Van der Waals stacked 2D layered materials for optoele

2D Materials 3, 022001 DOI: 10.1088/2053-1583/3/2/022001

Citation Report

#	Article	IF	CITATIONS
1	Probing thermal expansion coefficients of monolayers using surface enhanced Raman scattering. RSC Advances, 2016, 6, 99053-99059.	3.6	20
2	2D Materials for Optical Modulation: Challenges and Opportunities. Advanced Materials, 2017, 29, 1606128.	21.0	364
3	Highly Efficient and Anomalous Charge Transfer in van der Waals Trilayer Semiconductors. Nano Letters, 2017, 17, 1623-1628.	9.1	78
4	Engineering <i>p</i> – <i>n</i> junctions and bandgap tuning of InSe nanolayers by controlled oxidation. 2D Materials, 2017, 4, 025043.	4.4	76
5	Largeâ€Area 2D/3D MoS ₂ –MoO ₂ Heterostructures with Thermally Stable Exciton and Intriguing Electrical Transport Behaviors. Advanced Electronic Materials, 2017, 3, 1600335.	5.1	25
6	Atomic Layer Deposition of Crystalline MoS ₂ Thin Films: New Molybdenum Precursor for Lowâ€Temperature Film Growth. Advanced Materials Interfaces, 2017, 4, 1700123.	3.7	98
7	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. Chemical Reviews, 2017, 117, 6225-6331.	47.7	3,940
8	Ultrafast Laser Spectroscopy of Twoâ€Dimensional Materials Beyond Graphene. Advanced Functional Materials, 2017, 27, 1604509.	14.9	122
9	Ultrafast charge transfer between MoTe ₂ and MoS ₂ monolayers. 2D Materials, 2017, 4, 015033.	4.4	39
10	Raman study of annealed two-dimensional heterostructure of graphene on hexagonal boron nitride. Superlattices and Microstructures, 2017, 112, 394-403.	3.1	11
11	Surface State Mediated Interlayer Excitons in a 2D Nonlayered–Layered Semiconductor Heterojunction. Advanced Electronic Materials, 2017, 3, 1700373.	5.1	15
12	Inducing and Manipulating Heteroelectronic States in a Single <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2Thin Flake. Physical Review Letters. 2017. 119. 147002.</mml:mn></mml:msub></mml:mrow></mml:math 	nl:mn> <td>ישני 18.msub></td>	ישני 18.msub>
13	Charge Transfer Exciton and Spin Flipping at Organic–Transition-Metal Dichalcogenide Interfaces. ACS Nano, 2017, 11, 10184-10192.	14.6	94
14	Mobility and Decay Dynamics of Charge Carriers in One-Dimensional Selenium van der Waals Solid. Journal of Physical Chemistry C, 2017, 121, 18917-18921.	3.1	11
15	Covalent cross-linking as a strategy to generate novel materials based on layered (2D) and other low D structures. Chemical Communications, 2017, 53, 10093-10107.	4.1	38
16	Low frequency noise in 2D materials: Graphene and MoS <inf>2</inf> . , 2017, , .		4
17	Temperature-Dependent Two-Dimensional Transition Metal Dichalcogenide Heterostructures: Controlled Synthesis and Their Properties. ACS Applied Materials & Interfaces, 2017, 9, 30821-30831.	8.0	47
18	Van der Waals epitaxial growth and optoelectronics of large-scale WSe2/SnS2 vertical bilayer p–n junctions. Nature Communications, 2017, 8, 1906.	12.8	369

#	Article	IF	CITATIONS
19	Moiré impurities in twisted bilayer black phosphorus: Effects on the carrier mobility. Physical Review B, 2017, 96, .	3.2	55
20	Material and Device Architecture Engineering Toward High Performance Two-Dimensional (2D) Photodetectors. Crystals, 2017, 7, 149.	2.2	21
21	Tin diselenide as a new saturable absorber for generation of laser pulses at 11̂¼m. Optics Express, 2017, 25, 6132.	3.4	69
22	Development of Carbon Supported Perovskite-Oxide for Lithium Ions Battery Application. International Journal of Electrochemical Science, 2017, , 5294-5303.	1.3	0
23	Controlling the electronic properties of van der Waals heterostructures by applying electrostatic design. 2D Materials, 2018, 5, 035019.	4.4	18
24	Visualizing grain boundaries in monolayer MoSe2 using mild H2O vapor etching. Nano Research, 2018, 11, 4082-4089.	10.4	22
25	2D Layered Materialâ€Based van der Waals Heterostructures for Optoelectronics. Advanced Functional Materials, 2018, 28, 1706587.	14.9	279
26	Graphene Dirac point tuned by ferroelectric polarization field. Nanotechnology, 2018, 29, 134002.	2.6	15
27	Interstitial Moâ€Assisted Photovoltaic Effect in Multilayer MoSe ₂ Phototransistors. Advanced Materials, 2018, 30, e1705542.	21.0	48
28	Highâ€Performance, Selfâ€Driven Photodetector Based on Graphene Sandwiched GaSe/WS ₂ Heterojunction. Advanced Optical Materials, 2018, 6, 1700490.	7.3	189
29	Tunneling Diode Based on WSe ₂ /SnS ₂ Heterostructure Incorporating High Detectivity and Responsivity. Advanced Materials, 2018, 30, 1703286.	21.0	293
30	Pronounced Photovoltaic Effect in Electrically Tunable Lateral Blackâ€Phosphorus Heterojunction Diode. Advanced Electronic Materials, 2018, 4, 1700442.	5.1	27
31	Hybrid functional calculations of electronic and thermoelectric properties of GaS, GaSe, and GaTe monolayers. Physical Chemistry Chemical Physics, 2018, 20, 28575-28582.	2.8	65
32	The role of Anderson's rule in determining electronic, optical and transport properties of transition metal dichalcogenide heterostructures. Physical Chemistry Chemical Physics, 2018, 20, 30351-30364.	2.8	47
33	Laser Synthesis, Processing, and Spectroscopy of Atomically-Thin Two Dimensional Materials. Springer Series in Materials Science, 2018, , 1-37.	0.6	1
34	Polarizationâ€Dependent Photocurrent of Black Phosphorus/Rhenium Disulfide Heterojunctions. Advanced Materials Interfaces, 2018, 5, 1800960.	3.7	22
35	Enhancement of Out-of-Plane Charge Transport in a Vertically Stacked Two-Dimensional Heterostructure Using Point Defects. ACS Nano, 2018, 12, 10529-10536.	14.6	56
36	Progress in Contact, Doping and Mobility Engineering of MoS2: An Atomically Thin 2D Semiconductor. Crystals, 2018, 8, 316.	2.2	118

		_	
CITAT	ION	Rep	ORT

#	Article	IF	CITATIONS
37	Localized interlayer complexes in heterobilayer transition metal dichalcogenides. Physical Review B, 2018, 97, .	3.2	29
38	Millimeter-sized PbI ₂ flakes and Pb ₅ S ₂ I ₆ nanowires for flexible photodetectors. Journal of Materials Chemistry C, 2018, 6, 7188-7194.	5.5	13
39	Negative Photoconductance in van der Waals Heterostructure-Based Floating Gate Phototransistor. ACS Nano, 2018, 12, 9513-9520.	14.6	124
40	Ultrafast charge transfer in graphene-WS2 Van der Waals heterostructures. Optik, 2018, 174, 62-67.	2.9	8
41	Disorder enhanced thermal conductivity anisotropy in two-dimensional materials and van der Waals heterostructures. Journal of Applied Physics, 2018, 124, .	2.5	20
42	Photoresponsivity of an all-semimetal heterostructure based on graphene and WTe2. Scientific Reports, 2018, 8, 12840.	3.3	14
43	Van der Waals heterostructures for optoelectronics: Progress and prospects. Applied Materials Today, 2019, 16, 435-455.	4.3	117
44	First-principles study of metal-semiconductor contact between MX2 (M = Nb, Pt; X = S, Se) monolayers. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125867.	[.] 2.1	8
45	Thickness Dependence of Optoelectronic Properties of Molybdenum Diselenide-Based Nanodevices. Journal of Electronic Materials, 2019, 48, 7025-7030.	2.2	5
46	Ultrahigh thermal isolation across heterogeneously layered two-dimensional materials. Science Advances, 2019, 5, eaax1325.	10.3	149
47	Ultracompact Photodetection in Atomically Thin MoSe ₂ . ACS Photonics, 2019, 6, 1902-1909.	6.6	15
48	Improving Electrical Performance of Few-Layer MoS ₂ FETs via Microwave Annealing. IEEE Electron Device Letters, 2019, 40, 1116-1119.	3.9	14
49	Recent Progress on 2D Nobleâ€Transitionâ€Metal Dichalcogenides. Advanced Functional Materials, 2019, 29, 1904932.	14.9	186
50	Broadband photodetection of 2D Bi2O2Se–MoSe2 heterostructure. Journal of Materials Science, 2019, 54, 14742-14751.	3.7	46
51	Detection of cyclotron resonance using photo-induced thermionic emission at graphene/MoS2 van der Waals interface. Applied Physics Letters, 2019, 115, 143101.	3.3	1
52	High photoresponsivity and broadband photodetection with a band-engineered WSe ₂ /SnSe ₂ heterostructure. Nanoscale, 2019, 11, 3240-3247.	5.6	84
53	Effect of the Interfacial Energy Landscape on Photoinduced Charge Generation at the ZnPc/MoS ₂ Interface. Journal of the American Chemical Society, 2019, 141, 11328-11336.	13.7	60
54	High-Energy Gain Upconversion in Monolayer Tungsten Disulfide Photodetectors. Nano Letters, 2019, 19, 5595-5603.	9.1	41

#	Article	IF	CITATIONS
55	Lowâ€dimensional nanomaterial/Si heterostructureâ€based photodetectors. InformaÄnÃ-Materiály, 2019, 1, 140-163.	17.3	81
56	Recent Advances in 2D Lateral Heterostructures. Nano-Micro Letters, 2019, 11, 48.	27.0	109
57	Recent Progress on 2D Group Ilâ€VI Binary Chalcogenides ZnX and CdX (XÂ=ÂS, Se, Te): From a Theoretical Perspective. Advanced Theory and Simulations, 2019, 2, 1900061.	2.8	10
58	Robust Piezo-Phototronic Effect in Multilayer γ-InSe for High-Performance Self-Powered Flexible Photodetectors. ACS Nano, 2019, 13, 7291-7299.	14.6	118
59	A novel approach for high-yield solid few-layer MoS2 nanosheets with effective photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2019, 44, 16639-16647.	7.1	12
60	SbSI whisker/PbI ₂ flake mixed-dimensional van der Waals heterostructure for photodetection. CrystEngComm, 2019, 21, 3779-3787.	2.6	24
62	Unconventional Thermally Activated Indirect to Direct Radiative Recombination of Electrons and Holes in Tin Disulfide Two-Dimensional van der Waals Material. Journal of Physical Chemistry C, 2019, 123, 11968-11973.	3.1	5
63	Van der Waals heterostructures of P, BSe, and SiC monolayers. Journal of Applied Physics, 2019, 125, .	2.5	57
64	Gate-Tunable Photodetection/Voltaic Device Based on BP/MoTe ₂ Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 14215-14221.	8.0	34
65	Femtosecond time-resolved spectroscopic photoemission electron microscopy for probing ultrafast carrier dynamics in heterojunctions. Chinese Journal of Chemical Physics, 2019, 32, 399-405.	1.3	5
66	Heterogeneous Integration of 2D Materials: Recent Advances in Fabrication and Functional Device Applications. Nano, 2019, 14, 1930009.	1.0	10
67	Charge Mobility and Recombination Mechanisms in Tellurium van der Waals Solid. Journal of Physical Chemistry C, 2019, 123, 841-847.	3.1	16
68	Twist-Angle-Dependent Optoelectronics in a Few-Layer Transition-Metal Dichalcogenide Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 2470-2478.	8.0	19
69	Ga2O3 nanobelt devices. , 2019, , 331-368.		2
70	Recent Advances in Flexible Inorganic Light Emitting Diodes: From Materials Design to Integrated Optoelectronic Platforms. Advanced Optical Materials, 2019, 7, 1800936.	7.3	75
71	Optical Properties and Light-Emission Device Applications of 2-D Layered Semiconductors. Proceedings of the IEEE, 2020, 108, 676-703.	21.3	19
72	Controlling Defects in Continuous 2D GaS Films for Highâ€Performance Wavelengthâ€Tunable UVâ€Discriminating Photodetectors. Advanced Materials, 2020, 32, e1906958.	21.0	53
73	Optoelectronic and photonic devices based on transition metal dichalcogenides. Materials Research Express, 2020, 7, 014002.	1.6	64

#	Article	IF	CITATIONS
74	Synthesis of cobalt porphyrin/Ti ₅ NbO14 nanocomposite used as an ascorbic acid electrochemical detection material. Functional Materials Letters, 2020, 13, 2050008.	1.2	5
75	Chemical vapor deposition growth of 2D semiconductors. , 2020, , 81-101.		2
76	Electronic properties of slid bilayer graphene: effective models in low energy range. European Physical Journal B, 2020, 93, 1.	1.5	1
77	Interfacial Charge Transfer and Gate-Induced Hysteresis in Monochalcogenide InSe/GaSe Heterostructures. ACS Applied Materials & Interfaces, 2020, 12, 46854-46861.	8.0	15
78	Transition metal dichalcogenides based two-dimensional heterostructures for optoelectronic applications. , 2020, , 125-149.		15
79	Computational Screening of Atomically Thin Two-Dimensional Nanomaterial-Coated Cs ₃ Sb Heterostructures for High-Performance Photocathodes. Journal of Physical Chemistry C, 2020, 124, 26396-26403.	3.1	3
80	High-Quality, InN-Based, Saturable Absorbers for Ultrafast Laser Development. Applied Sciences (Switzerland), 2020, 10, 7832.	2.5	4
81	Photophysics and Electronic Structure of Lateral Graphene/MoS ₂ and Metal/MoS ₂ Junctions. ACS Nano, 2020, 14, 16663-16671.	14.6	11
82	A semiconductor-insulator heterojunction induced by hydroxyl groups formed on the surface of SiO2 microspheres. Applied Surface Science, 2020, 531, 147385.	6.1	16
83	Collective Effects of Band Offset and Wave Function Dimensionality on Impeding Electron Transfer from 2D to Organic Crystals. Journal of Physical Chemistry Letters, 2020, 11, 7495-7501.	4.6	18
84	The Role of Covalent Functionalization in the Thermal Stability and Decomposition of Hybrid Layered Hydroxides. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000380.	2.4	9
85	Mo-Based Layered Nanostructures for the Electrochemical Sensing of Biomolecules. Sensors, 2020, 20, 5404.	3.8	19
86	Optoelectronic Properties of a van der Waals WS ₂ Monolayer/2D Perovskite Vertical Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 45235-45242.	8.0	49
87	Facile synthesis of aqueous-dispersed luminescent nanosheets from non-layered lanthanum hexaboride. RSC Advances, 2020, 10, 31788-31793.	3.6	7
88	A Self-Powered Photovoltaic Photodetector Based on a Lateral WSe ₂ -WSe ₂ Homojunction. ACS Applied Materials & Interfaces, 2020, 12, 44934-44942.	8.0	71
89	Visible Phototransistors Based on Vertical Nanolayered Heterostructures of SnS/SnS ₂ p–n and SnSe ₂ /SnS ₂ n–n Nanoflakes. ACS Applied Nano Materials, 2020, 3, 6847-6854.	5.0	19
90	Synthesis and Applications of Wide Bandgap 2D Layered Semiconductors Reaching the Green and Blue Wavelengths. ACS Applied Electronic Materials, 2020, 2, 1777-1814.	4.3	50
91	Carrier polarity modulation of molybdenum ditelluride (MoTe ₂) for phototransistor and switching photodiode applications. Nanoscale, 2020, 12, 15687-15696.	5.6	26

#	Article	IF	CITATIONS
92	Effects of electric field and strain engineering on the electronic properties, band alignment and enhanced optical properties of ZnO/Janus ZrSSe heterostructures. RSC Advances, 2020, 10, 9824-9832.	3.6	15
93	3D Manipulation of 2D Materials Using Microdome Polymer. Nano Letters, 2020, 20, 2486-2492.	9.1	38
94	Computational discovery of two-dimensional HfO ₂ zoo based on evolutionary structure search. Physical Chemistry Chemical Physics, 2020, 22, 4481-4489.	2.8	5
95	Fabrication of MoO _{<i>x</i>} /Mo ₂ C-Layered Hybrid Structures by Direct Thermal Oxidation of Mo ₂ C. ACS Applied Materials & Interfaces, 2020, 12, 10755-10762.	8.0	27
96	Controlled edge dependent stacking of WS2-WS2 Homo- and WS2-WSe2 Hetero-structures: A Computational Study. Scientific Reports, 2020, 10, 1648.	3.3	19
97	Optoelectronics of Multijunction Heterostructures of Transition Metal Dichalcogenides. Nano Letters, 2020, 20, 1934-1943.	9.1	27
98	Effect of temperature on Raman intensity of nm-thick WS ₂ : combined effects of resonance Raman, optical properties, and interface optical interference. Nanoscale, 2020, 12, 6064-6078.	5.6	41
99	Ultrasensitive Multilayer MoS ₂ â€Based Photodetector with Permanently Grounded Gate Effect. Advanced Electronic Materials, 2020, 6, 1901256.	5.1	14
100	Transferrable thin film of ultrasonically exfoliated MoSe2 nanocrystals for efficient visible-light photodetector. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 119, 114019.	2.7	29
101	Triphenylene and tetracene based porous sheet: Stability and electronic properties. Computational Materials Science, 2020, 176, 109529.	3.0	4
102	Transition metal dichalcogenides for alkali metal ion batteries: engineering strategies at the atomic level. Energy and Environmental Science, 2020, 13, 1096-1131.	30.8	266
103	Ambipolar Charge Transport in Two-Dimensional WS ₂ Metal–Insulator–Semiconductor and Metal–Insulator–Semiconductor Field-Effect Transistors. ACS Applied Materials & Interfaces, 2020, 12, 23127-23133.	8.0	19
104	Structural investigation of InSe layered semiconductors. Solid State Communications, 2020, 311, 113855.	1.9	26
105	The Missing Link in the Magnetism of Hybrid Cobalt Layered Hydroxides: The Odd–Even Effect of the Organic Spacer. Chemistry - A European Journal, 2021, 27, 921-927.	3.3	10
106	2D Material Based Synaptic Devices for Neuromorphic Computing. Advanced Functional Materials, 2021, 31, 2005443.	14.9	165
107	Strong coupling and pressure engineering in WSe2–MoSe2 heterobilayers. Nature Physics, 2021, 17, 92-98.	16.7	140
108	Controllable preparation and photoelectric applications of two-dimensional in-plane and van der Waals heterostructures. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 027901-027901.	0.5	5
109	Emerging field of few-layered intercalated 2D materials. Nanoscale Advances, 2021, 3, 963-982.	4.6	15

ARTICLE IF CITATIONS # Band Alignment of Graphene/MoS 2 /Fluorine Tin Oxide Heterojunction for Photodetector Application. 110 1.8 1 Physica Štatus Solidi (Å) Applications and Materials Science, 2021, 218, 2000744. Representative 2D-material-based nanocomposites and their emerging applications: a review. RSC 3.6 Advances, 2021, 11, 23860-23880. Applications and Impacts of Nanoscale Thermal Transport in Electronics Packaging. Journal of 112 1.8 38 Electronic Packaging, Transactions of the ASME, 2021, 143, . Recent Advances in Twoâ€Dimensional Heterostructures: From Band Alignment Engineering to Advanced 34 Optoelectronic Applications. Advanced Electronic Materials, 2021, 7, 2001174. 2D Material Bubbles: Fabrication, Characterization, and Applications. Trends in Chemistry, 2021, 3, 114 8.5 31 204-217. On the electronic structure of a recently synthesized graphene-like BCN monolayer from bis-BN cyclohexane with single-atom vacancies: a DFT study. Electronic Structure, 2021, 3, 014006. 2.8 Plasmonic hybrids of two-dimensional transition metal dichalcogenides and nanoscale metals: 116 6.0 18 Architectures, enhanced optical properties and devices. Materials Today Physics, 2021, 17, 100343. Highly In-Plane Anisotropic Two-Dimensional Ternary Ta₂NiSe₅ for 8.0 Polarization-Sensitive Photodetectors. ACS Applied Materials & amp; Interfaces, 2021, 13, 17948-17956. High-performance photodetector and its optoelectronic mechanism of MoS2/WS2 vertical 118 33 6.1 heterostructure. Applied Surface Science, 2021, 546, 149074. Synthesis of Waferâ€Scale Graphene with Chemical Vapor Deposition for Electronic Device Applications. 5.8 Advanced Materials Technologies, 2021, 6, 2000744. Heterostructures of 2D materials-quantum dots (QDs) for optoelectronic devices: challenges and 120 5.715 opportunities. Emergent Materials, 2021, 4, 901-922. Van der Waals Integration Based on Twoâ€Dimensional Materials for Highâ€Performance Infrared 14.9 Photodetectors. Advanced Functional Materials, 2021, 31, 2103106. Dissecting Interlayer Hole and Electron Transfer in Transition Metal Dichalcogenide 122 9.1 29 Heterostructures via Two-Dimensional Electronic Spectroscopy. Nano Letters, 2021, 21, 4738-4743. Upconversion Photovoltaic Effect of WS₂/2D Perovskite Heterostructures by 14.6 Two-Photon Absorption. ACS Nano, 2021, 15, 10437-10443. Photoluminescence upconversion of 2D materials and applications. Journal of Physics Condensed 124 7 1.8 Matter, 2021, 33, 223001. Recent progress in Van der Waals 2D PtSe₂. Nanotechnology, 2021, 32, 412001. A DFT study on the electronic structure of in-plane heterojunctions of graphene and hexagonal 126 2.8 2 boron nitride nanoribbons. Electronic Structure, 2021, 3, 024005. Optoelectronic properties of van der Waals stacked homo- and hetero-bilayers of tin-monochalcogenides: A first-principles study. Surfaces and Interfaces, 2021, 24, 101083.

#	Article	IF	CITATIONS
128	Substrate-mediated growth of oriented, vertically aligned MoS2 nanosheets on vicinal and on-axis SiC substrates. Applied Surface Science, 2021, 552, 149303.	6.1	12
129	Recent Progress of Two-Dimensional Materials for Ultrafast Photonics. Nanomaterials, 2021, 11, 1778.	4.1	31
130	Enhanced Photodetection Performance of Photodetectors Based on Indium-Doped Tin Disulfide Few Layers. ACS Applied Materials & Interfaces, 2021, 13, 35889-35896.	8.0	24
131	Direct Growth of van der Waals Tin Diiodide Monolayers. Advanced Science, 2021, 8, e2100009.	11.2	10
132	Angstrom-Scale Spectroscopic Visualization of Interfacial Interactions in an Organic/Borophene Vertical Heterostructure. Journal of the American Chemical Society, 2021, 143, 15624-15634.	13.7	29
133	First-Principles Study of Linear and Nonlinear Optical Properties of Multi-Layered Borophene. Computation, 2021, 9, 101.	2.0	11
134	Boron Nitride Nanosheets Can Induce Water Channels Across Lipid Bilayers Leading to Lysosomal Permeabilization. Advanced Materials, 2021, 33, e2103137.	21.0	15
135	Hydrogenated boron phosphide with the excellent tunability of electronic properties and Current-Voltage responses. Applied Surface Science, 2022, 572, 151196.	6.1	5
136	Single-step chemical vapour deposition of anti-pyramid MoS ₂ /WS ₂ vertical heterostructures. Nanoscale, 2021, 13, 4537-4542.	5.6	17
137	Lateral and flexural thermal transport in stanene/2D-SiC van der Waals heterostructure. Nanotechnology, 2020, 31, 505702.	2.6	27
138	Review—Two-Dimensional Boron Carbon Nitride: A Comprehensive Review. ECS Journal of Solid State Science and Technology, 2020, 9, 083004.	1.8	49
139	Graphene/WS ₂ heterostructure saturable absorbers for ultrashort pulse generation in L-band passively mode-locked fiber lasers. Optics Express, 2020, 28, 11514.	3.4	36
140	Recent progress of pulsed fiber lasers based on transition-metal dichalcogenides and black phosphorus saturable absorbers. Nanophotonics, 2020, 9, 2215-2231.	6.0	58
141	Phase engineering of transition metal compounds for boosting lithium/sodium storage. APL Materials, 2021, 9, .	5.1	3
142	Electronic properties of graphen-carbon nanotube films. , 2019, , .		0
143	Broadband saturated absorption properties of bismuthene nanosheets. RSC Advances, 2021, 11, 35046-35050.	3.6	1
144	2D materials and van der Waals heterostructures platforms for advanced sensing of COVID-19. , 2022, , 241-252.		2
145	Adatoms in the Surface-Confined Ullmann Coupling of Phenyl Groups. Journal of Physical Chemistry Letters, 2021, 12, 11061-11069.	4.6	11

#	Article	IF	Citations
146	Charge Carrier Screening in Photoexcited Epitaxial Semiconductor Nanorods Revealed by Transient X-ray Absorption Linear Dichroism. Nano Letters, 2021, 21, 9534-9542.	9.1	3
147	Determination of band alignment in liquid exfoliated few-layer WSe2/SiO2 interface. Materials Letters, 2022, 311, 131600.	2.6	3
148	Vertical 1D/2D Heterojunction Architectures for Self-Powered Photodetection Application: GaN Nanorods Grown on Transition Metal Dichalcogenides. ACS Nano, 2022, 16, 2798-2810.	14.6	29
149	Tuning Band Tails in Mono- and Multilayered Transition-Metal Dichalcogenides: A Detailed Assessment and a Quick-Reference Guide. Physical Review Applied, 2022, 17, .	3.8	3
150	Spectroscopy and Structural Investigation of Iron Phosphorus Trisulfide—FePS ₃ . Advanced Optical Materials, 2022, 10, .	7.3	15
151	Memristive Devices Based on Two-Dimensional Transition Metal Chalcogenides for Neuromorphic Computing. Nano-Micro Letters, 2022, 14, 58.	27.0	62
152	GaS:WS ₂ Heterojunctions for Ultrathin Two-Dimensional Photodetectors with Large Linear Dynamic Range across Broad Wavelengths. ACS Nano, 2021, 15, 19570-19580.	14.6	20
153	Black Phosphorous Aptamer-based Platform for Biomarker Detection. Current Medicinal Chemistry, 2023, 30, 935-952.	2.4	1
154	Delayed Thermal Relaxation in Lateral Heterostructures of Transition-Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 6815-6824.	3.1	0
155	Resolving surface potential variation in Ge/MoS ₂ heterostructures with Kelvin probe force microscopy. AIP Advances, 2021, 11, 125105.	1.3	1
156	van der Waals Semiconductor Empowered Vertical Color Sensor. ACS Nano, 2022, 16, 8619-8629.	14.6	5
157	Mechanics of biosurfactant aided liquid phase exfoliation of 2D materials. Forces in Mechanics, 2022, 8, 100098.	2.8	2
158	Few-Layered MnAl ₂ S ₄ Dielectrics for High-Performance van der Waals Stacked Transistors. ACS Applied Materials & Interfaces, 2022, 14, 25920-25927.	8.0	8
159	A review on recent advances of chemical vapor deposition technique for monolayer transition metal dichalcogenides (MX2: Mo, W; S, Se, Te). Materials Science in Semiconductor Processing, 2022, 148, 106829.	4.0	20
160	Designing doping strategy in arsenene monolayer for spintronic and optoelectronic applications: a case study of germanium and nitrogen as dopants. Journal of Physics Condensed Matter, 2022, 34, 355301.	1.8	2
161	Selective Ion Sensing in Artificial Sweat Using Low ost Reduced Graphene Oxide Liquidâ€Gated Plastic Transistors. Small, 2022, 18,	10.0	10
162	Hexagonal Boron Nitride for Nextâ€Generation Photonics and Electronics. Advanced Materials, 2023, 35,	21.0	43
163	MSSe-N2CO2 (MÂ=ÂMo, W and NÂ=ÂZr, Hf) van der Waals heterostructures; A first principles study. Chemical Physics, 2022, 561, 111607.	1.9	1

#	Article	IF	CITATIONS
164	Physical properties of novel Tin-chalcogenides heterostructures: A first-principles study. Materials Science in Semiconductor Processing, 2022, 149, 106820.	4.0	1
165	Selfâ€trapped exciton states in metal halide perovskites van der Waals heterostructures. Physica Status Solidi - Rapid Research Letters, 0, , .	2.4	0
166	Type-I Heterostructure Based on WS ₂ /PtS ₂ for High-Performance Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 37926-37936.	8.0	10
167	Van der Waals heterostructures in ultrathin 2D solar cells: State-of-the-art review. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 285, 115936.	3.5	7
168	Interlayer interactions in transition metal dichalcogenides heterostructures. Reviews in Physics, 2022, 9, 100077.	8.9	13
169	Sulfur Line Vacancies in MoS2 for Catalytic Hydrogen Evolution Reaction. Crystals, 2022, 12, 1218.	2.2	13
170	Reduced dopant-induced scattering in remote charge-transfer-doped MoS ₂ field-effect transistors. Science Advances, 2022, 8, .	10.3	25
171	Miniaturized spectrometers with a tunable van der Waals junction. Science, 2022, 378, 296-299.	12.6	78
172	Ultrasensitive photodetectors based on graphene quantum dot-InSe mixed-dimensional van der Waals heterostructures. Journal of Materials Chemistry C, 2022, 10, 18174-18181.	5.5	4
173	AC-driven multicolor electroluminescence from a hybrid WSe ₂ monolayer/AlGaInP quantum well light-emitting device. Nanoscale, 2023, 15, 1347-1356.	5.6	3
174	Strain engineering the electronic properties of the type-II CdO/MoS2 van der Waals heterostructure. Thin Solid Films, 2023, 764, 139626.	1.8	7
175	Pristine Interlayer Coupling for Strain Engineering of WS ₂ /WSe ₂ Nanosheet-Based van der Waals Heterostructures. ACS Applied Nano Materials, 2022, 5, 17986-17994.	5.0	2
176	Tuning the Band Structure of Zn-Doped SnS ₂ Nanosheet-Based Thin Films by Atomic Layer Deposition for Photoelectric Devices. ACS Applied Nano Materials, 2022, 5, 18199-18208.	5.0	2
177	Bandgap engineering of high mobility two-dimensional semiconductors toward optoelectronic devices. Journal of Materiomics, 2022, , .	5.7	1
178	Controllable synthesis and optoelectronic applications of wafer-scale MoS ₂ films. Materials Research Express, 2022, 9, 125004.	1.6	0
179	Emerging Trends in 2D TMDs Photodetectors and Piezoâ€Phototronic Devices. Small, 2023, 19, .	10.0	29
180	Solar cells based on 2D Janus group-III chalcogenide van der Waals heterostructures. Nanoscale, 2023, 15, 7126-7138.	5.6	8
181	Two Dimensional Heterostructures for Optoelectronics: Current Status and Future Perspective. Molecules, 2023, 28, 2275.	3.8	2

#	Article	IF	CITATIONS
182	A universal growth method for high-quality phase-engineered germanium chalcogenide nanosheets. Nanoscale, 2023, 15, 4438-4447.	5.6	0
183	Bright and Efficient Lightâ€Emitting Devices Based on 2D Transition Metal Dichalcogenides. Advanced Materials, 2023, 35, .	21.0	10
184	Photoluminescence manipulation in two-dimensional transition metal dichalcogenides. Journal of Materiomics, 2023, 9, 768-786.	5.7	2
185	High-Sensitivity 2D MoS2/1D MWCNT Hybrid Dimensional Heterostructure Photodetector. Sensors, 2023, 23, 3104.	3.8	1
186	Quasi-One-Dimensional ZrS ₃ Nanoflakes for Broadband and Polarized Photodetection with High Tuning Flexibility. ACS Applied Materials & Interfaces, 2023, 15, 16999-17008.	8.0	6
187	Tuning of Interlayer Interaction in MoS ₂ –WS ₂ van der Waals Heterostructures Using Hydrostatic Pressure. Journal of Physical Chemistry C, 2023, 127, 7784-7791.	3.1	1
188	Recent Advances in Lowâ \in Dimensional Nanomaterials for Photodetectors. Small Methods, 2024, 8, .	8.6	7
189	Microstructured All-Optical Switching Based on Two-Dimensional Material. Coatings, 2023, 13, 876.	2.6	2
190	Modulation Effect of Substrate Interactions on Nucleation and Growth of MoS ₂ on Silica. Journal of Physical Chemistry C, 2023, 127, 9039-9048.	3.1	0
191	Vertex dominated superconductivity in intercalated FeSe. Npj Quantum Materials, 2023, 8, .	5.2	2
192	Dielectrics for Two-Dimensional Transition-Metal Dichalcogenide Applications. ACS Nano, 2023, 17, 9870-9905.	14.6	8
193	Analyzing Fundamental Properties of Two-Dimensional Materials by Raman Spectroscopy from Microscale to Nanoscale. Analytical Chemistry, 2023, 95, 10821-10838.	6.5	3
194	Tunable properties of excitons in double monolayer semiconductor heterostructures. Physical Review B, 2023, 108, .	3.2	1
195	Engineering the Electronic, Magnetic, and Optical Properties of GaP Monolayer by Substitutional Doping: A first-principles study. Journal Physics D: Applied Physics, 0, , .	2.8	1
196	First-principles study of BX–SiS (X = As, P) van der Waals heterostructures for enhanced photocatalytic performance. Nanoscale Advances, 2023, 5, 4598-4608.	4.6	0
197	Site-specific optical encryption via nanoscale integration of carbon on monolayer WS2. Carbon, 2023, 214, 118339.	10.3	0
198	Ultrasensitive photodetector based on 2D WS ₂ /AgInGaS quantum dots heterojunction with interfacial charge transfer. 2D Materials, 2023, 10, 045020.	4.4	6
199	Tunable strain and bandgap in subcritical-sized MoS2 nanobubbles. Npj 2D Materials and Applications, 2023, 7, .	7.9	1

#	Article	IF	CITATIONS
200	Optimized photoelectric performance of MoS2/graphene heterostructure device induced by swift heavy ion irradiation. Applied Surface Science, 2024, 642, 158629.	6.1	0
201	Modulating p-type doping of two dimensional material palladium diselenide. Nano Research, 0, , .	10.4	0
202	Basic Concept of Optical Materials: Classification, Properties and Applications. Indian Institute of Metals Series, 2024, , 1-24.	0.3	0
203	Dynamical characteristics of AC-driven hybrid WSe2 monolayer/AlGaInP quantum wells light-emitting device. , 2023, 18, .		0
204	Enthalpy-uphill exciton dissociation in organic/2D heterostructures promotes free carrier generation. Materials Horizons, 2024, 11, 813-821.	12.2	1
205	Tensile Strain-Dependent Ultrafast Electron Transfer and Relaxation Dynamics in Flexible WSe ₂ /MoS ₂ Heterostructures. Journal of Physical Chemistry Letters, 0, , 10920-10929.	4.6	0
206	Cross-plane thermal transport in layered materials. Applied Physics Letters, 2023, 123, .	3.3	0
207	Gate-controlled rectification and broadband photodetection in a P–N diode based on TMDC heterostructures. Materials Advances, 2024, 5, 1226-1233.	5.4	0
208	Strain-Tuneable Bipolaron Stability on Ultranarrow Bilayer Graphene Nanoribbon. Journal of Physical Chemistry C, 2024, 128, 1433-1442.	3.1	0
209	Two-Dimensional Transition Metal Oxides (TMOs) for Solar Cell Applications. Engineering Materials, 2024, , 53-86.	0.6	0
210	A review on recent advancements in the growth of MoS2 based flexible photodetectors. Solar Energy Materials and Solar Cells, 2024, 268, 112736.	6.2	0
211	Electrically tunable interlayer recombination and tunneling behavior in WSe ₂ /MoS ₂ heterostructure for broadband photodetector. Nanoscale, 2024, 16, 6241-6248.	5.6	0
212	WS2 lateral p–n homojunction toward a sensitive self-driven photodetector by water treatment. Applied Physics Letters, 2024, 124, .	3.3	0
213	Multilayer WS2 for low-power visible and near-infrared phototransistors. , 2024, 19, .		0