped MoS <sub>2</sub> monolayer. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	82
743	Interface Engineering of Au(111) for the Growth of 1T'-MoSe <sub>2</sub> . <i>ACS Nano</i> , 2019, 13, 2316-2323.	7.3	31
744	Modification of the electronic and spintronic properties of monolayer GaGeTe with a vertical electric field. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 115101.	1.3	13
745	Narrow photoluminescence and Raman peaks of epitaxial MoS <sub>2</sub> on graphene/Ir(111). <i>2D Materials</i> , 2019, 6, 011006.	2.0	23
746	Epitaxial growth of TiSe <sub>2</sub> /TiO <sub>2</sub> heterostructure. <i>2D Materials</i> , 2019, 6, 011008.	2.0	10
747	Exchange-driven intravalley mixing of excitons in monolayer transition metal dichalcogenides. <i>Nature Physics</i> , 2019, 15, 228-232.	6.5	68
748	Superbound Excitons in 2D Phosphorene Oxides. <i>Journal of Physical Chemistry A</i> , 2019, 123, 21-25.	1.1	3
749	Prospects and Limitations of Transition Metal Dichalcogenide Laser Gain Materials. <i>Nano Letters</i> , 2019, 19, 210-217.	4.5	37

#	ARTICLE	IF	CITATIONS
750	Orbital, spin and valley contributions to Zeeman splitting of excitonic resonances in MoSe <sub>2</sub> , WSe <sub>2</sub> and WS <sub>2</sub> Monolayers. 2D Materials, 2019, 6, 015001.	2.0	85
751	Tuning optical properties of Graphene/WSe <sub>2</sub> heterostructure by introducing vacancy: First principles calculations. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 116, 113729.	1.3	35
752	Broadband photodetector based on vertically stage-liked MoS <sub>2</sub> /Si heterostructure with ultra-high sensitivity and fast response speed. Scripta Materialia, 2020, 176, 1-6.	2.6	16
753	Optical Properties and Light-Emission Device Applications of 2-D Layered Semiconductors. Proceedings of the IEEE, 2020, 108, 676-703.	16.4	19
754	Recent Progress on Exciton Polaritons in Layered Transition-Metal Dichalcogenides. Advanced Optical Materials, 2020, 8, 1901003.	3.6	52
755	Structural, electronic and vibrational properties of ultra-thin octahedrally coordinated structure of EuO <sub>2</sub> . Journal of Magnetism and Magnetic Materials, 2020, 493, 165668.	1.0	1
756	Prediction of staggered stacking 2D BeP semiconductor with unique anisotropic electronic properties. Journal of Physics Condensed Matter, 2020, 32, 085301.	0.7	2
757	Inorganic 2D Luminescent Materials: Structure, Luminescence Modulation, and Applications. Advanced Optical Materials, 2020, 8, 1900978.	3.6	37
758	Controlled growth of MoS <sub>2</sub> via surface-energy alterations. Nanotechnology, 2020, 31, 035601.	1.3	5
759	Nonlinear excitonic spin Hall effect in monolayer transition metal dichalcogenides. 2D Materials, 2020, 7, 015003.	2.0	4
760	Influence of a substrate on ultrafast interfacial charge transfer and dynamical interlayer excitons in monolayer WSe <sub>2</sub> /graphene heterostructures. Nanoscale, 2020, 12, 2498-2506.	2.8	22
761	Large scale epitaxial graphite grown on twin free nickel(111)/spinel substrate. CrystEngComm, 2020, 22, 119-129.	1.3	7
762	Sn-Doped CdS Nanowires with Low-Temperature Lasing by CW-Laser Excitation. ACS Applied Electronic Materials, 2020, 2, 282-289.	2.0	8
763	Growth oscillation of MoSe <sub>2</sub> monolayers observed by differential reflectance spectroscopy. Journal of Physics Condensed Matter, 2020, 32, 155001.	0.7	3
764	Advances in nanostructured homojunction solar cells and photovoltaic materials. Materials Science in Semiconductor Processing, 2020, 107, 104810.	1.9	29
765	Chiral Coupling of Valley Excitons and Light through Photonic Spin-Orbit Interactions. Advanced Optical Materials, 2020, 8, 1901233.	3.6	44
766	Molecular beam epitaxy fabrication of two-dimensional materials. , 2020, , 103-134.		4
767	Strong correlations and orbital texture in single-layer 1T-TaSe <sub>2</sub> . Nature Physics, 2020, 16, 218-224.	6.5	126

#	ARTICLE	IF	CITATIONS
768	Measuring Photoexcited Free Charge Carriers in Mono- to Few-Layer Transition-Metal Dichalcogenides with Steady-State Microwave Conductivity. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 99-107.	2.1	11
769	Spatial variations of valley splitting in monolayer transition metal dichalcogenide. <i>Informa Mater</i> , 2020, 2, 585-592.	8.5	5
770	Chemical doping of transition metal dichalcogenides (TMDCs) based field effect transistors: A review. <i>Superlattices and Microstructures</i> , 2020, 137, 106350.	1.4	37
771	Optical characterization of two-dimensional semiconductors. , 2020, , 135-166.		1
772	STM/STS and ARPES characterization of structure and electronic properties. , 2020, , 199-220.		1
773	Tuning the Photoluminescence of Few-Layer MoS <sub>2</sub> Nanosheets by Mechanical Nanostamping for Broadband Optoelectronic Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 10333-10341.	2.4	8
774	Ultrafast Auger process in few-layer PtSe <sub>2</sub> . <i>Nanoscale</i> , 2020, 12, 22185-22191.	2.8	25
775	Shedding light on moiré excitons: A first-principles perspective. <i>Science Advances</i> , 2020, 6, .	4.7	50
776	Decomposition and embedding in the stochastic <i>GW</i> self-energy. <i>Journal of Chemical Physics</i> , 2020, 153, 134103.	1.2	15
777	Possible Phason-Polaron Effect on Purely One-Dimensional Charge Order of $\text{Mo}_6\text{S}_9$ Nanowires. <i>Physical Review X</i> , 2020, 10, .	2.8	9
778	Investigations on electronic and optical properties of Ag:MoS <sub>2</sub> co-sputtered thin films. <i>Chemical Physics Letters</i> , 2020, 760, 138032.	1.2	8
779	Highly Efficient Multiple Exciton Generation and Harvesting in Few-Layer Black Phosphorus and Heterostructure. <i>Nano Letters</i> , 2020, 20, 8212-8219.	4.5	11
780	Investigation of <i>In Vacuo</i> Atomic Layer Deposition of Ultrathin MgAl <sub>2</sub> O <sub>4</sub> Using Scanning Tunneling Spectroscopy. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3121-3130.	2.0	1
781	Improved Current Density and Contact Resistance in Bilayer MoSe <sub>2</sub> Field Effect Transistors by AlO <sub>x</sub> Capping. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 36355-36361.	4.0	31
782	Bound Hole States Associated to Individual Vanadium Atoms Incorporated into Monolayer $\text{WSe}_2$ . <i>Physical Review Letters</i> , 2020, 125, 036802.	2.9	26
783	Bosonic Lasing of Collective Exciton Magnetic Polarons in CuCl <sub>2</sub> -Doped CdS Nanoribbons: Implications for Quantum Light Sources. <i>ACS Applied Nano Materials</i> , 2020, 3, 5019-5032.	2.4	14
784	Two-dimensional MoSe <sub>2</sub> /graphene heterostructure thin film with wafer-scale continuity via van der Waals epitaxy. <i>Chemical Physics Letters</i> , 2020, 755, 137762.	1.2	3
785	Synthesis of transition metal dichalcogenides. , 2020, , 247-264.		6

#	ARTICLE	IF	CITATIONS
786	Valley depolarization in monolayer transition-metal dichalcogenides with zone-corner acoustic phonons. <i>Nanoscale</i> , 2020, 12, 22487-22494.	2.8	8
787	Precise Tuning of Band Structures and Electron Correlations by van der Waals Stacking of One-dimensional WTe <sub>6</sub> Wires. <i>Nano Letters</i> , 2020, 20, 8866-8873.	4.5	14
788	Valley excitons: From monolayer semiconductors to moiré superlattices. <i>Semiconductors and Semimetals</i> , 2020, 105, 269-303.	0.4	1
789	Shear strain bandgap tuning of monolayer MoS <sub>2</sub> . <i>Applied Physics Letters</i> , 2020, 117, .	1.5	6
790	Nanolasers Based on 2D Materials. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000271.	4.4	47
791	Two-Dimensional Silicon Carbide: Emerging Direct Band Gap Semiconductor. <i>Nanomaterials</i> , 2020, 10, 2226.	1.9	64
792	An Excitonic Perspective on Low-Dimensional Semiconductors for Photocatalysis. <i>Journal of the American Chemical Society</i> , 2020, 142, 14007-14022.	6.6	129
793	Controlling the Quantum Spin Hall Edge States in Two-Dimensional Transition Metal Dichalcogenides. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6964-6969.	2.1	7
794	Substrate mediated electronic and excitonic reconstruction in a MoS <sub>2</sub> monolayer. <i>Journal of Materials Chemistry C</i> , 2020, 8, 11778-11785.	2.7	9
795	Optically tunable charge carrier injection in monolayer MoS <sub>2</sub> . <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	6
796	Molecular Beam Epitaxy of Two-Dimensional Vanadium-Molybdenum Diselenide Alloys. <i>ACS Nano</i> , 2020, 14, 11140-11149.	7.3	28
797	Two-Dimensional Gold Halides: Novel Semiconductors with Giant Spin-Orbit Splitting and Tunable Optoelectronic Properties. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9759-9765.	2.1	3
798	Measurement of Exciton and Trion Energies in Multistacked hBN/WS <sub>2</sub> Coupled Quantum Wells for Resonant Tunneling Diodes. <i>ACS Nano</i> , 2020, 14, 16114-16121.	7.3	15
799	Bilayer MSe <sub>2</sub> and MS <sub>2</sub> (M=Mo, W) as a novel drug delivery system for I <sup>2</sup> -lapachone anticancer drug: Quantum chemical study. <i>Computational and Theoretical Chemistry</i> , 2020, 1190, 112999.	1.1	9
800	Spin-Dependent Tunneling Barriers in CoPc/VSe <sub>2</sub> from Many-Body Interactions. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9358-9363.	2.1	12
801	Bottom-up design of spin-split and reshaped electronic band structures in antiferromagnets without spin-orbit coupling: Procedure on the basis of augmented multipoles. <i>Physical Review B</i> , 2020, 102, .	1.1	78
802	Synthesis and characterization of WS <sub>2</sub> /graphene/SiC van der Waals heterostructures via WO <sub>3</sub> thin film sulfurization. <i>Scientific Reports</i> , 2020, 10, 17334.	1.6	15
803	Electric-field-driven exciton vortices in transition metal dichalcogenide monolayers. <i>Physical Review B</i> , 2020, 102, .	1.1	9

#	ARTICLE	IF	CITATIONS
804	Bandgap Renormalization in Monolayer MoS <sub>2</sub> on CsPbBr <sub>3</sub> Quantum Dots via Charge Transfer at Room Temperature. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000835.	1.9	8
805	Exciton diffusion in h-BN-encapsulated monolayer MoSe <sub>2</sub> . <i>Physical Review B</i> , 2020, 102, .	1.1	12
806	Self-consistent screening enhances the stability of the nonequilibrium excitonic insulator phase. <i>Physical Review B</i> , 2020, 102, .	1.1	7
807	Bandgap engineering of two-dimensional semiconductor materials. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	528
808	Integrated single photon emitters. <i>AVS Quantum Science</i> , 2020, 2, .	1.8	40
809	Complete Strain Mapping of Nanosheets of Tantalum Disulfide. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43173-43179.	4.0	6
810	A type-II blue phosphorus/MoSe <sub>2</sub> van der Waals heterostructure: improved electronic and optical properties via vertical electric field. <i>Materials Advances</i> , 2020, 1, 1849-1857.	2.6	16
811	Temperature-dependent optical constants of monolayer MoS <sub>2</sub> , MoSe <sub>2</sub> , WS <sub>2</sub> , and WSe <sub>2</sub> : spectroscopic ellipsometry and first-principles calculations. <i>Scientific Reports</i> , 2020, 10, 15282.	1.6	52
812	Coulomb-engineered heterojunctions and dynamical screening in transition metal dichalcogenide monolayers. <i>Physical Review B</i> , 2020, 102, .	1.1	12
813	Trion-to-exciton upconversion dynamics in monolayer WSe <sub>2</sub> . <i>Applied Physics Letters</i> , 2020, 117, .	1.5	4
814	2D Nanomaterial-Based Surface Plasmon Resonance Sensors for Biosensing Applications. <i>Micromachines</i> , 2020, 11, 779.	1.4	74
815	Decelerated Hot Carrier Cooling in Graphene via Nondissipative Carrier Injection from MoS <sub>2</sub> . <i>ACS Nano</i> , 2020, 14, 13905-13912.	7.3	22
816	Octahedron rotation evolution in 2D perovskites and its impact on optoelectronic properties: the case of BaZrS <sub>2</sub> chalcogenides. <i>Materials Horizons</i> , 2020, 7, 2985-2993.	6.4	11
817	Excitons, trions and Rydberg states in monolayer MoS <sub>2</sub> revealed by low-temperature photocurrent spectroscopy. <i>Communications Physics</i> , 2020, 3, .	2.0	19
818	Substrate screening approach for quasiparticle energies of two-dimensional interfaces with lattice mismatch. <i>Physical Review B</i> , 2020, 102, .	1.1	8
819	Anomalous exciton Rydberg series in two-dimensional semiconductors on high- $\epsilon_r$ dielectric substrates. <i>Physical Review B</i> , 2020, 102, .	1.1	8
820	Prevalence of oxygen defects in an in-plane anisotropic transition metal dichalcogenide. <i>Physical Review B</i> , 2020, 102, .	1.1	10
821	Dark-state impact on the exciton recombination of WS <sub>2</sub> monolayers as revealed by multi-timescale pump-probe spectroscopy. <i>Physical Review B</i> , 2020, 102, .		

#	ARTICLE	IF	CITATIONS
822	Lineshape characterization of excitons in monolayer WS <sub>2</sub> by two-dimensional electronic spectroscopy. <i>Nanoscale Advances</i> , 2020, 2, 2333-2338.	2.2	7
823	Annihilation mechanism of excitons in a MoS <sub>2</sub> monolayer through direct Förster-type energy transfer and multistep diffusion. <i>Physical Review B</i> , 2020, 101, .	1.1	11
824	A Physical Model for Understanding the Activation of MoS <sub>2</sub> Basal Plane Sulfur Atoms for the Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14835-14841.	7.2	36
825	Efficient Ab Initio Modeling of Dielectric Screening in 2D van der Waals Materials: Including Phonons, Substrates, and Doping. <i>Journal of Physical Chemistry C</i> , 2020, 124, 11609-11616.	1.5	22
826	Collective modes in excitonic insulators: Effects of electron-phonon coupling and signatures in the optical response. <i>Physical Review B</i> , 2020, 101, .	1.1	32
827	Proximity-induced spin-orbit splitting in graphene nanoribbons on transition-metal dichalcogenides. <i>Physical Review B</i> , 2020, 101, .	1.1	9
828	Spontaneous antisymmetric spin splitting in noncollinear antiferromagnets without spin-orbit coupling. <i>Physical Review B</i> , 2020, 101, .	1.1	44
829	Remote Lightning and Ultrafast Transition: Intrinsic Modulation of Exciton Spatiotemporal Dynamics in Monolayer MoS <sub>2</sub> . <i>ACS Nano</i> , 2020, 14, 6897-6905.	7.3	17
830	Observation of excitonic series in monolayer and few-layer black phosphorus. <i>Physical Review B</i> , 2020, 101, .	1.1	25
831	Decoupling Molybdenum Disulfide from Its Substrate by Cesium Intercalation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12397-12408.	1.5	9
832	Tuning the binding energy of excitons in the MoS <sub>2</sub> monolayer by molecular functionalization and defective engineering. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11936-11942.	1.3	16
833	Band engineering in epitaxial monolayer transition metal dichalcogenides alloy Mo <sub>1-x</sub> W <sub>x</sub> Se <sub>2</sub> thin films. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	8
834	Visualizing Orbital Content of Electronic Bands in Anisotropic 2D Semiconducting ReSe <sub>2</sub> . <i>ACS Nano</i> , 2020, 14, 7880-7891.	7.3	19
835	Recent breakthroughs in two-dimensional van der Waals magnetic materials and emerging applications. <i>Nano Today</i> , 2020, 34, 100902.	6.2	49
836	Observation of the Interlayer Exciton Gases in WSe <sub>2</sub> -p:WSe <sub>2</sub> Heterostructures. <i>ACS Photonics</i> , 2020, 7, 1622-1627.	3.2	7
837	Excited-state trions in two-dimensional materials. <i>Physical Review B</i> , 2020, 101, .	1.1	10
838	In vacuo atomic layer deposition and electron tunneling characterization of ultrathin dielectric films for metal/insulator/metal tunnel junctions. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 040802.	0.9	6
839	Layer-Dependent Quasiparticle Electronic Structure of the P3HT:PCBM Interface from a First-Principles Substrate Screening GW Approach. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13592-13601.	1.5	4



#	ARTICLE	IF	CITATIONS
840	Low-Dimensional Semiconductors in Artificial Photosynthesis: An Outlook for the Interactions between Particles/Quasiparticles. ACS Central Science, 2020, 6, 1058-1069.	5.3	16
841	Reconstructing Local Profile of Exciton Emission Wavelengths across a WS <sub>2</sub> Bubble beyond the Diffraction Limit. ACS Nano, 2020, 14, 6931-6937.	7.3	15
842	2D layered noble metal dichalcogenides (Pt, Pd, Se, S) for electronics and energy applications. Materials Today Advances, 2020, 7, 100076.	2.5	55
843	Substrate Induced Optical Anisotropy in Monolayer MoS <sub>2</sub> . Journal of Physical Chemistry C, 2020, 124, 15468-15473.	1.5	9
844	Type-II Interface Band Alignment in the vdW Pbl <sub>2</sub> MoSe <sub>2</sub> Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 32099-32105.	4.0	20
845	Mechano-Optical Switching of a Single Molecule with Doublet Emission. ACS Nano, 2020, 14, 8931-8938.	7.3	11
846	A Physical Model for Understanding the Activation of MoS <sub>2</sub> Basal Plane Sulfur Atoms for the Hydrogen Evolution Reaction. Angewandte Chemie, 2020, 132, 14945-14951.	1.6	9
847	Microscopic Modeling of Pump-Probe Spectroscopy and Population Inversion in Transition Metal Dichalcogenides. Physica Status Solidi (B): Basic Research, 2020, 257, 2000223.	0.7	2
848	Hybrid Composites of Quantum Dots, Monolayer WSe <sub>2</sub> , and Ag Nanodisks for White Light-Emitting Diodes. ACS Applied Nano Materials, 2020, 3, 6855-6862.	2.4	9
849	Controlling Exciton and Valley Dynamics in Two-Dimensional Heterostructures with Atomically Precise Interlayer Proximity. ACS Nano, 2020, 14, 4618-4625.	7.3	44
850	Dual-Enhanced Doping in ReSe <sub>2</sub> for Efficiently Photoenhanced Hydrogen Evolution Reaction. Advanced Science, 2020, 7, 2000216.	5.6	26
851	Electrically controlled dielectric band gap engineering in a two-dimensional semiconductor. Physical Review B, 2020, 101, .	1.1	17
852	Metal-organic framework nanosheets for enhanced performance of organic photovoltaic cells. Journal of Materials Chemistry A, 2020, 8, 6067-6075.	5.2	30
853	Flexoelectricity and Charge Separation in Carbon Nanotubes. Nano Letters, 2020, 20, 3240-3246.	4.5	32
854	Evidence for the Dominance of Carrier-Induced Band Gap Renormalization over Biexciton Formation in Cryogenic Ultrafast Experiments on MoS <sub>2</sub> Monolayers. Journal of Physical Chemistry Letters, 2020, 11, 2658-2666.	2.1	17
855	Massive and massless charge carriers in an epitaxially strained alkali metal quantum well on graphene. Nature Communications, 2020, 11, 1340.	5.8	8
856	Nonconventional screening of Coulomb interaction in hexagonal boron nitride nanoribbons. Physical Review B, 2020, 101, .	1.1	5
857	Intrinsic and Extrinsic Defect-Related Excitons in TMDCs. Nano Letters, 2020, 20, 2544-2550.	4.5	59

#	ARTICLE	IF	CITATIONS
858	The effect of metallic substrates on the optical properties of monolayer MoSe <sub>2</sub> . Scientific Reports, 2020, 10, 4981.	1.6	10
859	Probing momentum-indirect excitons by near-resonance photoluminescence excitation spectroscopy in WS <sub>2</sub> monolayer. 2D Materials, 2020, 7, 031002.	2.0	17
860	STM study of selenium adsorption on Au(111) surface. Chinese Physics B, 2020, 29, 056801.	0.7	7
861	Band nesting and exciton spectrum in monolayer $\text{MoS}_2$ . Physical Review B, 2020, 101, .	1.1	14
862	Substitutional transition metal doping in MoS <sub>2</sub> : a first-principles study. Nano Express, 2020, 1, 010008.	1.2	20
863	Terahertz Excitonics in Carbon Nanotubes: Exciton Autoionization and Multiplication. Nano Letters, 2020, 20, 3098-3105.	4.5	21
864	Electrically pumped WSe <sub>2</sub> -based light-emitting van der Waals heterostructures embedded in monolithic dielectric microcavities. 2D Materials, 2020, 7, 031006.	2.0	16
865	Direct observation of minibands in a twisted graphene/WS <sub>2</sub> bilayer. Science Advances, 2020, 6, eaay6104.	4.7	39
866	Quantum spin Hall state in monolayer 1T <sup>±</sup> -TMDCs. Journal of Physics Condensed Matter, 2020, 32, 333001.	0.7	16
867	A First-Principles Study of Nonlinear Elastic Behavior and Anisotropic Electronic Properties of Two-Dimensional HfS <sub>2</sub> . Nanomaterials, 2020, 10, 446.	1.9	25
868	Electrical Control of Interband Resonant Nonlinear Optics in Monolayer MoS <sub>2</sub> . ACS Nano, 2020, 14, 8442-8448.	7.3	34
869	Photoinduced charge transfer in transition metal dichalcogenide heterojunctions "towards next generation energy technologies. Energy and Environmental Science, 2020, 13, 2684-2740.	15.6	67
870	Nonreciprocal Metamaterial Obeying Time-Reversal Symmetry. Physical Review Letters, 2020, 124, 257403.	2.9	26
871	Generalized Scaling Law for Exciton Binding Energy in Two-Dimensional Materials. Physical Review Applied, 2020, 13, .	1.5	14
872	Growth of ultrathin Pt layers and selenization into PtSe <sub>2</sub> by molecular beam epitaxy. 2D Materials, 2020, 7, 045013.	2.0	10
873	First-principles coupled cluster theory of the electronic spectrum of transition metal dichalcogenides. Physical Review B, 2020, 101, .	1.1	13
874	Promoting sensitivity and selectivity of NO <sub>2</sub> gas sensor based on metal (Pt, Re, Ta)-doped monolayer WSe <sub>2</sub> : A DFT study. Chemical Physics Letters, 2020, 755, 137737.	1.2	23
875	Effect of temperature on the morphological, structural and optical properties of electrodeposited Yb-doped ZrSe <sub>2</sub> thin films. Optik, 2020, 220, 165180.	1.4	9

#	ARTICLE	IF	CITATIONS
876	Optical properties of semiconducting transition metal dichalcogenide materials. , 2020, , 57-75.		2
877	Switching On/Off Negative Capacitance in Ultrathin Ferroelectric/Dielectric Capacitors. ACS Applied Materials & Interfaces, 2020, 12, 9902-9908.	4.0	4
878	Growth and properties of magnetic two-dimensional transition-metal chalcogenides. , 2020, , 227-251.		3
879	Modulating the Optical Band Gap of Small Semiconducting Two-Dimensional Materials by Conjugated Polymers. Langmuir, 2020, 36, 2574-2583.	1.6	7
880	S Vacancy Engineered Electronic and Optoelectronic Properties of Ni-Doped MoS2 Monolayer: A Hybrid Functional Study. Journal of Electronic Materials, 2020, 49, 3234-3241.	1.0	5
881	Brightening odd-parity excitons in transition-metal dichalcogenides: Rashba spin-orbit interaction, skyrmions, and cavity polaritons. Physical Review B, 2020, 101, .	1.1	4
882	Dielectric embedding $\langle i \rangle GW \langle /i \rangle$ for weakly coupled molecule-metal interfaces. Journal of Chemical Physics, 2020, 152, 054103.	1.2	8
883	Broadband solar energy absorber based on monolayer molybdenum disulfide using tungsten elliptical arrays. Materials Today Energy, 2020, 16, 100390.	2.5	142
884	Origin of selective enhancement of sharp defect emission lines in monolayer WSe2 on rough metal substrate. Journal of Applied Physics, 2020, 127, 073105.	1.1	4
885	HfS2 and TiS2 Monolayers with Adsorbed C, N, P Atoms: A First Principles Study. Catalysts, 2020, 10, 94.	1.6	10
886	Nonlinear optical characteristics of an exciton in a GaSb-capped InSb heterodot: role of size control. European Physical Journal Plus, 2020, 135, 1.	1.2	5
887	Electrical and magneto-optical characterization of Py/MoS2 bilayer: A facile growth of magnetic-metal/semiconductor heterostructure. Materials Letters, 2020, 265, 127454.	1.3	8
888	Strain-tunable III-nitride/ZnO heterostructures for photocatalytic water-splitting: A hybrid functional calculation. APL Materials, 2020, 8, .	2.2	48
889	Strain dependence of second harmonic generation in transition metal dichalcogenide monolayers and the fine structure of the $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" \rangle \langle mml:mrow \rangle \langle mml:mi \rangle C \langle /mml:mi \rangle \langle /mml:mrow \rangle \langle /mml:math \rangle$ exciton. Physical Review B, 2020, 101, .	1.1	18
890	Twist-tailoring Coulomb correlations in van der Waals homobilayers. Nature Communications, 2020, 11, 2167.	5.8	63
891	Ultrafast charge transfer and vibronic coupling in a laser-excited hybrid inorganic/organic interface. Advances in Physics: X, 2020, 5, 1749883.	1.5	12
892	Modulation of Second-Harmonic Generation in Bulk MoS2 via Excitation Wavelength and Metal Film Thickness. Journal of Electronic Materials, 2020, 49, 3761-3769.	1.0	2
893	Layered two-dimensional selenides and tellurides grown by molecular beam epitaxy. , 2020, , 235-269.		1

#	ARTICLE	IF	CITATIONS
894	Near-Unity Light Absorption in a Monolayer WS <sub>2</sub> Van der Waals Heterostructure Cavity. Nano Letters, 2020, 20, 3545-3552.	4.5	48
895	Interplay of excitonic complexes in p-doped monolayers. Physical Review B, 2020, 101, .	1.1	12
896	Comparison of optical constants of sputtered MoS <sub>2</sub> and MoS <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> composite thin films. Journal of Materials Science: Materials in Electronics, 2020, 31, 7753-7759.	1.1	1
897	Integration of two-dimensional transition metal dichalcogenides with Mie-resonant dielectric nanostructures. Advances in Physics: X, 2020, 5, 1734083.	1.5	26
898	Giant Thickness-Tunable Bandgap and Robust Air Stability of 2D Palladium Diselenide. Small, 2020, 16, e2000754.	5.2	19
899	Synthesis and thermal characterization of sensible thermal heat storage phosphate mixtures as well as neutral composite material. Journal of Thermal Analysis and Calorimetry, 2021, 143, 3623-3632.	2.0	3
900	High Tunneling Magnetoresistance in Magnetic Tunnel Junctions with Subnanometer Thick Al <sub>2</sub> O <sub>3</sub> Tunnel Barriers Fabricated Using Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2021, 13, 15738-15745.	4.0	7
901	Two-dimensional materials for light emitting applications: Achievement, challenge and future perspectives. Nano Research, 2021, 14, 1912-1936.	5.8	34
902	Anisotropic 2D excitons unveiled in organic-inorganic quantum wells. Materials Horizons, 2021, 8, 197-208.	6.4	17
903	Strong exciton-photon interaction and lasing of two-dimensional transition metal dichalcogenide semiconductors. Nano Research, 2021, 14, 1937-1954.	5.8	36
904	Electronic band gap of flame-formed carbon nanoparticles by scanning tunneling spectroscopy. Proceedings of the Combustion Institute, 2021, 38, 1805-1812.	2.4	18
905	S vacancy enhanced ferromagnetism in Mn-doped monolayer MoS <sub>2</sub> : A hybrid functional study. Chemical Physics, 2021, 541, 111043.	0.9	8
906	Layered PtSe <sub>2</sub> for Sensing, Photonic, and (Opto-)Electronic Applications. Advanced Materials, 2021, 33, e2004070.	11.1	44
907	Angle, Spin, and Depth Resolved Photoelectron Spectroscopy on Quantum Materials. Chemical Reviews, 2021, 121, 2816-2856.	23.0	16
908	Shallowing interfacial carrier trap in transition metal dichalcogenide heterostructures with interlayer hybridization. Nano Research, 2021, 14, 1390-1396.	5.8	9
909	Optical parametric amplification by monolayer transition metal dichalcogenides. Nature Photonics, 2021, 15, 6-10.	15.6	74
910	Two-Dimensional Materials for Integrated Photonics: Recent Advances and Future Challenges. Small Science, 2021, 1, 2000053.	5.8	56
911	Gravitational Search Algorithm for Calculating Exciton Binding Energy in Monolayer Transition Metal Dichalcogenides. Journal of Electronic Materials, 2021, 50, 163-169.	1.0	1

#	ARTICLE	IF	CITATIONS
912	Guide to optical spectroscopy of layered semiconductors. Nature Reviews Physics, 2021, 3, 39-54.	11.9	41
913	Epitaxial growth, electronic hybridization and stability under oxidation of monolayer MoS <sub>2</sub> on Ag(1 1) Tj ETQq1 1 0,784314 rgBT /Over	3.1	9
914	How defects influence the photoluminescence of TMDCs. Nano Research, 2021, 14, 29-39.	5.8	51
915	Substitutional doping in 2D transition metal dichalcogenides. Nano Research, 2021, 14, 1668-1681.	5.8	92
916	Theory and Ab Initio Calculation of Optically Excited Statesâ€”Recent Advances in 2D Materials. Advanced Materials, 2021, 33, e1904306.	11.1	14
917	Identifying Defect-Induced Trion in Monolayer WS <sub>2</sub> <i>via</i> Carrier Screening Engineering. ACS Nano, 2021, 15, 2849-2857.	7.3	23
918	Solving the Bethe-Salpeter equation on a subspace: Approximations and consequences for low-dimensional materials. Physical Review B, 2021, 103, .	1.1	9
919	2D materials in nonlinear optics. , 2021, , 347-385.		0
920	Stacking-tailoring quasiparticle energies and interlayer excitons in bilayer Janus MoSSe. New Journal of Physics, 2021, 23, 013003.	1.2	5
921	Fluence-dependent dynamics of localized excited species in monolayer versus bulk <math xmlns:mml="http://www.w3.org/1998/Math/MathML" > Mo</math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" > S</math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" > 2</math> . Physical Review B, 2021, 103, .	1.1	8
922	Charged Exciton Kinetics in Monolayer MoSe <sub>2</sub> near Ferroelectric Domain Walls in Periodically Poled LiNbO <sub>3</sub> . Nano Letters, 2021, 21, 959-966.	4.5	7
924	Atomically Thin van der Waals Semiconductorsâ€”A Theoretical Perspective. Laser and Photonics Reviews, 2021, 15, 2000482.	4.4	10
925	Thickness dependence of work function, ionization energy, and electron affinity of Mo and W dichalcogenides from DFT and GW calculations. Physical Review B, 2021, 103, .	1.1	80
926	Cellâ€”Substrate Interactions Lead to Internalization and Localization of Layered MoS <sub>2</sub> Nanosheets. ACS Applied Nano Materials, 2021, 4, 2002-2010.	2.4	5
927	MoSe <sub>2</sub> Nanosheets with Tuneable Optical Properties for Broadband Visible Light Photodetection. ACS Applied Nano Materials, 2021, 4, 2999-3006.	2.4	11
928	Imaging moir� flat bands in three-dimensional reconstructed WSe <sub>2</sub> /WS <sub>2</sub> superlattices. Nature Materials, 2021, 20, 945-950.	13.3	118
929	Observation of dynamic screening in the excited exciton states in multilayered <math xmlns:mml="http://www.w3.org/1998/Math/MathML" > MoS</math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" > 2</math> . Physical Review B, 2021, 103, .	1.1	9
930	Controlling relaxation dynamics of excitonic states in monolayer transition metal dichalcogenides WS <sub>2</sub> through interface engineering. Applied Physics Letters, 2021, 118, 121104.	1.5	5

#	ARTICLE	IF	CITATIONS
931	Recent Advances in Two-Dimensional Heterostructures: From Band Alignment Engineering to Advanced Optoelectronic Applications. <i>Advanced Electronic Materials</i> , 2021, 7, 2001174.	2.6	34
932	Promoting a Weak Coupling of Monolayer MoSe <sub>2</sub> Grown on (100)-Faceted Au Foil. <i>ACS Nano</i> , 2021, 15, 4481-4489.	7.3	16
933	Two-Dimensional Materials with Giant Optical Nonlinearities near the Theoretical Upper Limit. <i>ACS Nano</i> , 2021, 15, 7155-7167.	7.3	29
934	Ultrafast optical switching to a metallic state via photoinduced Mott transition in few-layer MoS <sub>2</sub> under hydrostatic pressure. <i>Physical Review B</i> , 2021, 103, .	1.1	5
935	Modeling excitonic Mott transitions in two-dimensional semiconductors. <i>Physical Review B</i> , 2021, 103, .	1.1	1
936	Exotic Dielectric Behaviors Induced by Pseudo-Spin Texture in Magnetic Twisted Bilayer. <i>Chinese Physics Letters</i> , 2021, 38, 037501.	1.3	10
937	Atomic "layer" confined multiple quantum wells enabled by monolithic bandgap engineering of transition metal dichalcogenides. <i>Science Advances</i> , 2021, 7, .	4.7	11
938	Colloquium : Physical properties of group-IV monochalcogenide monolayers. <i>Reviews of Modern Physics</i> , 2021, 93, .	16.4	87
939	Moiré-induced electronic structure modifications in monolayer V <sub>2</sub> S <sub>3</sub> on Au(111). <i>Physical Review B</i> , 2021, 103, .	1.1	3
940	Engineering Schottky-to-Ohmic contact transition for 2D metal-semiconductor junctions. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	22
941	Tuning magnetic and optical properties of monolayer WSe <sub>2</sub> by doping C, N, P, O, S, F, and Cl: First principles study. <i>Solid State Communications</i> , 2021, 327, 114233.	0.9	6
942	Transient Optical Modulation of Two-Dimensional Materials by Excitons at Ultimate Proximity. <i>ACS Nano</i> , 2021, 15, 5495-5501.	7.3	10
943	Many-Body Effect on Optical Properties of Monolayer Molybdenum Diselenide. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2555-2561.	2.1	19
944	Evidence of itinerant holes for long-range magnetic order in the tungsten diselenide semiconductor with vanadium dopants. <i>Physical Review B</i> , 2021, 103, .	1.1	16
945	Direct Observation of the Light-Induced Exfoliation of Molybdenum Disulfide Sheets in Water Medium. <i>ACS Nano</i> , 2021, 15, 5661-5670.	7.3	21
946	Local Electronic Properties of Coherent Single-Layer WS <sub>2</sub> /WSe <sub>2</sub> Lateral Heterostructures. <i>Nano Letters</i> , 2021, 21, 2363-2369.	4.5	17
947	Anomalous nonlinear optical effect and enhanced emission by magnetic excitons in CVD grown cobalt-doped ZnSe nanoribbon. <i>New Journal of Physics</i> , 2021, 23, 033019.	1.2	10
948	High-order superlattices by rolling up van der Waals heterostructures. <i>Nature</i> , 2021, 591, 385-390.	13.7	163



#	ARTICLE	IF	CITATIONS
949	MoS <sub>2</sub> Nanosheets with Narrowest Excitonic Line Widths Grown by Flow-Less Direct Heating of Bulk Powders: Implications for Sensing and Detection. ACS Applied Nano Materials, 2021, 4, 2583-2593.	2.4	3
950	Transition metal dichalcogenide monolayers in an ultrashort optical pulse: Femtosecond currents and anisotropic electron dynamics. Physical Review B, 2021, 103, .	1.1	1
951	Quasiparticle band structures of bulk and few-layer $\text{PdSe}_2$ from first-principles calculations. Physical Review B, 2021, 103, .	1.1	17
952	Deciphering the Intense Postgap Absorptions of Monolayer Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 7783-7789.	7.3	4
953	Excitonic Phonon Interactions in Monolayer Germanium Selenide from First Principles. Journal of Physical Chemistry Letters, 2021, 12, 3802-3808.	2.1	9
954	Excitonic Effects on Two-Dimensional Transition-Metal Dichalcogenide Monolayers: Impact on Solar Cell Efficiency. ACS Applied Energy Materials, 2021, 4, 3265-3278.	2.5	26
955	Synthesis of Wafer-Scale Graphene with Chemical Vapor Deposition for Electronic Device Applications. Advanced Materials Technologies, 2021, 6, 2000744.	3.0	46
956	Spinorial formulation of the $GW$ -BSE equations and spin properties of excitons in two-dimensional transition metal dichalcogenides. Physical Review B, 2021, 103, .	1.1	16
957	Layer-Dependent Electronic and Optical Properties of 2D Black Phosphorus: Fundamentals and Engineering. Laser and Photonics Reviews, 2021, 15, 2000399.	4.4	25
958	Exciton-Exciton Interaction beyond the Hydrogenic Picture in a $\text{MoSe}_2$ Monolayer in the Strong Light-Matter Coupling Regime. Physical Review Letters, 2021, 126, 167401.	2.9	26
959	Schottky barrier heights in two-dimensional field-effect transistors: from theory to experiment. Reports on Progress in Physics, 2021, 84, 056501.	8.1	97
960	Approaching Charge Separation Efficiency to Unity without Charge Recombination. Physical Review Letters, 2021, 126, 176401.	2.9	35
961	Excitonic Emission in Atomically Thin Electroluminescent Devices. Laser and Photonics Reviews, 2021, 15, 2000587.	4.4	7
962	Ultralarge Photoluminescence Enhancement of Monolayer Molybdenum Disulfide by Spontaneous Superacid Nanolayer Formation. ACS Applied Materials & Interfaces, 2021, 13, 25280-25289.	4.0	8
963	Dielectric Screening Modulates Semiconductor Nanoplatelet Excitons. Journal of Physical Chemistry Letters, 2021, 12, 4958-4964.	2.1	9
964	Ultrafast Fiber Lasers with Low-Dimensional Saturable Absorbers: Status and Prospects. Sensors, 2021, 21, 3676.	2.1	19
965	Substrate effect on excitonic shift and radiative lifetime of two-dimensional materials. Journal of Physics Condensed Matter, 2021, 33, 234001.	0.7	9
966	Energy Scaling of Compositional Disorder in Ternary Transition-Metal Dichalcogenide Monolayers. Advanced Electronic Materials, 2021, 7, 2100196.	2.6	11



#	ARTICLE	IF	CITATIONS
967	Electronic Structure, Optical Properties, and Potential Applications of n-BN/WS <sub>2</sub> (n = 1 to 4) Heterostructures. <i>Journal of Electronic Materials</i> , 2021, 50, 4696-4704.	1.0	4
968	Pd <sub>4</sub> S <sub>3</sub> Se <sub>3</sub> , Pd <sub>4</sub> S <sub>3</sub> Te <sub>3</sub> , and Pd <sub>4</sub> Se <sub>3</sub> Te <sub>3</sub> : Candidate Two-Dimensional Janus Materials for Photocatalytic Water Splitting. <i>Chemistry of Materials</i> , 2021, 33, 4128-4134.	3.2	59
969	Nonvolatile Electric Control of Exciton Complexes in Monolayer MoSe <sub>2</sub> with Two-Dimensional Ferroelectric CuInP <sub>2</sub> S <sub>6</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 24250-24257.	4.0	11
970	Superradiant Emission from Coherent Excitons in van Der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2021, 31, 2102196.	7.8	12
971	Predicting the energetic stabilization of Janus-MoSSe/AlN heterostructures: A DFT study. <i>Chemical Physics Letters</i> , 2021, 771, 138465.	1.2	2
972	Ionic gate spectroscopy of 2D semiconductors. <i>Nature Reviews Physics</i> , 2021, 3, 508-519.	11.9	22
973	Rational Passivation of Sulfur Vacancy Defects in Two-Dimensional Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2021, 15, 8780-8789.	7.3	52
974	Simulations of Trions and Biexcitons in Layered Hybrid Organic-Inorganic Lead Halide Perovskites. <i>Physical Review Letters</i> , 2021, 126, 216402.	2.9	9
975	Reversibly Tailoring Optical Constants of Monolayer Transition Metal Dichalcogenide MoS <sub>2</sub> Films: Impact of Dopant-Induced Screening from Chemical Adsorbates and Mild Film Degradation. <i>ACS Photonics</i> , 2021, 8, 1705-1717.	3.2	11
976	Interlayer Excitonic Spectra of Vertically Stacked MoSe <sub>2</sub> /WSe <sub>2</sub> Heterobilayers. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000614.	0.7	9
977	Impact of screening and relaxation on weakly coupled two-dimensional heterostructures. <i>Physical Review B</i> , 2021, 103, .	1.1	2
978	Synthesis and characterization of 2D transition metal dichalcogenides: Recent progress from a vacuum surface science perspective. <i>Surface Science Reports</i> , 2021, 76, 100523.	3.8	50
979	Some characteristics of solar cells with ZnO/ZnFe <sub>2</sub> O <sub>4</sub> /CdS/ZnS working anode. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	2
980	Second-Order Nonlinear Optical Properties of Monolayer Transition-Metal Dichalcogenides by Computational Analysis. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11075-11084.	1.5	16
981	Light-matter interactions in high quality manganese-doped two-dimensional molybdenum diselenide. <i>Science China Materials</i> , 2021, 64, 2507-2518.	3.5	6
982	High-throughput identification of one-dimensional atomic wires and first principles calculations of their electronic states*. <i>Chinese Physics B</i> , 2021, 30, 057304.	0.7	11
983	Quasiparticle electronic structure of two-dimensional heterotriangulene-based covalent organic frameworks adsorbed on Au(111). <i>Journal of Physics Condensed Matter</i> , 2021, 33, 254004.	0.7	3
984	Evidence for Moiré Trions in Twisted MoSe <sub>2</sub> Homobilayers. <i>Nano Letters</i> , 2021, 21, 4461-4468.	4.5	31

#	ARTICLE	IF	CITATIONS
985	Photoluminescence upconversion of 2D materials and applications. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 223001.	0.7	7
986	Opening band gaps of low-dimensional materials at the meta-GGA level of density functional approximations. <i>Physical Review Materials</i> , 2021, 5, .	0.9	18
987	Improving the applicability of the Pauli kinetic energy density based semilocal functional for solids. <i>New Journal of Physics</i> , 2021, 23, 063007.	1.2	13
988	Strong bulk photovoltaic effect and second-harmonic generation in two-dimensional selenium and tellurium. <i>Physical Review B</i> , 2021, 103, .	1.1	8
989	Influence of Ti doping on the band gap and thermal stability of ultrathin GeO <sub>x</sub> films. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 345102.	1.3	0
990	Emerging perovskite monolayers. <i>Nature Materials</i> , 2021, 20, 1325-1336.	13.3	124
991	Excitonic Nature of the Band-Edge Absorptions in Borate Nonlinear Optical Materials. <i>Advanced Photonics Research</i> , 2021, 2, 2100041.	1.7	6
992	Recent Advances in Immunosafety and Nanoinformatics of Two-Dimensional Materials Applied to Nano-imaging. <i>Frontiers in Immunology</i> , 2021, 12, 689519.	2.2	5
993	Anomalous Room-Temperature Photoluminescence from Nanostrained MoSe <sub>2</sub> Monolayers. <i>ACS Photonics</i> , 2021, 8, 2220-2226.	3.2	14
994	<i>Penta</i> -PdPSe: A New 2D Pentagonal Material with Highly In-Plane Optical, Electronic, and Optoelectronic Anisotropy. <i>Advanced Materials</i> , 2021, 33, e2102541.	11.1	66
995	Broadband Plasmon-Enhanced Four-Wave Mixing in Monolayer MoS <sub>2</sub> . <i>Nano Letters</i> , 2021, 21, 6321-6327.	4.5	20
996	Band gap measurements of monolayer h-BN and insights into carbon-related point defects. <i>2D Materials</i> , 2021, 8, 044001.	2.0	34
997	Spectroscopic view of ultrafast charge carrier dynamics in single- and bilayer transition metal dichalcogenide semiconductors. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2021, 250, 147093.	0.8	9
998	p/n-Type modulation of 2D transition metal dichalcogenides for electronic and optoelectronic devices. <i>Nano Research</i> , 2022, 15, 123-144.	5.8	20
1000	Dimensionality-Inhibited Chemical Doping in Two-Dimensional Semiconductors: The Phosphorene and MoS <sub>2</sub> from Charge-Correction Method. <i>Nano Letters</i> , 2021, 21, 6711-6717.	4.5	14
1001	Dichotomy of saddle points in energy bands of monolayer $\text{NbSe}_2$ . <i>Physical Review B</i> , 2021, 104, .		
1002	Robust and High Photoluminescence in WS <sub>2</sub> Monolayer through In Situ Defect Engineering. <i>Advanced Functional Materials</i> , 2021, 31, 2105339.	7.8	47
1003	3D electron diffraction of mono- and few-layer MoS <sub>2</sub> . <i>Micron</i> , 2021, 146, 103071.	1.1	4

#	ARTICLE	IF	CITATIONS
1004	Electronic band gap of van der Waals $\text{As}_2\text{Te}_3$ crystals. Applied Physics Letters, 2021, 119, .	1.5	4
1005	Recent progress of the Computational 2D Materials Database (C2DB). 2D Materials, 2021, 8, 044002.	2.0	218
1006	Revealing the interrelation between C- and A-exciton dynamics in monolayer $\text{WS}_2$ via transient absorption spectroscopy. Applied Physics Letters, 2021, 119, .	1.5	10
1007	Layer-Dependent Band Gaps of Platinum Dichalcogenides. ACS Nano, 2021, 15, 13249-13259.	7.3	41
1008	Atomically Thin, Optically Isotropic Films with 3D Nanotopography. Nano Letters, 2021, 21, 7291-7297.	4.5	1
1009	Defect-Enhanced Exciton Annihilation in Monolayer Transition Metal Dichalcogenides at High Exciton Densities. ACS Photonics, 2021, 8, 2770-2780.	3.2	26
1010	Imaging Seebeck drift of excitons and trions in $\text{MoSe}_2$ monolayers. 2D Materials, 2021, 8, 045014.	2.0	4
1011	Moiré excitons in defective van der Waals heterostructures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	16
1012	Magnetic-field tuning of the intraexcitonic absorption and gain in transition metal dichalcogenides. Physical Review B, 2021, 104, .	1.1	0
1013	Rydberg series of dark excitons and the conduction band spin-orbit splitting in monolayer $\text{WSe}_2$ . Communications Physics, 2021, 4, .	2.0	18
1014	Time-resolved ARPES Determination of a Quasi-Particle Band Gap and Hot Electron Dynamics in Monolayer $\text{MoS}_2$ . Nano Letters, 2021, 21, 7363-7370.	4.5	28
1015	Quasiparticle band-gap renormalization in doped monolayer $\text{MoS}_2$ . Physical Review B, 2021, 104, .		
1016	Correlating chemical and electronic states from quantitative photoemission electron microscopy of transition-metal dichalcogenide heterostructures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	5
1017	Torsional strain engineering of transition metal dichalcogenide nanotubes: an ab initio study. Nanotechnology, 2021, 32, 47LT01.	1.3	9
1018	Sub-10 nm two-dimensional transistors: Theory and experiment. Physics Reports, 2021, 938, 1-72.	10.3	80
1019	$\text{MoSe}_2$ monolayer crystallinity improvement and phase engineering for ultrasensitive SERS detection. FlatChem, 2021, 29, 100282.	2.8	3
1020	Unveiling the multilevel structure of midgap states in Sb-doped $\text{MoX}_2$ . Physical Review B, 2021, 104, .	1.1	6
1021	Large bulk photovoltaic effect and second-harmonic generation in few-layer pentagonal semiconductors $\text{PdS}_2$ and $\text{PdSe}_2$ . New Journal of Physics, 2021, 23, 093028.	1.2	9

#	ARTICLE	IF	CITATIONS
1022	Novel two-dimensional transition metal chalcogenides created by epitaxial growth. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021, 64, 1.	2.0	3
1023	Near-field optical imaging and spectroscopy of 2D-TMDs. <i>Nanophotonics</i> , 2021, 10, 3397-3415.	2.9	19
1024	Identifying the Intermediate Free-Carrier Dynamics Across the Charge Separation in Monolayer MoS <sub>2</sub> /ReSe <sub>2</sub> Heterostructures. <i>ACS Nano</i> , 2021, 15, 16760-16768.	7.3	17
1025	Reversing the Polarity of MoS <sub>2</sub> with PTFE. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 46117-46124.	4.0	6
1026	Charge Transfer Screening and Energy Level Alignment at Complex Organic-Inorganic Interfaces: A Tractable <i>Ab Initio</i> GW Approach. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8841-8846.	2.1	6
1027	Computational methods for 2D materials modelling. <i>Reports on Progress in Physics</i> , 2021, 84, 106501.	8.1	4
1028	Tuning the Optical Band Gap of Two-Dimensional WS <sub>2</sub> Integrated with Gold Nanocubes by Introducing Palladium Nanostructures. <i>Langmuir</i> , 2021, 37, 10720-10731.	1.6	1
1029	Van der Waals organic/inorganic heterostructures in the two-dimensional limit. <i>CheM</i> , 2021, 7, 2989-3026.	5.8	19
1030	Solving the Bethe-Salpeter equation on massively parallel architectures. <i>Computer Physics Communications</i> , 2021, 267, 108081.	3.0	4
1031	Ab-initio and experimental investigations on Au incorporated MoS <sub>2</sub> for electronic and optical response. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160244.	2.8	10
1032	High response and broadband photodetection by monolayer MoSe <sub>2</sub> with vanadium doping and Mo vacancies. <i>Applied Surface Science</i> , 2021, 564, 150399.	3.1	10
1033	Non-local dielectric screening effects in phosphorene/g-C <sub>3</sub> N <sub>4</sub> heterojunctions. <i>Applied Surface Science</i> , 2021, 567, 150842.	3.1	10
1034	Angular dependence of nanofriction of mono- and few-layer MoSe <sub>2</sub> . <i>Applied Surface Science</i> , 2021, 567, 150807.	3.1	8
1035	Emergent flat band electronic structure in a VSe <sub>2</sub> /Bi <sub>2</sub> Se <sub>3</sub> heterostructure. <i>Communications Materials</i> , 2021, 2, .	2.9	15
1036	Synthesis of graphene and other two-dimensional materials. , 2021, , 1-79.		4
1037	N-type and p-type molecular doping on monolayer MoS <sub>2</sub> . <i>RSC Advances</i> , 2021, 11, 8033-8041.	1.7	15
1038	Twist Angle-Dependent Interlayer Exciton Lifetimes in van der Waals Heterostructures. <i>Physical Review Letters</i> , 2021, 126, 047401.	2.9	88
1039	Strong plasmon-exciton coupling in transition metal dichalcogenides and plasmonic nanostructures. <i>Nanoscale</i> , 2021, 13, 4408-4419.	2.8	44

#	ARTICLE	IF	CITATIONS
1040	Creation of moiré bands in a monolayer semiconductor by spatially periodic dielectric screening. Nature Materials, 2021, 20, 645-649.	13.3	45
1041	Substrate-Dependent Exciton Diffusion and Annihilation in Chemically Treated MoS <sub>2</sub> and WS <sub>2</sub> . Journal of Physical Chemistry C, 2020, 124, 12175-12184.	1.5	51
1042	Determining Quasiparticle Bandgap of Two-Dimensional Transition Metal Dichalcogenides by Observation of Hot Carrier Relaxation Dynamics. Journal of Physical Chemistry Letters, 2021, 12, 585-591.	2.1	4
1043	Vanadium-Doped Monolayer MoS <sub>2</sub> with Tunable Optical Properties for Field-Effect Transistors. ACS Applied Nano Materials, 2021, 4, 769-777.	2.4	39
1044	Electron-hole liquid in a van der Waals heterostructure photocell at room temperature. Nature Photonics, 2019, 13, 245-250.	15.6	53
1045	Tunable bandgap renormalization by nonlocal ultra-strong coupling in nanophotonics. Nature Physics, 2020, 16, 868-874.	6.5	16
1046	Strain-induced giant second-harmonic generation in monolayered 2H-X-MoX <sub>2</sub> (X = S, Se, Te). Applied Physics Letters, 2015, 107, .	1.5	34
1047	Microscopic Coulomb interaction in transition-metal dichalcogenides. Journal of Physics Condensed Matter, 2021, 33, 035301.	0.7	3
1048	Schottky barriers, emission regimes and contact resistances in 2H-1T MoS <sub>2</sub> lateral metal-semiconductor junctions from first-principles. 2D Materials, 2020, 7, 045030.	2.0	9
1049	Tunable optical nonlinearity for transition metal dichalcogenide polaritons dressed by a Fermi sea. Physical Review B, 2020, 102, .	1.1	18
1050	Engineering of optical and electronic band gaps in transition metal dichalcogenide monolayers through external dielectric screening. Physical Review Materials, 2017, 1, .	0.9	83
1051	Revealing electronic nature of moiré band exciton bands in two-dimensional semiconducting WSe <sub>2</sub> and WS <sub>2</sub> . Physical Review Letters, 2020, 125, 076101.	0.9	19
1052	Optical spectroscopy of excited exciton states in MoS <sub>2</sub> monolayers in van der Waals heterostructures. Physical Review Materials, 2018, 2, .	0.9	64
1053	Stable biexcitons in two-dimensional metal-halide perovskites with strong dynamic lattice disorder. Physical Review Materials, 2018, 2, .	0.9	89
1054	Substrate screening effects on the quasiparticle band gap and defect charge transition levels in MoS <sub>2</sub> . Physical Review Materials, 2018, 2, .	0.9	64
1055	Epitaxial single-layer NbS <sub>2</sub> on Au(111): Synthesis, structure, and electronic properties. Physical Review Materials, 2019, 3, .	0.9	23
1056	Exciton Mott transition revisited. Physical Review Materials, 2019, 3, .	0.9	25
1057	Disorder-induced broadening of excitonic resonances in transition metal dichalcogenides. Physical Review Materials, 2019, 3, .	0.9	2

#	ARTICLE	IF	CITATIONS
1058	Vibrational and dielectric properties of monolayer transition metal dichalcogenides. <i>Physical Review Materials</i> , 2019, 3, .	0.9	10
1059	van der Waals heterostructure for photocatalysis: Graphitic carbon nitride and Janus transition-metal dichalcogenides. <i>Physical Review Materials</i> , 2019, 3, .	0.9	14
1060	Many-body effects for excitonic high-order wave mixing in monolayer transition metal dichalcogenides. <i>Physical Review Research</i> , 2020, 2, .	1.3	10
1061	Extremely imbalanced two-dimensional electron-hole-photon systems. <i>Physical Review Research</i> , 2020, 2, .	1.3	11
1062	<i>in situ</i> exfoliated 2D molybdenum disulfide analyzed by XPS. <i>Surface Science Spectra</i> , 2020, 27, .	0.3	21
1063	Editors' Choice Review Conductive Forms of MoS <sub>2</sub> and Their Applications in Energy Storage and Conversion. <i>Journal of the Electrochemical Society</i> , 2020, 167, 126517.	1.3	46
1064	Tunable strong exciton-plasmon exciton coupling in WS <sub>2</sub> -J-aggregates plasmonic nanocavity. <i>Optics Express</i> , 2019, 27, 16613.	1.7	22
1065	Radially polarized light beams from spin-forbidden dark excitons and trions in monolayer WSe <sub>2</sub> . <i>Optical Materials Express</i> , 2020, 10, 1273.	1.6	10
1066	Loss and coupling tuning via heterogeneous integration of MoS <sub>2</sub> layers in silicon photonics [Invited]. <i>Optical Materials Express</i> , 2019, 9, 751.	1.6	32
1067	Second harmonic generation spectroscopy on two-dimensional materials [Invited]. <i>Optical Materials Express</i> , 2019, 9, 1136.	1.6	45
1068	Graphene and Mo <sub>2</sub> C vertical heterostructure for femtosecond mode-locked lasers [Invited]. <i>Optical Materials Express</i> , 2019, 9, 3268.	1.6	8
1069	Ultrafast fiber lasers mode-locked by two-dimensional materials: review and prospect. <i>Photonics Research</i> , 2020, 8, 78.	3.4	242
1070	Recent progress of pulsed fiber lasers based on transition-metal dichalcogenides and black phosphorus saturable absorbers. <i>Nanophotonics</i> , 2020, 9, 2215-2231.	2.9	58
1071	Valley depolarization in downconversion and upconversion emission of monolayer WS <sub>2</sub> at room temperature. <i>Nanophotonics</i> , 2020, 9, 4809-4818.	2.9	5
1073	Excitons in Two-Dimensional Materials. , 0, , .		6
1074	Thermal stability of MoS <sub>2</sub> encapsulated by graphene. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2018, 67, 226501.	0.2	3
1075	Controllable fabrication and photocatalytic performance of nanoscale single-layer MoSe <sub>2</sub> islands with substantial edges on an Ag(111) substrate. <i>Nanoscale</i> , 2021, 13, 19165-19171.	2.8	5
1076	Control of spin-charge conversion in van der Waals heterostructures. <i>APL Materials</i> , 2021, 9, .	2.2	20

#	ARTICLE	IF	CITATIONS
1077	Interlayer Excitons in Transition Metal Dichalcogenide Semiconductors for 2D Optoelectronics. <i>Advanced Materials</i> , 2022, 34, e2107138.	11.1	28
1078	Excitonic effect in black phosphorus oxides. <i>2D Materials</i> , 2022, 9, 015007.	2.0	2
1079	Imaging Charged Exciton Localization in van der Waals $WSe_2/MoSe_2$ Heterobilayers. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10589-10594.	2.1	6
1080	Competitive screening and band gap renormalization in $n$ -type monolayer transition metal dichalcogenides. <i>Physical Review B</i> , 2021, 104, .	1.1	6
1081	Impurity-Induced Robust Trionic Effect in Layered Violet Phosphorus. <i>Advanced Optical Materials</i> , 2022, 10, 2101538.	3.6	22
1083	Lennard-Jones-Like Potential of 2D Excitons in Monolayer $WS_2$ . <i>Springer Theses</i> , 2018, , 93-114.	0.0	0
1084	Optical spectroscopy of interlayer excitons in TMDC heterostructures: exciton dynamics, interactions, and giant valley-selective magnetic splitting. , 2018, , .		0
1085	Excited-State Properties of Thin Silicon Nanowires. , 2019, , 1-18.		0
1086	Internal structure and ultrafast dynamics of tailored excitons in van der Waals heterostructures. , 2019, , .		0
1087	Small transition-metal dichalcogenide nanostructures down to subnanometer by two-dimensional material origami. <i>Physical Review Materials</i> , 2019, 3, .	0.9	0
1088	Electric field induced variations of excited state lifetimes and photoluminescence spectra in 2D heterostructures. , 2019, , .		1
1089	Excited-State Properties of Thin Silicon Nanowires. , 2020, , 617-633.		0
1090	Review: Electronic Band Structure and Interface Properties. <i>Springer Theses</i> , 2020, , 13-36.	0.0	0
1091	Quantum Dynamics at Scale. , 2020, , .		1
1092	Research progress of monolayer two-dimensional atomic crystal materials grown by molecular beam epitaxy in ultra-high vacuum conditions. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 118101.	0.2	5
1093	2D analogue of band-bending in metal-semiconductor junctions: interior to edge-states of single-layered transition metal dichalcogenides. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 105106.	1.3	1
1094	Optical-field induced $SU(2)$ pair potential in caesium lead halide perovskites. <i>International Journal of Modern Physics B</i> , 2021, 35, 2150030.	1.0	0
1095	Investigation of carrier migration from $WS_2$ monolayer to substrate by photoluminescence. <i>Journal of Luminescence</i> , 2022, 241, 118538.	1.5	1



#	ARTICLE	IF	CITATIONS
1096	Evaluation of Charged Defect Energy in Two-Dimensional Semiconductors for Nanoelectronics: The WLZ Extrapolation Method. <i>Annalen Der Physik</i> , 2020, 532, 1900318.	0.9	4
1097	Electroluminescence by Impact Excitation of Excitons in a Monolayer WSe <sub>2</sub> . , 2020, , .		0
1098	Phonon scattering and exciton localization: molding exciton flux in two dimensional disorder energy landscape. <i>ELight</i> , 2021, 1, .	11.9	57
1099	Single-layer Mo <sub>5</sub> Te <sub>8</sub> – A new polymorph of layered transition-metal chalcogenide. <i>2D Materials</i> , 2021, 8, 015006.	2.0	9
1100	Unveiling defect-mediated carrier dynamics in few-layer MoS <sub>2</sub> prepared by ion exchange method via ultrafast Vis-NIR-MIR spectroscopy. <i>Chinese Journal of Chemical Physics</i> , 2020, 33, 547-553.	0.6	4
1101	First-principles investigation of charged dopants and dopant-vacancy defect complexes in monolayer MoS <sub>2</sub> . <i>Physical Review Materials</i> , 2020, 4, .	0.9	9
1102	Engineering photonic environments for two-dimensional materials. <i>Nanophotonics</i> , 2021, 10, 1031-1058.	2.9	14
1103	First-principal insight of the gold-metal interaction to bilayer MoSe <sub>2</sub> of AB and AA stacking order. <i>Solid State Communications</i> , 2022, 342, 114613.	0.9	3
1104	Probing biexciton in monolayer WS <sub>2</sub> through controlled many-body interaction. <i>2D Materials</i> , 2022, 9, 015023.	2.0	11
1105	Valley-contrasting interband transitions and excitons in symmetrically biased dice model. <i>Physical Review B</i> , 2021, 104, .	1.1	5
1106	Proximity Effects on the Charge Density Wave Order and Superconductivity in Single-Layer NbSe <sub>2</sub> . <i>ACS Nano</i> , 2021, 15, 19430-19438.	7.3	35
1107	Impact of Dark Excitons on the Population and Relaxation Kinetics of Two-Dimensional Biexcitons in [CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>3</sub> ] <sub>2</sub> Pb <sub>1-x</sub> MnxBr <sub>4</sub> (x = 0-0.09). <i>Journal of the American Chemical Society</i> , 2021, 143, 19785-19793.	6.6	1
1108	Atomlike interaction and optically tunable giant band-gap renormalization in large-area atomically thin MoS <sub>2</sub> . <i>Physical Review B</i> , 2021, 104, .	1.1	15
1109	Spin-Selective Hole-Exciton Coupling in a V-Doped WSe <sub>2</sub> Ferromagnetic Semiconductor at Room Temperature. <i>ACS Nano</i> , 2021, 15, 20267-20277.	7.3	13
1110	Transient Reflection Spectroscopy on Ultrafast Interlayer Charge Transfer Processes in a MoS <sub>2</sub> /WSe <sub>2</sub> van der Waals Heterojunction. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26575-26582.	1.5	7
1111	Optical signature of bipolaron in monolayer transition metal dichalcogenides: all coupling approach. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	0
1112	Quasiparticle electronic structure of phthalocyanine:TMD interfaces from first-principles GW. <i>Journal of Chemical Physics</i> , 2021, 155, 214702.	1.2	9
1113	Excitonic effects in absorption spectra of carbon dioxide reduction photocatalysts. <i>Npj Computational Materials</i> , 2021, 7, .	3.5	12

#	ARTICLE	IF	CITATIONS
1114	Optical and Electrical Properties of Transition Metal Dichalcogenides (Monolayer and Bulk). Springer Series in Materials Science, 2021, , 295-361.	0.4	2
1115	Time- and momentum-resolved image-potential states of 2H-MoS <sub>2</sub> surface. Physical Chemistry Chemical Physics, 2021, 23, 26336-26342.	1.3	1
1116	Tuning the Optical Properties of a MoSe <sub>2</sub> Monolayer Using Nanoscale Plasmonic Antennas. Nano Letters, 2022, 22, 561-569.	4.5	11
1117	Two-Atomic-Layered Optoelectronic Device Enabled by Charge Separation on Graphene/Semiconductor Interface. Journal of Chemical Physics, 2022, 156, 044704.	1.2	0
1118	Experimental Investigation of the Nature of Chiral Light Emission at the K/K' Valleys of Monolayer Molybdenum Disulfide Using its Interaction with Gold Nanoparticles. , 2021, , .		0
1119	Novel chalcogenides and their fabrication techniques. , 2022, , 171-185.		2
1120	Boosting the Optoelectronic Performance by Regulating Exciton Behaviors in a Porous Semiconductive Metal-Organic Framework. Journal of the American Chemical Society, 2022, 144, 2189-2196.	6.6	37
1121	Interface and surface engineering of black phosphorus: a review for optoelectronic and photonic applications. Materials Futures, 2022, 1, 012301.	3.1	53
1122	Elastic properties of Janus transition metal dichalcogenide nanotubes from first principles. European Physical Journal B, 2022, 95, 1.	0.6	5
1123	Regulation and control of Schottky barrier in graphene/MoSe <sub>2</sub> /heteojunction by asymmetric oxygen doping. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 017104.	0.2	5
1124	Defects, band bending and ionization rings in MoS <sub>2</sub> . Journal of Physics Condensed Matter, 2022, 34, 174002.	0.7	3
1125	An Asymmetry Field-Effect Phototransistor for Solving Large Exciton Binding Energy of 2D TMDCs. Advanced Materials, 2022, 34, e2107468.	11.1	7
1126	Mechanism of antisymmetric spin polarization in centrosymmetric multiple- $Q$ magnets based on effective chiral bilinear and biquadratic spin cross products. Physical Review B, 2022, 105, .	1.1	12
1127	Temperature Dependence of the Electronic Structure of Ca <sub>3</sub> Cu <sub>2</sub> O <sub>4</sub> Cl <sub>2</sub> Mott Insulator. Chinese Physics Letters, 2022, 39, 017402.	1.3	1
1128	Towards high-temperature electron-hole condensate phases in monolayer tetrel metal halides: Ultra-long excitonic lifetimes, phase diagram and exciton dynamics. Materials Today Physics, 2022, 22, 100604.	2.9	5
1129	Giant Photoresponse Enhancement in Mixed-Dimensional Van der Waals Heterostructure through Dielectric Engineering. Advanced Materials Interfaces, 2022, 9, .	1.9	5
1130	Emergent Fabry-Pérot Interference for Light-Matter Interaction in van der Waals WS <sub>2</sub> /SiP <sub>2</sub> Heterostructures. ACS Applied Materials & Interfaces, 2022, 14, 7464-7470.	4.0	6
1131	Morphological Control of 2D Hybrid Organic-Inorganic Semiconductor AgSePh. ACS Nano, 2022, 16, 2054-2065.	7.3	13



#	ARTICLE	IF	CITATIONS
1150	Highly emitting colloidal MoS <sub>2</sub> quantum dots for optoelectronic applications. , 2022, , .		2
1151	Scalable Synthesis of Monolayer Hexagonal Boron Nitride on Graphene with Giant Bandgap Renormalization. <i>Advanced Materials</i> , 2022, 34, e2201387.	11.1	22
1152	Enhanced light-matter interaction in two-dimensional transition metal dichalcogenides. <i>Reports on Progress in Physics</i> , 2022, 85, 046401.	8.1	74
1153	Observation of multiple charge density wave phases in epitaxial monolayer 1T-VSe <sub>2</sub> film. <i>Chinese Physics B</i> , 2022, 31, 107301.	0.7	3
1154	Local Plasmon Phase Delay Effect in Plasmon-Exciton Coupling. <i>Advanced Optical Materials</i> , 0, , 2102380.	3.6	0
1155	Two-Dimensional Self-Assembly of Boric Acid-Functionalized Graphene Quantum Dots: Tunable and Superior Optical Properties for Efficient Eco-Friendly Luminescent Solar Concentrators. <i>ACS Nano</i> , 2022, 16, 3994-4003.	7.3	38
1156	Molding 2D Exciton Flux toward Room Temperature Excitonic Devices. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	2
1157	Versatile band structure and electron-phonon coupling in layered PtSe <sub>2</sub> with strong interlayer interaction. <i>Nano Research</i> , 2022, 15, 6613-6619.	5.8	8
1158	Spatiotemporally Coupled Electron-Hole Dynamics in Two Dimensional Heterostructures. <i>Nano Letters</i> , 2022, 22, 2547-2553.	4.5	11
1159	Strong Light-Matter Interactions between Gap Plasmons and Two-Dimensional Excitons under Ambient Conditions in a Deterministic Way. <i>Nano Letters</i> , 2022, 22, 2177-2186.	4.5	24
1160	Dominating Interlayer Resonant Energy Transfer in Type-II 2D Heterostructure. <i>ACS Nano</i> , 2022, 16, 3861-3869.	7.3	11
1161	Dexter-Type Exciton Transfer in van der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	4
1162	Electron Doping of Semiconducting MoS <sub>2</sub> Nanosheets by Silver or Gold Nanoclusters. <i>Langmuir</i> , 2022, 38, 4378-4388.	1.6	3
1163	Microscopic modeling of exciton-polariton diffusion coefficients in atomically thin semiconductors. <i>Physical Review Materials</i> , 2022, 6, .	0.9	4
1164	Nontrivial Doping Evolution of Electronic Properties in Ising-Superconducting Alloys. <i>Advanced Materials</i> , 2022, , 2200492.	11.1	9
1165	Molecular beam epitaxy of PtSe <sub>2</sub> using a co-deposition approach. <i>2D Materials</i> , 2022, 9, 025029.	2.0	1
1166	Single-crystal graphene on Ir(110). <i>Physical Review B</i> , 2022, 105, .	1.1	7
1167	A comparative study of ultrafast carrier dynamics near A, B, and C-excitons in a monolayer MoS <sub>2</sub> at high excitation densities. <i>Optical Materials</i> , 2022, 126, 112224.	1.7	4

#	ARTICLE	IF	CITATIONS
1168	Exploring a high-carrier-mobility black phosphorus/MoSe <sub>2</sub> heterostructure for high-efficiency thin film solar cells. <i>Solar Energy</i> , 2022, 236, 576-585.	2.9	13
1169	Layer structured materials for ambient nitrogen fixation. <i>Coordination Chemistry Reviews</i> , 2022, 460, 214468.	9.5	28
1170	Tuning the magnetic properties of FeTe <sub>2</sub> monolayer doped by (TM: V, Mn, and Co). <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 552, 169204.	1.0	6
1171	S-scheme NIR-edge Ag <sub>3</sub> CuS <sub>2</sub> /VO <sub>2</sub> heterostructure for photo-oxidation/reduction of methylene blue/Cr (VI). <i>Applied Surface Science</i> , 2022, 590, 153118.	3.1	18
1172	Vacancy-engineered half-metallicity and magnetic anisotropy in CrSi semiconductor monolayer. <i>Journal of Alloys and Compounds</i> , 2022, 909, 164797.	2.8	63
1173	In-plane Field-Driven Excitonic Electro-Optic Modulation in Monolayer Semiconductor. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	4
1174	Molecular beam epitaxy of two-dimensional semiconductor BiI <sub>3</sub> films exhibiting sharp exciton absorption. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	2
1175	Two Dimensional Perovskites/Transition Metal Dichalcogenides Heterostructures: Puzzles and Challenges. <i>Israel Journal of Chemistry</i> , 2022, 62, .	1.0	4
1177	Microscopic Understanding of Ultrafast Charge Transfer in van der Waals Heterostructures. <i>Physical Review Letters</i> , 2021, 127, 276401.	2.9	13
1178	Waveguiding valley excitons in monolayer transition metal dichalcogenides by dielectric interfaces in the substrate. <i>Physical Review B</i> , 2021, 104, .	1.1	3
1179	Substrate-dependent synergistic many-body effects in atomically thin two-dimensional $W_{1-x}S_x$ . <i>Physical Review Materials</i> , 2021, 5, .	0.9	4
1181	Microscopic theory of exciton and trion polaritons in doped monolayers of transition metal dichalcogenides. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	7
1182	Engineering Plasmonic Environments for 2D Materials and 2D-Based Photodetectors. <i>Molecules</i> , 2022, 27, 2807.	1.7	4
1183	Visualizing ultrafast defect-controlled interlayer electron-phonon coupling in van der Waals heterostructures. <i>Advanced Materials</i> , 2022, , 2106955.	11.1	1
1184	A Review of the Synthesis, Properties, and Applications of 2D Materials. <i>Particle and Particle Systems Characterization</i> , 2022, 39, .	1.2	81
1185	Theory of Excitons in Atomically Thin Semiconductors: Tight-Binding Approach. <i>Nanomaterials</i> , 2022, 12, 1582.	1.9	7
1186	High thermoelectric figure of merit for GeS/phosphorene 2D heterostructures: A first-principles study. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2022, 281, 115737.	1.7	6
1187	First-principles calculations of electrical conductivities of edge-modified graphene nanoribbons: Strain effect. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2022, 142, 115267.	1.3	0

#	ARTICLE	IF	CITATIONS
1188	Chiral Excitonics in Monolayer Semiconductors on Patterned Dielectrics. <i>Physical Review Letters</i> , 2022, 128, .	2.9	4
1189	Structural and Optical Characterization of Nanometer Sized Mos <sub>2</sub> /Graphene Heterostructures for Potential Use in Optoelectronic Devices. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1190	Highly Nonlinear Biexcitonic Photocurrent from Ultrafast Interlayer Charge Transfer. <i>ACS Nano</i> , 2022, 16, 9728-9735.	7.3	3
1191	Metal-Confined Synthesis of ZnS <sub>2</sub> Monolayer Catalysts for Dinitrogen Electroreduction. <i>ACS Catalysis</i> , 2022, 12, 6809-6815.	5.5	6
1192	Exciton binding energy and screening length in two-dimensional semiconductors. <i>Physical Review B</i> , 2022, 105, .	1.1	8
1193	Long-range transport and ultrafast interfacial charge transfer in perovskite/monolayer semiconductor heterostructure for enhanced light absorption and photocarrier lifetime. <i>Journal of Chemical Physics</i> , 2022, 156, .	1.2	10
1194	Reliable and broad-range layer identification of Au-assisted exfoliated large area MoS <sub>2</sub> and WS <sub>2</sub> using reflection spectroscopic fingerprints. <i>Nano Research</i> , 0, , .	5.8	5
1196	Hyperspectral Imaging of Complex Dielectric Functions in 2d Materials. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1197	Integration of MoSe <sub>2</sub> Monolayers with Epitaxial High-Îš Gd <sub>2</sub> O <sub>3</sub> Substrate: Implication for High-Quality Emission and Modulation of Excitonic Quasiparticles. <i>ACS Applied Nano Materials</i> , 2022, 5, 9567-9575.	2.4	4
1198	Giant bulk photovoltaic effect driven by the wall-to-wall charge shift in WS <sub>2</sub> nanotubes. <i>Nature Communications</i> , 2022, 13, .	5.8	17
1199	III-nitride nanostructures: Emerging applications for Micro-LEDs, ultraviolet photonics, quantum optoelectronics, and artificial photosynthesis. <i>Progress in Quantum Electronics</i> , 2022, 85, 100401.	3.5	26
1200	Prediction of protected band edge states and dielectric tunable quasiparticle and excitonic properties of monolayer MoSi <sub>2</sub> N <sub>4</sub> . <i>Npj Computational Materials</i> , 2022, 8, .	3.5	19
1201	Tailoring the Band Structure of Plexcitonic Crystals by Strong Coupling. <i>ACS Photonics</i> , 2022, 9, 2473-2482.	3.2	7
1202	Giant excitonic upconverted emission from two-dimensional semiconductor in doubly resonant plasmonic nanocavity. <i>Light: Science and Applications</i> , 2022, 11, .	7.7	14
1203	Structural and optical characterization of nanometer sized MoS <sub>2</sub> /graphene heterostructures for potential use in optoelectronic devices. <i>FlatChem</i> , 2022, , 100397.	2.8	3
1204	Photon echo from free excitons in a $\text{CH}_3\text{NH}_3\text{PbI}_3$ halide perovskite single crystal. <i>Physical Review B</i> , 2022, 105, .		
1205	Generating and Capturing Secondary Hot Carriers in Monolayer Tungsten Dichalcogenides. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5703-5710.	2.1	2
1206	Investigation of band alignment at two-dimensional ReS <sub>2</sub> /XSe <sub>2</sub> (X=W, Mo) heterojunctions using x-ray/ultraviolet photoelectron spectroscopy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2022, 445, 128241.	0.9	1



#	ARTICLE	IF	CITATIONS
1207	Phase control and lateral heterostructures of MoTe <sub>2</sub> epitaxially grown on graphene/Ir(111). <i>Nanoscale</i> , 2022, 14, 10880-10888.	2.8	3
1208	Enhanced excitonic features in an anisotropic ReS <sub>2</sub> /WSe <sub>2</sub> heterostructure. <i>Nanoscale</i> , 2022, 14, 10851-10861.	2.8	9
1209	The Interfacial Properties of Monolayer MX <sub>2</sub> Metal Contacts. <i>Journal of Electronic Materials</i> , 2022, 51, 4824-4835.	1.0	3
1210	Benchmarking exchange-correlation potentials with the mstar60 dataset: Importance of the nonlocal exchange potential for effective mass calculations in semiconductors. <i>Physical Review B</i> , 2022, 106, .	1.1	3
1211	On-Site Synthesis and Characterizations of Atomically-Thin Nickel Tellurides with Versatile Stoichiometric Phases through Self-Intercalation. <i>ACS Nano</i> , 2022, 16, 11444-11454.	7.3	10
1212	Optical nonlinearities in the excited carrier density of atomically thin transition metal dichalcogenides. <i>Physical Review B</i> , 2022, 106, .	1.1	2
1213	Giant spin-selective bandgap renormalization in $\text{CsPbBr}_3$ colloidal nanocrystals. <i>Physical Review B</i> , 2022, 106, .	1.1	3
1214	Binding energies and current density of heavy-hole trions of monolayer transition metal dichalcogenides: analytical perturbation treatment of Coulomb interaction with 2D H-like basis set. <i>European Physical Journal Plus</i> , 2022, 137, .	1.2	3
1215	Experimental Realization and Computational Investigations of B <sub>2</sub> S <sub>2</sub> as a New 2D Material with Potential Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 32330-32340.	4.0	8
1216	Light-matter interactions in van der Waals photodiodes from first principles. <i>Physical Review B</i> , 2022, 106, .	1.1	5
1217	One and two-dimensional control growth of MoSe <sub>2</sub> nanostructures. <i>Materials Today Communications</i> , 2022, 32, 103934.	0.9	0
1218	Probing the charged defects in single-layer WS <sub>2</sub> at atomic level. <i>Materials Today Physics</i> , 2022, 27, 100773.	2.9	1
1219	Strong light-matter interactions in hybrid nanostructures with transition metal dichalcogenides. <i>Journal of Optics (United Kingdom)</i> , 2022, 24, 093001.	1.0	5
1220	Positively Charged Biexcitons in Monolayer WSe <sub>2</sub> in Type-I GaSe/WSe <sub>2</sub> van der Waals Heterostructures: Implications for the Biexciton Laser. <i>ACS Applied Nano Materials</i> , 2022, 5, 10628-10635.	2.4	0
1221	Substrate influence on transition metal dichalcogenide monolayer exciton absorption linewidth broadening. <i>Physical Review Materials</i> , 2022, 6, .	0.9	8
1222	Tuning Positive and Negative Transconductance in Multilayer $\text{MoS}_2$ with Iridium Contacts. <i>Physical Review Applied</i> , 2022, 18, .	1.5	1
1223	Synthesis of noble metal chalcogenides via cation exchange reactions. , 2022, 1, 626-634.		17
1224	First-Principles Study of the Optical Dipole Trap for Two-Dimensional Excitons in Graphane. <i>Physical Review Letters</i> , 2022, 129, .	2.9	2



#	ARTICLE	IF	CITATIONS
1225	Electronic gap characterization at mesoscopic scale via scanning probe microscopy under ambient conditions. <i>Nature Communications</i> , 2022, 13, .	5.8	2
1226	Screening 0D Materials for 2D Nanoelectronics Applications. <i>Advanced Electronic Materials</i> , 0, , 2200393.	2.6	2
1227	Band Gap Opening in Bilayer Graphene-CrCl <sub>3</sub> /CrBr <sub>3</sub> /CrI <sub>3</sub> van der Waals Interfaces. <i>Nano Letters</i> , 2022, 22, 6760-6766.	4.5	8
1228	Tuning moiré excitons and correlated electronic states through layer degree of freedom. <i>Nature Communications</i> , 2022, 13, .	5.8	15
1229	Anisotropic monolayer of ReX <sub>2</sub> on Au foils for exploring abnormal growth behavior and electronic properties. <i>Nano Research</i> , 2023, 16, 4197-4210.	5.8	0
1230	Momentum-Dependent Oscillator Strength Crossover of Excitons and Plasmons in Two-Dimensional PtSe <sub>2</sub> . <i>ACS Nano</i> , 2022, 16, 12328-12337.	7.3	3
1231	Exciton-driven renormalization of quasiparticle band structure in monolayer $\text{MoS}_2$ . <i>Physical Review B</i> , 2022, 106, .		
1232	A comprehensive study of complex non-adiabatic exciton dynamics in MoSi <sub>2</sub> N <sub>4</sub> . <i>Materials Today Physics</i> , 2022, 27, 100814.	2.9	8
1233	Low temperature CVD growth of WSe <sub>2</sub> enabled by moisture-assisted defects in the precursor powder. <i>2D Materials</i> , 2022, 9, 045026.	2.0	2
1234	Band structures of molecular beam epitaxially grown MoSe <sub>2</sub> /WSe <sub>2</sub> heterobilayers with different stacking orders on SrTiO <sub>3</sub> (111) substrate. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	2
1235	Direct observation of the Mottness and $d$ orbital hybridization in the epitaxial monolayer $\text{Ir}_2\text{RuCl}_3$ . <i>Nanoscale</i> , 2022, 14, 11745-11749.	2.8	6
1236	Nanostructured Pt-doped 2D MoSe <sub>2</sub> : an efficient bifunctional electrocatalyst for both hydrogen evolution and oxygen reduction reactions. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 22823-22844.	1.3	7
1237	Radiative and Non-Radiative Exciton Recombination Processes in a Chemical Vapor Deposition-Grown MoSe <sub>2</sub> Film. <i>Journal of Physical Chemistry C</i> , 2022, 126, 15319-15326.	1.5	4
1238	Tip-Mediated Bandgap Tuning for Monolayer Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2022, 16, 14918-14924.	7.3	7
1239	Discovery of Efficient Visible-Light Driven Oxygen Evolution Photocatalysts: Automated High-Throughput Computational Screening of MA <sub>2</sub> Z <sub>4</sub> . <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	19
1240	Alloying two-dimensional $\text{VSe}_2$ with Pt: From a charge density wave state to a disordered insulator. <i>Physical Review B</i> , 2022, 106, .		
1241	Ultrasonication assisted exfoliation of MoSe <sub>2</sub> nanosheets for optical and optical power limiting applications. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	2
1242	Exciton dynamics in 2D organic semiconductors. <i>Materials Futures</i> , 2022, 1, 042001.	3.1	4

#	ARTICLE	IF	CITATIONS
1243	Size-Dependent Mutual Charge Transfer between B- and P-Codoped Si Quantum Dots and Monolayer MoS <sub>2</sub> . Journal of Physical Chemistry C, 2022, 126, 16401-16408.	1.5	1
1244	Exciton Manifolds in Highly Ambipolar Doped WS <sub>2</sub> . Nanomaterials, 2022, 12, 3255.	1.9	0
1245	Exciton resonances for atomically-thin optics. Journal of Applied Physics, 2022, 132, .	1.1	6
1246	First-Principles Study of the Origin of the Distinct Conductivity Type of Monolayer MoSe <sub>2</sub> and WSe <sub>2</sub> . Journal of Physical Chemistry C, 2022, 126, 16539-16545.	1.5	2
1247	Confined Monolayer Ag As a Large Gap 2D Semiconductor and Its Momentum Resolved Excited States. Nano Letters, 2022, 22, 7841-7847.	4.5	3
1248	Screening of the Coulomb interaction in $C_3N_4$ reduced dimensionality and electronic structure effects. Physical Review Materials, 2022, 6, .	0.9	1
1249	Superacid Treatment on Transition Metal Dichalcogenides. Nano Express, 2022, 3, 034002.	1.2	5
1250	2D-materials-integrated optoelectromechanics: recent progress and future perspectives. Reports on Progress in Physics, 2023, 86, 026402.	8.1	4
1251	First-Principles Study of Enhanced Absorption in Van der Waals Heterostructure of MoS <sub>2</sub> /Cd <sub>0.90</sub> Zn <sub>0.10</sub> Te <sub>0.93</sub> Se <sub>0.07</sub> in the Visible Region. Journal of Electronic Materials, 2022, 51, 6595-6602.	1.0	1
1252	The exact exchange correlation potential in time-dependent density functional theory: Choreographing electrons with steps and peaks. Chemical Physics Reviews, 2022, 3, .	2.6	2
1253	Charge carrier dynamics in 2D materials probed by ultrafast THz spectroscopy. Advances in Physics: X, 2023, 8, .	1.5	2
1254	Frontier and Hot Topics of Pulsed Fiber Lasers via CiteSpace Scientometric Analysis: Passively Mode-Locked Fiber Lasers with Real Saturable Absorbers Based on Two-Dimensional Materials. Materials, 2022, 15, 6761.	1.3	10
1255	Synthesis of Transition Metal Dichalcogenides (TMDs). Topics in Applied Physics, 2022, , 155-179.	0.4	1
1256	Tunable long-lived exciton lifetime in single-layer two-dimensional $LiAlTe_2$ . Physical Review Materials, 2022, 6, .	1.1	1
1257	In-Gap States of HfO <sub>2</sub> Nanoislands Driven by Crystal Nucleation: Implications for Resistive Random-Access Memory Devices. ACS Applied Nano Materials, 2023, 6, 148-159.	2.4	5
1258	Carrier trapping centers in a two-dimensional silica bilayer: Strongly localized shallow gap states and resonances induced by oxygen vacancies. Physical Review B, 2022, 106, .	1.1	0
1259	Application of Two-Dimensional Materials towards CMOS-Integrated Gas Sensors. Nanomaterials, 2022, 12, 3651.	1.9	14
1260	Observation of room temperature excitons in an atomically thin topological insulator. Nature Communications, 2022, 13, .	5.8	6

#	ARTICLE	IF	CITATIONS
1261	Tenth-Order Multiphoton Excitation and Saturable Second Harmonic Generation in Polyoxometalate-Exfoliated Molybdenum Disulfide. <i>Journal of Physical Chemistry C</i> , 2022, 126, 18036-18046.	1.5	4
1262	Tunable magneto-optical properties in $\text{MoS}_2$ via defect-induced exciton transitions. <i>Physical Review B</i> , 2022, 106, .	11.1	6
1263	Direct Observation of Self-Hybridized Exciton-Polaritons and Their Valley Polarizations in a Bare $\text{WS}_2$ Layer. <i>Advanced Materials</i> , 2022, 34, .	2.9	9
1264	Intrinsic and engineered properties of black phosphorus. <i>Materials Today Physics</i> , 2022, 28, 100895.	10.3	4
1265	Photo-dynamics in 2D materials: Processes, tunability and device applications. <i>Physics Reports</i> , 2022, 993, 1-70.	7.3	3
1266	Dead-Exciton Layer and Exciton Anisotropy of Bulk $\text{MoS}_2$ Extracted from Optical Measurements. <i>ACS Nano</i> , 2022, 16, 18637-18647.	3.5	4
1267	Tunable valley band and exciton splitting by interlayer orbital hybridization. <i>Npj Computational Materials</i> , 2022, 8, .	2.0	1
1268	Signatures of dark excitons in exciton-polariton optics of transition metal dichalcogenides. <i>2D Materials</i> , 2023, 10, 015012.	5.2	2
1269	A novel highly stable two-dimensional boron phase with promising potentials in energy fields. <i>Journal of Materials Chemistry A</i> , 2023, 11, 828-837.	1.5	3
1270	Role of dielectric medium on optical behaviour of blue emitting colloidal $\text{MoS}_2$ quantum Dots. <i>Journal of Luminescence</i> , 2023, 255, 119598.	5.8	5
1271	Transient Superdiffusion of Energetic Carriers in Transition Metal Dichalcogenides Visualized by Ultrafast Pump-Probe Microscopy. <i>Ultrafast Science</i> , 2022, 2022, .	0.2	0
1272	Hot exciton effect in photoluminescence of monolayer transition metal dichalcogenide. <i>Natural Sciences</i> , 2023, 3, .	1.0	0
1273	Interlayer and Intralayer Excitons in $\text{AlN}/\text{WS}_2$ Heterostructure. <i>Materials</i> , 2022, 15, 8318.	1.3	2
1274	Properties of the Interaction Between Excitons and Surface Acoustic Phonons in Multilayer Graphene. <i>Iranian Journal of Science and Technology, Transaction A: Science</i> , 0, .	0.7	0
1275	Dynamic and giant bandgap renormalization dictates the transient optical response in perovskite quantum dots. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	2
1276	A roadmap to decipher ultrafast photophysics in two-dimensional nanomaterials. <i>Journal of Chemical Physics</i> , 2023, 158, .	1.2	6
1277	Understanding the Photoluminescence Quenching of Liquid Exfoliated $\text{WS}_2$ Monolayers. <i>Journal of Physical Chemistry C</i> , 0, .	1.5	2
1278	Understanding the Photoluminescence Quenching of Liquid Exfoliated $\text{WS}_2$ Monolayers. <i>Journal of Physical Chemistry C</i> , 0, .	1.5	2

#	ARTICLE	IF	CITATIONS
1280	Role of gas flow direction on monolayer MoS <sub>2</sub> growth on patterned surfaces via CVD. Semiconductor Science and Technology, 2023, 38, 015013.	1.0	1
1281	WanTiBEXOS: A Wannier based Tight Binding code for electronic band structure, excitonic and optoelectronic properties of solids. Computer Physics Communications, 2023, 285, 108636.	3.0	4
1282	Two-dimensional optoelectronic devices for silicon photonic integration. Journal of Materiomics, 2023, 9, 551-567.	2.8	3
1283	Strain-engineering in two-dimensional transition metal dichalcogenide alloys. Journal of Applied Physics, 2022, 132, .	1.1	3
1284	Capturing of non-hydrogenic Rydberg series of exciton binding energy in two-dimensional mono-layer WS <sub>2</sub> using a modified Coulomb potential in fractional space. Physica Scripta, 2023, 98, 015106.	1.2	1
1285	Exploring the effect of dielectric screening on neutral and charged-exciton properties in monolayer and bilayer MoTe <sub>2</sub> . Applied Physics Reviews, 2022, 9, .	5.5	2
1286	Surface excitons in multilayer transition metal dichalcogenides in the ground state. , 2022, , 207495.		0
1287	Tip-Enhanced Dark Exciton Nanoimaging and Local Strain Control in Monolayer WSe <sub>2</sub> . Nano Letters, 2023, 23, 198-204.	4.5	10
1288	One-dimensional bandgap modulation at continuous few-layer MoS <sub>2</sub> steps. Applied Physics Letters, 2022, 121, 233103.	1.5	0
1289	Molecular beam epitaxy growth and scanning tunneling microscopy study of 2D layered materials on epitaxial graphene/silicon carbide. Nanotechnology, 2023, 34, 132001.	1.3	2
1290	All-inorganic non-perovskite copper halides for light emission. Cell Reports Physical Science, 2022, 3, 101171.	2.8	6
1291	Twist-Dependent Intra- and Interlayer Excitons in Moiré MoSe <sub>2</sub> Homobilayers. Physical Review Letters, 2023, 130, .	2.9	7
1292	A review of the synthesis, properties, and applications of 2D transition metal dichalcogenides and their heterostructures. Materials Chemistry and Physics, 2023, 297, 127332.	2.0	29
1293	Indirect bandgap MoSe <sub>2</sub> resonators for light-emitting nanophotonics. Nanoscale Horizons, 2023, 8, 396-403.	4.1	2
1294	Direct Visualization of Subnanometer Variations in the Excitonic Spectra of 2D/3D Semiconductor/Metal Heterostructures. Nano Letters, 2023, 23, 1068-1076.	4.5	5
1295	2D Transition Metal Dichalcogenides for Photocatalysis. Angewandte Chemie - International Edition, 2023, 62, .	7.2	65
1296	Photo-Carrier Lifetime in Binary and Ternary Heterostructures of Transition Metal Dichalcogenides. Physica Status Solidi (B): Basic Research, 2023, 260, .	0.7	2
1297	2D Transition Metal Dichalcogenides for Photocatalysis. Angewandte Chemie, 2023, 135, .	1.6	3



#	ARTICLE	IF	CITATIONS
1316	Ultrafast hot electron-hole plasma photoluminescence in two-dimensional semiconductors. <i>Nanoscale</i> , 2023, 15, 7154-7163.	2.8	0
1317	Strain-Induced Electronic Structure and Bandgap Transition in Bilayer $\text{MoSe}_2$ of AB and AA Stacking Order. , 2022, , .		0
1318	Defects in $\text{WS}_2$ monolayer calculated with a nonlocal functional: any difference from CGA?. <i>Electronic Structure</i> , 2023, 5, 024001.	1.0	2
1319	Enhanced photoresponse of a dielectric-free suspended $\text{WSe}_2$ $\text{ReS}_2$ heterostructure photodetector. <i>Applied Physics Letters</i> , 2023, 122, 121105.	1.5	0
1320	Creating a Nanoscale Lateral Junction in a Semiconductor Monolayer with a Large Built-in Potential. <i>ACS Nano</i> , 2023, 17, 6966-6972.	7.3	2
1321	Nature of excitons in the $\text{TiAlCl}_3$ and $\text{TiAlCl}_3/\text{O}_2$ edges of x-ray absorption spectra in bulk $\text{TiAlCl}_3$	1.3	1
1322	Two-dimensional dichalcogenides of type $\text{XY}_2$ (X=Mo,W; Y=S,Se): A DFT study of the structural, optoelectronic, thermodynamic properties, infrared, and Raman spectra. <i>Journal of Materials Research</i> , 2023, 38, 2072-2083.	1.2	2
1323	Local dielectric function of hBN-encapsulated $\text{WS}_2$ flakes grown by chemical vapor deposition. <i>Journal of Physics Condensed Matter</i> , 2023, 35, 274001.	0.7	0
1324	Stable Near-Infrared Light and Microcavity of the ZnTe Microbelt and Different Emission Behaviors. <i>Journal of Physical Chemistry C</i> , 2023, 127, 6906-6915.	1.5	0
1325	Thermal effect on magnetoexciton energy spectra in monolayer transition metal dichalcogenides. <i>Physical Review B</i> , 2023, 107, .	1.1	2
1326	Image charge effect in layered materials: Implications for the interlayer coupling in $\text{MoS}_2/\text{hBN}$ . <i>Physical Review B</i> , 2023, 107, .		
1327	Ferroelectricity in Niobium Oxide Dihalides $\text{NbOX}_2$ (X = Cl, I): A Macroscopic- to Microscopic-Scale Study. <i>ACS Nano</i> , 2023, 17, 7170-7179.	7.3	7
1328	Efficient and recyclable $\text{Nd}^{3+}$ -doped $\text{CoFe}_2\text{O}_4$ for boosted visible light-driven photocatalytic degradation of Rhodamine B dye. <i>RSC Advances</i> , 2023, 13, 10650-10656.	1.7	9
1329	Rydberg Excitons and Trions in Monolayer $\text{MoTe}_2$ . <i>ACS Nano</i> , 2023, 17, 7685-7694.	7.3	6
1330	Inducing itinerant ferromagnetism by manipulating van Hove singularity in epitaxial monolayer $\text{1T-VSe}_2$ . <i>Science Bulletin</i> , 2023, , .	4.3	0
1331	First principles investigation of screened Coulomb interaction and electronic structure of low-temperature phase $\text{TaS}_2$ . <i>IScience</i> , 2023, 26, 106681.	1.9	2
1332	Development of in situ characterization of two-dimensional materials grown on insulator substrates with spectroscopic photoemission and low energy electron microscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2023, 264, 147318.	0.8	0
1336	Minimal Molecular Building Blocks for Screening in Quasi-Two-Dimensional Organic-Inorganic Lead Halide Perovskites. <i>Nano Letters</i> , 2023, 23, 3796-3802.	4.5	6

#	ARTICLE	IF	CITATIONS
1340	Gate-Tunable Bound Exciton Manifolds in Monolayer MoSe <sub>2</sub> . Nano Letters, 2023, 23, 4456-4463.	4.5	4
1364	Reversible Thermally Driven Phase Change of Layered In <sub>2</sub> Se <sub>3</sub> for Integrated Photonics. Nano Letters, 2023, 23, 6440-6448.	4.5	3
1399	Valley excitons and their many-body complexes. Semiconductors and Semimetals, 2023, , .	0.4	0
1400	Strong correlations in two-dimensional transition metal dichalcogenides. Science China: Physics, Mechanics and Astronomy, 2023, 66, .	2.0	1
1420	Vapour-phase deposition of two-dimensional layered chalcogenides. Nature Reviews Materials, 2023, 8, 799-821.	23.3	1
1466	Electron-Hole Plasma and Liquid. Graduate Texts in Physics, 2024, , 467-515.	0.1	0