## Phase-engineered low-resistance contacts for ultrathin

Nature Materials 13, 1128-1134 DOI: 10.1038/nmat4080

**Citation Report** 

#	Article	IF	CITATIONS
10	Detrimental influence of catalyst seeding on the device properties of CVD-grown 2D layered materials: A case study on MoSe2. Applied Physics Letters, 2014, 105, .	1.5	22
11	Intimate contacts. Nature Materials, 2014, 13, 1076-1078.	13.3	107
12	Crystals competing for space. Nature Materials, 2014, 13, 1078-1079.	13.3	21
13	Metallic 1T phase source/drain electrodes for field effect transistors from chemical vapor deposited MoS2. APL Materials, 2014, 2, .	2.2	155
14	Ambipolar Phosphorene Field Effect Transistor. ACS Nano, 2014, 8, 11730-11738.	7.3	352
15	Electronic properties of transition-metal dichalcogenides. MRS Bulletin, 2015, 40, 577-584.	1.7	77
16	Phase-engineered transition-metal dichalcogenides for energy and electronics. MRS Bulletin, 2015, 40, 585-591.	1.7	71
17	Synthesis and structure of two-dimensional transition-metal dichalcogenides. MRS Bulletin, 2015, 40, 566-576.	1.7	43
18	Hydrogenation-induced atomic stripes on the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:mrow><mml:mn>2</mml:mn>&lt;<mml:mi>Hmathvariant="normal"&gt;MoS</mml:mi><mml:mn>2</mml:mn>surface. Physical Review B 2015 92</mml:mrow></mml:math 	> {/mml:m 1.1	row> <mml:r< td=""></mml:r<>
19	Phase engineering of monolayer transition-metal dichalcogenide through coupled electron doping and lattice deformation. Applied Physics Letters, 2015, 107, .	1.5	33
20	Structural, mechanical and electronic properties of in-plane 1T/2H phase interface of MoS2 heterostructures. AIP Advances, 2015, 5, .	0.6	37
21	Functionalized Graphene Superlattice as a Singleâ€5heet Solar Cell. Advanced Functional Materials, 2015, 25, 5199-5205.	7.8	7
22	Phase stability of transition metal dichalcogenide by competing ligand field stabilization and charge density wave. 2D Materials, 2015, 2, 035019.	2.0	29
23	Gram-Scale Aqueous Synthesis of Stable Few-Layered 1T-MoS <sub>2</sub> : Applications for Visible-Light-Driven Photocatalytic Hydrogen Evolution. Small, 2015, 11, 5556-5564.	5.2	508
24	Ultrasensitive Phototransistors Based on Few‣ayered HfS <sub>2</sub> . Advanced Materials, 2015, 27, 7881-7887.	11.1	176
25	Exciton Mapping at Subwavelength Scales in Two-Dimensional Materials. Physical Review Letters, 2015, 114, 107601.	2.9	79
26	Charge Mediated Semiconducting-to-Metallic Phase Transition in Molybdenum Disulfide Monolayer and Hydrogen Evolution Reaction in New 1T′ Phase. Journal of Physical Chemistry C, 2015, 119, 13124-13128.	1.5	295
27	Engineering thermal rectification in MoS <sub>2</sub> nanoribbons: a non-equilibrium molecular dynamics study. RSC Advances, 2015, 5, 54345-54351.	1.7	16

#	Article	IF	CITATIONS
28	Effect of hydrogen on the growth of MoS2 thin layers by thermal decomposition method. Vacuum, 2015, 119, 204-208.	1.6	30
29	Colloidal Synthesis of Single-Layer MSe <sub>2</sub> (M = Mo, W) Nanosheets via Anisotropic Solution-Phase Growth Approach. Journal of the American Chemical Society, 2015, 137, 7266-7269.	6.6	147
30	Landau levels and Shubnikov–de Haas oscillations in monolayer transition metal dichalcogenide semiconductors. New Journal of Physics, 2015, 17, 103006.	1.2	26
31	Spatially Resolved Photoexcited Charge-Carrier Dynamics in Phase-Engineered Monolayer MoS <sub>2</sub> . ACS Nano, 2015, 9, 840-849.	7.3	58
32	Advances in MoS2-Based Field Effect Transistors (FETs). Nano-Micro Letters, 2015, 7, 203-218.	14.4	143
33	Ridges and valleys on charged 1T-MoS <sub>2</sub> sheets guiding the packing of organic cations. RSC Advances, 2015, 5, 19206-19212.	1.7	17
34	Performance Potential and Limit of MoS <sub>2</sub> Transistors. Advanced Materials, 2015, 27, 1547-1552.	11.1	92
35	Single-Layer MoS <sub>2</sub> Electronics. Accounts of Chemical Research, 2015, 48, 100-110.	7.6	417
36	Two-dimensional dichalcogenides for light-harvesting applications. Nano Today, 2015, 10, 128-137.	6.2	208
37	Patterned arrays of lateral heterojunctions within monolayer two-dimensional semiconductors. Nature Communications, 2015, 6, 7749.	5.8	213
38	Adaptive synergy between catechol and lysine promotes wet adhesion by surface salt displacement. Science, 2015, 349, 628-632.	6.0	557
39	Phase patterning for ohmic homojunction contact in MoTe <sub>2</sub> . Science, 2015, 349, 625-628.	6.0	918
40	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
41	Reversible Semiconducting-to-Metallic Phase Transition in Chemical Vapor Deposition Grown Monolayer WSe <sub>2</sub> and Applications for Devices. ACS Nano, 2015, 9, 7383-7391.	7.3	164
42	Probing the Dynamics of the Metallic-to-Semiconducting Structural Phase Transformation in MoS <sub>2</sub> Crystals. Nano Letters, 2015, 15, 5081-5088.	4.5	174
43	Novel Two-Dimensional Silica Monolayers with Tetrahedral and Octahedral Configurations. Journal of Physical Chemistry C, 2015, 119, 15654-15660.	1.5	18
44	Air Stable Doping and Intrinsic Mobility Enhancement in Monolayer Molybdenum Disulfide by Amorphous Titanium Suboxide Encapsulation. Nano Letters, 2015, 15, 4329-4336.	4.5	167
45	Highly Stable, Dual-Gated MoS <sub>2</sub> Transistors Encapsulated by Hexagonal Boron Nitride with Gate-Controllable Contact, Resistance, and Threshold Voltage. ACS Nano, 2015, 9, 7019-7026.	7.3	331

 # ARTICLE
 IF
 CITATIONS

 46
 Pressure and electric field-induced metallization in the phase-engineered ZrX<sub>2</sub>(X = S, Se,) Tj ETQq0 0 Qrg BT /Overlock 10 Tr

47	Synthesis, properties and applications of 2D non-graphene materials. Nanotechnology, 2015, 26, 292001.	1.3	101
48	Toward Ferroelectric Control of Monolayer MoS <sub>2</sub> . Nano Letters, 2015, 15, 3364-3369.	4.5	62
49	Multi-terminal transport measurements of MoS2 using a van der Waals heterostructure device platform. Nature Nanotechnology, 2015, 10, 534-540.	15.6	1,099
50	Two-dimensional materials and their prospects in transistor electronics. Nanoscale, 2015, 7, 8261-8283.	2.8	552
51	Phase engineering of transition metal dichalcogenides. Chemical Society Reviews, 2015, 44, 2702-2712.	18.7	915
52	Toward Barrier Free Contact to Molybdenum Disulfide Using Graphene Electrodes. Nano Letters, 2015, 15, 3030-3034.	4.5	362
53	Beyond Graphene: Progress in Novel Two-Dimensional Materials and van der Waals Solids. Annual Review of Materials Research, 2015, 45, 1-27.	4.3	537
54	Two-Dimensional Heterojunction Interlayer Tunneling Field Effect Transistors (Thin-TFETs). IEEE Journal of the Electron Devices Society, 2015, 3, 200-207.	1.2	105
55	Air-Stable Transport in Graphene-Contacted, Fully Encapsulated Ultrathin Black Phosphorus-Based Field-Effect Transistors. ACS Nano, 2015, 9, 4138-4145.	7.3	455
56	Carrier transport at the metal–MoS <sub>2</sub> interface. Nanoscale, 2015, 7, 9222-9228.	2.8	99
57	Ultrathin Two-Dimensional Nanomaterials. ACS Nano, 2015, 9, 9451-9469.	7.3	1,726
58	Emerging energy applications of two-dimensionalÂlayered transition metal dichalcogenides. Nano Energy, 2015, 18, 293-305.	8.2	236
59	Electronic and vibrational properties of 2D materials from monolayer to bulk. , 2015, , .		1
60	High-Current Gain Two-Dimensional MoS <sub>2</sub> -Base Hot-Electron Transistors. Nano Letters, 2015, 15, 7905-7912.	4.5	52
61	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	7.3	2,069
62	Recent advances in transition-metal dichalcogenide based nanomaterials for water splitting. Nanoscale, 2015, 7, 19764-19788.	2.8	327
63	Optimal electron irradiation as a tool for functionalization of MoS2: Theoretical and experimental investigation. Journal of Applied Physics, 2015, 117, .	1.1	22

#	Article	IF	CITATIONS
64	Electrical performance of multilayer MoS2 transistors on high- <i>κ</i> Al2O3 coated Si substrates. AIP Advances, 2015, 5, .	0.6	68
65	Two-dimensional transition metal dichalcogenides as atomically thin semiconductors: opportunities and challenges. Chemical Society Reviews, 2015, 44, 8859-8876.	18.7	917
66	Understanding catalysis in a multiphasic two-dimensional transition metal dichalcogenide. Nature Communications, 2015, 6, 8311.	5.8	260
67	Structural Phase Stability Control of Monolayer MoTe <sub>2</sub> with Adsorbed Atoms and Molecules. Journal of Physical Chemistry C, 2015, 119, 21674-21680.	1.5	74
68	Impurities and Electronic Property Variations of Natural MoS <sub>2</sub> Crystal Surfaces. ACS Nano, 2015, 9, 9124-9133.	7.3	240
69	Promising Piezoelectric Performance of Single Layer Transition-Metal Dichalcogenides and Dioxides. Journal of Physical Chemistry C, 2015, 119, 23231-23237.	1.5	164
70	Li Intercalation in MoS <sub>2</sub> : In Situ Observation of Its Dynamics and Tuning Optical and Electrical Properties. Nano Letters, 2015, 15, 6777-6784.	4.5	312
71	Metal–insulator crossover in multilayered MoS <sub>2</sub> . Nanoscale, 2015, 7, 15127-15133.	2.8	17
72	Emergence of electron coherence and two-color all-optical switching in MoS <sub>2</sub> based on spatial self-phase modulation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11800-11805.	3.3	133
73	Metal to Insulator Quantum-Phase Transition in Few-Layered ReS <sub>2</sub> . Nano Letters, 2015, 15, 8377-8384.	4.5	101
74	Molecular beam epitaxy of the van der Waals heterostructure MoTe <sub>2</sub> on MoS <sub>2</sub> : phase, thermal, and chemical stability. 2D Materials, 2015, 2, 044010.	2.0	91
75	Electrical contacts to two-dimensional semiconductors. Nature Materials, 2015, 14, 1195-1205.	13.3	1,318
76	Low Resistance Metal Contacts to MoS <sub>2</sub> Devices with Nickel-Etched-Graphene Electrodes. ACS Nano, 2015, 9, 869-877.	7.3	184
77	Interfacial n-Doping Using an Ultrathin TiO <sub>2</sub> Layer for Contact Resistance Reduction in MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2016, 8, 256-263.	4.0	117
78	Two-Dimensional Semiconductor Optoelectronics Based on van der Waals Heterostructures. Nanomaterials, 2016, 6, 193.	1.9	107
79	Electrical Transport Properties of Polymorphic MoS <sub>2</sub> . ACS Nano, 2016, 10, 7500-7506.	7.3	82
80	Graphene and monolayer transition-metal dichalcogenides: properties and devices. Journal of Materials Research, 2016, 31, 845-877.	1.2	15
81	Large-scale chemical assembly of atomically thin transistors and circuits. Nature Nanotechnology, 2016, 11, 954-959.	15.6	251

#	Article	IF	CITATIONS
82	A Singleâ€Material Logical Junction Based on 2D Crystal PdS <sub>2</sub> . Advanced Materials, 2016, 28, 853-856.	11.1	85
83	Preparation of Singleâ€Layer MoS <sub>2</sub> <i><sub>x</sub></i> Se <sub>2(1â€</sub> <i><sub>x</sub></i> Sub>>Mo <i><sub>x</sub></i> W <sub>1â€</sub> <i><sub>x</sub>22Nanosheets with Highâ€Concentration Metallic 1T Phase. Small. 2016. 12. 1866-1874.</i>	5.2	126
84	Recent Strategies for Improving the Catalytic Activity of 2D TMD Nanosheets Toward the Hydrogen Evolution Reaction. Advanced Materials, 2016, 28, 6197-6206.	11.1	769
85	Transition Metal Disulfides as Nobleâ€Metalâ€Alternative Coâ€Catalysts for Solar Hydrogen Production. Advanced Energy Materials, 2016, 6, 1502555.	10.2	279
86	Mechanically-induced reverse phase transformation of MoS <sub>2</sub> from stable 2H to metastable 1T and its memristive behavior. RSC Advances, 2016, 6, 65691-65697.	1.7	63
87	Atomically Thin MoS <sub>2</sub> : A Versatile Nongraphene 2D Material. Advanced Functional Materials, 2016, 26, 2046-2069.	7.8	220
88	Modifying the Ni-MoS <sub>2</sub> Contact Interface Using a Broad-Beam Ion Source. IEEE Electron Device Letters, 2016, 37, 1234-1237.	2.2	12
89	Negative to positive crossover of the magnetoresistance in layered WS2. Applied Physics Letters, 2016, 108, 153114.	1.5	17
90	Field effects of current crowding in metal-MoS2 contacts. Applied Physics Letters, 2016, 108, .	1.5	23
91	Enhanced carrier mobility of multilayer MoS2 thin-film transistors by Al2O3 encapsulation. Applied Physics Letters, 2016, 109, .	1.5	47
92	Surface defect passivation of MoS2 by sulfur, selenium, and tellurium. Journal of Applied Physics, 2016, 119, .	1.1	15
93	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
94	Electron beam-formed ferromagnetic defects on MoS2 surface along 1 T phase transition. Scientific Reports, 2016, 6, 38730.	1.6	29
95	The dynamics of copper intercalated molybdenum ditelluride. Journal of Chemical Physics, 2016, 145, 194702.	1.2	8
96	Monolayer 1T-NbSe2 as a Mott insulator. NPG Asia Materials, 2016, 8, e321-e321.	3.8	109
97	Hydrogen generation <i>via</i> photoelectrochemical water splitting using chemically exfoliated MoS2 layers. AIP Advances, 2016, 6, .	0.6	41
98	Using Ar Ion beam exposure to improve contact resistance in MoS <inf>2</inf> FETs. , 2016, , .		1
99	Strong electrically tunable MoTe2/graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. Applied Physics Letters, 2016, 109, .	1.5	51

#	Article	IF	CITATIONS
100	Atomistic modeling of the metallic-to-semiconducting phase boundaries in monolayer MoS2. Applied Physics Letters, 2016, 108, .	1.5	36
101	Electronic properties of monolayer tungsten disulfide grown by chemical vapor deposition. Applied Physics Letters, 2016, 109, .	1.5	33
102	Phase engineering of MoS <sub>2</sub> through GaN/AlN substrate coupling and electron doping. Physical Chemistry Chemical Physics, 2016, 18, 33351-33356.	1.3	14
103	Magnetism and electronic phase transitions in monoclinic transition metal dichalcogenides with transition metal atoms embedded. Journal of Applied Physics, 2016, 120, 064305.	1.1	10
104	Fast Photoresponse from 1T Tin Diselenide Atomic Layers. Advanced Functional Materials, 2016, 26, 137-145.	7.8	150
105	Making oneâ€dimensional electrical contacts to molybdenum disulfideâ€based heterostructures through plasma etching. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1358-1364.	0.8	32
106	MoS <sub>2</sub> Enhanced T-Phase Stabilization and Tunability Through Alloying. Journal of Physical Chemistry Letters, 2016, 7, 2304-2309.	2.1	54
107	Monolayer Single-Crystal 1T′-MoTe <sub>2</sub> Grown by Chemical Vapor Deposition Exhibits Weak Antilocalization Effect. Nano Letters, 2016, 16, 4297-4304.	4.5	205
108	Recent developments in the synthesis of nanostructured chalcopyrite materials and their applications: a review. RSC Advances, 2016, 6, 60643-60656.	1.7	47
109	Strain-modulated electronic and thermal transport properties of two-dimensional O-silica. Nanotechnology, 2016, 27, 265706.	1.3	18
110	Improved Contacts to MoS <sub>2</sub> Transistors by Ultra-High Vacuum Metal Deposition. Nano Letters, 2016, 16, 3824-3830.	4.5	394
111	Transport studies in 2D transition metal dichalcogenides and black phosphorus. Journal of Physics Condensed Matter, 2016, 28, 263002.	0.7	12
112	Bandgap Transition of 2H Transition Metal Dichalcogenides: Predictive Tuning via Inherent Interface Coupling and Strain. Journal of Physical Chemistry C, 2016, 120, 8927-8935.	1.5	31
113	Atomic-Scale Spectroscopy of Gated Monolayer MoS <sub>2</sub> . Nano Letters, 2016, 16, 3148-3154.	4.5	30
114	Gate-Tunable Atomically Thin Lateral MoS <sub>2</sub> Schottky Junction Patterned by Electron Beam. Nano Letters, 2016, 16, 3788-3794.	4.5	99
115	Mechanically delaminated few layered MoS2 nanosheets based high performance wire type solid-state symmetric supercapacitors. Journal of Power Sources, 2016, 321, 112-119.	4.0	182
116	Contacts between Two- and Three-Dimensional Materials: Ohmic, Schottky, and <i>p</i> – <i>n</i> Heterojunctions. ACS Nano, 2016, 10, 4895-4919.	7.3	308
117	Tailoring photoluminescence of monolayer transition metal dichalcogenides. Current Applied Physics, 2016, 16, 1159-1174.	1.1	34

#	Article	IF	CITATIONS
118	Dynamics of chemical vapor sensing with MoS <sub>2</sub> using 1T/2H phase contacts/channel. Nanoscale, 2016, 8, 11445-11453.	2.8	32
119	In-Plane Heterojunctions Enable Multiphasic Two-Dimensional (2D) MoS <sub>2</sub> Nanosheets As Efficient Photocatalysts for Hydrogen Evolution from Water Reduction. ACS Catalysis, 2016, 6, 6723-6729.	5.5	116
120	Atomically-thin layered films for device applications based upon 2D TMDC materials. Thin Solid Films, 2016, 616, 482-501.	0.8	104
121	Atomic Defects in Monolayer Titanium Carbide (Ti <sub>3</sub> C <sub>2</sub> T <sub><i>x</i></sub> ) MXene. ACS Nano, 2016, 10, 9193-9200.	7.3	785
122	Effect of Al <sub>2</sub> O <sub>3</sub> Deposition on Performance of Top-Gated Monolayer MoS <sub>2</sub> -Based Field Effect Transistor. ACS Applied Materials & Interfaces, 2016, 8, 28130-28135.	4.0	40
123	Electronic excitation-induced semiconductor-to-metal transition in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:msub><mml:mi>MoTe</mml:mi><mml:mn>2Physical Review B, 2016, 94, .</mml:mn></mml:msub></mml:math 	:m1n2> <td>nl<b>#8</b>sub&gt;</td>	nl <b>#8</b> sub>
124	Tuning two-dimensional nanomaterials by intercalation: materials, properties and applications. Chemical Society Reviews, 2016, 45, 6742-6765.	18.7	363
125	Reconfigurable van der Waals Heterostructured Devices with Metal–Insulator Transition. Nano Letters, 2016, 16, 6746-6754.	4.5	35
126	Emerging Applications of 2D TMDCs. Springer Series in Materials Science, 2016, , 473-512.	0.4	3
127	Metallic 1T phase MoS <sub>2</sub> nanosheets as a highly efficient co-catalyst for the photocatalytic hydrogen evolution of CdS nanorods. RSC Advances, 2016, 6, 74394-74399.	1.7	48
128	Atomic‣ayered MoS <sub>2</sub> as a Tunable Optical Platform. Advanced Optical Materials, 2016, 4, 1429-1456.	3.6	54
129	Transition Metal Dichalcogenide Schottky Barrier Transistors: A Device Analysis and Material Comparison. , 2016, , 223-256.		0
130	Nanoscale solid-state cooling: a review. Reports on Progress in Physics, 2016, 79, 095901.	8.1	55
131	Contact and Support Considerations in the Hydrogen Evolution Reaction Activity of Petaled MoS <sub>2</sub> Electrodes. ACS Applied Materials & Interfaces, 2016, 8, 25185-25192.	4.0	27
132	Computational Insight into the Covalent Organic–Inorganic Interface. Chemistry of Materials, 2016, 28, 5976-5988.	3.2	22
133	Pushing the Performance Limit of Sub-100 nm Molybdenum Disulfide Transistors. Nano Letters, 2016, 16, 6337-6342.	4.5	117
134	Lateral Versus Vertical Growth of Two-Dimensional Layered Transition-Metal Dichalcogenides: Thermodynamic Insight into MoS <sub>2</sub> . Nano Letters, 2016, 16, 5742-5750.	4.5	102
135	Free-standing electronic character of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:msub><mml:mi>MoS</mml:mi><mml:mn>2yan der Waals epitaxy, Physical Review B, 2016, 94</mml:mn></mml:msub></mml:math 	m <b>n.x</b> <td>l:mssub&gt;</td>	l:mssub>

#	Article	IF	CITATIONS
136	Alloyed 2D Metal–Semiconductor Heterojunctions: Origin of Interface States Reduction and Schottky Barrier Lowering. Nano Letters, 2016, 16, 5928-5933.	4.5	57
137	Impact of Contact Resistance on the fT and fmax of Graphene vs. MoS2 Transistors. IEEE Nanotechnology Magazine, 2016, , 1-1.	1.1	9
138	Chemical Vapor Deposition of Monolayer Mo1â^'xWxS2 Crystals with Tunable Band Gaps. Scientific Reports, 2016, 6, 21536.	1.6	101
139	Advances in 2D Materials for Electronic Devices. Semiconductors and Semimetals, 2016, 95, 221-277.	0.4	8
140	Electronic Transport along Hybrid MoS <sub>2</sub> Monolayers. Journal of Physical Chemistry C, 2016, 120, 23389-23396.	1.5	14
141	Lattice vibrations and Raman scattering in two-dimensional layered materials beyond graphene. Nano Research, 2016, 9, 3559-3597.	5.8	93
142	Synthesis of Highâ€Quality Largeâ€Area Homogenous 1T′ MoTe <sub>2</sub> from Chemical Vapor Deposition. Advanced Materials, 2016, 28, 9526-9531.	11.1	125
143	High Mobility MoS <sub>2</sub> Transistor with Low Schottky Barrier Contact by Using Atomic Thick hâ€BN as a Tunneling Layer. Advanced Materials, 2016, 28, 8302-8308.	11.1	398
144	Controlling the thermal conductance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:mtext>graphene</mml:mtext><mml:mo>/interface with strain and structure engineering. Physical Review B, 2016, 93, .</mml:mo></mml:math 	no>≰mml:r	ni≯ <b>t</b> &/mml:m
145	Zone-center phonons of bulk, few-layer, and monolayer1Tâ^'TaS2: Detection of commensurate charge density wave phase through Raman scattering. Physical Review B, 2016, 93, .	1.1	74
146	Molybdenum Disulfideâ€Based Tubular Microengines: Toward Biomedical Applications. Advanced Functional Materials, 2016, 26, 6270-6278.	7.8	80
147	Colloidal preparation and electrocatalytic hydrogen production of MoS2and WS2nanosheets with controllable lateral sizes and layer numbers. Nanoscale, 2016, 8, 15262-15272.	2.8	64
148	Charge Mediated Reversible Metal–Insulator Transition in Monolayer MoTe <sub>2</sub> and W <sub><i>x</i></sub> Mo <sub>1–<i>x</i></sub> Te <sub>2</sub> Alloy. ACS Nano, 2016, 10, 7370-7375.	7.3	133
149	Raman spectroscopy of transition metal dichalcogenides. Journal of Physics Condensed Matter, 2016, 28, 353002.	0.7	168
150	Imprinting of Local Metallic States into VO <sub>2</sub> with Ultraviolet Light. Advanced Functional Materials, 2016, 26, 6612-6618.	7.8	43
151	The hydrogen-induced structural stability and promising electronic properties of molybdenum and tungsten dinitride nanosheets: a first-principles study. Journal of Materials Chemistry C, 2016, 4, 7485-7493.	2.7	35
152	Understanding topological phase transition in monolayer transition metal dichalcogenides. Physical Review B, 2016, 93, .	1.1	87
153	Enhanced Catalytic Activities of Metal-Phase-Assisted 1T@2H-MoSe 2 Nanosheets for Hydrogen Evolution. Electrochimica Acta, 2016, 217, 181-186.	2.6	83

#	Article	IF	CITATIONS
154	Van der Waals heterostructures and devices. Nature Reviews Materials, 2016, 1, .	23.3	1,897
155	Two-dimensional semiconductors for transistors. Nature Reviews Materials, 2016, 1, .	23.3	1,020
156	MoS <sub>2</sub> Field-Effect Transistor with Sub-10 nm Channel Length. Nano Letters, 2016, 16, 7798-7806.	4.5	389
157	Thin Film Transistors Using Wafer-Scale Low-Temperature MOCVD WSe2. Journal of Electronic Materials, 2016, 45, 6280-6284.	1.0	26
158	Protecting the properties of monolayer MoS2 on silicon based substrates with an atomically thin buffer. Scientific Reports, 2016, 6, 20890.	1.6	64
159	Van der Waals metal-semiconductor junction: Weak Fermi level pinning enables effective tuning of Schottky barrier. Science Advances, 2016, 2, e1600069.	4.7	446
160	Unveiling Three-Dimensional Stacking Sequences of 1T Phase MoS <sub>2</sub> Monolayers by Electron Diffraction. ACS Nano, 2016, 10, 10308-10316.	7.3	21
161	Chemical vapour deposition and characterization of uniform bilayer and trilayer MoS <sub>2</sub> crystals. Journal of Materials Chemistry C, 2016, 4, 11081-11087.	2.7	42
162	Even–odd layer-dependent magnetotransport of high-mobility Q-valley electrons in transition metal disulfides. Nature Communications, 2016, 7, 12955.	5.8	82
163	Dual-mode operation of 2D material-base hot electron transistors. Scientific Reports, 2016, 6, 32503.	1.6	12
164	Serially connected monolayer MoS <inf>2</inf> FETs with channel patterned by a 7.5 nm resolution directed self-assembly lithography. , 2016, , .		4
165	Efficient hydrogen evolution in transition metal dichalcogenides via a simple one-step hydrazine reaction. Nature Communications, 2016, 7, 11857.	5.8	179
166	Mapping of Low-Frequency Raman Modes in CVD-Grown Transition Metal Dichalcogenides: Layer Number, Stacking Orientation and Resonant Effects. Scientific Reports, 2016, 6, 19476.	1.6	111
167	Two-dimensional hexagonal semiconductors beyond graphene. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2016, 7, 043001.	0.7	19
168	Uniform Benchmarking of Low-Voltage van der Waals FETs. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2016, 2, 28-35.	1.1	24
169	Photo-FETs: Phototransistors Enabled by 2D and 0D Nanomaterials. ACS Photonics, 2016, 3, 2197-2210.	3.2	217
170	60-1: <i>Invited Paper</i> : The Emerging Era of 2D Materials. Digest of Technical Papers SID International Symposium, 2016, 47, 813-815.	0.1	0
171	Solutionâ€Processed Twoâ€Dimensional Metal Dichalcogenideâ€Based Nanomaterials for Energy Storage and Conversion. Advanced Materials, 2016, 28, 6167-6196.	11.1	438

#	Article	IF	CITATIONS
172	Complementary Unipolar WS <sub>2</sub> Fieldâ€Effect Transistors Using Fermiâ€Level Depinning Layers. Advanced Electronic Materials, 2016, 2, 1500278.	2.6	28
173	Ohmic Contacts to 2D Semiconductors through van der Waals Bonding. Advanced Electronic Materials, 2016, 2, 1500405.	2.6	91
174	The modulation of Schottky barriers of metal–MoS <sub>2</sub> contacts via BN–MoS <sub>2</sub> heterostructures. Physical Chemistry Chemical Physics, 2016, 18, 16882-16889.	1.3	47
175	Emerging opportunities in the two-dimensional chalcogenide systems and architecture. Current Opinion in Solid State and Materials Science, 2016, 20, 374-387.	5.6	29
176	Universal low-temperature Ohmic contacts for quantum transport in transition metal dichalcogenides. 2D Materials, 2016, 3, 021007.	2.0	102
177	Electron-Beam Induced Transformations of Layered Tin Dichalcogenides. Nano Letters, 2016, 16, 4410-4416.	4.5	109
178	The role of electronic coupling between substrate and 2D MoS2 nanosheets in electrocatalytic production of hydrogen. Nature Materials, 2016, 15, 1003-1009.	13.3	687
179	A New Electrolytic Synthesis Method for Few-Layered MoS <sub>2</sub> Nanosheets and Their Robust Biointerfacing with Reduced Antibodies. ACS Applied Materials & Interfaces, 2016, 8, 16555-16563.	4.0	29
180	Colloidal synthesis of VSe <sub>2</sub> single-layer nanosheets as novel electrocatalysts for the hydrogen evolution reaction. Chemical Communications, 2016, 52, 9228-9231.	2.2	131
181	Atomically Thin Ohmic Edge Contacts Between Two-Dimensional Materials. ACS Nano, 2016, 10, 6392-6399.	7.3	202
182	Surface State Engineering of Metal/MoS <sub>2</sub> Contacts Using Sulfur Treatment for Reduced Contact Resistance and Variability. IEEE Transactions on Electron Devices, 2016, 63, 2556-2562.	1.6	44
183	Intercalation in two-dimensional transition metal chalcogenides. Inorganic Chemistry Frontiers, 2016, 3, 452-463.	3.0	181
184	From bulk crystals to atomically thin layers of group VI-transition metal dichalcogenides vapour phase synthesis. Applied Materials Today, 2016, 3, 11-22.	2.3	70
185	Electrical Properties of Synthesized Large-Area MoS2 Field-Effect Transistors Fabricated with Inkjet-Printed Contacts. ACS Nano, 2016, 10, 2819-2826.	7.3	64
186	Biosensors Based on Two-Dimensional MoS <sub>2</sub> . ACS Sensors, 2016, 1, 5-16.	4.0	310
187	Tuning the threshold voltage from depletion to enhancement mode in a multilayer MoS <sub>2</sub> transistor via oxygen adsorption and desorption. Physical Chemistry Chemical Physics, 2016, 18, 685-689.	1.3	17
188	Intrinsic Limit for Contact Resistance in Exfoliated Multilayered MoS <sub>2</sub> FET. IEEE Electron Device Letters, 2016, 37, 119-122.	2.2	18
189	Structural Phase Transitions by Design in Monolayer Alloys. ACS Nano, 2016, 10, 289-297.	7.3	109

		CITATION RE	PORT	
#	Article		IF	CITATIONS
190	A progressive route for tailoring electrical transport in MoS2. Nano Research, 2016, 9,	380-391.	5.8	14
191	Hexagonal Planar CdS Monolayer Sheet for Visible Light Photocatalysis. Journal of Phys C, 2016, 120, 7052-7060.	sical Chemistry	1.5	132
192	Chemically Tailoring Semiconducting Two-Dimensional Transition Metal Dichalcogenid Phosphorus. ACS Nano, 2016, 10, 3900-3917.	es and Black	7.3	232
193	Phase-driven magneto-electrical characteristics of single-layer MoS <sub>2</sub> . Nan 5627-5633.	oscale, 2016, 8,	2.8	26
194	Bioinspired synthesis of CVD graphene flakes and graphene-supported molybdenum su for hydrogen evolution reaction. Nano Research, 2016, 9, 249-259.	ılfide catalysts	5.8	24
195	Pure and stable metallic phase molybdenum disulfide nanosheets for hydrogen evoluti Nature Communications, 2016, 7, 10672.	on reaction.	5.8	721
196	Metallic 1T-Li <sub><i>x</i></sub> MoS <sub>2</sub> Cocatalyst Significantly Enhance Photocatalytic H <sub>2</sub> Evolution over Cd <sub>0.5</sub> Zn <sub>0.5</sub> S under Visible Light Irradiation. ACS Applied Materials & Interfaces, 2016, 8, 4023-	d the Nanocrystals 4030.	4.0	59
197	Low-Resistance 2D/2D Ohmic Contacts: A Universal Approach to High-Performance W MoS <sub>2</sub> , and MoSe <sub>2</sub> Transistors. Nano Letters, 2016, 16, 1890	Se <sub>2</sub> , 6-1902.	4.5	334
198	Alloyed 2D Metal–Semiconductor Atomic Layer Junctions. Nano Letters, 2016, 16, 1	890-1895.	4.5	77
199	CO <sub>2</sub> -Induced Phase Engineering: Protocol for Enhanced Photoelectrocata Performance of 2D MoS <sub>2</sub> Nanosheets. ACS Nano, 2016, 10, 2903-2909.	lytic	7.3	243
200	Coulomb blockade in monolayer MoS <sub>2</sub> single electron transistor. Nanosca 7755-7760.	ıle, 2016, 8,	2.8	48
201	Dynamic Structural Evolution of Metal–Metal Bonding Network in Monolayer WS <s Chemistry of Materials, 2016, 28, 2308-2314.</s 	ub>2.	3.2	37
202	Room Temperature Semiconductor–Metal Transition of MoTe <sub>2</sub> Thin Fili Strain. Nano Letters, 2016, 16, 188-193.	ns Engineered by	4.5	415
203	Epitaxial 2D MoSe <sub>2</sub> (HfSe <sub>2</sub> ) Semiconductor/2D TaSe <sub>2 der Waals Heterostructures. ACS Applied Materials &amp; Interfaces, 2016, 8, 1836-1</sub>	l Metal van 841.	4.0	60
204	Multilayer MoS <sub>2</sub> growth by metal and metal oxide sulfurization. Journal o Chemistry C, 2016, 4, 1295-1304.	f Materials	2.7	57
205	Predicting a new phase (Tâ€2â€2) of two-dimensional transition metal di-chalcogenide strain-controlled topological phase transition. Nanoscale, 2016, 8, 4969-4975.	s and	2.8	50
206	Charge transport and mobility engineering in two-dimensional transition metal chalcog semiconductors. Chemical Society Reviews, 2016, 45, 118-151.	zenide	18.7	423
207	Superconductivity in Potassium-Doped Metallic Polymorphs of MoS <sub>2</sub> . National 16, 629-636.	no Letters, 2016,	4.5	129

#	Article	IF	CITATIONS
208	Epitaxial Stitching and Stacking Growth of Atomically Thin Transitionâ€Metal Dichalcogenides (TMDCs) Heterojunctions. Advanced Functional Materials, 2017, 27, 1603884.	7.8	73
209	Large area, phase-controlled growth of few-layer, two-dimensional MoTe <sub>2</sub> and lateral 1T′–2H heterostructures by chemical vapor deposition. CrystEngComm, 2017, 19, 1045-1051.	1.3	34
210	Recent development of two-dimensional transition metal dichalcogenides and their applications. Materials Today, 2017, 20, 116-130.	8.3	1,852
211	Electronic and Optoelectronic Devices based on Twoâ€Dimensional Materials: From Fabrication to Application. Advanced Electronic Materials, 2017, 3, 1600364.	2.6	123
212	Molybdenum diselenide (MoSe 2 ) for energy storage, catalysis, and optoelectronics. Applied Materials Today, 2017, 8, 1-17.	2.3	316
213	Engineering the Structural and Electronic Phases of MoTe <sub>2</sub> through W Substitution. Nano Letters, 2017, 17, 1616-1622.	4.5	128
214	Enhanced Cell Capture on Functionalized Graphene Oxide Nanosheets through Oxygen Clustering. ACS Nano, 2017, 11, 1548-1558.	7.3	52
215	Comparative investigation of the vibrational properties of bulk 2 <i>H</i> –MoS <sub>2</sub> and its exfoliated nanosheets under high pressure. Journal of Raman Spectroscopy, 2017, 48, 596-600.	1.2	10
216	Epitaxial growth of vertically stacked p-MoS2/n-MoS2 heterostructures by chemical vapor deposition for light emitting devices. Nano Energy, 2017, 32, 454-462.	8.2	50
217	Controlled Growth of 1D MoSe <sub>2</sub> Nanoribbons with Spatially Modulated Edge States. Nano Letters, 2017, 17, 1116-1120.	4.5	56
218	Chemical Stabilization of 1T′ Phase Transition Metal Dichalcogenides with Giant Optical Kerr Nonlinearity. Journal of the American Chemical Society, 2017, 139, 2504-2511.	6.6	171
219	Inâ€Plane 2Hâ€1T′ MoTe <sub>2</sub> Homojunctions Synthesized by Fluxâ€Controlled Phase Engineering. Advanced Materials, 2017, 29, 1605461.	11.1	97
220	Electrochemical Control of Copper Intercalation into Nanoscale Bi <sub>2</sub> Se <sub>3</sub> . Nano Letters, 2017, 17, 1741-1747.	4.5	34
221	Lattice Strain Effect on the Band Offset in Single-Layer MoS <sub>2</sub> : An Atomic-Bond-Relaxation Approach. Journal of Physical Chemistry C, 2017, 121, 5366-5371.	1.5	22
222	Quantum dot behavior in transition metal dichalcogenides nanostructures. Frontiers of Physics, 2017, 12, 1.	2.4	25
223	Swollen Ammoniated MoS <sub>2</sub> with 1T/2H Hybrid Phases for High-Rate Electrochemical Energy Storage. ACS Sustainable Chemistry and Engineering, 2017, 5, 2509-2515.	3.2	194
224	Solution synthesis of few-layer 2H MX <sub>2</sub> (M = Mo, W; X = S, Se). Journal of Materials Chemistry C, 2017, 5, 2859-2864.	2.7	32
225	Graphene contacts to a HfSe2/SnS2 heterostructure. Journal of Chemical Physics, 2017, 146, 064701.	1.2	8

#	Article	IF	CITATIONS
226	Monolayer Transistor SRAMs. ACM Journal on Emerging Technologies in Computing Systems, 2017, 13, 1-28.	1.8	1
227	W Te <sub>2</sub> thin films grown by beam-interrupted molecular beam epitaxy. 2D Materials, 2017, 4, 025044.	2.0	48
228	New Mo <sub>6</sub> Te <sub>6</sub> Subâ€Nanometerâ€Diameter Nanowire Phase from 2Hâ€MoTe <sub>2</sub> . Advanced Materials, 2017, 29, 1606264.	11.1	64
229	Dynamic Phase Engineering of Bendable Transition Metal Dichalcogenide Monolayers. Nano Letters, 2017, 17, 2473-2481.	4.5	41
230	Epitaxial Ni <sub><i>x</i></sub> Pd <sub>1–<i>x</i></sub> (111) Alloy Substrates with Continuously Tunable Lattice Constants for 2D Materials Growth. ACS Applied Materials & Interfaces, 2017, 9, 11266-11271.	4.0	21
231	Determination of Crystal Axes in Semimetallic T′â€MoTe <sub>2</sub> by Polarized Raman Spectroscopy. Advanced Functional Materials, 2017, 27, 1604799.	7.8	47
232	Many-body Effect, Carrier Mobility, and Device Performance of Hexagonal Arsenene and Antimonene. Chemistry of Materials, 2017, 29, 2191-2201.	3.2	244
233	First principles investigation of copper and silver intercalated molybdenum disulfide. Journal of Applied Physics, 2017, 121, .	1.1	23
234	Large-area synthesis of high-quality monolayer 1T'-WTe <sub>2</sub> flakes. 2D Materials, 2017, 4, 021008.	2.0	81
235	Engineering interfacial charge-transfer by phase transition realizing enhanced photocatalytic hydrogen evolution activity. Inorganic Chemistry Frontiers, 2017, 4, 663-667.	3.0	25
236	Effect of Al <sub>2</sub> O <sub>3</sub> encapsulation on multilayer MoSe <sub>2</sub> thin-film transistors. Journal Physics D: Applied Physics, 2017, 50, 094001.	1.3	10
237	Complex and Noncentrosymmetric Stacking of Layered Metal Dichalcogenide Materials Created by Screw Dislocations. Journal of the American Chemical Society, 2017, 139, 3496-3504.	6.6	81
238	Thickness-dependent Schottky barrier height of MoS <sub>2</sub> field-effect transistors. Nanoscale, 2017, 9, 6151-6157.	2.8	120
239	MoS <sub>2</sub> edges and heterophase interfaces: energy, structure and phase engineering. 2D Materials, 2017, 4, 025080.	2.0	16
240	Twoâ€Dimensional Semiconductors: From Materials Preparation to Electronic Applications. Advanced Electronic Materials, 2017, 3, 1700045.	2.6	94
241	DFT investigation into the underperformance of sulfide materials in photovoltaic applications. Journal of Materials Chemistry A, 2017, 5, 9132-9140.	5.2	19
242	Synthesis of Ni <sub>9</sub> S <sub>8</sub> /MoS <sub>2</sub> heterocatalyst for Enhanced Hydrogen Evolution Reaction. Langmuir, 2017, 33, 5148-5153.	1.6	39
243	Phase evolution of lithium intercalation dynamics in 2H-MoS <sub>2</sub> . Nanoscale, 2017, 9, 7533-7540.	2.8	83

	CITATION R	CITATION REPORT	
#	Article	IF	CITATIONS
244	Long-Range Lattice Engineering of MoTe <sub>2</sub> by a 2D Electride. Nano Letters, 2017, 17, 3363-3368.	4.5	72
245	Triethanolamine doped multilayer MoS <sub>2</sub> field effect transistors. Physical Chemistry Chemical Physics, 2017, 19, 13133-13139.	1.3	36
246	Defect induced gap states in monolayer MoS2 control the Schottky barriers of Pt-mMoS2 interfaces. Applied Physics Letters, 2017, 110, .	1.5	21
247	Electronic and transport properties of 2H 1â°'x 1T x MoS 2 hybrid structure: A first-principle study. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 91, 178-184.	1.3	7
248	Vertical 1T-MoS <sub>2</sub> nanosheets with expanded interlayer spacing edged on a graphene frame for high rate lithium-ion batteries. Nanoscale, 2017, 9, 6975-6983.	2.8	158
249	Coulomb engineering of the bandgap and excitons in two-dimensional materials. Nature Communications, 2017, 8, 15251.	5.8	526
250	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
251	Structural Transformations in Two-Dimensional Transition-Metal Dichalcogenide MoS <sub>2</sub> under an Electron Beam: Insights from First-Principles Calculations. Journal of Physical Chemistry Letters, 2017, 8, 3061-3067.	2.1	81
252	Direct Growth of High Mobility and Lowâ€Noise Lateral MoS <sub>2</sub> –Graphene Heterostructure Electronics. Small, 2017, 13, 1604301.	5.2	61
253	Heterostructures containing dichalcogenides-new materials with predictable nanoarchitectures and novel emergent properties. Semiconductor Science and Technology, 2017, 32, 093004.	1.0	26
254	Progress on Electronic and Optoelectronic Devices of 2D Layered Semiconducting Materials. Small, 2017, 13, 1604298.	5.2	65
255	Phase-Defined van der Waals Schottky Junctions with Significantly Enhanced Thermoelectric Properties. Journal of Physical Chemistry Letters, 2017, 8, 2887-2894.	2.1	30
256	Graphene and related two-dimensional materials: Structure-property relationships for electronics and optoelectronics. Applied Physics Reviews, 2017, 4, .	5.5	476
257	Synthetic approaches to two-dimensional transition metal dichalcogenide nanosheets. Progress in Materials Science, 2017, 89, 411-478.	16.0	176
258	A simple electrochemical route to metallic phase trilayer MoS <sub>2</sub> : evaluation as electrocatalysts and supercapacitors. Journal of Materials Chemistry A, 2017, 5, 11316-11330.	5.2	119
259	FETs on 2-D Materials: Deconvolution of the Channel and Contact Characteristics by Four-Terminal Resistance Measurements on WSe2Transistors. IEEE Transactions on Electron Devices, 2017, 64, 2970-2976.	1.6	3
260	A computational study of monolayer hexagonal WTe <sub>2</sub> to metal interfaces. Physica Status Solidi (B): Basic Research, 2017, 254, 1600837.	0.7	17
261	MoS <sub>2</sub> heterostructure with tunable phase stability: strain induced interlayer covalent bond formation. Nanoscale, 2017, 9, 8126-8132.	2.8	29

#	Article	IF	CITATIONS
262	From two-dimensional materials to their heterostructures: An electrochemist's perspective. Applied Materials Today, 2017, 8, 68-103.	2.3	212
263	Two-dimensional transition metal dichalcogenide-based counter electrodes for dye-sensitized solar cells. RSC Advances, 2017, 7, 28234-28290.	1.7	171
264	The role of contact resistance in graphene field-effect devices. Progress in Surface Science, 2017, 92, 143-175.	3.8	192
265	Ambipolar MoS <sub>2</sub> Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. ACS Applied Materials & Interfaces, 2017, 9, 23164-23174.	4.0	81
266	2D transition metal dichalcogenides. Nature Reviews Materials, 2017, 2, .	23.3	3,689
267	Synthesis of large-scale atomic-layer SnS2 through chemical vapor deposition. Nano Research, 2017, 10, 2386-2394.	5.8	124
268	Graphene Nanoribbon Based Thermoelectrics: Controllable Self―Doping and Longâ€Range Disorder. Advanced Science, 2017, 4, 1600467.	5.6	5
269	Tuning Contact Barrier Height between Metals and MoS <sub>2</sub> Monolayer through Interface Engineering. Advanced Materials Interfaces, 2017, 4, 1700035.	1.9	19
270	Recent progress in high-mobility thin-film transistors based on multilayer 2D materials. Journal Physics D: Applied Physics, 2017, 50, 164001.	1.3	20
271	First principles studies on electronic and transport properties of edge contact graphene-MoS2 heterostructure. Computational Materials Science, 2017, 133, 137-144.	1.4	23
272	Anisotropic transport in 1T′ monolayer MoS <sub>2</sub> and its metal interfaces. Physical Chemistry Chemical Physics, 2017, 19, 10453-10461.	1.3	18
273	Asymmetric Junctions in Metallic–Semiconducting–Metallic Heterophase MoS <sub>2</sub> . IEEE Transactions on Electron Devices, 2017, 64, 2457-2460.	1.6	17
274	Composition- and phase-controlled synthesis and applications of alloyed phase heterostructures of transition metal disulphides. Nanoscale, 2017, 9, 5102-5109.	2.8	63
275	Piezoelectricity in two-dimensional materials: Comparative study between lattice dynamics and <i>ab initio</i> calculations. Physical Review B, 2017, 95, .	1.1	36
276	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. Chemical Reviews, 2017, 117, 6225-6331.	23.0	3,940
277	A novel synthesis method for large-area MoS <sub>2</sub> film with improved electrical contact. 2D Materials, 2017, 4, 025051.	2.0	14
278	Preparation of Cu–Fe–Al–O nanosheets and their catalytic application in methanol steam reforming for hydrogen production. Materials Research Express, 2017, 4, 035005.	0.8	5
279	xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow> <mml:mrow> <mml:mi> Co</mml:mi> <mml:m mathvariant="normal"&gt;S <mml:mn>2</mml:mn> </mml:m </mml:mrow>  interface and its possible use for electrical spin injection in a single <mml:math xmln="http://www.w3.org/1998/Math/MathML"&gt; <mml:msub> <td>no&gt;(1.1</td><td>l:mo&gt;16</td></mml:msub></mml:math </mml:mrow>	no>(1.1	l:mo>16
	Review R 2017 95		

#	Article	IF	CITATIONS
280	Optimizing Charge Injection across Transition Metal Dichalcogenide Heterojunctions: Theory and Experiment. ACS Nano, 2017, 11, 3904-3910.	7.3	29
281	Doping, Contact and Interface Engineering of Twoâ€Dimensional Layered Transition Metal Dichalcogenides Transistors. Advanced Functional Materials, 2017, 27, 1603484.	7.8	191
282	Two-dimensional hydrogenated molybdenum and tungsten dinitrides MN <sub>2</sub> H <sub>2</sub> (M = Mo, W) as novel quantum spin hall insulators with high stability. Nanoscale, 2017, 9, 1007-1013.	2.8	15
283	Chemical Vapor Deposition Growth of Few-Layer MoTe <sub>2</sub> in the 2H, 1T′, and 1T Phases: Tunable Properties of MoTe <sub>2</sub> Films. ACS Nano, 2017, 11, 900-905.	7.3	173
284	Hybrid metal–organic chalcogenide nanowires with electrically conductive inorganic core through diamondoid-directed assembly. Nature Materials, 2017, 16, 349-355.	13.3	79
285	Intrinsic electrical transport and performance projections of synthetic monolayer MoS <sub>2</sub> devices. 2D Materials, 2017, 4, 011009.	2.0	117
286	Contrasting Structural Reconstructions, Electronic Properties, and Magnetic Orderings along Different Edges of Zigzag Transition Metal Dichalcogenide Nanoribbons. Nano Letters, 2017, 17, 1097-1101.	4.5	75
287	Towards an all-in fiber photodetector by directly bonding few-layer molybdenum disulfide to a fiber facet. Nanoscale, 2017, 9, 3424-3428.	2.8	22
288	Ferroelectricâ€Gated Twoâ€Dimensionalâ€Materialâ€Based Electron Devices. Advanced Electronic Materials, 2017, 3, 1600400.	2.6	68
289	Electric Field Effect in Twoâ€Dimensional Transition Metal Dichalcogenides. Advanced Functional Materials, 2017, 27, 1602404.	7.8	57
290	Electronic properties of layered phosphorus heterostructures. Physical Chemistry Chemical Physics, 2017, 19, 1229-1235.	1.3	10
291	Ultrafast charge transfer between MoTe <sub>2</sub> and MoS <sub>2</sub> monolayers. 2D Materials, 2017, 4, 015033.	2.0	39
292	Field Effect Enhanced Hydrogen Evolution Reaction of MoS <sub>2</sub> Nanosheets. Advanced Materials, 2017, 29, 1604464.	11.1	148
293	High Mobility WS <sub>2</sub> Transistors Realized by Multilayer Graphene Electrodes and Application to High Responsivity Flexible Photodetectors. Advanced Functional Materials, 2017, 27, 1703448.	7.8	113
294	On the nature of AFM tip metal-MoS2 contact; effect of single layer character and tip force. Applied Physics Letters, 2017, 111, 141601.	1.5	7
295	In-plane Schottky-barrier field-effect transistors based on 1 <i>T</i> /2 <i>H</i> heterojunctions of transition-metal dichalcogenides. Physical Review B, 2017, 96, .	1.1	117
296	Nanoscale Phase Engineering of Niobium Diselenide. Chemistry of Materials, 2017, 29, 9907-9914.	3.2	33
297	Preferential S/Se occupation in an anisotropic ReS <sub>2(1â^'x)</sub> Se <sub>2x</sub> monolayer alloy. Nanoscale, 2017, 9, 18275-18280.	2.8	10

## # ARTICLE

298 Compressive strain induced dynamical stability of monolayer 1T-MX2 (M  =  Mo, W; X  =   S, Se). Ma Research Express, 2017, 4, 115018.

299	Lowâ€Power Nonvolatile Charge Storage Memory Based on MoS <sub>2</sub> and an Ultrathin Polymer Tunneling Dielectric. Advanced Functional Materials, 2017, 27, 1703545.	7.8	43
300	Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism. Advanced Materials, 2017, 29, 1703754.	11.1	191
301	Chemical Intercalation of Topological Insulator Grid Nanostructures for Highâ€Performance Transparent Electrodes. Advanced Materials, 2017, 29, 1703424.	11.1	21
302	Structural phase transition in monolayer MoTe2 driven by electrostatic doping. Nature, 2017, 550, 487-491.	13.7	548
303	Annealed Ag contacts to MoS2 field-effect transistors. Journal of Applied Physics, 2017, 122, .	1.1	53
304	Band Alignment at Au/MoS <sub>2</sub> Contacts: Thickness Dependence of Exfoliated Flakes. Journal of Physical Chemistry C, 2017, 121, 22517-22522.	1.5	34
305	Temperature-dependent properties of monolayer MoS <sub>2</sub> annealed in an Ar diluted S atmosphere: an experimental and first-principles study. Journal of Materials Chemistry C, 2017, 5, 11138-11143.	2.7	12
306	Ultradispersed and Single-Layered MoS <sub>2</sub> Nanoflakes Strongly Coupled with Graphene: An Optimized Structure with High Kinetics for the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2017, 9, 39380-39390.	4.0	46
307	Properties of in-plane graphene/MoS <sub>2</sub> heterojunctions. 2D Materials, 2017, 4, 045001.	2.0	34
308	Optically Discriminating Carrier-Induced Quasiparticle Band Gap and Exciton Energy Renormalization in Monolayer <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"&gt;<mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2Physical Review Letters, 2017, 119, 087401</mml:mn></mml:msub></mml:mrow></mml:math>	ml <del>2:9</del> ml:mn> <td>nml:msub&gt;</td>	nml:msub>
309	Long-Term Stable 2H-MoS <sub>2</sub> Dispersion: Critical Role of Solvent for Simultaneous Phase Restoration and Surface Functionalization of Liquid-Exfoliated MoS <sub>2</sub> . ACS Omega, 2017, 2, 4678-4687.	1.6	55
310	Characterization of Edge Contact: Atomically Resolved Semiconductor–Metal Lateral Boundary in MoS <sub>2</sub> . Advanced Materials, 2017, 29, 1702931.	11.1	14
311	Coplanar semiconductor–metal circuitry defined on few-layer MoTe2 via polymorphic heteroepitaxy. Nature Nanotechnology, 2017, 12, 1064-1070.	15.6	210
312	Engineering and modifying two-dimensional materials by electron beams. MRS Bulletin, 2017, 42, 667-676.	1.7	62
313	Absence of a Band Gap at the Interface of a Metal and Highly Doped Monolayer MoS <sub>2</sub> . Nano Letters, 2017, 17, 5962-5968.	4.5	37
314	Hybridized 1T/2H MoS <sub>2</sub> Having Controlled 1T Concentrations and its use in Supercapacitors. Chemistry - A European Journal, 2017, 23, 17348-17355.	1.7	88
315	Designing artificial 2D crystals with site and size controlled quantum dots. Scientific Reports, 2017, 7, 9965.	1.6	16

	CITATION RE	CITATION REPORT	
#	Article	IF	CITATIONS
316	Langmuir-Blodgett Deposition of 2D Materials for Unique Identification. Springer Theses, 2017, , 63-88.	0.0	0
317	Unveiling Active Sites for the Hydrogen Evolution Reaction on Monolayer MoS <sub>2</sub> . Advanced Materials, 2017, 29, 1701955.	11.1	249
318	Atomically Thin Transitionâ€Metal Dichalcogenides for Electrocatalysis and Energy Storage. Small Methods, 2017, 1, 1700156.	4.6	98
319	In Situ XPS Investigation of Transformations at Crystallographically Oriented MoS <sub>2</sub> Interfaces. ACS Applied Materials & Interfaces, 2017, 9, 32394-32404.	4.0	141
320	Reducing the Schottky barrier between few-layer MoTe <sub>2</sub> and gold. 2D Materials, 2017, 4, 045016.	2.0	35
321	Seamless Staircase Electrical Contact to Semiconducting Graphene Nanoribbons. Nano Letters, 2017, 17, 6241-6247.	4.5	64
322	Tunable inverted gap in monolayer quasi-metallic MoS2 induced by strong charge-lattice coupling. Nature Communications, 2017, 8, 486.	5.8	75
323	Progress of Largeâ€Scale Synthesis and Electronic Device Application of Twoâ€Dimensional Transition Metal Dichalcogenides. Small, 2017, 13, 1700098.	5.2	54
324	Metal–Metal Bonds: From Fundamentals to Applications. Inorganic Chemistry, 2017, 56, 7577-7581.	1.9	88
325	Argon Plasma Induced Phase Transition in Monolayer MoS <sub>2</sub> . Journal of the American Chemical Society, 2017, 139, 10216-10219.	6.6	332
326	3R and 2H polytypes of MoS2: DFT and DFPT calculations of structural, optoelectronic, vibrational and thermodynamic properties. Journal of Physics and Chemistry of Solids, 2017, 111, 25-33.	1.9	35
327	Thickness dependent semiconductor-to-metal transition of two-dimensional polyaniline with unique work functions. Nanoscale, 2017, 9, 12025-12031.	2.8	24
328	Structural and quantum-state phase transitions in van der Waals layered materials. Nature Physics, 2017, 13, 931-937.	6.5	280
329	Metallic Vanadium Disulfide Nanosheets as a Platform Material for Multifunctional Electrode Applications. Nano Letters, 2017, 17, 4908-4916.	4.5	230
330	Charging assisted structural phase transitions in monolayer InSe. Physical Chemistry Chemical Physics, 2017, 19, 22502-22508.	1.3	6
331	Self-optimizing, highly surface-active layeredÂmetal dichalcogenide catalysts for hydrogen evolution. Nature Energy, 2017, 2, .	19.8	336
332	Evidence for Chemical Vapor Induced 2H to 1T Phase Transition in MoX2 (X = Se, S) Transition Metal Dichalcogenide Films. Scientific Reports, 2017, 7, 3836.	1.6	47
333	First-principles prediction of a novel cadmium disulfide monolayer (penta-CdS2): Indirect to direct band gap transition by strain engineering. Chemical Physics Letters, 2017, 685, 310-315.	1.2	45

#	Article	IF	CITATIONS
334	Synthesis and Physical Properties of Phase-Engineered Transition Metal Dichalcogenide Monolayer Heterostructures. ACS Nano, 2017, 11, 8619-8627.	7.3	42
335	Electrical Contacts in Monolayer Arsenene Devices. ACS Applied Materials & Interfaces, 2017, 9, 29273-29284.	4.0	76
336	Two-Dimensional Transition Metal Dichalcogenides and Their Charge Carrier Mobilities in Field-Effect Transistors. Nano-Micro Letters, 2017, 9, 50.	14.4	141
337	Contact Engineering of Molybdenum Ditelluride Field Effect Transistors through Rapid Thermal Annealing. ACS Applied Materials & Interfaces, 2017, 9, 30107-30114.	4.0	37
338	Molybdenum dichalcogenide nanotube arrays for hydrogen-evolution-reaction catalysis: Synergistic effects of sulfur and selenium in a core-shell tube wall. Electrochemistry Communications, 2017, 82, 112-116.	2.3	11
339	Extended Polymorphism of Two-Dimensional Material. Nano Letters, 2017, 17, 5567-5571.	4.5	25
340	Improvement in top-gate MoS2 transistor performance due to high quality backside Al2O3 layer. Applied Physics Letters, 2017, 111, .	1.5	56
341	Van der Waals Epitaxial Growth of 2D Metallic Vanadium Diselenide Single Crystals and their Extraâ€High Electrical Conductivity. Advanced Materials, 2017, 29, 1702359.	11.1	191
342	Defects in Two-Dimensional Materials. , 2017, , 359-378.		2
343	Studies of two-dimensional h-BN and MoS2 for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	3.9	57
344	Electrostatics of lateral p-n junctions in atomically thin materials. Journal of Applied Physics, 2017, 122, .	1.1	36
345	Facile Electrochemical Synthesis of 2D Monolayers for High-Performance Thin-Film Transistors. ACS Applied Materials & Interfaces, 2017, 9, 44617-44624.	4.0	22
346	van der Waals Layered Materials: Opportunities and Challenges. ACS Nano, 2017, 11, 11803-11830.	7.3	394
347	Structure, Stability, and Kinetics of Vacancy Defects in Monolayer PtSe2: A First-Principles Study. ACS Omega, 2017, 2, 8640-8648.	1.6	40
348	Chemically exfoliated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt; <mml:mrow> <mml:mi>Mo</mml:mi> <mml:msub> <mml:m mathvariant="normal"&gt;S <mml:mn>2</mml:mn> </mml:m </mml:msub> </mml:mrow>  layers: Spectroscopic evidence for the semiconducting nature of the dominant trigonal metastable phase_Physical Review B_2017_96</mml:math 	ni 1.1	39
349	A look into atomic carbon and oxygen adsorption on 1T′-MoS2monolayer: density functional theory calculations. Materials Research Express, 2017, 4, 125026.	0.8	3
350	Transistor Concepts Based on Lateral Heterostructures of Metallic and Semiconducting Phases of <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"&gt;<mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mr Physical Review Applied, 2017, 8, .</mr </mml:mrow></mml:msub></mml:mrow></mml:math>	nl:mn>2<	/m̊ml:mn>
351	Contact morphology and revisited photocurrent dynamics in monolayer MoS2. Npj 2D Materials and Applications, 2017, 1, .	3.9	16

#	Article	IF	CITATIONS
352	Nature of carrier injection in metal/2D-semiconductor interface and its implications for the limits of contact resistance. Physical Review B, 2017, 96, .	1.1	55
353	Controlling the H to T′ structural phase transition <i>via</i> chalcogen substitution in MoTe <sub>2</sub> monolayers. Physical Chemistry Chemical Physics, 2017, 19, 31874-31882.	1.3	19
354	Hierarchical MoS <sub>2</sub> nanosheets on flexible carbon felt as an efficient flow-through electrode for dechlorination. Environmental Science: Nano, 2017, 4, 2286-2296.	2.2	23
355	Fabrication of thin film transistors having reactive thermal evaporated and transferred MoS <sub>2</sub> active layers. Molecular Crystals and Liquid Crystals, 2017, 651, 215-220.	0.4	2
356	Wide-Range Controllable Doping of Tungsten Diselenide (WSe <sub>2</sub> ) based on Hydrochloric Acid Treatment. Journal of Physical Chemistry C, 2017, 121, 14367-14372.	1.5	15
357	Lifting the mist of flatland: The recent progress in the characterizations of two-dimensional materials. Progress in Crystal Growth and Characterization of Materials, 2017, 63, 72-93.	1.8	12
358	Low-Temperature Ohmic Contact to Monolayer MoS <sub>2</sub> by van der Waals Bonded Co/ <i>h</i> -BN Electrodes. Nano Letters, 2017, 17, 4781-4786.	4.5	233
359	Heterogeneous Nanostructure Based on 1T-Phase MoS <sub>2</sub> for Enhanced Electrocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 25291-25297.	4.0	202
360	Water-Soluble 2D Transition Metal Dichalcogenides as the Hole-Transport Layer for Highly Efficient and Stable p–i–n Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 25323-25331.	4.0	115
361	Characterization of Thin Film Materials using SCAN meta-GGA, an Accurate Nonempirical Density Functional. Scientific Reports, 2017, 7, 44766.	1.6	54
362	Layer-dependent semiconductor-metal transition of SnO/Si(001) heterostructure and device application. Scientific Reports, 2017, 7, 2570.	1.6	5
363	Phase conversion of chemically exfoliated molybdenum disulfide. Current Applied Physics, 2017, 17, 60-65.	1.1	12
364	Assembly and Electronic Applications of Colloidal Nanomaterials. Advanced Materials, 2017, 29, 1603895.	11.1	98
365	Robustness of the quantum spin Hall insulator phase in monolayer 1T′ transition metal dichalcogenides. Journal of Electron Spectroscopy and Related Phenomena, 2017, 219, 72-76.	0.8	9
366	A theoretical study of the electrical contact between metallic and semiconducting phases in monolayer MoS <sub>2</sub> . 2D Materials, 2017, 4, 015014.	2.0	21
367	Solutionâ€Processed MoS <sub>2</sub> /Organolead Trihalide Perovskite Photodetectors. Advanced Materials, 2017, 29, 1603995.	11.1	187
368	Highâ€Electronâ€Mobility and Airâ€Stable 2D Layered PtSe <sub>2</sub> FETs. Advanced Materials, 2017, 29, 1604230.	11.1	502
369	Room temperature 2D memristive transistor with optical short-term plasticity. , 2017, , .		4

#	Article	IF	CITATIONS
370	Efros-Shklovskii variable range hopping and nonlinear transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:mrow><mml:mn>1</mml:mn><mml:mi>TPhysical Review B, 2017, 96, .</mml:mi></mml:mrow></mml:math 	i≻⊲maml:m	o> <b>‡</b> 2/mml:mc
371	Substrate-induced semiconductor-to-metal transition in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt; <mml:msub> <mml:mi>WS </mml:mi> <mml:mn>2 Physical Review B, 2017, 96, .</mml:mn></mml:msub></mml:math 	nn <b>⊵.1</b> /mml	:maaub>
372	Contact morphologies for ultrafast optoelectronics in 2D materials. , 2017, , .		0
373	Two-Dimensional Material Molybdenum Disulfides as Electrocatalysts for Hydrogen Evolution. Catalysts, 2017, 7, 285.	1.6	72
374	Recent Advances in Electronic and Optoelectronic Devices Based on Two-Dimensional Transition Metal Dichalcogenides. Electronics (Switzerland), 2017, 6, 43.	1.8	68
375	Green Intelligent Nanomaterials by Design (Using Nanoparticulate/2D-Materials Building Blocks) Current Developments and Future Trends. , 2017, , .		1
376	High-mobility and low-carrier-density sputtered MoS <sub>2</sub> film formed by introducing residual sulfur during low-temperature in 3%-H <sub>2</sub> annealing for three-dimensional ICs. Japanese Journal of Applied Physics, 2017, 56, 04CP06.	0.8	14
377	Electronic Transport in Two-Dimensional Materials. Annual Review of Physical Chemistry, 2018, 69, 299-325.	4.8	217
378	Kinetics and Atomic Mechanisms of Structural Phase Transformations in Photoexcited Monolayer TMDCs. MRS Advances, 2018, 3, 345-350.	0.5	0
379	Quantum engineering of transistors based on 2D materials heterostructures. Nature Nanotechnology, 2018, 13, 183-191.	15.6	319
380	Two-dimensional transition metal dichalcogenides: interface and defect engineering. Chemical Society Reviews, 2018, 47, 3100-3128.	18.7	604
381	Spatially controlled doping of two-dimensional SnS2 through intercalation for electronics. Nature Nanotechnology, 2018, 13, 294-299.	15.6	269
382	Thickness-modulated metal-to-semiconductor transformation in a transition metal dichalcogenide. Nature Communications, 2018, 9, 919.	5.8	253
383	Contact engineering for 2D materials and devices. Chemical Society Reviews, 2018, 47, 3037-3058.	18.7	561
384	Relaxing volume stress and promoting active sites in vertically grown 2D layered mesoporous MoS2(1-x)Se2x/rGO composites with enhanced capability and stability for lithium ion batteries. Electrochimica Acta, 2018, 268, 424-434.	2.6	22
385	The intrinsic interface properties of the top and edge 1T/2H <i>MoS</i> 2 contact: A first-principles study. Journal of Applied Physics, 2018, 123, .	1.1	19
386	Novel structured transition metal dichalcogenide nanosheets. Chemical Society Reviews, 2018, 47, 3301-3338.	18.7	303
387	Near-infrared photodetector achieved by chemically-exfoliated multilayered MoS2 flakes. Applied Surface Science, 2018, 448, 64-70.	3.1	50

#	Article	IF	CITATIONS
388	Gate-tunable interfacial properties of in-plane ML MX <sub>2</sub> 1T′–2H heterojunctions. Journal of Materials Chemistry C, 2018, 6, 5651-5661.	2.7	54
389	Ohmic contacts between monolayer WSe2 and two-dimensional titanium carbides. Carbon, 2018, 135, 125-133.	5.4	55
390	Two-Dimensional MoS <sub>2</sub> Confined Co(OH) <sub>2</sub> Electrocatalysts for Hydrogen Evolution in Alkaline Electrolytes. ACS Nano, 2018, 12, 4565-4573.	7.3	302
391	Misorientationâ€Angleâ€Dependent Phase Transformation in van der Waals Multilayers via Electronâ€Beam Irradiation. Advanced Materials, 2018, 30, e1706864.	11.1	10
392	Metastable MoS <sub>2</sub> : Crystal Structure, Electronic Band Structure, Synthetic Approach and Intriguing Physical Properties. Chemistry - A European Journal, 2018, 24, 15942-15954.	1.7	133
393	Contactâ€Engineered Electrical Properties of MoS <sub>2</sub> Fieldâ€Effect Transistors via Selectively Deposited Thiolâ€Molecules. Advanced Materials, 2018, 30, e1705540.	11.1	56
394	Quantum transport through MoS <sub>2</sub> constrictions defined by photodoping. Journal of Physics Condensed Matter, 2018, 30, 205001.	0.7	17
395	New Asymmetric Atomistic Model for the Analysis of Phase-Engineered MoS2-Gold Top Contact. , 2018, ,		2
396	Post-Synthesis Modifications of Two-Dimensional MoSe <sub>2</sub> or MoTe <sub>2</sub> by Incorporation of Excess Metal Atoms into the Crystal Structure. ACS Nano, 2018, 12, 3975-3984.	7.3	67
397	Phaseâ€Engineered PtSe <sub>2</sub> â€Layered Films by a Plasmaâ€Assisted Selenization Process toward All PtSe <sub>2</sub> â€Based Field Effect Transistor to Highly Sensitive, Flexible, and Wideâ€Spectrum Photoresponse Photodetectors. Small, 2018, 14, e1800032.	5.2	83
398	Electron beam interaction and its effect on crystalline 2H phase of MoS2. AIP Conference Proceedings, 2018, , .	0.3	0
399	Two-dimensional electronic transport and surface electron accumulation in MoS2. Nature Communications, 2018, 9, 1442.	5.8	132
400	Review of contact-resistance analysis in nano-material. Journal of Mechanical Science and Technology, 2018, 32, 539-547.	0.7	15
401	On Low-Resistance Contacts to 2-D MoTe <sub>2</sub> by Crystalline Phase Junctions. IEEE Transactions on Electron Devices, 2018, 65, 1583-1588.	1.6	6
402	Symmetrical metallic and magnetic edge states of nanoribbon from semiconductive monolayer PtS2. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 776-780.	0.9	12
403	In Situ Resonant Raman Spectroscopy to Monitor the Surface Functionalization of MoS <sub>2</sub> and WSe <sub>2</sub> for High-k Integration: A First-Principles Study. Langmuir, 2018, 34, 2882-2889.	1.6	32
404	Mixed Phase Compositions of MoS 2 Ultra Thin Film Grown by Pulsed Laser Deposition. Materials Today: Proceedings, 2018, 5, 2241-2245.	0.9	9
405	Engineering active edge sites of fractal-shaped single-layer MoS2 catalysts for high-efficiency hydrogen evolution. Nano Energy, 2018, 51, 786-792.	8.2	98

ARTICLE IF CITATIONS 2D Photovoltaic Devices: Progress and Prospects. Small Methods, 2018, 2, 1700294. 406 4.6 135 Direct Observation of Semiconductor–Metal Phase Transition in Bilayer Tungsten Diselenide Induced 44 by Potassium Surface Functionalization. ACS Nano, 2018, 12, 2070-2077. Role of Interfaces in Two-Dimensional Photocatalyst for Water Splitting. ACS Catalysis, 2018, 8, 408 5.5 773 2253-2276. Small stoichiometric (MoS<sub>2</sub>)<sub>n</sub> clusters with the 1T phase. Physical Chemistry 409 Chemical Physics, 2018, 20, 6365-6373. Chemical Vapor Deposition Growth and Applications of Two-Dimensional Materials and Their 410 23.0 1,000 Heterostructures. Chemical Reviews, 2018, 118, 6091-6133. Phase engineering of seamless heterophase homojunctions with co-existing 3R and 2H phases in WS (sub>2 (sub> monolayers. Nanoscale, 2018, 10, 3320-3330. 2.8 Lateral Chemical Bonding in Two-Dimensional Transition-Metal Dichalcogenide Metal/Semiconductor 412 1.5 14 Heterostructures. Journal of Physical Chemistry C, 2018, 122, 5401-5410. Selective fabrication of free-standing ABA and ABC trilayer graphene with/without Dirac-cone energy 3.8 bands. NPG Asia Materials, 2018, 10, e466-e466. 2D MoS2 as an efficient protective layer for lithium metal anodes in high-performance Li–S batteries. 414 15.6 624 Nature Nanotechnology, 2018, 13, 337-344. Engineered MoSe<sub>2</sub>â€Based Heterostructures for Efficient Electrochemical Hydrogen 10.2 152 Evolution Reaction. Advanced Energy Materials, 2018, 8, 1703212. A Facile Space-Confined Solid-Phase Sulfurization Strategy for Growth of High-Quality Ultrathin 416 4.542 Molybdenum Disulfide Single Crystals. Nano Letters, 2018, 18, 2021-2032. Synthesizing 1T–1H Two-Phase Mo<sub>1–<i>x</i></sub>W<sub><i>x</i></sub>S<sub>2</sub> Monolayers by Chemical Vapor Deposition. ACS Nano, 2018, 12, 1571-1579. Semiconductor–metal structural phase transformation in MoTe<sub>2</sub> monolayers by 418 2.8 34 electronic excitation. Nanoscale, 2018, 10, 2742-2747. Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 4.5 18, 482-490. Designer Shape Anisotropy on Transitionâ€Metalâ€Dichalcogenide Nanosheets. Advanced Materials, 2018, 420 11.1 52 30, 1705615. Reconfiguring crystal and electronic structures of MoS2 by substitutional doping. Nature 421 5.8 128 Communications, 2018, 9, 199. Magneticâ€Inducedâ€Piezopotential Gated MoS<sub>2</sub> Fieldâ€Effect Transistor at Room Temperature. 422 11.1 47 Advanced Materials, 2018, 30, 1704524. Epitaxial Synthesis of Molybdenum Carbide and Formation of a Mo<sub>2</sub>C/MoS<sub>2</sub> 148 Hybrid Structure <i>via</i> Chemical Conversion of Molybdenum Disulfide. ACS Nano, 2018, 12, 338-346.

#	Article	IF	CITATIONS
424	Doped armchair germanene nanoribbon exhibiting negative differential resistance and analysing its nano-FET performance. Organic Electronics, 2018, 54, 261-269.	1.4	17
425	Controllable Phase Stabilities in Transition Metal Dichalcogenides through Curvature Engineering: First-Principles Calculations and Continuum Prediction. Advanced Theory and Simulations, 2018, 1, 1800003.	1.3	5
426	Controllable etching of MoS2 basal planes for enhanced hydrogen evolution through the formation of active edge sites. Nano Energy, 2018, 49, 634-643.	8.2	220
427	Molybdenum and tungsten disulfides-based nanocomposite films for energy storage and conversion: A review. Chemical Engineering Journal, 2018, 348, 908-928.	6.6	98
428	Interfacial Engineering for Fabricating Highâ€Performance Fieldâ€Effect Transistors Based on 2D Materials. Small Methods, 2018, 2, 1700384.	4.6	60
429	In pursuit of barrierless transition metal dichalcogenides lateral heterojunctions. Nanotechnology, 2018, 29, 295202.	1.3	6
430	TMD-based highly efficient electrocatalysts developed by combined computational and experimental approaches. Chemical Society Reviews, 2018, 47, 4332-4356.	18.7	232
431	Metallic Transition-Metal Dichalcogenide Nanocatalysts for Energy Conversion. CheM, 2018, 4, 1510-1537.	5.8	141
432	Temperature- and Phase-Dependent Phonon Renormalization in 1T′-MoS <sub>2</sub> . ACS Nano, 2018, 12, 5051-5058.	7.3	63
433	Nanoscale doping heterogeneity in few-layer WSe <sub>2</sub> exfoliated onto noble metals revealed by correlated SPM and TERS imaging. 2D Materials, 2018, 5, 035003.	2.0	22
434	High phase-purity 1T′-MoS2- and 1T′-MoSe2-layered crystals. Nature Chemistry, 2018, 10, 638-643.	6.6	757
435	Controlled Growth of Bilayerâ€MoS <sub>2</sub> Films and MoS <sub>2</sub> â€Based Fieldâ€Effect Transistor (FET) Performance Optimization. Advanced Electronic Materials, 2018, 4, 1700524.	2.6	29
436	High performance solution processed oxide thin-film transistors with inkjet printed Ag source–drain electrodes. Journal of Materials Chemistry C, 2018, 6, 3220-3225.	2.7	20
437	Targeted bottom-up synthesis of 1T-phase MoS2 arrays with high electrocatalytic hydrogen evolution activity by simultaneous structure and morphology engineering. Nano Research, 2018, 11, 4368-4379.	5.8	52
438	A comparative study on top-gated and bottom-gated multilayer MoS <sub>2</sub> transistors with gate stacked dielectric of Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> . Nanotechnology, 2018, 29, 245201.	1.3	31
439	Effect of lithium doping on the optical properties of monolayer MoS2. Applied Physics Letters, 2018, 112, .	1.5	23
440	In situ growth of 1T-MoS2 on liquid-exfoliated graphene: A unique graphene-like heterostructure for superior lithium storage. Carbon, 2018, 133, 162-169.	5.4	45
441	Chemical synthesis of two-dimensional atomic crystals, heterostructures and superlattices. Chemical Society Reviews, 2018, 47, 3129-3151.	18.7	132

#	Article	IF	CITATIONS
442	Three-layer phosphorene-metal interfaces. Nano Research, 2018, 11, 707-721.	5.8	72
443	Computational study of phase engineered transition metal dichalcogenides heterostructures. Computational Materials Science, 2018, 142, 129-134.	1.4	11
444	Electrical contacts in monolayer blue phosphorene devices. Nano Research, 2018, 11, 1834-1849.	5.8	55
445	Experimental investigation of the contact resistance of Graphene/MoS2 interface treated with O2 plasma. Superlattices and Microstructures, 2018, 114, 421-427.	1.4	4
446	Two-Dimensional Transition Metal Oxide and Chalcogenide-Based Photocatalysts. Nano-Micro Letters, 2018, 10, 23.	14.4	257
447	Group 6 transition metal dichalcogenide nanomaterials: synthesis, applications and future perspectives. Nanoscale Horizons, 2018, 3, 90-204.	4.1	309
448	Large-area niobium disulfide thin films as transparent electrodes for devices based on two-dimensional materials. Nanoscale, 2018, 10, 1056-1062.	2.8	44
449	Structure Reâ€determination and Superconductivity Observation of Bulk 1T MoS <sub>2</sub> . Angewandte Chemie, 2018, 130, 1246-1249.	1.6	46
450	Structure Reâ€determination and Superconductivity Observation of Bulk 1T MoS <sub>2</sub> . Angewandte Chemie - International Edition, 2018, 57, 1232-1235.	7.2	126
451	Polycrystalline CoP/CoP <sub>2</sub> Structures for Efficient Full Water Splitting. ChemElectroChem, 2018, 5, 701-707.	1.7	90
452	Electronic structure of the PLD grown mixed phase MoS 2 /GaN interface and its thermal annealing effect. Current Applied Physics, 2018, 18, 170-177.	1.1	17
453	Recent progress in 2D materials for flexible supercapacitors. Journal of Energy Chemistry, 2018, 27, 57-72.	7.1	179
454	Rigidâ€layer Ramanâ€active modes in <i>N</i> â€layer transition metal dichalcogenides: interlayer force constants and hyperspectral Raman imaging. Journal of Raman Spectroscopy, 2018, 49, 91-99.	1.2	17
455	Preparation of MoS <sub>2</sub> /TiO <sub>2</sub> based nanocomposites for photocatalysis and rechargeable batteries: progress, challenges, and perspective. Nanoscale, 2018, 10, 34-68.	2.8	247
456	Enhanced electrical and optical properties of single-layered MoS2 by incorporation of aluminum. Nano Research, 2018, 11, 731-740.	5.8	15
457	2D heterostructure comprised of metallic 1T-MoS2/Monolayer O-g-C3N4 towards efficient photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 220, 379-385.	10.8	231
458	2D superconductivity and vortex dynamics in 1T-MoS2. Communications Physics, 2018, 1, .	2.0	28
459	Quantification of Bonded Ni Atoms for M-M0S2 Metallic Contact through X-ray Photoemission Electron Microscopy, Microscopy and Microanalysis, 2018, 24, 458-459.	0.2	1

ARTICLE IF CITATIONS 2D materials: roadmap to CMOS integration., 2018,,. 60 460 Synthesis, stabilization and applications of 2-dimensional 1T metallic MoS<sub>2</sub>. Journal of 5.2 Materials Chemistry A, 2018, 6, 23932-23977. 462 Controllable 2H-to-1Tâ€<sup>2</sup> phase transition in few-layer MoTe<sub>2</sub>. Nanoscale, 2018, 10, 19964-19971. 2.8 99 Controlled p-type substitutional doping in large-area monolayer WSe<sub>2</sub>crystals grown by chemical vapor deposition. Nanoscale, 2018, 10, 21374-21385. Metastable phase control of two-dimensional transition metal dichalcogenides on metal substrates. 464 2.7 16 Journal of Materials Chemistry C, 2018, 6, 12245-12251. Competing thermal expansion mismatch and lattice strain engineered growth of crack free 2.7 WS<sub>2</sub> in-plane heterostructures. Journal of Materials Chemistry C, 2018, 6, 11407-11415. Graphene-based in-plane heterostructures for atomically thin electronics. New Carbon Materials, 466 2.9 8 2018, 33, 481-492. Charge-governed phase manipulation of few-layer tellurium. Nanoscale, 2018, 10, 22263-22269. 467 2.8 28 Revealing the Spectrum of Unknown Layered Materials with Superhuman Predictive Abilities. Journal 468 2.1 25 of Physical Chemistry Letters, 2018, 9, 6967-6972. Scaling-up phase selection. Nature Materials, 2018, 17, 1058-1059. 13.3 Superconductivity in the metastable <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:msup><mml:mi>T</mml:mi><mml:mi> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn>><mml:msup><mml:mi>IIx/mml:m29<mml:mi 470 phases of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><m. Physical Strain-Engineering of Twist-Angle in Graphene/hBN Superlattice Devices. Nano Letters, 2018, 18, 471 4.5 7919-7926. Synthesis of Airâ€stable 1T Phase of Molybdenum Disulfide for Efficient Electrocatalytic Hydrogen 472 1.8 10 Evolution. ChemCatChem, 2019, 11, 707-714. Electrical contacts to two-dimensional transition-metal dichalcogenides. Journal of Semiconductors, 2018, 39, 124001. Reviewâ€"Electrochemical Synthesis of 2D Layered Materials and Their Potential Application in Pesticide 474 32 1.3 Detection. Journal of the Electrochemical Society, 2018, 165, B848-B861. Mechanisms of Semiconducting 2H to Metallic 1T Phase Transition in Two-dimensional MoS<sub>2</sub> Nanosheets. Journal of Physical Chemistry C, 2018, 122, 28215-28224. Ultrahighâ€Workingâ€Frequency Embedded Supercapacitors with 1T Phase MoSe<sub>2</sub> Nanosheets 476 7.8 47 for Systemâ€inâ€Package Application. Advanced Functional Materials, 2019, 29, 1807116. HfO<sub>2</sub>/HfS<sub>2</sub> hybrid heterostructure fabricated <i>via</i> controllable 2.8 48 chemical conversion of two-dimensional HfS<sub>2</sub>. Nanoscale, 2018, 10, 18758-18766.

#	ARTICLE	IF	CITATIONS
478	An Insight into the Phase Transformation of WS <sub>2</sub> upon Fluorination. Advanced Materials, 2018, 30, e1803366.	11.1	26
479	Recent Advances in Synthesis and Applications of 2D Junctions. Small, 2018, 14, e1801606.	5.2	19
480	Active basal plane in ZT-phased MX2 (M = Mo, W; X = S, Se, Te) catalysts for the hydrogen evolution reaction: A theoretical study. International Journal of Hydrogen Energy, 2018, 43, 19432-19437.	3.8	15
481	Novel 2D Germanene Dioxide Monolayers: Mechanical Properties, Holeâ€Mobility Values, and Carrier Mobility. Annalen Der Physik, 2018, 530, 1800214.	0.9	3
482	2D layered transition metal dichalcogenides (MoS2): Synthesis, applications and theoretical aspects. Applied Materials Today, 2018, 13, 242-270.	2.3	139
483	Atmospheric and Long-term Aging Effects on the Electrical Properties of Variable Thickness WSe <sub>2</sub> Transistors. ACS Applied Materials & Interfaces, 2018, 10, 36540-36548.	4.0	31
484	Two-Dimensional Metallic/Semiconducting MoS <sub>2</sub> under Biaxial Strain. ACS Applied Nano Materials, 2018, 1, 5562-5570.	2.4	11
485	Solution-processable 2D semiconductors for high-performance large-area electronics. Nature, 2018, 562, 254-258.	13.7	644
486	WS <sub>2</sub> –Graphite Dual-Ion Batteries. Nano Letters, 2018, 18, 7155-7164.	4.5	88
487	Charge carrier injection and transport engineering in two-dimensional transition metal dichalcogenides. Chemical Science, 2018, 9, 7727-7745.	3.7	70
488	Ternary MoS2/MoO3/C Nanosheets as High-Performance Anode Materials for Lithium-Ion Batteries. Journal of Electronic Materials, 2018, 47, 6767-6773.	1.0	8
489	Probing Evolution of Local Strain at MoS <sub>2</sub> -Metal Boundaries by Surface-Enhanced Raman Scattering. ACS Applied Materials & Interfaces, 2018, 10, 40246-40254.	4.0	28
490	Mirror twin grain boundaries in molybdenum dichalcogenides. Journal of Physics Condensed Matter, 2018, 30, 493001.	0.7	36
492	Phase-selective synthesis of 1T′ MoS2 monolayers and heterophase bilayers. Nature Materials, 2018, 17, 1108-1114.	13.3	348
493	Monolayer Transition-Metal Dichalcogenide Mo <sub>1–<i>x</i></sub> W <i><sub>x</sub></i> S <sub>2</sub> Alloys as Efficient Anode Materials for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2018, 122, 25837-25848.	1.5	28
494	Metallic-Phase MoS <sub>2</sub> Nanopetals with Enhanced Electrocatalytic Activity for Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2018, 6, 13435-13442.	3.2	48
495	Realization of vertical metal semiconductor heterostructures via solution phase epitaxy. Nature Communications, 2018, 9, 3611.	5.8	49
496	Crystal phase control in two-dimensional materials. Science China Chemistry, 2018, 61, 1227-1242.	4.2	42

#	Article	IF	CITATIONS
497	Molecular-Beam Epitaxy of Two-Dimensional In <sub>2</sub> Se <sub>3</sub> and Its Giant Electroresistance Switching in Ferroresistive Memory Junction. Nano Letters, 2018, 18, 6340-6346.	4.5	163
498	Solution-Processed Bi <sub>2</sub> S <sub>3</sub> Photoresistor Film To Mitigate a Trade-off between Morphology and Electronic Properties. Journal of Physical Chemistry Letters, 2018, 9, 5392-5399.	2.1	20
499	Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358.	6.6	85
500	2-D Layered Materials for Next-Generation Electronics: Opportunities and Challenges. IEEE Transactions on Electron Devices, 2018, 65, 4109-4121.	1.6	74
501	One-Dimensional Atomic Segregation at Semiconductor–Metal Interfaces of Polymorphic Transition Metal Dichalcogenide Monolayers. Nano Letters, 2018, 18, 6157-6163.	4.5	4
502	Writing monolithic integrated circuits on a two-dimensional semiconductor with a scanning light probe. Nature Electronics, 2018, 1, 512-517.	13.1	74
503	Analyzing the Effect of High-k Dielectric-Mediated Doping on Contact Resistance in Top-Gated Monolayer MoS <sub>2</sub> Transistors. IEEE Transactions on Electron Devices, 2018, 65, 4084-4092.	1.6	17
504	High-Vacuum Particulate-Free Deposition of Wafer-Scale Mono-, Bi-, and Trilayer Molybdenum Disulfide with Superior Transport Properties. ACS Applied Materials & Interfaces, 2018, 10, 33457-33463.	4.0	7
505	High-Performance InSe Transistors with Ohmic Contact Enabled by Nonrectifying Barrier-Type Indium Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 33450-33456.	4.0	35
506	Contacting and Gating 2-D Nanomaterials. IEEE Transactions on Electron Devices, 2018, 65, 4073-4083.	1.6	30
507	Progress in Contact, Doping and Mobility Engineering of MoS2: An Atomically Thin 2D Semiconductor. Crystals, 2018, 8, 316.	1.0	118
508	Differentiating Polymorphs in Molybdenum Disulfide via Electron Microscopy. Advanced Materials, 2018, 30, e1802397.	11.1	75
509	In-situ fabrication of Mo6S6-nanowire-terminated edges in monolayer molybdenum disulfide. Nano Research, 2018, 11, 5849-5857.	5.8	32
510	Tunable phase stability and contact resistance of monolayer transition metal dichalcogenides contacts with metal. Npj 2D Materials and Applications, 2018, 2, .	3.9	17
511	Layer-Dependent Chemically Induced Phase Transition of Two-Dimensional MoS <sub>2</sub> . Nano Letters, 2018, 18, 3435-3440.	4.5	69
512	Controllable solution-fabrication of triphasic 2H@1T-MoS2/graphene heterostructure with assistance of supercritical CO2. Surfaces and Interfaces, 2018, 12, 41-49.	1.5	9
513	Controlling Band Alignment in Molecular Junctions: Utilizing Two-Dimensional Transition-Metal Dichalcogenides as Electrodes for Thermoelectric Devices. Journal of Physical Chemistry C, 2018, 122, 14233-14239.	1.5	11
514	Metallic 1T phase MoS <sub>2</sub> nanosheets decorated hollow cobalt sulfide polyhedra for high-performance lithium storage. Journal of Materials Chemistry A, 2018, 6, 12613-12622.	5.2	46

ARTICLE IF CITATIONS # Canonical Schottky barrier heights of transition metal dichalcogenide monolayers in contact with a 515 1.1 12 metal. Physical Review B, 2018, 97, . 1T phase as an efficient hole injection layer to TMDs transistors: a universal approach to achieve p-type contacts. 2D Materials, 2018, 5, 031012. Approaching the Schottky–Mott limit in van der Waals metal–semiconductor junctions. Nature, 2018, 517 13.7 1,279 557, 696-700. Doped Chargeâ€Transporting Layers in Planar Perovskite Solar Cells. Advanced Optical Materials, 2018, 6, 1800276. van der Waals Metallic Transition Metal Dichalcogenides. Chemical Reviews, 2018, 118, 6297-6336. 519 23.0 252 Synergistic effect of MoS2 and diamond nanoparticles in electrochemical sensors: determination of 2.5 the anticonvulsant drug valproic acid. Mikrochimica Acta, 2018, 185, 334. Ohmic contact between titanium and sputtered MoS<sub>2</sub> films achieved by forming-gas 521 0.8 11 annealing. Japanese Journal of Applied Physics, 2018, 57, 07MA04. Defect in 2D materials beyond graphene., 2018, , 161-187. Tunable Electron and Hole Injection Enabled by Atomically Thin Tunneling Layer for Improved Contact 523 Resistance and Dual Channel Transport in MoS<sub>2</sub>/WSe<sub>2</sub> van der Waals 4.0 17 Heterostructure. ACS Applied Materials & amp; Interfaces, 2018, 10, 23961-23967. Systematic design of superaerophobic nanotube-array electrode comprised of transition-metal 524 5.8 431 sulfides for overall water splitting. Nature Communications, 2018, 9, 2452. High carrier mobility in monolayer CVD-grown MoS<sub>2</sub> through phonon suppression. 525 2.8 74 Nanoscale, 2018, 10, 15071-15077. Recent Progress and Future Prospects of 2Dâ€Based Photodetectors. Advanced Materials, 2018, 30, 11.1 408 e1801164. Distorted Janus Transition Metal Dichalcogenides: Stable Two-Dimensional Materials with Sizable 527 1.5 55 Band Gap and Ultrahigh Carrier Mobility. Journal of Physical Chemistry C, 2018, 122, 19153-19160. Thermal Boundary Conductance Mapping at Metal-MoSe<inf>2</inf> Interface., 2018, ... Modeling of Electron Devices Based on 2-D Materials. IEEE Transactions on Electron Devices, 2018, 65, 529 1.6 32 4167-4179. Two-dimensional transistors beyond graphene and TMDCs. Chemical Society Reviews, 2018, 47, 301 6388-6409. Interface Characterization and Control of 2D Materials and Heterostructures. Advanced Materials, 531 11.1 134 2018, 30, e1801586. Lowâ€Temperature Eutectic Synthesis of PtTe<sub>2</sub> with Weak Antilocalization and Controlled Layer Thinning. Advanced Functional Materials, 2018, 28, 1803746.

#	Article	IF	CITATIONS
533	Hybridization induced metallic and magnetic edge states in noble transition-metal-dichalcogenides of PtX <sub>2</sub> (X = S, Se) nanoribbons. Physical Chemistry Chemical Physics, 2018, 20, 21441-21446.	1.3	13
534	Investigating Laser-Induced Phase Engineering in MoS <sub>2</sub> Transistors. IEEE Transactions on Electron Devices, 2018, 65, 4053-4058.	1.6	8
535	Metallic MoS <sub>2</sub> for High Performance Energy Storage and Energy Conversion. Small, 2018, 14, e1800640.	5.2	218
536	Molecular chemistry approaches for tuning the properties of two-dimensional transition metal dichalcogenides. Chemical Society Reviews, 2018, 47, 6845-6888.	18.7	202
537	A comparative study on the photocatalytic degradation of organic dyes using hybridized 1T/2H, 1T/3R and 2H MoS <sub>2</sub> nano-sheets. RSC Advances, 2018, 8, 26364-26370.	1.7	63
538	Flexible thermoelectric materials and devices. Applied Materials Today, 2018, 12, 366-388.	2.3	415
539	Defect Dynamics in 2-D MoS <sub>2</sub> Probed by Using Machine Learning, Atomistic Simulations, and High-Resolution Microscopy. ACS Nano, 2018, 12, 8006-8016.	7.3	72
540	2H/1T Phase Transition of Multilayer MoS <sub>2</sub> by Electrochemical Incorporation of S Vacancies. ACS Applied Energy Materials, 2018, 1, 4754-4765.	2.5	141
541	One-step hydrothermal synthesis of marigold flower-like nanostructured MoS2 as a counter electrode for dye-sensitized solar cells. Journal of Solid State Electrochemistry, 2018, 22, 3331-3341.	1.2	24
542	Van der Waals Heterostructure Based Field Effect Transistor Application. Crystals, 2018, 8, 8.	1.0	24
543	Plasma-Induced Phase Transformation of SnS2 to SnS. Scientific Reports, 2018, 8, 10284.	1.6	35
544	Traversing Energy Landscapes Away from Equilibrium: Strategies for Accessing and Utilizing Metastable Phase Space. Journal of Physical Chemistry C, 2018, 122, 25709-25728.	1.5	75
545	Phase Transition of Single-Layer Molybdenum Disulfide Nanosheets under Mechanical Loading Based on Molecular Dynamics Simulations. Materials, 2018, 11, 502.	1.3	13
546	Emerging nanofabrication and quantum confinement techniques for 2D materials beyond graphene. Npj 2D Materials and Applications, 2018, 2, .	3.9	117
547	Ultrastable Inâ€Plane 1T–2H MoS <sub>2</sub> Heterostructures for Enhanced Hydrogen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1801345.	10.2	409
548	Electrical contact resistance in graphite–graphene contacts from ab initio methods. Journal of Physics Condensed Matter, 2018, 30, 325302.	0.7	2
549	Improving Performances of In-Plane Transition-Metal Dichalcogenide Schottky Barrier Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 19271-19277.	4.0	89
550	Tuning the phase stability of Mo-based TMD monolayers through coupled vacancy defects and lattice strain. Journal of Materials Chemistry C, 2018, 6, 9561-9568.	2.7	52

#		IE	CITATIONS
# 551	The Computational 2D Materials Database: high-throughput modeling and discovery of atomically thin	2.0	711
	crystals. 2D Materials, 2018, 5, 042002.		
552	Dichalcogenides. ACS Applied Materials & amp; Interfaces, 2018, 10, 30640-30648.	4.0	3
553	Strain effects on the DC performance of single-layer TMD-based double-gate field-effect transistors. Journal of Computational Electronics, 2018, 17, 1603-1607.	1.3	7
554	Stable and scalable 1T MoS2 with low temperature-coefficient of resistance. Scientific Reports, 2018, 8, 12463.	1.6	31
555	MoS <sub>2</sub> Phase-junction-based Schottky Diodes for RF Electronics. , 2018, , .		8
556	Atomic-Scale Probing of Reversible Li Migration in 1T-V <sub>1+<i>x</i></sub> Se <sub>2</sub> and the Interactions between Interstitial V and Li. Nano Letters, 2018, 18, 6094-6099.	4.5	18
557	Vertical Transistors Based on 2D Materials: Status and Prospects. Crystals, 2018, 8, 70.	1.0	71
558	Impact of Contact Resistance on 2D Negative-Capacitance FETs. , 2018, , .		1
559	Triboelectric Series of 2D Layered Materials. Advanced Materials, 2018, 30, e1801210.	11.1	179
560	Enhanced thermoelectric performance of two dimensional MS2 (MÂ=ÂMo, W) through phase engineering. Journal of Materiomics, 2018, 4, 329-337.	2.8	21
561	Strategies on Phase Control in Transition Metal Dichalcogenides. Advanced Functional Materials, 2018, 28, 1802473.	7.8	90
562	Strain engineering in two-dimensional nanomaterials beyond graphene. Nano Today, 2018, 22, 14-35.	6.2	252
563	Progress and prospects of aberration-corrected STEM for functional materials. Ultramicroscopy, 2018, 194, 182-192.	0.8	29
564	Effects of HfO <sub>2</sub> encapsulation on electrical performances of few-layered MoS <sub>2</sub> transistor with ALD HfO <sub>2</sub> as back-gate dielectric. Nanotechnology, 2018, 29, 345201.	1.3	30
565	Stabilized monolayer 1T MoS2 embedded in CoOOH for highly efficient overall water splitting. Nanoscale, 2018, 10, 12330-12336.	2.8	33
566	Recent Development of Metallic (1T) Phase of Molybdenum Disulfide for Energy Conversion and Storage. Advanced Energy Materials, 2018, 8, 1703482.	10.2	317
567	Metallic 1T-MoS <sub>2</sub> with defect induced additional active edges for high performance supercapacitor application. New Journal of Chemistry, 2018, 42, 12082-12090.	1.4	69
568	Fabrication of two-dimensional MoS <sub>2</sub> thin-film transistors using a reactive thermal evaporation method combined with an annealing step. Molecular Crystals and Liquid Crystals, 2018, 662, 2-8.	0.4	2

# 569	ARTICLE Chemical Doping Effects in Multilayer MoS <sub>2</sub> and Its Application in Complementary Inverter. ACS Applied Materials & Interfaces, 2018, 10, 23270-23276.	IF 4.0	Citations 22
570	Ultrathin two-dimensional metallic nanocrystals for renewable energy electrocatalysis. Materials Today, 2019, 23, 45-56.	8.3	64
571	Unconventional solution-phase epitaxial growth of organic-inorganic hybrid perovskite nanocrystals on metal sulfide nanosheets. Science China Materials, 2019, 62, 43-53.	3.5	20
572	Heterogeneous Integration of 2D Materials and Devices on a Si Platform. , 2019, , 43-84.		5
573	Functionalization of 2D materials by intercalation. Progress in Surface Science, 2019, 94, 1-20.	3.8	48
574	Phase transition and electronic structure investigation of MoS <sub>2</sub> -reduced graphene oxide nanocomposite decorated with Au nanoparticles. Nanotechnology, 2019, 30, 475707.	1.3	20
575	Vertical Heterophase for Electrical, Electrochemical, and Mechanical Manipulations of Layered MoTe <sub>2</sub> . Advanced Functional Materials, 2019, 29, 1904504.	7.8	40
576	The charge carrier dynamics, efficiency and stability of two-dimensional material-based perovskite solar cells. Chemical Society Reviews, 2019, 48, 4854-4891.	18.7	139
577	Tunable large-area phase reversion in chemical vapor deposited few-layer MoTe <sub>2</sub> films. Journal of Materials Chemistry C, 2019, 7, 10598-10604.	2.7	14
578	Two-Dimensional Transition Metal Dichalcogenides: An Overview. , 2019, , 1-27.		4
579	Transition Metal Dichalcogenides in Photocatalysts. , 2019, , 107-134.		0
580	MoS2 dual-gate transistors with electrostatically doped contacts. Nano Research, 2019, 12, 2515-2519.	5.8	21
581	Phase-selective Hydrothermal Synthesis of Metallic MoS <sub>2</sub> at High Temperature. Chemistry Letters, 2019, 48, 828-831.	0.7	2
582	Conductive AFM of 2D Materials and Heterostructures for Nanoelectronics. Nanoscience and Technology, 2019, , 303-350.	1.5	7
583	Electronics from solution-processed 2D semiconductors. Journal of Materials Chemistry C, 2019, 7, 12835-12861.	2.7	24
584	Engineering Monolayer 1T-MoS <sub>2</sub> into a Bifunctional Electrocatalyst via Sonochemical Doping of Isolated Transition Metal Atoms. ACS Catalysis, 2019, 9, 7527-7534.	5.5	92
585	Low-temperature behaviors of multilayer MoS2 transistors with ohmic and Schottky contacts. Applied Physics Letters, 2019, 115, .	1.5	9
586	MoS <sub>2</sub> Doping Using Potassium lodide for Reliable Contacts and Efficient FET Operation. IEEE Transactions on Electron Devices, 2019, 66, 3224-3228.	1.6	16

#	Article	IF	CITATIONS
587	Carbon Nanomaterials and Two-Dimensional Transition Metal Dichalcogenides (2D TMDCs). Advanced Structured Materials, 2019, , 165-245.	0.3	4
588	Immunity to Contact Scaling in MoS <sub>2</sub> Transistors Using in Situ Edge Contacts. Nano Letters, 2019, 19, 5077-5085.	4.5	76
589	A facile alkali metal hydroxide-assisted controlled and targeted synthesis of 1T MoS <sub>2</sub> single-crystal nanosheets for lithium ion battery anodes. Nanoscale, 2019, 11, 14857-14862.	2.8	30
590	Synthesis and Properties of (BiSe) <sub>0.97</sub> MoSe <sub>2</sub> : A Heterostructure Containing Both 2H-MoSe <sub>2</sub> and 1T-MoSe <sub>2</sub> . Chemistry of Materials, 2019, 31, 5824-5831.	3.2	14
591	Manipulating Topological Domain Boundaries in the Single-Layer Quantum Spin Hall Insulator 1T′–WSe2. Nano Letters, 2019, 19, 5634-5639.	4.5	30
592	Recent Advances in Interface Engineering of Transition-Metal Dichalcogenides with Organic Molecules and Polymers. ACS Nano, 2019, 13, 9713-9734.	7.3	72
593	Reexamination of the Schottky Barrier Heights in Monolayer MoS <sub>2</sub> Field-Effect Transistors. ACS Applied Nano Materials, 2019, 2, 4717-4726.	2.4	27
594	Two Dimensional Transition Metal Dichalcogenides. , 2019, , .		7
595	Electronic Devices Based on Transition Metal Dichalcogenides. , 2019, , 331-355.		2
59 <b>7</b>	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.	4.3	39
597 598	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435. Band Structure Engineering of Layered WSe <sub>2</sub> <i>via</i> One-Step Chemical Functionalization. ACS Nano, 2019, 13, 7545-7555.	4.3 7.3	39 21
597 598 599	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>via</i> One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> Lateral Homojunction Field-Effect Transistors Fabricated using Flux-Controlled         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.	4.3 7.3 7.3	39 21 75
597 598 599 600	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>via</i> One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> Lateral Homojunction Field-Effect Transistors Fabricated using Flux-Controlled         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.         High-performance monolayer MoS2 field-effect transistor with large-scale nitrogen-doped graphene         electrodes for Ohmic contact. Applied Physics Letters, 2019, 115, .	4.3 7.3 7.3 1.5	39 21 75 27
597 598 599 600 601	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>via</i> One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> Lateral Homojunction Field-Effect Transistors Fabricated using Flux-Controlled         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.         High-performance monolayer MoS2 field-effect transistor with large-scale nitrogen-doped graphene electrodes for Ohmic contact. Applied Physics Letters, 2019, 115, .         Performance Comparison of s-Si, In0.53Ga0.47As, Monolayer BP- and WS2-Based n-MOSFETs for Future Technology Nodesâ€"Part II: Circuit-Level Comparison. IEEE Transactions on Electron Devices, 2019, 66, 3614-3619.	<ul> <li>4.3</li> <li>7.3</li> <li>7.3</li> <li>1.5</li> <li>1.6</li> </ul>	39 21 75 27 0
<ul> <li>597</li> <li>598</li> <li>599</li> <li>600</li> <li>601</li> <li>602</li> </ul>	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>via</i> One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> Lateral Homojunction Field-Effect Transistors Fabricated using Flux-Controlled         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.         High-performance monolayer MoS2 field-effect transistor with large-scale nitrogen-doped graphene         electrodes for Ohmic contact. Applied Physics Letters, 2019, 115, .         Performance Comparison of s-Si, In0.53Ga0.47As, Monolayer BP- and WS2-Based n-MOSFETs for Future         Technology Nodesâ€"Part II: Circuit-Level Comparison. IEEE Transactions on Electron Devices, 2019, 66, 3614-3619.         Material-Selective Doping of 2D TMDC through Al <i><sub>x</sub></i> Material-Selective Doping of 2D TMDC through Al <i><sub>x</sub></i> Material-Selective Doping of 2D TMDC through Al <i><sub>x</sub></i> Material-Selective Doping of 2D TMDC through Al <i><sub>x</sub>         Material-Selective Doping of 2D TMDC through Al<i><sub>x</sub>         Material-Selective Doping of 2D TMDC through Al<i><sub>x</sub>         Phase Sub          Sub&gt;x         Sub&gt;x         Sub&gt;x         Sub&gt;x         Sub&gt;x         Sub&gt;x         Sub&gt;x         Sub&gt;x</i></i></i>	<ul> <li>4.3</li> <li>7.3</li> <li>7.3</li> <li>1.5</li> <li>1.6</li> <li>4.0</li> </ul>	<ul> <li>39</li> <li>21</li> <li>75</li> <li>27</li> <li>0</li> <li>37</li> </ul>
<ul> <li>597</li> <li>598</li> <li>599</li> <li>600</li> <li>601</li> <li>602</li> <li>603</li> </ul>	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>&gt;ui&gt;via</i> One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> <lateral fabricated="" field-effect="" flux-controlled<="" homojunction="" td="" transistors="" using="">         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.         High-performance monolayer MoS2 field-effect transistor with large-scale nitrogen-doped graphene         electrodes for Ohmic contact. Applied Physics Letters, 2019, 115, .         Performance Comparison of s-Si, In0.53Ga0.47As, Monolayer BP- and WS2-Based n-MOSFETs for Future         Technology Nodesâ@"Part II: Circuit-Level Comparison. IEEE Transactions on Electron Devices, 2019, 66, 3614-3619.         Material-Selective Doping of 2D TMDC through Al<i><sub>x</sub></i><ci>sub&gt;x<ci>sub&gt;y<ci>sub&gt;y<code and="" comparison="" deep="" intercalation:="" modulation="" mos<="" of="" on="" phase="" realizing="" song="" td="">         Synergistic Doping and Intercalation: Realizing Deep Phase Modulation on MoS       Sub&gt;2         Synergistic Doping and Intercalation: Realizing Deep Phase Modulation on MoS       Sub&gt;2         Synergistic Doping and Intercalation: Realizing Deep Phase Modulation on MoS       Sub&gt;2         Base International Edition, 2019, 58, 16289-16296.       Sub&gt;2</code></ci></ci></ci></lateral>	<ul> <li>4.3</li> <li>7.3</li> <li>7.3</li> <li>1.5</li> <li>1.6</li> <li>4.0</li> <li>7.2</li> </ul>	<ul> <li>39</li> <li>21</li> <li>75</li> <li>27</li> <li>0</li> <li>37</li> <li>201</li> </ul>
<ul> <li>597</li> <li>598</li> <li>599</li> <li>600</li> <li>601</li> <li>602</li> <li>603</li> <li>604</li> </ul>	Approaching ohmic contact to two-dimensional semiconductors. Science Bulletin, 2019, 64, 1426-1435.         Band Structure Engineering of Layered WSe <sub>2</sub> <i>&gt;via</i> > One-Step Chemical         Functionalization. ACS Nano, 2019, 13, 7545-7555.         MoTe <sub>2</sub> <lateral fabricated="" field-effect="" flux-controlled<="" homojunction="" td="" transistors="" using="">         Phase Engineering. ACS Nano, 2019, 13, 8035-8046.         High-performance monolayer MoS2 field-effect transistor with large-scale nitrogen-doped graphene         electrodes for Ohmic contact. Applied Physics Letters, 2019, 115, .         Performance Comparison of s-Si, In0.53Ga0.47As, Monolayer BP- and WS2-Based n-MOSFETs for Future         Technology Nodesã@"Part II: Circuit-Level Comparison. IEEE Transactions on Electron Devices, 2019, 66, 3614-3619.         Material-Selective Doping of 2D TMDC through Al<i>sub&gt;x</i>&gt;(sub&gt;x         Synergistic Doping and Intercalation: Realizing Deep Phase Modulation on MoS<sub>2</sub>       Arrays         for High&amp;Efficiency Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 16289-16296.       Direct Synthesis of Large-Scale Multilayer TaSe2 on SiO2/Si Using Ion Beam Technology. ACS Omega, 2019, 4, 17536-17541.    <td><ul> <li>4.3</li> <li>7.3</li> <li>7.3</li> <li>1.5</li> <li>1.6</li> <li>4.0</li> <li>7.2</li> <li>1.6</li> </ul></td><td><ul> <li>39</li> <li>21</li> <li>75</li> <li>27</li> <li>0</li> <li>37</li> <li>201</li> <li>6</li> </ul></td></lateral>	<ul> <li>4.3</li> <li>7.3</li> <li>7.3</li> <li>1.5</li> <li>1.6</li> <li>4.0</li> <li>7.2</li> <li>1.6</li> </ul>	<ul> <li>39</li> <li>21</li> <li>75</li> <li>27</li> <li>0</li> <li>37</li> <li>201</li> <li>6</li> </ul>

#	Article	IF	CITATIONS
606	Three-Dimensional Rock Microstructure Modeling Using Two-Dimensional SEM Micrographs. Microscopy and Microanalysis, 2019, 25, 2462-2463.	0.2	0
607	Contact Resistance at MoS <sub>2</sub> -Based 2D Metal/Semiconductor Lateral Heterojunctions. ACS Applied Nano Materials, 2019, 2, 760-766.	2.4	19
608	Analysis of vibration characteristics of mounting plate for molded case circuit breaker. Journal of Physics: Conference Series, 2019, 1303, 012008.	0.3	1
609	Synthesis of MoS2/MoO3 or P3HT nanocomposites consisting of sandwich-like structures via environmental benign supercritical fluid CO2 and its use in supercapacitor. Composites Part B: Engineering, 2019, 177, 107355.	5.9	13
610	A study on ionic gated MoS2 phototransistors. Science China Information Sciences, 2019, 62, 1.	2.7	8
611	Accurate Method To Determine the Mobility of Transition-Metal Dichalcogenides with Incomplete Gate Screening. ACS Applied Materials & amp; Interfaces, 2019, 11, 44406-44412.	4.0	4
612	All WSe2 1T1R resistive RAM cell for future monolithic 3D embedded memory integration. Nature Communications, 2019, 10, 5201.	5.8	107
613	The 2D Materials Used for Nanodevice Applications: Utilizing Aggressively Scaled Transistors. IEEE Nanotechnology Magazine, 2019, 13, 39-42.	0.9	Ο
614	Anion Extraction-Induced Polymorph Control of Transition Metal Dichalcogenides. Nano Letters, 2019, 19, 8644-8652.	4.5	12
615	Carbon-Free, High-Capacity and Long Cycle Life 1D–2D NiMoO <sub>4</sub> Nanowires/Metallic 1T MoS <sub>2</sub> Composite Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2019, 11, 44593-44600.	4.0	14
616	Synergistic Doping and Intercalation: Realizing Deep Phase Modulation on MoS 2 Arrays for Highâ€Efficiency Hydrogen Evolution Reaction. Angewandte Chemie, 2019, 131, 16435-16442.	1.6	16
617	Wise Techniques for Excision of Severe Ureteric and Rectal Endometriosis. Journal of Minimally Invasive Gynecology, 2019, 26, S55-S56.	0.3	0
618	Phase Transition and Superconductivity Enhancement in Seâ€Substituted MoTe <sub>2</sub> Thin Films. Advanced Materials, 2019, 31, e1904641.	11.1	34
619	Selective Oxidation of WS <sub>2</sub> Defect Domain with Subâ€Monolayer Thickness Leads to Multifold Enhancement in Photoluminescence. Advanced Materials Interfaces, 2019, 6, 1900962.	1.9	6
620	High-Concentration Niobium-Substituted WS2 Basal Domains with Reconfigured Electronic Band Structure for Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 34862-34868.	4.0	21
621	Recent progress in two-dimensional nanomaterials: Synthesis, engineering, and applications. FlatChem, 2019, 18, 100133.	2.8	52
622	Atomically Sharp Dual Grain Boundaries in 2D WS <sub>2</sub> Bilayers. Small, 2019, 15, e1902590.	5.2	13
623	Synergistic effect of MoS2 and Ni9S8 nanosheets as an efficient electrocatalyst for hydrogen evolution reaction. Journal of Colloid and Interface Science, 2019, 556, 24-32.	5.0	16

#	Article	IF	CITATIONS
624	Enhanced sieving from exfoliated MoS2 membranes via covalent functionalization. Nature Materials, 2019, 18, 1112-1117.	13.3	196
625	Repair of Oxygen Vacancies and Improvement of HfO <sub>2</sub> /MoS <sub>2</sub> Interface by NH <sub>3</sub> -Plasma Treatment. IEEE Transactions on Electron Devices, 2019, 66, 4337-4342.	1.6	4
626	Recent progress and remaining challenges of 2D material-based terahertz detectors. Infrared Physics and Technology, 2019, 102, 103024.	1.3	25
627	Scaling-up Atomically Thin Coplanar Semiconductor–Metal Circuitry via Phase Engineered Chemical Assembly. Nano Letters, 2019, 19, 6845-6852.	4.5	46
628	Selective Selenium-Substituted Metallic MoTe <sub>2</sub> toward Ternary Atomic Layers with Tunable Semiconducting Character. Journal of Physical Chemistry C, 2019, 123, 24927-24933.	1.5	9
629	One-Dimensional Edge Contacts to a Monolayer Semiconductor. Nano Letters, 2019, 19, 6914-6923.	4.5	61
630	Dry Transfer of van der Waals Crystals to Noble Metal Surfaces To Enable Characterization of Buried Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 38218-38225.	4.0	20
631	Van der Waals thin-film electronics. Nature Electronics, 2019, 2, 378-388.	13.1	131
632	Improved performance of top-gated multilayer MoS2 transistors with channel fully encapsulated by Al2O3 dielectric. AIP Advances, 2019, 9, 095061.	0.6	2
633	Coulomb Blockade in Etched Single- and Few-Layer MoS <sub>2</sub> Nanoribbons. ACS Applied Electronic Materials, 2019, 1, 2202-2207.	2.0	10
634	Effect of Contact Resistance on the High-Field Characteristics of MoS2 Transistors. Journal of the Korean Physical Society, 2019, 75, 471-475.	0.3	1
635	In situ high temperature atomic level dynamics of large inversion domain formations in monolayer MoS2. Nanoscale, 2019, 11, 1901-1913.	2.8	19
636	Two-dimensional MoS2-enabled flexible rectenna for Wi-Fi-band wireless energy harvesting. Nature, 2019, 566, 368-372.	13.7	266
637	Effect of Net Charge on the Relative Stability of 2D Boron Allotropes. Nano Letters, 2019, 19, 1359-1365.	4.5	23
638	Vertical nanosheet array of 1T phase MoS2 for efficient and stable hydrogen evolution. Applied Catalysis B: Environmental, 2019, 246, 296-302.	10.8	122
639	Interfacial properties of two-dimensional graphene/ZrS2 and ScS2/ZrS2 contacts. Applied Surface Science, 2019, 476, 778-788.	3.1	11
640	Scalable fabrication of a complementary logic inverter based on MoS <sub>2</sub> fin-shaped field effect transistors. Nanoscale Horizons, 2019, 4, 683-688.	4.1	31
641	Electrically tunable physical properties of two-dimensional materials. Nano Today, 2019, 27, 99-119.	6.2	35
#	Article	IF	CITATIONS
-----	--	------	-----------
642	End-Bonded Metal Contacts on WSe <sub>2</sub> Field-Effect Transistors. ACS Nano, 2019, 13, 8146-8154.	7.3	44
643	Functionalized MoS2-erlotinib produces hyperthermia under NIR. Journal of Nanobiotechnology, 2019, 17, 76.	4.2	16
644	Understanding the relative efficacies and versatile roles of 2D conductive nanosheets in hybrid-type photocatalyst. Applied Catalysis B: Environmental, 2019, 257, 117875.	10.8	19
645	Phase, Conductivity, and Surface Coordination Environment in Two-Dimensional Electrochemistry. ACS Applied Materials & Interfaces, 2019, 11, 25108-25114.	4.0	3
646	Atomic Structure and Dynamics of Defects and Grain Boundaries in 2D Pd <sub>2</sub> Se <sub>3</sub> Monolayers. ACS Nano, 2019, 13, 8256-8264.	7.3	38
647	Engineering the interface chemistry for scandium electron contacts in WSe <sub>2</sub> transistors and diodes. 2D Materials, 2019, 6, 045020.	2.0	13
648	Toward the Growth of High Mobility 2D Transition Metal Dichalcogenide Semiconductors. Advanced Materials Interfaces, 2019, 6, 1900220.	1.9	42
649	Unraveling the Role of Lithium in Enhancing the Hydrogen Evolution Activity of MoS <sub>2</sub> : Intercalation versus Adsorption. ACS Energy Letters, 2019, 4, 1733-1740.	8.8	45
650	Toward heterostructured transition metal hybrids with highly promoted electrochemical hydrogen evolution. RSC Advances, 2019, 9, 19924-19929.	1.7	4
651	Character of defect states in vacancy-doped MoTe2 monolayer: Spatial localization, flat bands and hybridization gap. Superlattices and Microstructures, 2019, 130, 528-538.	1.4	7
652	Probing the Effect of Chemical Dopant Phase on Photoluminescence of Monolayer MoS <sub>2</sub> Using in Situ Raman Microspectroscopy. Journal of Physical Chemistry C, 2019, 123, 15738-15743.	1.5	11
653	Prediction of low energy phase transition in metal doped MoTe2 from first principle calculations. Journal of Applied Physics, 2019, 125, .	1.1	5
654	Interstitial copperâ€doped edge contact for nâ€type carrier transport in black phosphorus. InformaÄnÃ- Materiály, 2019, 1, 242-250.	8.5	18
655	Atomic structural catalogue of defects and vertical stacking in 2H/3R mixed polytype multilayer WS <sub>2</sub> pyramids. Nanoscale, 2019, 11, 10859-10871.	2.8	3
656	Stimulated Electrocatalytic Hydrogen Evolution Activity of MOFâ€Derived MoS <sub>2</sub> Basal Domains via Charge Injection through Surface Functionalization and Heteroatom Doping. Advanced Science, 2019, 6, 1900140.	5.6	73
657	Metal ontactâ€Induced Transition of Electrical Transport in Monolayer MoS <sub>2</sub> : From Thermally Activated to Variableâ€Range Hopping. Advanced Electronic Materials, 2019, 5, 1900042.	2.6	14
658	Highly defective 1T-MoS2 nanosheets on 3D reduced graphene oxide networks for supercapacitors. Carbon, 2019, 152, 697-703.	5.4	86
659	Thermodynamically stable octahedral MoS <sub>2</sub> in van der Waals hetero-bilayers. 2D Materials, 2019, 6, 041002.	2.0	9

#	Article	IF	CITATIONS
660	Photochemically Induced Phase Change in Monolayer Molybdenum Disulfide. Frontiers in Chemistry, 2019, 7, 442.	1.8	8
661	2DMatPedia, an open computational database of two-dimensional materials from top-down and bottom-up approaches. Scientific Data, 2019, 6, 86.	2.4	201
662	Degenerate electron-doping in two-dimensional tungsten diselenide with a dimeric organometallic reductant. Materials Today, 2019, 30, 26-33.	8.3	14
663	Disorder in van der Waals heterostructures of 2D materials. Nature Materials, 2019, 18, 541-549.	13.3	390
664	Ultrafast Excitonic Behavior in Two-Dimensional Metal–Semiconductor Heterostructure. ACS Photonics, 2019, 6, 1379-1386.	3.2	23
665	Surface Modified MXeneâ€Based Nanocomposites for Electrochemical Energy Conversion and Storage. Small, 2019, 15, e1901503.	5.2	159
666	Damage-free mica/MoS <sub>2</sub> interface for high-performance multilayer MoS <sub>2</sub> field-effect transistors. Nanotechnology, 2019, 30, 345204.	1.3	18
667	Performance Comparison of s-Si, In <sub>0.53</sub> Ga <sub>0.47</sub> As, Monolayer BP, and WS <sub>2</sub> -Based n-MOSFETs for Future Technology Nodes—Part I: Device-Level Comparison. IEEE Transactions on Electron Devices, 2019, 66, 3608-3613.	1.6	3
668	Hierarchical nanosheets constructed by integration of bimetallic sulfides into N-Doped carbon: Enhanced diffusion kinetics and cycling stability for sodium storage. Nano Energy, 2019, 62, 239-249.	8.2	84
669	Defect-Mediated Phase Transformation in Anisotropic Two-Dimensional PdSe <sub>2</sub> Crystals for Seamless Electrical Contacts. Journal of the American Chemical Society, 2019, 141, 8928-8936.	6.6	81
670	Improved electrical performance of multilayer MoS <sub>2</sub> transistor by incorporating Al into host HfO <sub>2</sub> as gate dielectric. Applied Physics Express, 2019, 12, 064005.	1.1	4
671	Electron Transport through Metal/MoS <sub>2</sub> Interfaces: Edge- or Area-Dependent Process?. Nano Letters, 2019, 19, 3641-3647.	4.5	42
672	Defect engineering of molybdenum disulfide through ion irradiation to boost hydrogen evolution reaction performance. Nano Research, 2019, 12, 1613-1618.	5.8	62
673	Quasi-one-dimensional Mo chains for efficient hydrogen evolution reaction. Nano Energy, 2019, 61, 194-200.	8.2	55
674	Selectively Metallized 2D Materials for Simple Logic Devices. ACS Applied Materials & Interfaces, 2019, 11, 18571-18579.	4.0	17
675	Thermally driven homonuclear-stacking phase of MoS <sub>2</sub> through desulfurization. Nanoscale, 2019, 11, 11138-11144.	2.8	4
676	Recent advances of phase engineering in group VI transition metal dichalcogenides. Tungsten, 2019, 1, 46-58.	2.0	15
677	Nanoscale electronic devices based on transition metal dichalcogenides. 2D Materials, 2019, 6, 032004.	2.0	51

#	Article	IF	CITATIONS
678	Degenerately Doped Transition Metal Dichalcogenides as Ohmic Homojunction Contacts to Transition Metal Dichalcogenide Semiconductors. ACS Nano, 2019, 13, 5103-5111.	7.3	39
679	Local Modulation of Electrical Transport in 2D Layered Materials Induced by Electron Beam Irradiation. ACS Applied Electronic Materials, 2019, 1, 684-691.	2.0	20
680	Spatial Mapping of Thermal Boundary Conductance at Metal–Molybdenum Diselenide Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 14418-14426.	4.0	16
681	One-pot synthesis of porous 1T-phase MoS2 integrated with single-atom Cu doping for enhancing electrocatalytic hydrogen evolution reaction. Applied Catalysis B: Environmental, 2019, 251, 87-93.	10.8	160
682	Interface engineering for two-dimensional semiconductor transistors. Nano Today, 2019, 25, 122-134.	6.2	35
683	Flexible Molybdenum Disulfide (MoS <sub>2</sub> ) Atomic Layers for Wearable Electronics and Optoelectronics. ACS Applied Materials & Interfaces, 2019, 11, 11061-11105.	4.0	277
684	Current and future envision on developing biosensors aided by 2D molybdenum disulfide (MoS2) productions. Biosensors and Bioelectronics, 2019, 132, 248-264.	5.3	83
685	Thermally driven reversible photoluminescence modulation in WS2/VO2 heterostructure. Applied Surface Science, 2019, 480, 680-688.	3.1	7
686	Effects Of Structural Phase Transition On Thermoelectric Performance in Lithium-Intercalated Molybdenum Disulfide (Li <sub><i>x</i></sub> MoS <sub>2</sub> ). ACS Applied Materials & Interfaces, 2019, 11, 12184-12189.	4.0	31
687	Control of the metal/WS <sub>2</sub> contact properties using 2-dimensional buffer layers. Nanoscale, 2019, 11, 5548-5556.	2.8	16
688	Discovery of Hidden Classes of Layered Electrides by Extensive High-Throughput Material Screening. Chemistry of Materials, 2019, 31, 1860-1868.	3.2	39
689	Electrical contacts of coplanar 2H/1T′ MoTe2 monolayer. Journal of Applied Physics, 2019, 125, 075104.	1.1	7
690	Van der Waals contacts between three-dimensional metals and two-dimensional semiconductors. Nature, 2019, 568, 70-74.	13.7	551
691	An electrically driven structural phase transition in single Ag <sub>2</sub> Te nanowire devices. Nanoscale, 2019, 11, 6629-6634.	2.8	7
692	Ultrafast and low-temperature synthesis of patternable MoS <sub>2</sub> using laser irradiation. Journal Physics D: Applied Physics, 2019, 52, 18LT01.	1.3	8
693	2D Atomic Crystals: A Promising Solution for Nextâ€Generation Data Storage. Advanced Electronic Materials, 2019, 5, 1800944.	2.6	28
694	Charge Storage by Electrochemical Reaction of Water Bilayers Absorbed on MoS2 Monolayers. Scientific Reports, 2019, 9, 3980.	1.6	16
695	Impact of Organic Molecule-Induced Charge Transfer on Operating Voltage Control of Both n-MoS2 and p-MoTe2 Transistors. Nano Letters, 2019, 19, 2456-2463.	4.5	26

#	Article	IF	CITATIONS
696	Low Contact Barrier in 2H/1T′ MoTe <sub>2</sub> In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2019, 11, 12777-12785.	4.0	70
697	Versatile Crystal Structures and (Opto)electronic Applications of the 2D Metal Monoâ€, Diâ€, and Triâ€Chalcogenide Nanosheets. Advanced Functional Materials, 2019, 29, 1900040.	7.8	58
698	Doping-Free Arsenene Heterostructure Metal-Oxide-Semiconductor Field Effect Transistors Enabled by Thickness Modulated Semiconductor to Metal Transition in Arsenene. Scientific Reports, 2019, 9, 3988.	1.6	8
699	Lattice -Mismatch-Induced Ultrastable 1T-Phase MoS <sub>2</sub> –Pd/Au for Plasmon-Enhanced Hydrogen Evolution. Nano Letters, 2019, 19, 2758-2764.	4.5	98
700	Transition metal dichalcogenide-based composites for hydrogen production. Functional Composites and Structures, 2019, 1, 012001.	1.6	12
701	Characterization Techniques of Two-Dimensional Nanomaterials. , 2019, , 27-41.		2
702	Convergent ion beam alteration of 2D materials and metal-2D interfaces. 2D Materials, 2019, 6, 034005.	2.0	24
703	Inâ€Plane Anisotropic Properties of 1T′â€MoS <sub>2</sub> Layers. Advanced Materials, 2019, 31, e1807764.	11.1	55
704	Achieving Highâ€Temperature Stability of Metastable αâ€MoC 1â€x by Suppressing Phase Transformation with Mounted Atoms for Lithium Storage Performance. Chemistry - an Asian Journal, 2019, 14, 1977-1984.	1.7	8
705	Pressure-mediated contact quality improvement between monolayer MoS <sub>2</sub> and graphite. Chinese Physics B, 2019, 28, 017301.	0.7	5
706	A synoptic review of MoS2: Synthesis to applications. Superlattices and Microstructures, 2019, 128, 274-297.	1.4	225
707	Metal Chalcogenides on Silicon Photocathodes for Efficient Water Splitting: A Mini Overview. Catalysts, 2019, 9, 149.	1.6	56
708	Phase engineering of two-dimensional transition metal dichalcogenides. Science China Materials, 2019, 62, 759-775.	3.5	106
709	Epitaxial van der Waals Contacts between Transition-Metal Dichalcogenide Monolayer Polymorphs. Nano Letters, 2019, 19, 1814-1820.	4.5	37
710	Mechanical characterization of phase-changed single-layer MoS <sub>2</sub> sheets. 2D Materials, 2019, 6, 025024.	2.0	14
711	Molybdenum Disulfide (MoS2)/Gold Nanoparticles (AuNPs)-based Field-effect Transistor for C-reactive Protein Detection: Early Diagnosis of Cardiovascular Disease. , 2019, , .		0
712	Thermal expansion coefficient and phonon dynamics in coexisting allotropes of monolayer WS2 probed by Raman scattering. Journal of Physics Condensed Matter, 2019, 31, 505403.	0.7	15
713	Homogeneous platinum diselenide metal/semiconductor coplanar structure fabricated by selective thickness control. Nanoscale, 2019, 11, 21068-21073.	2.8	24

#	Article	IF	CITATIONS
714	Scalable Two-Dimensional Lateral Metal/Semiconductor Junction Fabricated with Selective Synthetic Integration of Transition-Metal-Carbide (Mo <sub>2</sub> C)/-Dichalcogenide (MoS <sub>2</sub> ). ACS Applied Materials & Interfaces, 2019, 11, 47190-47196.	4.0	19
715	Probing Multiphased Transition in Bulk MoS <sub>2</sub> by Direct Electron Injection. ACS Nano, 2019, 13, 14437-14446.	7.3	29
716	NbS <sub>2</sub> : A Promising <i>p</i> -Type Ohmic Contact for Two-Dimensional Materials. Physical Review Applied, 2019, 12, .	1.5	36
717	Heterogeneous Integration of 2D Materials: Recent Advances in Fabrication and Functional Device Applications. Nano, 2019, 14, 1930009.	0.5	10
718	Polarized Raman spectroscopy to elucidate the texture of synthesized MoS <sub>2</sub> . Nanoscale, 2019, 11, 22860-22870.	2.8	13
719	A high-pressure enhanced coupling effect between graphene electrical contacts and two-dimensional materials thereby improving the performance of their constituent FET devices. Journal of Materials Chemistry C, 2019, 7, 15171-15178.	2.7	9
720	Understanding the transport and contact properties of metal/BN-MoS2 interfaces to realize high performance MoS2 FETs. Journal of Alloys and Compounds, 2019, 771, 1052-1061.	2.8	10
721	Flexible, multilevel, and low-operating-voltage resistive memory based on MoS2–rGO hybrid. Applied Surface Science, 2019, 463, 947-952.	3.1	32
722	Enhanced 1T′â€₽hase Stabilization and Chemical Reactivity in a MoTe <sub>2</sub> Monolayer through Contact with a 2D Ca <sub>2</sub> N Electride. ChemPhysChem, 2019, 20, 595-601.	1.0	14
723	Epitaxial Growth of Two-Dimensional Metal–Semiconductor Transition-Metal Dichalcogenide Vertical Stacks (VSe <sub>2</sub> /MX <sub>2</sub> ) and Their Band Alignments. ACS Nano, 2019, 13, 885-893.	7.3	102
724	Ohmic Contact in 2D Semiconductors via the Formation of a Benzyl Viologen Interlayer. Advanced Functional Materials, 2019, 29, 1807338.	7.8	24
725	Two-dimensional materials as catalysts for solar fuels: hydrogen evolution reaction and CO <sub>2</sub> reduction. Journal of Materials Chemistry A, 2019, 7, 430-454.	5.2	125
726	Ionic modulation and ionic coupling effects in MoS2 devices for neuromorphic computing. Nature Materials, 2019, 18, 141-148.	13.3	426
727	Phase engineering and optical properties of 2D MoSe2: Promise and pitfalls. Materials Chemistry and Physics, 2019, 225, 219-226.	2.0	13
728	Elucidating the role of interfacial MoS2 layer in Cu2ZnSnS4 thin film solar cells by numerical analysis. Solar Energy, 2019, 178, 162-172.	2.9	64
729	Hybrid single-layer/bulk tungsten diselenide transistors by lithographic encoding of material thickness in chemical vapor deposition. 2D Materials, 2019, 6, 015017.	2.0	2
730	Iridium-Triggered Phase Transition of MoS <sub>2</sub> Nanosheets Boosts Overall Water Splitting in Alkaline Media. ACS Energy Letters, 2019, 4, 368-374.	8.8	105
731	Tunable Schottky barrier width and enormously enhanced photoresponsivity in Sb doped SnS2 monolayer. Nano Research, 2019, 12, 463-468.	5.8	71

#	Article	IF	CITATIONS
732	Recent advances in transition metal–based catalysts with heterointerfaces for energy conversion and storage. Materials Today Chemistry, 2019, 11, 16-28.	1.7	72
733	Contact Engineering for Dual-Gate MoS <sub>2</sub> Transistors Using O <sub>2</sub> Plasma Exposure. ACS Applied Electronic Materials, 2019, 1, 210-219.	2.0	40
734	Highly Ambient-Stable 1T-MoS <sub>2</sub> and 1T-WS <sub>2</sub> by Hydrothermal Synthesis under High Magnetic Fields. ACS Nano, 2019, 13, 1694-1702.	7.3	131
735	Vibrations of van der Waals heterostructures: A study by molecular dynamics and continuum mechanics. Journal of Applied Physics, 2019, 125, .	1.1	5
736	Effect of substrate on the growth and properties of MoS2 thin films grown by plasma-enhanced atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	18
737	Millimeter-Scale Single-Crystalline Semiconducting MoTe <sub>2</sub> via Solid-to-Solid Phase Transformation. Journal of the American Chemical Society, 2019, 141, 2128-2134.	6.6	100
738	Patterning metal contacts on monolayer MoS2 with vanishing Schottky barriers using thermal nanolithography. Nature Electronics, 2019, 2, 17-25.	13.1	113
739	Nanoscale patterning hots up. Nature Electronics, 2019, 2, 13-14.	13.1	3
740	Effective N-methyl-2-pyrrolidone wet cleaning for fabricating high-performance monolayer MoS2 transistors. Nano Research, 2019, 12, 303-308.	5.8	13
741	Soft hydrogen plasma induced phase transition in monolayer and few-layer MoTe <sub>2</sub> . Nanotechnology, 2019, 30, 034004.	1.3	29
742	Phaseâ€Controlled Synthesis of 1Tâ€MoSe <sub>2</sub> /NiSe Heterostructure Nanowire Arrays via Electronic Injection for Synergistically Enhanced Hydrogen Evolution. Small Methods, 2019, 3, 1800317.	4.6	67
743	The electronic and transport properties of edge contact borophane-MoSe2 heterojunction: A first principles study. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 5-9.	1.3	5
744	Solution-processed Graphene-MoS2 heterostructure for efficient hole extraction in organic solar cells. Carbon, 2019, 142, 156-163.	5.4	34
745	Solution Processing for Lateral Transition-Metal Dichalcogenides Homojunction from Polymorphic Crystal. Journal of the American Chemical Society, 2019, 141, 592-598.	6.6	24
746	Engineering the Palladium–WSe2 Interface Chemistry for Field Effect Transistors with High-Performance Hole Contacts. ACS Applied Nano Materials, 2019, 2, 75-88.	2.4	24
747	Synthesis of MoX2 (X = Se or S) monolayers with high-concentration 1T′ phase on 4H/fcc-Au nanorods for hydrogen evolution. Nano Research, 2019, 12, 1301-1305.	5.8	44
748	Nature of extra capacity in MoS2 electrodes: Molybdenum atoms accommodate with lithium. Energy Storage Materials, 2019, 16, 37-45.	9.5	218
749	Engineering Field Effect Transistors with 2D Semiconducting Channels: Status and Prospects. Advanced Functional Materials, 2020, 30, 1901971.	7.8	58

ARTICLE IF CITATIONS # 2H/1Tâ€<sup>2</sup> phase WS2(1â<sup>°</sup>x)Te2x alloys grown by chemical vapor deposition with tunable band structures. 750 3.118 Applied Surface Science, 2020, 504, 144371. Two-dimensional materials toward future photovoltaic devices., 2020, , 117-158. High rectification ratio metal-insulator-semiconductor tunnel diode based on single-layer 752 1.3 6 MoS<sub>2</sub>. Nanotechnology, 2020, 31, 075202. Waferâ€Scale and Lowâ€Temperature Growth of 1Tâ€WS<sub>2</sub> Film for Efficient and Stable Hydrogen 5.2 53 Evolution Reaction. Small, 2020, 16, e1905000. Chalcogen-Assisted Enhanced Atomic Orbital Interaction at TMD–Metal Interface and Sulfur Passivation for Overall Performance Boost of 2-D TMD FETs. IEEE Transactions on Electron Devices, 754 1.6 15 2020, 67, 717-724. Modulating the Electronic Properties of Au–MoS<sub>2</sub> Interfaces Using Functionalized 1.6 Self-Assembled Monolayers. Langmuir, 2020, 36, 682-688. Self-doped p–n junctions in two-dimensional In<sub>2</sub>X<sub>3</sub> van der Waals materials. 756 6.4 42 Materials Horizons, 2020, 7, 504-510. Electron microscopy study of the carbon-induced 2H–3R–1T phase transition of MoS<sub>2</sub>. 1.4 New Journal of Chemistry, 2020, 44, 1190-1193. Recent progress of TMD nanomaterials: phase transitions and applications. Nanoscale, 2020, 12, 758 2.8 132 1247-1268. 2D transition metal dichalcogenide nanomaterials: advances, opportunities, and challenges in 5.2 multi-functional polymer nanocomposites. Journal of Materials Chemistry A, 2020, 8, 845-883. Lateral MoS<sub>2</sub> Heterostructure for Sensing Small Gas Molecules. ACS Applied Electronic 760 2.0 13 Materials, 2020, 2, 74-83. Selective Preparation of 1T- and 2H-Phase MoS<sub>2</sub> Nanosheets with Abundant Monolayer Structure and Their Applications in Energy Storage Devices. ACS Applied Energy Materials, 2020, 3, 2.5 50 998-1009. Recent advances in lowâ€dimensional semiconductor nanomaterials and their applications in 762 8.5 103 highâ€performance photodetectors. InformaÄnÃ-MateriÃ;ly, 2020, 2, 291-317. Charge Transport Calculation along Twoâ€Dimensional Metal/Semiconductor/Metal Systems. Israel 1.0 Journal of Chemistry, 2020, 60, 888-896. Graphene–Transition Metal Dichalcogenide Heterojunctions for Scalable and Low-Power 764 7.3 46 Complementary Integrated Circuits. ACS Nano, 2020, 14, 985-992. Recent developments in emerging two-dimensional materials and their applications. Journal of Materials Chemistry C, 2020, 8, 387-440. 501 Clean Interface Contact Using a ZnO Interlayer for Low-Contact-Resistance MoS<sub>2</sub> 766 4.0 50 Transistors. ACS Applied Materials & amp; Interfaces, 2020, 12, 5031-5039. Few-layer MoS2 nanosheets anchored by CNT network for superior lithium storage. Electrochimica Acta, 2020, 331, 135392.

#	Article	IF	CITATIONS
768	2D semiconducting materials for electronic and optoelectronic applications: potential and challenge. 2D Materials, 2020, 7, 022003.	2.0	168
769	Intercalation-Driven Reversible Switching of 2D Magnetism. Journal of Physical Chemistry C, 2020, 124, 1146-1157.	1.5	10
770	Fabricating Molybdenum Disulfide Memristors. ACS Applied Electronic Materials, 2020, 2, 346-370.	2.0	27
771	Deep Phase Transition of MoS <sub>2</sub> for Excellent Hydrogen Evolution Reaction by a Facile C-Doping Strategy. ACS Applied Materials & Interfaces, 2020, 12, 877-885.	4.0	38
772	Bifunctional NbS <sub>2</sub> -Based Asymmetric Heterostructure for Lateral and Vertical Electronic Devices. ACS Nano, 2020, 14, 175-184.	7.3	51
773	A New Opportunity for 2D van der Waals Heterostructures: Making Steepâ€Slope Transistors. Advanced Materials, 2020, 32, e1906000.	11.1	82
774	Electrical and Optical Characteristics of Two-Dimensional MoS <sub>2</sub> Film Grown by Metal-Organic Chemical Vapor Deposition. Journal of Nanoscience and Nanotechnology, 2020, 20, 3563-3567.	0.9	8
775	High-performance 5.1 nm in-plane Janus WSeTe Schottky barrier field effect transistors. Nanoscale, 2020, 12, 21750-21756.	2.8	62
776	Thickness Trends of Electron and Hole Conduction and Contact Carrier Injection in Surface Charge Transfer Doped 2D Field Effect Transistors. ACS Nano, 2020, 14, 13557-13568.	7.3	35
777	FeCl <sub>2</sub> /MoS <sub>2</sub> /FeCl <sub>2</sub> van der Waals junction for spintronic applications. Journal of Materials Chemistry C, 2020, 8, 14353-14359.	2.7	32
778	General Synthesis of Nanoporous 2D Metal Compounds with 3D Bicontinous Structure. Advanced Materials, 2020, 32, e2004055.	11.1	20
779	Vertical Integration of 2D Building Blocks for Allâ€2D Electronics. Advanced Electronic Materials, 2020, 6, 2000550.	2.6	20
780	Metallic 1T Phase Enabling MoS <sub>2</sub> Nanodots as an Efficient Agent for Photoacoustic Imaging Guided Photothermal Therapy in the Nearâ€Infraredâ€II Window. Small, 2020, 16, e2004173.	5.2	150
781	A comprehensive review on synthesis and applications of molybdenum disulfide (MoS2) material: Past and recent developments. Inorganic Chemistry Communication, 2020, 121, 108200.	1.8	155
782	Band Edge Tailoring in Few-Layer Two-Dimensional Molybdenum Sulfide/Selenide Alloys. Journal of Physical Chemistry C, 2020, 124, 22893-22902.	1.5	9
783	Improved Current Density and Contact Resistance in Bilayer MoSe <sub>2</sub> Field Effect Transistors by AlO <sub><i>x</i></sub> Capping. ACS Applied Materials & Interfaces, 2020, 12, 36355-36361.	4.0	31
784	To achieve ultrasensitive electrochemical detection of mercury ions employing metallic 1T-MoS2 nanosheets. Electrochimica Acta, 2020, 355, 136800.	2.6	17
785	Effects of structural distortions on the electronic structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt; <mml:mi>T</mml:mi>  -type transition metal dichalcogenides. Physical Review B, 2020, 102, .</mml:math 	1.1	5

#	Article	IF	CITATIONS
786	Spatial defects nanoengineering for bipolar conductivity in MoS2. Nature Communications, 2020, 11, 3463.	5.8	41
787	Design and synthesis of two-dimensional materials and their heterostructures. , 2020, , 13-54.		1
788	Advances in catalytic production processes of biomass-derived vinyl monomers. Catalysis Science and Technology, 2020, 10, 5411-5437.	2.1	25
789	Contact engineering for two-dimensional semiconductors. Journal of Semiconductors, 2020, 41, 071901.	2.0	19
790	Ohmic contacts for atomically-thin transition metal dichalcogenide semiconductors. Journal of Semiconductors, 2020, 41, 070401.	2.0	4
791	Characterization of two-dimensional materials. , 2020, , 289-322.		0
792	Scalable Integration of Coplanar Heterojunction Monolithic Devices on Two-Dimensional In <sub>2</sub> Se <sub>3</sub> . ACS Nano, 2020, 14, 17543-17553.	7.3	28
793	Self-supported nickel cobalt carbonate hydroxide nanowires encapsulated cathodically expanded graphite paper for supercapacitor electrodes. Electrochimica Acta, 2020, 363, 137236.	2.6	23
794	Increasing the active sites and intrinsic activity of transition metal chalcogenide electrocatalysts for enhanced water splitting. Journal of Materials Chemistry A, 2020, 8, 25465-25498.	5.2	112
795	Pulse-Mediated Electronic Tuning of the MoS <sub>2</sub> –Perovskite Ferroelectric Field Effect Transistors. ACS Applied Electronic Materials, 2020, 2, 3843-3852.	2.0	2
796	Atomic-scale evidence for highly selective electrocatalytic Nâ^'N coupling on metallic MoS <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31631-31638.	3.3	18
797	Realizing Scalable Two-Dimensional MoS <sub>2</sub> Synaptic Devices for Neuromorphic Computing. Chemistry of Materials, 2020, 32, 10447-10455.	3.2	25
798	Advancements in Therapeutics via 3D Printed Multifunctional Architectures from Dispersed 2D Nanomaterial Inks. Small, 2020, 16, e2004900.	5.2	17
799	Site-specific electrical contacts with the two-dimensional materials. Nature Communications, 2020, 11, 3982.	5.8	16
800	Hydrogen Plasma Exposure of Monolayer MoS <sub>2</sub> Field-Effect Transistors and Prevention of Desulfurization by Monolayer Graphene. ACS Applied Materials & Interfaces, 2020, 12, 37305-37312.	4.0	8
801	Growth of Single-crystalline Transition Metal Dichalcogenides Monolayers with Large-size. Chemical Research in Chinese Universities, 2020, 36, 511-517.	1.3	5
802	Towards Scalable Fabrications and Applications of 2D Layered Material-based Vertical and Lateral Heterostructures. Chemical Research in Chinese Universities, 2020, 36, 525-550.	1.3	6
803	Dual-ion battery with MoS2 cathode. Energy Storage Materials, 2020, 32, 159-166.	9.5	18

#	Article	IF	Citations
804	Diodeâ€Like Selective Enhancement of Carrier Transport through Metal–Semiconductor Interface Decorated by Monolayer Boron Nitride. Advanced Materials, 2020, 32, e2002716.	11.1	19
805	Intercalation and hybrid heterostructure integration of two-dimensional atomic crystals with functional organic semiconductor molecules. Nano Research, 2020, 13, 2917-2924.	5.8	11
806	2D Cadmium Chalcogenides for Optoelectronics. Chemical Research in Chinese Universities, 2020, 36, 493-503.	1.3	3
807	An overview of strategies for enhancement in photocatalytic oxidative ability of MoS2 for water purification. Journal of Environmental Chemical Engineering, 2020, 8, 104307.	3.3	38
808	Atomic Resolution Imaging of CrBr3 Using Adhesion-Enhanced Grids. Nano Letters, 2020, 20, 6582-6589.	4.5	13
809	Structural Phase Transition and Bandgap Control through Mechanical Deformation in Layered Semiconductors 1T–ZrX <sub>2</sub> (X = S, Se). , 2020, 2, 1115-1120.		15
810	Interactions between Transition-Metal Surfaces and MoS <sub>2</sub> Monolayers: Implications for Hydrogen Evolution and CO <sub>2</sub> Reduction Reactions. Journal of Physical Chemistry C, 2020, 124, 20116-20124.	1.5	12
811	Controlled growth of atomically thin transition metal dichalcogenides via chemical vapor deposition method. Materials Today Advances, 2020, 8, 100098.	2.5	28
812	Mixedâ€Dimensional Inâ€Plane Heterostructures from 1D Mo <sub>6</sub> Te <sub>6</sub> and 2D MoTe <sub>2</sub> Synthesized by Teâ€Fluxâ€Controlled Chemical Vapor Deposition. Small, 2020, 16, e2002849.	5.2	15
813	Contact resistance at 2D metal/semiconductor heterostructures. Frontiers of Nanoscience, 2020, 17, 127-140.	0.3	0
814	Ultrathin One-Dimensional Molybdenum Telluride Quantum Wires Synthesized by Chemical Vapor Deposition. Chemistry of Materials, 2020, 32, 9650-9655.	3.2	12
815	Electrothermal transport induced material reconfiguration and performance degradation of CVD-grown monolayer MoS2 transistors. Npj 2D Materials and Applications, 2020, 4, .	3.9	9
816	Coulomb drag transistor using a graphene and MoS2 heterostructure. Communications Physics, 2020, 3, .	2.0	11
818	Non-Carbon 2D Materials-Based Field-Effect Transistor Biosensors: Recent Advances, Challenges, and Future Perspectives. Sensors, 2020, 20, 4811.	2.1	16
819	Semimetal 1Hâ€&nS <sub>2</sub> Enables Highâ€Efficiency Electroreduction of CO <sub>2</sub> to CO. Small Methods, 2020, 4, 2000567.	4.6	48
820	In Situ Oxygen Doping of Monolayer MoS <sub>2</sub> for Novel Electronics. Small, 2020, 16, e2004276.	5.2	54
821	Comprehensive Performance Quasi-Non-Volatile Memory Compatible with Large-Scale Preparation by Chemical Vapor Deposition. Nanomaterials, 2020, 10, 1471.	1.9	4
822	Bandgap engineering of two-dimensional semiconductor materials. Npj 2D Materials and Applications, 2020, 4, .	3.9	528

#	Article	IF	CITATIONS
823	Large-Scale Vertical 1T′/2H MoTe <sub>2</sub> Nanosheet-Based Heterostructures for Low Contact Resistance Transistors. ACS Applied Nano Materials, 2020, 3, 10411-10417.	2.4	19
824	Li Intercalation Effects on Interface Resistances of Highâ€Speed and Lowâ€Power WSe 2 Fieldâ€Effect Transistors. Advanced Functional Materials, 2020, 30, 2003688.	7.8	9
825	Anisotropic properties of monolayer 2D materials: An overview from the C2DB database. Journal of Applied Physics, 2020, 128, .	1.1	16
826	One-Dimensional Magnetic Order Stabilized in Edge-Reconstructed MoS <sub>2</sub> Nanoribbon via Bias Voltage. Journal of Physical Chemistry Letters, 2020, 11, 7531-7535.	2.1	13
827	MoS <sub>2</sub> –Calix[4]arene Catalyzed Synthesis and Molecular Docking Study of 2,4,5-Trisubstituted Imidazoles As Potent Inhibitors of <i>Mycobacterium tuberculosis</i> . ACS Combinatorial Science, 2020, 22, 509-518.	3.8	27
828	Relaxation and transfer of photoexcited electrons at a coplanar few-layer 1 T′/2H-MoTe2 heterojunction. Communications Materials, 2020, 1, .	2.9	10
829	Prediction of the structural and electronic properties of Mo <i><sub>x</sub></i> Ti <sub>1â^'<i>x</i></sub> S <sub>2</sub> monolayers via first principle simulations. Nanomaterials and Nanotechnology, 2020, 10, 184798042095509.	1.2	4
830	Intercalated phases of transition metal dichalcogenides. SmartMat, 2020, 1, e1013.	6.4	66
831	Growth and Interlayer Engineering of 2D Layered Semiconductors for Future Electronics. ACS Nano, 2020, 14, 16266-16300.	7.3	30
832	Atomic Structure and Dynamics of Defects and Grain Boundaries in 2D Pd2Se3 Monolayers. Microscopy and Microanalysis, 2020, 26, 1636-1640.	0.2	0
833	Highly Enhanced Gas Sensing Performance Using a 1T/2H Heterophase MoS <sub>2</sub> Field-Effect Transistor at Room Temperature. ACS Applied Materials & Interfaces, 2020, 12, 50610-50618.	4.0	64
834	Complexity of mixed allotropes of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:msub><mml:mi mathvariant="normal"&gt;MoS<mml:mn>2</mml:mn></mml:mi </mml:msub> unraveled by first-principles theory. Physical Review B. 2020. 102</mml:math 	1.1	5
835	Phase Engineering of <scp>Twoâ€Dimensional</scp> Transition Metal Dichalcogenides. Chinese Journal of Chemistry, 2020, 38, 753-760.	2.6	56
836	Successive layer-by-layer deposition of metal (Mo, Ag)/BN/MoS2 nanolaminate films and the electric properties of BN/MoS2 heterostructure on different metal substrates. Journal of Materials Science: Materials in Electronics, 2020, 31, 9559-9567.	1.1	3
837	Synthetic Engineering of Morphology and Electronic Band Gap in Lateral Heterostructures of Monolayer Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 6323-6330.	7.3	24
838	Initial stage of MBE growth of MoSe <sub>2</sub> monolayer. Nanotechnology, 2020, 31, 315710.	1.3	10
839	Ohmic contact engineering in few–layer black phosphorus: approaching the quantum limit. Nanotechnology, 2020, 31, 334002.	1.3	18
840	Direct CVD Growth of a Graphene/MoS <sub>2</sub> Heterostructure with Interfacial Bonding for Two-Dimensional Electronics. Chemistry of Materials, 2020, 32, 4544-4552.	3.2	42

#	Article	IF	CITATIONS
841	<i>In Situ</i> 2D MoS <sub>2</sub> Field-Effect Transistors with an Electron Beam Gate. ACS Nano, 2020, 14, 7389-7397.	7.3	10
842	Low Lattice Mismatch InSe–Se Vertical Van der Waals Heterostructure for Highâ€performance Transistors via Strong Fermi‣evel Depinning. Small Methods, 2020, 4, 2000238.	4.6	22
843	Activation strategies of water-splitting electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 10096-10129.	5.2	67
844	Intercalation in Twoâ€Dimensional Transition Metal Carbides and Nitrides (MXenes) toward Electrochemical Capacitor and Beyond. Energy and Environmental Materials, 2020, 3, 306-322.	7.3	66
845	Intrinsic ferromagnetic semiconductivity realized in a new MoS <sub>2</sub> monolayer. Physical Chemistry Chemical Physics, 2020, 22, 13363-13367.	1.3	2
846	Two-Dimensional Nanomaterials with Unconventional Phases. CheM, 2020, 6, 1237-1253.	5.8	93
847	Universal mechanical exfoliation of large-area 2D crystals. Nature Communications, 2020, 11, 2453.	5.8	394
848	Self-Terminated Surface Monolayer Oxidation Induced Robust Degenerate Doping in MoTe <sub>2</sub> for Low Contact Resistance. ACS Applied Materials & Interfaces, 2020, 12, 26586-26592.	4.0	34
849	Application of Raman spectroscopy to probe fundamental properties of two-dimensional materials. Npj 2D Materials and Applications, 2020, 4, .	3.9	74
850	Direct synthesis of metastable phases of 2D transition metal dichalcogenides. Chemical Society Reviews, 2020, 49, 3952-3980.	18.7	142
851	Transition Metal Dichalcogenides for the Application of Pollution Reduction: A Review. Nanomaterials, 2020, 10, 1012.	1.9	73
852	Tuning Interfacial Thermal and Electrical Conductance across a Metal/MoS <sub>2</sub> Monolayer through <i>N</i> â€Methylâ€2â€pyrrolidone Wet Cleaning. Advanced Materials Interfaces, 2020, 7, 2000364.	1.9	7
853	Potential-reversal electrodeposited MoS2 thin film as an efficient electrocatalytic material for bifacial dye-sensitized solar cells. Solar Energy, 2020, 206, 163-170.	2.9	16
854	Direct visualization of out-of-equilibrium structural transformations in atomically thin chalcogenides. Npj 2D Materials and Applications, 2020, 4, .	3.9	31
855	Observation of trap-related phenomena in electrical performance of back-gated MoS2 field-effect transistors. Semiconductor Science and Technology, 2020, 35, 095023.	1.0	4
856	Design of MXene contacts for high-performance WS2 transistors. Applied Surface Science, 2020, 527, 146701.	3.1	22
857	2D layered noble metal dichalcogenides (Pt, Pd, Se, S) for electronics and energy applications. Materials Today Advances, 2020, 7, 100076.	2.5	55
858	Intrinsic limit of contact resistance in the lateral heterostructure of metallic and semiconducting PtSe2. Nanoscale, 2020, 12, 14636-14641.	2.8	8

#	Article	IF	CITATIONS
859	Engineering Phase Transformation of MoS <sub>2</sub> /RGO by N-doping as an Excellent Microwave Absorber. ACS Applied Materials & Interfaces, 2020, 12, 16831-16840.	4.0	57
860	Semiconducting few-layer PdSe <sub>2</sub> and Pd <sub>2</sub> Se <sub>3</sub> : native point defects and contacts with native metallic Pd <sub>17</sub> Se <sub>15</sub> . Physical Chemistry Chemical Physics, 2020, 22, 7365-7373.	1.3	8
861	Designed Growth of Large‧ize 2D Single Crystals. Advanced Materials, 2020, 32, e2000046.	11.1	71
862	Airâ€Stable Monolayer Cu <sub>2</sub> Se Exhibits a Purely Thermal Structural Phase Transition. Advanced Materials, 2020, 32, e1908314.	11.1	26
863	Phase engineering of nanomaterials. Nature Reviews Chemistry, 2020, 4, 243-256.	13.8	438
864	Interface Engineering of MoS <sub>2</sub> â€Modified Graphitic Carbon Nitride Nanoâ€photocatalysts for an Efficient Hydrogen Evolution Reaction. ChemPlusChem, 2020, 85, 1379-1388.	1.3	19
865	Engineered 2D Transition Metal Dichalcogenides—A Vision of Viable Hydrogen Evolution Reaction Catalysis. Advanced Energy Materials, 2020, 10, 1903870.	10.2	169
866	Two-Dimensional Magnetic Nanostructures. Trends in Chemistry, 2020, 2, 163-173.	4.4	25
867	Saltâ€Assisted Synthesis of 2D Materials. Advanced Functional Materials, 2020, 30, 1908486.	7.8	115
868	Two-dimensional materials-based radio frequency wireless communication and sensing systems for Internet-of-things applications. , 2020, , 29-57.		9
869	Controllable synthesis of NiS and NiS2 nanoplates by chemical vapor deposition. Nano Research, 2020, 13, 2506-2511.	5.8	61
870	Two-dimensional materials for next-generation computing technologies. Nature Nanotechnology, 2020, 15, 545-557.	15.6	521
871	Visualization of Crystallographic Orientation and Twist Angles in Two-Dimensional Crystals with an Optical Microscope. Nano Letters, 2020, 20, 6059-6066.	4.5	6
872	Contacts for Molybdenum Disulfide: Interface Chemistry and Thermal Stability. Materials, 2020, 13, 693.	1.3	8
873	Introducing Electrode Contact by Controlled Micro-Alloying in Few-Layered GaTe Field Effect Transistors. Crystals, 2020, 10, 144.	1.0	3
874	Structure and Dynamics of the Electronic Heterointerfaces in MoS <sub>2</sub> by First-Principles Simulations. Journal of Physical Chemistry Letters, 2020, 11, 1644-1649.	2.1	9
875	Van der Waals metallic alloy contacts for multifunctional devices. 2D Materials, 2020, 7, 025035.	2.0	6
876	Graphene-Supported 2D transition metal dichalcogenide van der waals heterostructures. Applied Materials Today, 2020, 19, 100600.	2.3	64

~			_			
C 17		ON	ıр	ED		рт
	AL			. – –	U.	

#	Article	IF	CITATIONS
877	Subâ€Millimeterâ€Scale Monolayer pâ€Type Hâ€Phase VS <sub>2</sub> . Advanced Functional Materials, 2020, 3 2000240.	30 <sub>7.8</sub>	64
878	1T/2H-MoS2 engineered by in-situ ethylene glycol intercalation for improved toluene sensing response at room temperature. Advanced Powder Technology, 2020, 31, 1868-1878.	2.0	24
879	Nanopattern-Assisted Direct Growth of Peony-like 3D MoS <sub>2</sub> /Au Composite for Nonenzymatic Photoelectrochemical Sensing. ACS Applied Materials & Interfaces, 2020, 12, 7411-7422.	4.0	49
880	Reversible H-T′ phase transition in monolayer molybdenum disulfide via electron beam assisted solid state lithiation/delithiation. Applied Physics Letters, 2020, 116, 033103.	1.5	7
881	Metallicity of 2H-MoS <sub>2</sub> induced by Au hybridization. 2D Materials, 2020, 7, 025021.	2.0	17
882	Collective excitations in 2D atomic layers: Recent perspectives. Applied Physics Letters, 2020, 116, .	1.5	5
883	Versatile strategy for making 2D materials. Nature, 2020, 577, 477-478.	13.7	10
884	Nonlayered CdSe Flakes Homojunctions. Advanced Functional Materials, 2020, 30, 1908902.	7.8	28
885	A Pure 2Hâ€MoS <sub>2</sub> Nanosheetâ€Based Memristor with Low Power Consumption and Linear Multilevel Storage for Artificial Synapse Emulator. Advanced Electronic Materials, 2020, 6, 1901342.	2.6	67
886	Interface engineering of two-dimensional transition metal dichalcogenides towards next-generation electronic devices: recent advances and challenges. Nanoscale Horizons, 2020, 5, 787-807.	4.1	43
887	Spatially controlled lateral heterostructures of graphene and transition metal dichalcogenides toward atomically thin and multi-functional electronics. Nanoscale, 2020, 12, 5286-5292.	2.8	8
888	Programmable Synapseâ€Like MoS <sub>2</sub> Fieldâ€Effect Transistors Phaseâ€Engineered by Dynamic Lithium Ion Modulation. Advanced Electronic Materials, 2020, 6, 1901410.	2.6	13
889	Phaseâ€Regulated Sensing Mechanism of MoS 2 Based Nanohybrids toward Pointâ€of are Prostate Cancer Diagnosis. Small, 2020, 16, 2000307.	5.2	13
890	Enormous enhancement in electrical performance of few-layered MoTe2 due to Schottky barrier reduction induced by ultraviolet ozone treatment. Nano Research, 2020, 13, 952-958.	5.8	25
891	Functional hetero-interfaces in atomically thin materials. Materials Today, 2020, 37, 74-92.	8.3	21
892	Laser annealing towards high-performance monolayer MoS <sub>2</sub> and WSe <sub>2</sub> field effect transistors. Nanotechnology, 2020, 31, 30LT02.	1.3	6
893	Monolayer single crystal two-dimensional quantum dots via ultrathin cutting and exfoliating. Science China Materials, 2020, 63, 1046-1053.	3.5	3
894	Investigation of potassium-intercalated bulk <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:msub><mml:mi>MoS</mml:mi><mml:mn>2transmission electron energy-loss spectroscopy. Physical Review B, 2020, 101, .</mml:mn></mml:msub></mml:math 	:m <b>@.x</b> <td>า<b>l:เ</b>ธ<sub>ิ</sub>sub&gt;<!--ท</td--></td>	า <b>l:เ</b> ธ <sub>ิ</sub> sub> ท</td

#	Article	IF	CITATIONS
895	Investigation of Double-Gate Ferroelectric FET Based on Single-Layer MoS2 with Consideration of Contact Resistance. Journal of Electronic Materials, 2020, 49, 4085-4090.	1.0	3
896	Improved Contacts and Device Performance in MoS <sub>2</sub> Transistors Using a 2D Semiconductor Interlayer. ACS Nano, 2020, 14, 6232-6241.	7.3	58
897	First-Principles Study of the Contact Resistance at 2D Metal/2D Semiconductor Heterojunctions. Applied Sciences (Switzerland), 2020, 10, 2731.	1.3	7
898	Atomic layer deposited 2D MoS2 atomic crystals: from material to circuit. Nano Research, 2020, 13, 1644-1650.	5.8	24
899	High-throughput discovery of high Curie point two-dimensional ferromagnetic materials. Npj Computational Materials, 2020, 6, .	3.5	82
900	Polymorphic In-Plane Heterostructures of Monolayer WS <sub>2</sub> for Light-Triggered Field-Effect Transistors. ACS Applied Nano Materials, 2020, 3, 3750-3759.	2.4	5
901	Correlating the electronic structures of metallic/semiconducting MoTe2 interface to its atomic structures. National Science Review, 2021, 8, nwaa087.	4.6	5
902	Surface charge transfer doping for two-dimensional semiconductor-based electronic and optoelectronic devices. Nano Research, 2021, 14, 1682-1697.	5.8	72
903	Layered materials for supercapacitors and batteries: Applications and challenges. Progress in Materials Science, 2021, 118, 100763.	16.0	48
904	Tunable Spectral Properties of Photodetectors Based on Quaternary Transition Metal Dichalcogenide Alloys Mo <sub>x</sub> W <sub>(1-x)</sub> Se <sub>2y</sub> S <sub>2(1-y)</sub> . IEEE Sensors Journal, 2021, 21, 325-330.	2.4	5
905	A novel contact engineering method for transistors based on two-dimensional materials. Journal of Materials Science and Technology, 2021, 69, 15-19.	5.6	10
906	Recent progresses of NMOS and CMOS logic functions based on two-dimensional semiconductors. Nano Research, 2021, 14, 1768-1783.	5.8	19
907	Topological structures of transition metal dichalcogenides: A review on fabrication, effects, applications, and potential. InformaÄnÃ-Materiály, 2021, 3, 133-154.	8.5	29
908	Inâ€plane epitaxial growth of 2D CoSeâ€WSe 2 metalâ€semiconductor lateral heterostructures with improved WSe 2 transistors performance. InformaÄnÃ-Materiály, 2021, 3, 222-228.	8.5	21
909	Recent progress in the development of backplane thin film transistors for information displays. Journal of Information Display, 2021, 22, 1-11.	2.1	60
910	All-2D architectures toward advanced electronic and optoelectronic devices. Nano Today, 2021, 36, 101026.	6.2	35
911	Structure, Preparation, and Applications of 2D Materialâ€Based Metal–Semiconductor Heterostructures. Small Structures, 2021, 2, 2000093.	6.9	71
912	Intercalationâ€Induced Reversible Electrochromic Behavior of Twoâ€Dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub><i>x</i></sub> MXene in Organic Electrolytes. ChemElectroChem, 2021, 8, 151-156.	1.7	21

#ARTICLEIFCITATIONS913Electronic and magnetic properties of carbide MX-enesâ€"the role of electron correlations. Materials2.535914Weak Distance Dependence of Hot-Electron-Transfer Rates at the Interface between Monolayer7.327

**CITATION REPORT** 

Epitaxial growth, electronic hybridization and stability under oxidation of monolayer MoS2 on Ag(1 1) Tj ETQq0 0 0 orgBT /Overlock 10 Tf

916	Sodium ion-intercalated nanoflower 1T–2H MoSe2–graphene nanocomposites as electrodes for all-solid-state supercapacitors. Journal of Alloys and Compounds, 2021, 853, 157116.	2.8	15
917	Modulating Electronic Structure of Monolayer Transition Metal Dichalcogenides by Substitutional Nbâ€Đoping. Advanced Functional Materials, 2021, 31, 2006941.	7.8	54
918	Screening fermi-level pinning effect through van der waals contacts to monolayer MoS2. Materials Today Physics, 2021, 16, 100290.	2.9	36
919	Monolayer MoS2 epitaxy. Nano Research, 2021, 14, 1598-1608.	5.8	11
920	Memory Devices for Flexible and Neuromorphic Device Applications. Advanced Intelligent Systems, 2021, 3, 2000206.	3.3	14
921	Semiconducting α′-boron sheet with high mobility and low all-boron contact resistance: a first-principles study. Nanoscale, 2021, 13, 8474-8480.	2.8	15
922	Robust transport of charge carriers in in-plane 1T′-2H MoTe2 homojunctions with ohmic contact. Nano Research, 2021, 14, 1311-1318.	5.8	16
923	Ohmic Contact Engineering for Two-Dimensional Materials. Cell Reports Physical Science, 2021, 2, 100298.	2.8	81
924	Thermodynamic Insights into Polymorphism-Driven Lithium-Ion Storage in Monoelemental 2D Materials. Journal of Physical Chemistry Letters, 2021, 12, 1220-1227.	2.1	5
925	Facile phase transition engineering of MoS <sub>2</sub> for electrochemical hydrogen evolution. Journal of Materials Chemistry A, 2021, 9, 8394-8400.	5.2	28
926	Fermi-level depinning of 2D transition metal dichalcogenide transistors. Journal of Materials Chemistry C, 2021, 9, 11407-11427.	2.7	49
927	Surface/Interface Chemistry Engineering of Correlatedâ€Electron Materials: From Conducting Solids, Phase Transitions to Externalâ€Field Response. Advanced Science, 2021, 8, 2002807.	5.6	5
928	Recent progress of transfer methods of two-dimensional atomic crystals and high-quality electronic devices. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 138202.	0.2	0
929	Defect-nucleated phase transition in atomically-thin WS <sub>2</sub> . 2D Materials, 2021, 8, 025017.	2.0	5
930	Soft chemistry of metastable metal chalcogenide nanomaterials. Chemical Society Reviews, 2021, 50, 6671-6683.	18.7	30

#	Article	IF	CITATIONS
931	One-step synthesis of single-site vanadium substitution in 1T-WS2 monolayers for enhanced hydrogen evolution catalysis. Nature Communications, 2021, 12, 709.	5.8	137
932	The contact barrier of a 1T′/2H MoS2 heterophase bilayer and its modulation by adatom and strain: a first-principles study. Physical Chemistry Chemical Physics, 2021, 23, 6791-6799.	1.3	2
933	Two-dimensional palladium diselenide for the oxygen reduction reaction. Materials Chemistry Frontiers, 2021, 5, 4970-4980.	3.2	5
934	Controlling phase transition in WSe2 towards ideal n-type transistor. Nano Research, 2021, 14, 2703-2710.	5.8	13
935	Strategy and Future Prospects to Develop Room-Temperature-Recoverable NO2 Gas Sensor Based on Two-Dimensional Molybdenum Disulfide. Nano-Micro Letters, 2021, 13, 38.	14.4	103
936	Recent developments in 2D transition metal dichalcogenides: phase transition and applications of the (quasi-)metallic phases. Chemical Society Reviews, 2021, 50, 10087-10115.	18.7	135
937	Multi-scale analysis of radio-frequency performance of 2D-material based field-effect transistors. Nanoscale Advances, 2021, 3, 2377-2382.	2.2	4
938	Atomic-scale dynamics of the phase transition in bilayer PtSe <sub>2</sub> . Journal of Materials Chemistry C, 2021, 9, 5261-5266.	2.7	5
939	Ag <sub>2</sub> S monolayer: an ultrasoft inorganic Lieb lattice. Nanoscale, 2021, 13, 14008-14015.	2.8	10
940	Two-Dimensional Metallic Vanadium Ditelluride as a High-Performance Electrode Material. ACS Nano, 2021, 15, 1858-1868.	7.3	49
941	Schottky barrier lowering due to interface states in 2D heterophase devices. Nanoscale Advances, 2021, 3, 567-574.	2.2	8
942	Lattice-Matched Metal–Semiconductor Heterointerface in Monolayer Cu <sub>2</sub> Te. ACS Nano, 2021, 15, 3415-3422.	7.3	19
943	Engineering symmetry breaking in 2D layered materials. Nature Reviews Physics, 2021, 3, 193-206.	11.9	135
944	Heterointerface Effects on Lithium-Induced Phase Transitions in Intercalated MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2021, 13, 10603-10611.	4.0	17
945	2D Homojunctions for Electronics and Optoelectronics. Advanced Materials, 2021, 33, e2005303.	11.1	66
946	In situ electron microscopy study of structural transformations in 2D CoSe2. Npj 2D Materials and Applications, 2021, 5, .	3.9	13
947	Directional Design of Materials Based on Multi-Objective Optimization: A Case Study of Two-Dimensional Thermoelectric SnSe. Chinese Physics Letters, 2021, 38, 027301.	1.3	14
948	Low-Temperature 2D/2D Ohmic Contacts in WSe <sub>2</sub> Field-Effect Transistors as a Platform for the 2D Metal–Insulator Transition. ACS Applied Materials & Interfaces, 2021, 13, 10594-10602.	4.0	9

#	Article	IF	CITATIONS
949	A flower-cluster heterogenous structure assembled by ultrathin NiCo/NiCoOx-SiO2 nanobelts with stable catalytic performance. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 610, 125590.	2.3	1
950	High On-State Current in Chemical Vapor Deposited Monolayer MoS <sub>2</sub> nFETs With Sn Ohmic Contacts. IEEE Electron Device Letters, 2021, 42, 272-275.	2.2	38
951	Contact Engineering of Vertically Grown ReS <sub>2</sub> with Schottky Barrier Modulation. ACS Applied Materials & Interfaces, 2021, 13, 7529-7538.	4.0	9
952	Two-Dimensional Group-10 Noble-Transition-Metal Dichalcogenides Photodetector. , 0, , .		0
953	Activating Layered Metal Oxide Nanomaterials via Structural Engineering as Biodegradable Nanoagents for Photothermal Cancer Therapy. Small, 2021, 17, e2007486.	5.2	94
954	In Situ Ultrafast and Patterned Growth of Transition Metal Dichalcogenides from Inkjetâ€Printed Aqueous Precursors. Advanced Materials, 2021, 33, e2100260.	11.1	36
955	Photodriven Transient Picosecond Topâ€Layer Semiconductor to Metal Phaseâ€Transition in pâ€Doped Molybdenum Disulfide. Advanced Materials, 2021, 33, e2006957.	11.1	11
956	Direct Optoelectronic Imaging of 2D Semiconductor–3D Metal Buried Interfaces. ACS Nano, 2021, 15, 5618-5630.	7.3	35
957	The properties and prospects of chemically exfoliated nanosheets for quantum materials in two dimensions. Applied Physics Reviews, 2021, 8, .	5.5	17
958	Structural Defects, Mechanical Behaviors, and Properties of Two-Dimensional Materials. Materials, 2021, 14, 1192.	1.3	48
959	Metal-insulator transition in two-dimensional transition metal dichalcogenides. Emergent Materials, 2021, 4, 989-998.	3.2	9
960	Materials Science Challenges to Graphene Nanoribbon Electronics. ACS Nano, 2021, 15, 3674-3708.	7.3	108
961	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. Nature Communications, 2021, 12, 1522.	5.8	103
962	Direct growth of monolayer 1T–2H MoS <sub>2</sub> heterostructures using KCl-assisted CVD process. 2D Materials, 2021, 8, 025033.	2.0	16
963	Advances in transition metal dichalcogenide-based two-dimensional nanomaterials. Materials Today Chemistry, 2021, 19, 100399.	1.7	50
964	Promises and prospects of two-dimensional transistors. Nature, 2021, 591, 43-53.	13.7	548
965	Molybdenum sulfideâ€based supercapacitors: From synthetic, bibliometric, and qualitative perspectives. International Journal of Energy Research, 2021, 45, 12665-12692.	2.2	19
966	Thickness-Dependent Study of High- Performance WS <sub>2</sub> -FETs With Ultrascaled Channel Lengths. IEEE Transactions on Electron Devices, 2021, 68, 2123-2129.	1.6	11

#	Article	IF	CITATIONS
967	Continuousâ€Flow Synthesis of Highâ€Quality Few‣ayer Antimonene Hexagons. Advanced Functional Materials, 2021, 31, 2101616.	7.8	8
968	Identification of Point Defects in Atomically Thin Transition-Metal Dichalcogenide Semiconductors as Active Dopants. Nano Letters, 2021, 21, 3341-3354.	4.5	19
969	Influence of Nanoarchitectures on Interlayer Interactions in Layered Bi–Mo–Se Heterostructures. Journal of Physical Chemistry C, 2021, 125, 9469-9478.	1.5	4
970	Phase transitions in 2D materials. Nature Reviews Materials, 2021, 6, 829-846.	23.3	205
971	Tuning electrical and interfacial thermal properties of bilayer MoS <sub>2</sub> via electrochemical intercalation. Nanotechnology, 2021, 32, 265202.	1.3	3
972	Excited electron dynamics in the interface of 2H-1T hetero-phases of monolayer MoS2: time-dependent density functional theory study. Journal of the Korean Physical Society, 2021, 78, 1203-1207.	0.3	Ο
973	Metastable 1T′-phase group VIB transition metal dichalcogenide crystals. Nature Materials, 2021, 20, 1113-1120.	13.3	119
974	One-dimensional weak antilocalization effect in 1T′-MoTe2 nanowires grown by chemical vapor deposition. Journal of Physics Condensed Matter, 2021, 33, 185701.	0.7	0
975	Two-dimensional nanomaterials with engineered bandgap: Synthesis, properties, applications. Nano Today, 2021, 37, 101059.	6.2	82
976	High Stability of 1T-Phase MoS <sub>2<i>x</i></sub> Se <sub>2(1–<i>x</i>)</sub> Monolayers Under Ambient Conditions. Journal of Physical Chemistry C, 2021, 125, 8407-8417.	1.5	7
977	High-Performance CVD Bilayer MoS2 Radio Frequency Transistors and Gigahertz Mixers for Flexible Nanoelectronics. Micromachines, 2021, 12, 451.	1.4	11
978	Dramatic Reduction of Contact Resistance via Ultrathin LiF in Two-Dimensional MoS <sub>2</sub> Field Effect Transistors. Nano Letters, 2021, 21, 3503-3510.	4.5	18
979	Tunable Doping of Rhenium and Vanadium into Transition Metal Dichalcogenides for Twoâ€Đimensional Electronics. Advanced Science, 2021, 8, e2004438.	5.6	66
980	Schottky barrier heights in two-dimensional field-effect transistors: from theory to experiment. Reports on Progress in Physics, 2021, 84, 056501.	8.1	97
981	Diverse electronic and magnetic properties of CrS2 enabling strain-controlled 2D lateral heterostructure spintronic devices. Npj Computational Materials, 2021, 7, .	3.5	35
982	Influence of Group III and IV Elements on the Hydrogen Evolution Reaction of MoS <sub>2</sub> Disulfide. Journal of Physical Chemistry C, 2021, 125, 11848-11856.	1.5	70
983	Effect of electrical contact on performance of WSe <sub>2</sub> field effect transistors*. Chinese Physics B, 2021, 30, 068501.	0.7	3
984	Synthesis of lateral heterostructure of 2D materials for optoelectronic devices: challenges and opportunities. Emergent Materials, 2021, 4, 923-949.	3.2	14

ARTICLE IF CITATIONS Toward Waferâ€Scale Production of 2D Transition Metal Chalcogenides. Advanced Electronic 985 2.6 16 Materials, 2021, 7, 2100278. Ultrafast, Kinetically Limited, Ambient Synthesis of Vanadium Dioxides through Laser Direct Writing on Ultrathin Chalcogenide Matrix. ACS Nano, 2021, 15, 10502-10513. 7.3 Electrical contacts to few-layer MoS2 with phase-engineering and metal intercalation for tuning the 987 1.2 2 contact performance. Journal of Chemical Physics, 2021, 154, 184705. MoS2 for beyond lithium-ion batteries. APL Materials, 2021, 9, . 988 Recent advances in graphene and other 2D materials. Nano Materials Science, 2022, 4, 3-9. 989 3.9 97 Electron injection induced phase transition of 2H to 1T MoS2 by cobalt and nickel substitutional 990 6.6 doping. Chemical Engineering Journal, 2021, 411, 128567. γ-GeSe: A New Hexagonal Polymorph from Group IV–VI Monochalcogenides. Nano Letters, 2021, 21, 991 4.5 52 4305-4313. Accumulation-Type Ohmic van der Waals Contacts to Nearly Intrinsic WSe<sub>2</sub> Nanosheet-Based Channels: Implications for Field-Effect Transistors. ACS Applied Nano Materials, 2021, 2.4 4, 5598-5610. Performance improvement in p-Type WS<sub>2</sub> field-effect transistors with 1T phase contacts. 993 1.3 4 Nanotechnology, 2021, 32, 345202. Charge-Induced Two-Step Structural Phase Transition in the MoTe2–WSeTe Hetero-Bilayer. Journal of 994 1.5 Physical Chemistry C, 2021, 125, 15000-15011. Synthesis and functionalization of 2D nanomaterials for application in lithium-based energy storage 995 9.5 29 systems. Energy Storage Materials, 2021, 38, 200-230. the Role of Schottky-Barrier Anisotropy in Charge Transport across <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Mo</mml:mi><mml:mi 996 1.5 mathyariant="normal">S</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>/Metal Record-high saturation current in end-bond contacted monolayer MoS2 transistors. Nano Research, 997 5.8 24 2022, 15, 475-481. Unraveling Anomalous Dielectric Phase Transition in Few-Layered 2H/1T MoS<sub>2</sub> Nanosheets. 998 1.5 Journal of Physical Chemistry C, 2021, 125, 14089-14097. Two-dimensional alloyed transition metal dichalcogenide nanosheets: Synthesis and applications. 999 4.8 63 Chinese Chemical Letters, 2022, 33, 163-176. High performance WSe2 p-MOSFET with intrinsic n-channel based on back-to-back p–n junctions. Applied Physics Letters, 2021, 118, . Hybrid System Combining Two-Dimensional Materials and Ferroelectrics and Its Application in 1001 7.3 52 Photodetection. ACS Nano, 2021, 15, 10982-11013. Synergistic Pt doping and phase conversion engineering in two-dimensional MoS2 for efficient 8.2 hydrogen evolution. Nano Energy, 2021, 84, 105898.

#	Article	IF	CITATIONS
1003	Highly Efficient Experimental Approach to Evaluate Metal to 2D Semiconductor Interfaces in Vertical Diodes with Asymmetric Metal Contacts. ACS Applied Materials & Interfaces, 2021, 13, 27705-27712.	4.0	7
1004	Advances in Liquidâ€Phase and Intercalation Exfoliations of Transition Metal Dichalcogenides to Produce 2D Framework. Advanced Materials Interfaces, 2021, 8, 2002205.	1.9	43
1005	Memory applications from 2D materials. Applied Physics Reviews, 2021, 8, 021306.	5.5	46
1006	A Review on MoS2 Energy Applications: Recent Developments and Challenges. Energies, 2021, 14, 4586.	1.6	37
1007	Phaseâ€ <b>5</b> elective Synthesis of Ultrathin FeTe Nanoplates by Controllable Fe/Te Atom Ratio in the Growth Atmosphere. Small, 2021, 17, 2101616.	5.2	13
1008	Field-effect at electrical contacts to two-dimensional materials. Nano Research, 2021, 14, 4894-4900.	5.8	11
1009	Performance Optimization of Monolayer 1T/1T'-2H MoX <sub>2</sub> Lateral Heterojunction Transistors. IEEE Transactions on Electron Devices, 2021, 68, 3649-3657.	1.6	3
1010	Doping-Mediated Lattice Engineering of Monolayer ReS <sub>2</sub> for Modulating In-Plane Anisotropy of Optical and Transport Properties. ACS Nano, 2021, 15, 13770-13780.	7.3	17
1011	High-yield exfoliation of 2D semiconductor monolayers and reassembly of organic/inorganic artificial superlattices. CheM, 2021, 7, 1887-1902.	5.8	36
1012	3D carbon nanocones/metallic MoS2 nanosheet electrodes towards flexible supercapacitors for wearable electronics. Energy, 2021, 227, 120419.	4.5	26
1013	Metal–semiconductor interface engineering in layered 2D materials for device applications. Bulletin of Materials Science, 2021, 44, 1.	0.8	4
1014	Gate-controlled reversible rectifying behavior investigated in a two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:mrow><mml:msub><mml:mi>MoS</mml:mi><mml:r diode. Physical Review B, 2021, 104, .</mml:r </mml:msub></mml:mrow></mml:math 	m <b>na≱</b> 2 <td>m&amp;#nn&gt;</td>	m&#nn>
1015	Phase Engineering of Transition Metal Dichalcogenides via a Thermodynamically Designed Gas–Solid Reaction. Journal of Physical Chemistry Letters, 2021, 12, 8430-8439.	2.1	0
1016	Paraffin-Enabled Compressive Folding of Two-Dimensional Materials with Controllable Broadening of the Electronic Band Gap. ACS Applied Materials & amp; Interfaces, 2021, 13, 40922-40931.	4.0	8
1017	Synthesis and Electrical Properties of a New Compound (BiSe) <sub>0.97</sub> (Bi <sub>2</sub> Se <sub>3</sub> ) <sub>1.26</sub> (BiSe) <sub>0.97</sub> (MoSe <sub>2 Containing Metallic 1T-MoSe<sub>2</sub>. Chemistry of Materials, 2021, 33, 6403-6411.</sub>	. <b>3/æ</b> ub>)	7
1018	Nano-pom-pom multiphasic MoS2 grown on carbonized wood as electrode for efficient hydrogen evolution in acidic and alkaline media. International Journal of Hydrogen Energy, 2021, 46, 28087-28097.	3.8	22
1019	Patterning of type-II Dirac semimetal PtTe2 for optimized interface of tellurene optoelectronic device. Nano Energy, 2021, 86, 106049.	8.2	22
1020	2D Metallic Transitionâ€Metal Dichalcogenides: Structures, Synthesis, Properties, and Applications. Advanced Functional Materials, 2021, 31, 2105132.	7.8	111

#	Article	IF	CITATIONS
1021	Studies on 2D-molybdenum diselenide (MoSe2) based electrode materials for supercapacitor and batteries: A critical analysis. Journal of Energy Storage, 2021, 40, 102809.	3.9	31
1022	Controlled Syntheses and Multifunctional Applications of Two-Dimensional Metallic Transition Metal Dichalcogenides. Accounts of Materials Research, 2021, 2, 751-763.	5.9	11
1023	Sub-10Ânm two-dimensional transistors: Theory and experiment. Physics Reports, 2021, 938, 1-72.	10.3	80
1024	Interlayer Coupling Dependent Discrete H → T′ Phase Transition in Lithium Intercalated Bilayer Molybdenum Disulfide. ACS Nano, 2021, 15, 15039-15046.	7.3	15
1025	Anomalous Dimensionalityâ€Driven Phase Transition of MoTe <sub>2</sub> in Van der Waals Heterostructure. Advanced Functional Materials, 2021, 31, 2107376.	7.8	14
1026	Photocarrier Dynamics in MoTe <sub>2</sub> Nanofilms with 2 <i>H</i> and Distorted 1 <i>T</i> Lattice Structures. ACS Applied Materials & amp; Interfaces, 2021, 13, 44703-44710.	4.0	6
1027	Novel two-dimensional transition metal chalcogenides created by epitaxial growth. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	3
1028	Electrodeâ€Induced Selfâ€Healed Monolayer MoS <sub>2</sub> for High Performance Transistors and Phototransistors. Advanced Materials, 2021, 33, e2102091.	11.1	26
1029	The metallic nature of two-dimensional transition-metal dichalcogenides and MXenes. Surface Science Reports, 2021, 76, 100542.	3.8	13
1030	Unconventional van der Waals heterostructures beyond stacking. IScience, 2021, 24, 103050.	1.9	4
1031	Modulation of the contact barrier at VS2/MoS2 interface: A first principles study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 413, 127604.	0.9	12
1032	Improved contact properties of graphene-metal hybrid interfaces by grain boundaries. Applied Surface Science, 2021, 563, 150392.	3.1	0
1033	Development of semiconductor based heavy metal ion sensors for water analysis: A review. Sensors and Actuators A: Physical, 2021, 330, 112879.	2.0	29
1034	Unanticipated Polarity Shift in Edge-Contacted Tungsten-Based 2D Transition Metal Dichalcogenide Transistors. IEEE Electron Device Letters, 2021, 42, 1563-1566.	2.2	9
1035	Two-dimensional molybdenum trioxide nanoflakes wrapped with interlayer-expanded molybdenum disulfide nanosheets: Superior performances in supercapacitive energy storage and visible-light-driven photocatalysis. International Journal of Hydrogen Energy, 2021, 46, 34663-34678.	3.8	6
1036	High proportion of 1ÂT phase MoS2 prepared by a simple solvothermal method for high-efficiency electrocatalytic hydrogen evolution. Chemical Engineering Journal, 2021, 422, 130100.	6.6	28
1037	Phase-controllable laser thinning in MoTe2. Applied Surface Science, 2021, 563, 150282.	3.1	16
1038	Enhanced mobility of MoS2 field-effect transistors by combining defect passivation with dielectric-screening effect. Chinese Physics B, 2021, 30, 018102.	0.7	2

		CITATION RE	PORT	
#	Article		IF	Citations
1039	Transition metal chalcogenide $\hat{a} {\in} $ based photocatalysts for small-molecule activation. ,	2021,,297-331.		3
1040	Origins of genuine Ohmic van der Waals contact between indium and MoS2. Npj 2D M Applications, 2021, 5, .	laterials and	3.9	43
1041	Conformal Growth of Nanometer-Thick Transition Metal Dichalcogenide TiS <i><sub>x</sub></i> -NbS <i><sub>x</sub></i> Heterostructures over 3D Substrate Deposition: Implications for Device Fabrication. ACS Applied Nano Materials, 2021, 4, 5	s by Atomic Layer 514-521.	2.4	8
1042	Doping-Free All PtSe <sub>2</sub> Transistor via Thickness-Modulated Phase Transitio Materials & amp; Interfaces, 2021, 13, 1861-1871.	n. ACS Applied	4.0	30
1043	The buckling behavior of single-layer MoS2 sheets on silica substrates. Journal of Applie 2021, 129, .	ed Physics,	1.1	7
1044	Synthesis of graphene and other two-dimensional materials. , 2021, , 1-79.			4
1045	Hysteresis-reversible MoS <sub>2</sub> transistor. New Journal of Chemistry, 2021, 45	j, 12033-12040.	1.4	10
1046	Impact of S-Vacancies on the Charge Injection Barrier at the Electrical Contact with the MoS <sub>2</sub> Monolayer. ACS Nano, 2021, 15, 2686-2697.		7.3	27
1047	Design and tailoring of two-dimensional Schottky, PN and tunnelling junctions for electoptoelectronics. Nanoscale, 2021, 13, 6713-6751.	tronics and	2.8	30
1048	Inversion symmetry broken in 2H phase vanadium-doped molybdenum disulfide. Nanos 18103-18111.	scale, 2021, 13,	2.8	11
1049	Electronic Changes in Molybdenum Dichalcogenides on Gold Surfaces. Journal of Physi C, 2020, 124, 25361-25368.	cal Chemistry	1.5	5
1050	Fully Boron-Sheet-Based Field Effect Transistors from First-Principles: Inverse Design of Semiconducting Boron Sheets. Journal of Physical Chemistry Letters, 2021, 12, 576-58	4.	2.1	14
1051	Selective p-Doping of 2D WSe <sub>2</sub> <i>via</i> UV/Ozone Treatments and Its / Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 955-961.	Application in	4.0	23
1052	Crested two-dimensional transistors. Nature Nanotechnology, 2019, 14, 223-226.		15.6	129
1053	Metallic 1T MoS <sub>2</sub> nanosheet arrays vertically grown on activated carbon f enhanced Li-ion storage performance. Journal of Materials Chemistry A, 2017, 5, 1406	iber cloth for I-14069.	5.2	232
1054	Schottky barriers, emission regimes and contact resistances in 2H-1T' MoS2 latera metal-semiconductor junctions from first-principles. 2D Materials, 2020, 7, 045030.		2.0	9
1055	Graphene based Van der Waals contacts on MoS <sub>2</sub> field effect transistors. 2021, 8, 015003.	2D Materials,	2.0	15
1056	Magnetic properties of transition metal dichalcogenides-Fe/Ir(111) interfaces from first Physical Review Materials, 2018, 2, .	principles.	0.9	4

#	Article	IF	CITATIONS
1057	xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:msup><mml:mrow><mml:mi mathvariant="normal"&gt;H<mml:mo>/</mml:mo><mml:mi mathvariant="normal"&gt;T</mml:mi </mml:mi </mml:mrow><mml:mo>â<sup>2</sup></mml:mo></mml:msup>	0.9	18
1058	Visualizing the ametaal cognitination on layers. Physical Review Materials, 2018, 2, . xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:m mathvariant="normal"&gt;S<mml:mn>2</mml:mn></mml:m </mml:msub></mml:mrow> contacts in two-dimensional field-effect transistors with atomic resolution. Physical Review	i 0.9	25
1059	Selective Growth of WSe2 with Graphene Contacts. Nanoscale Research Letters, 2020, 15, 61.	3.1	6
1060	Roadmap for gain-bandwidth-product enhanced photodetectors: opinion. Optical Materials Express, 2020, 10, 2192.	1.6	11
1061	Lateral and vertical heterostructures in two-dimensional transition-metal dichalcogenides [Invited]. Optical Materials Express, 2019, 9, 1590.	1.6	40
1062	Strain enhancement for a MoS <sub>2</sub> -on-GaN photodetector with an Al <sub>2</sub> O <sub>3</sub> stress liner grown by atomic layer deposition. Photonics Research, 2020, 8, 799.	3.4	29
1063	Research progress of high-quality monolayer MoS2 films. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 128103.	0.2	7
1064	Phase Transformation of Two-Dimensional Transition Metal Dichalcogenides. Applied Microscopy, 2018, 48, 43-48.	0.8	9
1065	Controllable fabrication and photocatalytic performance of nanoscale single-layer MoSe <sub>2</sub> islands with substantial edges on an Ag(111) substrate. Nanoscale, 2021, 13, 19165-19171.	2.8	5
1066	Chemical Vapor Deposition Mediated Phase Engineering for 2D Transition Metal Dichalcogenides: Strategies and Applications. Small Science, 2022, 2, 2100047.	5.8	35
1067	Multilayer MoTe <sub>2</sub> Fieldâ€Effect Transistor at High Temperatures. Advanced Materials Interfaces, 2021, 8, 2100950.	1.9	14
1068	MoTe2 Field-Effect Transistors with Low Contact Resistance through Phase Tuning by Laser Irradiation. Nanomaterials, 2021, 11, 2805.	1.9	7
1069	Inkjetâ€Printed MoS <sub>2</sub> Transistors with Predominantly Intraflake Transport. Small Methods, 2021, 5, e2100634.	4.6	19
1070	Status and prospects of Ohmic contacts on two-dimensional semiconductors. Nanotechnology, 2022, 33, 062005.	1.3	5
1071	Advanced Strategies to Improve Performances of Molybdenum-Based Gas Sensors. Nano-Micro Letters, 2021, 13, 207.	14.4	43
1072	Salt-assisted chemical vapor deposition of two-dimensional transition metal dichalcogenides. IScience, 2021, 24, 103229.	1.9	24
1073	Applications of metal-semiconductor phase transition in 2D layered transition metal dichalcogenides. Vacuum Magazine, 2016, 3, 4-8.	0.0	0
1074	Logical integration device for two-dimensional semiconductor transition metal sulfide. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 218503.	0.2	6

		CITATION R	EPORT	
#	Article		IF	CITATIONS
1076	Review: Electronic Band Structure and Interface Properties. Springer Theses, 2020, , 13-3	6.	0.0	0
1077	Strain Induced Phase Transition of WS2 by Local Dewetting of Au/Mica Film upon Anneal 2021, 4, 1-8.	ing. Surfaces,	1.0	8
1079	Research progress of two-dimensional transition metal dichalcogenide phase transition n Wuli Xuebao/Acta Physica Sinica, 2020, 69, 246101.	1ethods.	0.2	5
1080	Tunable contact resistance in transition metal dichalcogenide lateral heterojunctions. Phy Review Materials, 2020, 4, .	vsical	0.9	2
1081	Borophene: Two-dimensional Boron Monolayer: Synthesis, Properties, and Potential Appl Chemical Reviews, 2022, 122, 1000-1051.	cations.	23.0	106
1082	Gradual Edge Contact between Mo and MoS <sub>2</sub> Formed by Graphene-Masked for High-Performance Field-Effect Transistors. ACS Applied Materials & amp; Interfaces, 20 54536-54542.	Sulfurization 21, 13,	4.0	4
1083	Enhancement of Photoresponse on Narrow-Bandgap Mott Insulator α-RuCl <sub>3Intercalation. ACS Nano, 2021, 15, 18113-18124.</sub>	> <i>via</i>	7.3	10
1084	Immobilization of Molecular Assemblies on 2D Nanomaterials for Electrochemical Biosen Applications. Gels Horizons: From Science To Smart Materials, 2021, , 435-474.	sing	0.3	2
1085	Scratching lithography for wafer-scale MoS <sub>2</sub> monolayers. 2D Materials, 202	0, 7, 045028.	2.0	11
1086	Electron beam evaporated Au islands as a nanoscale etch mask on few-layer MoS <sub>2 fabrication of top-edge hybrid contacts for field-effect transistors. Nanotechnology, 202</sub>	and 1, 32, 025203.	1.3	2
1087	Tribological characteristics of atomic-scale niobium diselenide grown via chemical vapor o Applied Physics Express, 2020, 13, 105004.	leposition.	1.1	1
1088	Synthesis, characterization, properties and applications of two-dimensional magnetic ma Today, 2022, 42, 101338.	terials. Nano	6.2	67
1089	2D material based field effect transistors and nanoelectromechanical systems for sensing applications. IScience, 2021, 24, 103513.	1	1.9	21
1090	P-Type AsP Nanosheet as an Electron Donor for Stable Solar Broad-Spectrum Hydrogen E Applied Materials & Interfaces, 2021, 13, 55102-55111.	volution. ACS	4.0	2
1091	Theoretical limit of how small we can make MoS2 transistor channels. Journal Physics D: , Physics, 0, , .	Applied	1.3	5
1092	Transistors based on two-dimensional materials for future integrated circuits. Nature Elec 2021, 4, 786-799.	tronics,	13.1	335
1093	Suppression ofâ€,short channelâ€,effects in 5.1Ânm WTe2 in-plane Schottky barrier field by Mo-doping. Materials Science in Semiconductor Processing, 2022, 139, 106327.	-effect transistors	1.9	2
1094	Heterointerface Control over Lithium-Induced Phase Transitions in MoS <sub>2</sub> Na Implications for Nanoscaled Energy Materials. ACS Applied Nano Materials, 2021, 4, 1410	nosheets: )5-14114.	2.4	7

#	Article	IF	CITATIONS
1095	Molecular Approach to Engineer Two-Dimensional Devices for CMOS and beyond-CMOS Applications. Chemical Reviews, 2022, 122, 50-131.	23.0	46
1096	Making clean electrical contacts on 2D transition metal dichalcogenides. Nature Reviews Physics, 2022, 4, 101-112.	11.9	91
1097	Opportunities in electrically tunable 2D materials beyond graphene: Recent progress and future outlook. Applied Physics Reviews, 2021, 8, .	5.5	26
1098	Nanomaterials in transistors. , 2021, , .		0
1099	Effect of interfacial defects on the electronic properties of MoS <sub>2</sub> based lateral T–H heterophase junctions. RSC Advances, 2021, 11, 37995-38002.	1.7	1
1100	First principles studies on the electronic and contact properties of single layer 2H-MoS <sub>2</sub> /1T′-MX <sub>2</sub> heterojunctions. Physical Chemistry Chemical Physics, 2022, 24, 3289-3295.	1.3	2
1101	Latest advance on seamless metal-semiconductor contact with ultralow Schottky barrier in 2D-material-based devices. Nano Today, 2022, 42, 101372.	6.2	21
1102	Morphology of MoS2 nanosheets and its influence on water/oil interfacial tension: A molecular dynamics study. Fuel, 2022, 312, 122938.	3.4	7
1103	Piezo-phototronic intersubband terahertz devices based on layer-dependent van der Waals quantum well. Nano Energy, 2022, 94, 106912.	8.2	6
1104	In-plane and vertical heterostructures from 1T′/2H transition-metal dichalcogenides. Oxford Open Materials Science, 2020, 1, .	0.5	0
1106	Ferromagnetic and nonmagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt; <mml:mrow> <mml:mn>1 </mml:mn> <mml:msup> <mml:n charge density wave states in transition metal dichalcogenides: Physical mechanisms and charge doping induced reversible transition. Physical Review B, 2022, 105, .</mml:n </mml:msup></mml:mrow></mml:math 	ni>T1.1	:mi> <mml:m< td=""></mml:m<>
1107	Iodide-substitution-induced phase transition of chemical-vapor-deposited MoS2. Journal of Materials Chemistry C, 2022, 10, 1638-1644.	2.7	1
1108	High-yield production of mono- or few-layer transition metal dichalcogenide nanosheets by an electrochemical lithium ion intercalation-based exfoliation method. Nature Protocols, 2022, 17, 358-377.	5.5	100
1109	Recent Progress in Improving the Performance of Infrared Photodetectors via Optical Field Manipulations. Sensors, 2022, 22, 677.	2.1	13
1110	Ultrathick MoS <sub>2</sub> Films with Exceptionally High Volumetric Capacitance. Advanced Energy Materials, 2022, 12, .	10.2	44
1111	Soft-lock drawing of super-aligned carbon nanotube bundles for nanometre electrical contacts. Nature Nanotechnology, 2022, 17, 278-284.	15.6	24
1112	Thickness-dependent phase transition kinetics in lithium-intercalated MoS <sub>2</sub> . 2D Materials, 2022, 9, 025009.	2.0	8
1113	Boosting Second-Harmonic Generation in Monolayer Rhenium Disulfide by Reversible Laser Patterning. ACS Photonics, 2022, 9, 518-526.	3.2	8

#	Article	IF	CITATIONS
1114	First-principles study of absolute XPS binding energy with PAW planewave pseudopotential method: application to tungsten disulfides. Japanese Journal of Applied Physics, 2022, 61, 022003.	0.8	1
1115	One-pot synthesis of 1T MoS <sub>2</sub> /MWCNT hybrids for enhanced zinc-ion storage. Nano Futures, 2022, 6, 025001.	1.0	4
1116	Heteroâ€Integration of Silicon Nanomembranes with 2D Materials for Bioresorbable, Wireless Neurochemical System. Advanced Materials, 2022, 34, e2108203.	11.1	28
1117	High-throughput assessment of two-dimensional electrode materials for energy storage devices. Cell Reports Physical Science, 2022, 3, 100718.	2.8	10
1118	Thermal Rectifier and Thermal Transistor of 1T/2H MoS <sub>2</sub> for Heat Flow Management. ACS Applied Materials & Interfaces, 2022, 14, 4434-4442.	4.0	7
1119	Metallic Transport in Monolayer and Multilayer Molybdenum Disulfides by Molecular Surface Charge Transfer Doping. ACS Applied Materials & Interfaces, 2022, , .	4.0	3
1120	Two-dimensional nanomaterial-based polymer composites: Fundamentals and applications. Nanotechnology Reviews, 2022, 11, 770-792.	2.6	22
1121	Enhancing Tumor Catalytic Therapy by Coâ€Catalysis. Angewandte Chemie, 2022, 134, .	1.6	11
1122	Enhancing Tumor Catalytic Therapy by Coâ€Catalysis. Angewandte Chemie - International Edition, 2022, 61, .	7.2	51
1123	Modulating electronic and optical properties of monolayered MoS <sub>2</sub> by covalent mono- and bisfunctionalization. Journal of Materials Chemistry C, 0, , .	2.7	1
1124	Controllable synthesis of few-layer ammoniated 1T′-phase WS <sub>2</sub> as an anode material for lithium-ion batteries. Nanoscale, 2022, 14, 5869-5875.	2.8	6
1125	First principles assessment of the phase stability and transition mechanisms of designated crystal structures of pristine and Janus transition metal dichalcogenides. Physical Chemistry Chemical Physics, 2022, 24, 7430-7441.	1.3	6
1126	Highly stable and uniformly dispersed 1T-MoS <sub>2</sub> nanosheets co-induced by chemical pressure and 2D template method with high supercapacitor performance. Journal of Materials Chemistry A, 2022, 10, 7373-7381.	5.2	16
1127	A review of electronic band structure and low temperature transport based on molybdenum disulfide. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	Ο
1128	Defects in transition metal dichalcogenides. , 2022, , 89-117.		1
1129	Fermi Level Pinning Dependent 2D Semiconductor Devices: Challenges and Prospects. Advanced Materials, 2022, 34, e2108425.	11.1	80
1130	Investigation of Atomic Layer Futuristic Memory Devices of Binary Chalcogenides WX <sub>2</sub> (X) Tj ETQq	0 0 0 rgBT	/Oyerlock 10

1131	Self-assembly of two-dimensional, amorphous materials on a liquid substrate. Physical Review E, 2022, 105, L022601.	0.8	1
------	---	-----	---

#	Article	IF	CITATIONS
1132	Tunable metal contacts at layered black-arsenic/metal interface forming during metal deposition for device fabrication. Communications Materials, 2022, 3, .	2.9	1
1133	Favorable Energy Band Alignment of TiO <sub>2</sub> Anatase/Rutile Heterophase Homojunctions Yields Photocatalytic Hydrogen Evolution with Quantum Efficiency Exceeding 45.6%. Advanced Energy Materials, 2022, 12, .	10.2	106
1134	Photothermal properties of two-dimensional molybdenum disulfide (MoS2) with nanoflower and nanosheet morphology. Materials Research Bulletin, 2022, 152, 111837.	2.7	16
1135	Highly Sensitive and Selective Triethylamine Sensing through High-Entropy Alloy (Ti–Zr–Cr–V–Ni) Nanoparticle-Induced Fermi Energy Control of MoS <sub>2</sub> Nanosheets. ACS Applied Materials & Interfaces, 2022, 14, 13653-13664.	4.0	13
1136	Ferroelastic–Ferroelectric Multiferroicity in van der Waals Rhenium Dichalcogenides. Advanced Materials, 2022, 34, e2108777.	11.1	10
1137	Metallic phase enabling MoS2 nanosheets as an efficient sonosensitizer for photothermal-enhanced sonodynamic antibacterial therapy. Journal of Nanobiotechnology, 2022, 20, 136.	4.2	38
1138	Host–Guest Intercalation Chemistry for the Synthesis and Modification of Twoâ€Dimensional Transition Metal Dichalcogenides. Advanced Materials, 2022, 34, e2200425.	11.1	14
1139	Ferromagnetic Properties of Ni9S8/MoS2 Hybrid Structure. Journal of Superconductivity and Novel Magnetism, 0, , 1.	0.8	0
1140	Direct observation of ferroelectricity in two-dimensional MoS2. Npj 2D Materials and Applications, 2022, 6, .	3.9	30
1141	Characterization of phase transition in few-layer MoTe2 induced by laser irradiation. , 2022, , .		0
1142	Phase-controlled epitaxial growth of MoTe2: Approaching high-quality 2D materials for electronic devices with low contact resistance. Journal of Applied Physics, 2022, 131, .	1.1	9
1143	Band alignment of atomic layer deposited MoS <sub>2</sub> /(HfO <sub>2</sub> ) <sub> x </sub> (Al <sub>2</sub> O <sub>3</sub> ) <sub>1â^'x </sub> heterojunctions for device applications. Journal Physics D: Applied Physics, 2022, 55, 225102.	1.3	1
1144	General Bottom-Up Colloidal Synthesis of Nano-Monolayer Transition-Metal Dichalcogenides with High 1T′-Phase Purity. Journal of the American Chemical Society, 2022, 144, 4863-4873.	6.6	58
1145	Multilayer MoS <sub>2</sub> Backâ€Gate Transistors with ZrO <sub>2</sub> Dielectric Layer Optimization for Lowâ€Power Electronics. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	2
1146	Fermiâ€Level Pinningâ€Free WSe <sub>2</sub> Transistors via 2D Van der Waals Metal Contacts and Their Circuits. Advanced Materials, 2022, 34, e2109899.	11.1	48
1147	Provoking Metallic 1T Phase Conversion of 2H-MoS <sub>2</sub> via an Effectual Solvothermal Route for Electrocatalytic Water Reduction in Acid. ACS Sustainable Chemistry and Engineering, 2022, 10, 5258-5267.	3.2	14
1148	Multiple 2D Phase Transformations in Monolayer Transition Metal Chalcogenides. Advanced Materials, 2022, 34, e2200643.	11.1	6
1149	Bridging the gap between atomically thin semiconductors and metal leads. Nature Communications, 2022, 13, 1777.	5.8	17

	CITATION RE	PORT	
#	Article	IF	CITATIONS
1150	High-performance monolayer or bilayer SiC short channel transistors with metallic 1T-phase MoS2 contact. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 436, 128070.	0.9	1
1151	Energy level matching between transparent conducting electrodes and the electronic transport layer to enhance performance of all-inorganic CsPbBr3 solar cells. Vacuum, 2022, 200, 111028.	1.6	4
1152	Low-voltage, self-powered and broadband photodetector with Ohmic, transparent and cost-effective AZO electrodes on vertical aligned MoS2 flakes. Surfaces and Interfaces, 2022, 30, 101813.	1.5	6
1153	Phase-Controllable Synthesis of Ultrathin Molybdenum Nitride Crystals Via Atomic Substitution of MoS <sub>2</sub> . Chemistry of Materials, 2022, 34, 351-357.	3.2	12
1154	Progressions in cathodic catalysts for oxygen reduction and hydrogen evolution in bioelectrochemical systems: Molybdenum as the next-generation catalyst. Catalysis Reviews - Science and Engineering, 2023, 65, 986-1078.	5.7	3
1155	Monolayer WS <sub>2</sub> Lateral Homosuperlattices with Two-dimensional Periodic Localized Photoluminescence. ACS Nano, 2022, 16, 597-603.	7.3	7
1156	Graphene-Based Tunable Coloration Film through Intercalation. ACS Photonics, 2021, 8, 3599-3606.	3.2	3
1157	Designing Self-Supported Electrocatalysts for Electrochemical Water Splitting: Surface/Interface Engineering toward Enhanced Electrocatalytic Performance. ACS Applied Materials & Interfaces, 2021, 13, 59593-59617.	4.0	58
1158	Metallic phase WSe <sub>2</sub> nanoscrolls for the hydrogen evolution reaction. New Journal of Chemistry, 2022, 46, 8381-8384.		6
1159	Engineering strategies for boosting the nitrogen reduction reaction performance of MoS2-based electrocatalysts. Materials Today Nano, 2022, 18, 100202.		5
1160	Engineering multiphasic MoSe2/NiSe heterostructure interfaces for superior hydrogen production electrocatalysis. Applied Catalysis B: Environmental, 2022, 312, 121434.	10.8	50
1161	Surface and Interface Engineering Strategies for MoS <sub>2</sub> Towards Electrochemical Hydrogen Evolution. Chemistry - an Asian Journal, 2022, 17, .	1.7	6
1162	Atomistic Observation of the Local Phase Transition in MoTe <sub>2</sub> for Application in Homojunction Photodetectors. Small, 2022, 18, e2200913.	5.2	12
1163	Saltâ€Assisted 2Hâ€ŧoâ€1T′ Phase Transformation of Transition Metal Dichalcogenides. Advanced Materials, 2022, 34, e2201194.	11.1	19
1166	Gate-tunable contact-induced Fermi-level shift in semimetal. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119016119.	3.3	7
1167	The effects of the fluence of electron irradiation on the structure and hydrogen evolution reaction performance of molybdenum disulfide. Journal of Materials Chemistry C, 2022, 10, 7839-7848.	2.7	3
1168	High-Performance Monolayer or Bilayer Sic Short Channel Transistors with Metallic 1t-Phase Mos2 Contact. SSRN Electronic Journal, 0, , .	0.4	0
1169	Lateral layered semiconductor multijunctions for novel electronic devices. Chemical Society Reviews, 2022, 51, 4000-4022.	18.7	12

#	Article	IF	CITATIONS
1170	Edgeâ€Assisted Epitaxy of 2D TaSe <sub>2</sub> â€MoSe <sub>2</sub> Metal–Semiconductor Heterostructures and Application to Schottky Diodes. Advanced Functional Materials, 2022, 32, .	7.8	10
1171	Uniform nucleation and epitaxy of bilayer molybdenum disulfide on sapphire. Nature, 2022, 605, 69-75.	13.7	174
1172	Role of Rotation Angle and Grain Boundary in Tuning the Li Intercalation Concentration to Induce Phase Transition in Bilayer MoS <sub>2</sub> . Journal of Physical Chemistry C, 2022, 126, 8539-8544.	1.5	1
1173	Structural Evolution and Bandgap Modulation of Layered <i>β</i> -GeSe <sub>2</sub> Single Crystal under High Pressure. Chinese Physics B, 0, , .	0.7	1
1174	Unveiling the relationship between the multilayer structure of metallic MoS <sub>2</sub> and the cycling performance for lithium ion batteries. Nanoscale, 2022, 14, 8621-8627.	2.8	9
1175	Recent Progress in 1D Contacts for 2Dâ€Materialâ€Based Devices. Advanced Materials, 2022, 34, e2202408.	11.1	13
1176	Unveiling the Electrocatalytic Activity of 1T′-MoSe <sub>2</sub> on Lithium-Polysulfide Conversion Reactions. ACS Applied Materials & Interfaces, 2022, 14, 24486-24496.	4.0	11
1177	A freestanding 3D heterophase tungsten disulfide-based aerogel as an ultrathin microwave absorber in the Ku-band. Journal of Materials Chemistry A, 2022, 10, 13848-13857.	5.2	14
1178	Graphene-assisted metal transfer printing for wafer-scale integration of metal electrodes and two-dimensional materials. Nature Electronics, 2022, 5, 275-280.	13.1	61
1179	A Facile Approach Towards Wrinkle-Free Transfer of 2d-Mos2 Films Via Hydrophilic Si3n4 Substrate Engineering. SSRN Electronic Journal, 0, , .	0.4	0
1180	Structural and Optical Characterization of Nanometer Sized Mos2/Graphene Heterostructures for Potential Use in Optoelectronic Devices. SSRN Electronic Journal, 0, , .	0.4	0
1181	The Emergence of 2D MXenes Based Znâ€lon Batteries: Recent Development and Prospects. Small, 2022, 18,	5.2	76
1182	Fluorinated Dielectricsâ€Modulated Organic Phototransistors and Flexible Image Sensors. Advanced Optical Materials, 2022, 10, .	3.6	7
1183	Epitaxial single-crystal hexagonal boron nitride multilayers on Ni (111). Nature, 2022, 606, 88-93.	13.7	97
1184	Constructing Reactive Microâ€Environment in Basal Plane of MoS <sub>2</sub> for pHâ€Universal Hydrogen Evolution Catalysis. Small, 2022, 18, .	5.2	21
1186	Engineering van der Waals Materials for Advanced Metaphotonics. Chemical Reviews, 2022, 122, 15204-15355.	23.0	33
1187	Twoâ€Dimensional Tellurene Transistors with Low Contact Resistance and Selfâ€Aligned Catalytic Thinning Process. Advanced Electronic Materials, 2022, 8, .	2.6	5
1188	Subâ€Nanometer Electron Beam Phase Patterning in 2D Materials. Advanced Science, 2022, 9, .	5.6	11

#	Article	IF	CITATIONS
1189	Electrical contact properties between Yb and few-layer WS <sub>2</sub> . Applied Physics Letters, 2022, 120, 253505.	1.5	2
1190	Atomic and Electronic Manipulation of Robust Ferroelectric Polymorphs. Advanced Materials, 2022, 34, .	11.1	4
1191	Structural and optical characterization of nanometer sized MoS2/graphene heterostructures for potential use in optoelectronic devices. FlatChem, 2022, , 100397.	2.8	3
1192	Recent advances in field-effect transistors for heavy metal ion detection. Journal of Materials Science: Materials in Electronics, 2022, 33, 15965-15991.	1.1	1
1193	Impact of Trap Profile on the Characteristics of 2-D MoS <sub>2</sub> Memtransistors: A Simulation Study. IEEE Transactions on Electron Devices, 2022, 69, 4750-4756.	1.6	0
1194	Two-dimensional diamonds from sp2-to-sp3 phase transitions. Nature Reviews Materials, 2022, 7, 814-832.	23.3	28
1195	Atomicâ€Level Design of Active Site on Twoâ€Dimensional MoS <sub>2</sub> toward Efficient Hydrogen Evolution: Experiment, Theory, and Artificial Intelligence Modelling. Advanced Functional Materials, 2022, 32, .	7.8	53
1196	FeNi@Nâ€Doped Graphene Core–Shell Nanoparticles on Carbon Matrix Coupled with MoS <sub>2</sub> Nanosheets as a Competent Electrocatalyst for Efficient Hydrogen Evolution Reaction. Advanced Materials Interfaces, 2022, 9, .	1.9	13
1197	Stabilized Synthesis of 2D Verbeekite: Monoclinic PdSe <sub>2</sub> Crystals with High Mobility and In-Plane Optical and Electrical Anisotropy. ACS Nano, 2022, 16, 13900-13910.	7.3	14
1198	Short-Range Charge Density Wave and Bandgap Modulation by Au-Implanted Defects in TiSe <sub>2</sub> . ACS Applied Electronic Materials, 2022, 4, 3428-3434.	2.0	2
1199	Crystal phase engineering of electrocatalysts for energy conversions. Nano Research, 2022, 15, 10194-10217.	5.8	13
1200	Performance Upper Limit of Sub-10 nm Monolayer MoS <sub>2</sub> Transistors with MoS <sub>2</sub> –Mo Electrodes. Journal of Physical Chemistry C, 2022, 126, 12100-12112.	1.5	3
1201	Growth, structure, electrical and optical properties of transition metal chalcogenide crystals synthesized by improved chemical vapor transport technique for semiconductor technologies. Progress in Crystal Growth and Characterization of Materials, 2022, 68, 100578.	1.8	4
1202	Chemical strategies in molybdenum based chalcogenides nanostructures for photocatalysis. International Journal of Hydrogen Energy, 2022, 47, 29255-29283.	3.8	68
1203	Large-Scale 1T′-Phase Tungsten Disulfide Atomic Layers Grown by Gas-Source Chemical Vapor Deposition. ACS Nano, 2022, 16, 13069-13081.	7.3	11
1204	Increasing of the ON-state current of 5.1Ânm MoTe2 in-plane Schottky barrier field-effect transistors by O-passivation and W-doping. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	0
1205	Recent Progress in Phase Regulation, Functionalization, and Biosensing Applications of Polyphase MoS <sub>2</sub> . Small, 2022, 18, .	5.2	17
1206	Research progress on improving the performance of MoS <sub>2</sub> photodetector. Journal of Optics (United Kingdom), 2022, 24, 104003.	1.0	4

#	Article		CITATIONS
1207	Intergranular Diffusionâ€Assisted Liquidâ€Phase Chemical Vapor Deposition for Waferâ€Scale Synthesis of Patternable 2D Semiconductors. Advanced Functional Materials, 2022, 32, .	7.8	3
1208	Atomic Layer Engineering of TMDs by Modulation of Top Chalcogen Atoms: For Electrical Contact and Chemical Doping. ACS Applied Electronic Materials, 2022, 4, 3794-3800.	2.0	1
1209	Bilayer tungsten diselenide transistors with on-state currents exceeding 1.5 milliamperes per micrometre. Nature Electronics, 2022, 5, 497-504.	13.1	51
1210	Improving the device performances of two-dimensional semiconducting transition metal dichalcogenides: Three strategies. Frontiers of Physics, 2022, 17, .	2.4	10
1211	Progress and challenges on 3D tubular structures and devices of 2D materials. Applied Physics Letters, 2022, 121, .	1.5	1
1213	Observation of intrinsic crystal phase in bare few-layer Crl <sub>3</sub> . Nanophotonics, 2022, 11, 4409-4417.	2.9	1
1214	Doping-driven topological polaritons in graphene/α-MoO3 heterostructures. Nature Nanotechnology, 2022, 17, 940-946.	15.6	57
1215	Phase Transformation of 1T′-MoS <sub>2</sub> Induced by Electrochemical Prelithiation for Lithium-Ion Storage. ACS Applied Energy Materials, 2022, 5, 11292-11303.	2.5	19
1216	Interface Engineering-Induced 1T-MoS2/NiS Heterostructure for Efficient Hydrogen Evolution Reaction. Catalysts, 2022, 12, 947.	1.6	10
1217	Emerging reconfigurable electronic devices based on twoâ€dimensional materials: A review. InformaÄnÃ- Materiály, 2022, 4, .	8.5	21
1218	A facile approach towards Wrinkle-Free transfer of 2D-MoS2 films via hydrophilic Si3N4 substrate. Applied Surface Science, 2022, 604, 154523.	3.1	2
1219	Review—Recent Advances in MoS <sub>2</sub> and Its Derivatives-Based Two-Dimensional Gas Sensors. ECS Journal of Solid State Science and Technology, 2022, 11, 097003.	0.9	4
1220	Strain-Modulated Electronic and Optical Properties of Monolayer and Bilayer CdS: A DFT Study. Journal of Electronic Materials, 0, , .	1.0	0
1221	Nanoarchitectured assembly and surface of two-dimensional (2D) transition metal dichalcogenides (TMDCs) for cancer therapy. Coordination Chemistry Reviews, 2022, 472, 214765.	9.5	15
1222	Research progress of neuromorphic devices based on two-dimensional layered materials. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 218504.	0.2	1
1223	Introduction toÂ2-Dimensional Materials andÂMoiré Superlattices. Springer Theses, 2022, , 5-28.	0.0	Ο
1224	Recent advances in TMD interfaces with seamless contacts. Journal of Materials Chemistry C, 2022, 10, 14795-14811.	2.7	12
1225	Edge-state-induced magnetism in two-dimensional hematene. Journal of Materials Chemistry A, 2022, 10, 17766-17772.	5.2	2

#	Article	IF	CITATIONS
1226	Atomic mechanism of lithium intercalation induced phase transition in layered MoS <sub>2</sub> . Physical Chemistry Chemical Physics, 2022, 24, 18777-18782.	1.3	3
1227	Thesis Outline. Springer Theses, 2022, , 1-3.	0.0	0
1228	A brief review of reconstructions and electronic structures of MoS <sub>2</sub> zigzag edges. Journal of Applied Physics, 2022, 132, 080702.	1.1	1
1229	Electrostatic gating and intercalation in 2D materials. Nature Reviews Materials, 2023, 8, 41-53.	23.3	57
1230	Interface Capture Effect Printing Atomicâ€Thick 2D Semiconductor Thin Films. Advanced Materials, 2022, 34, .	11.1	9
1231	Single- and Multilayers of Alkali Metal Atoms inside Graphene/MoS <sub>2</sub> Heterostructures: A Systematic First-Principles Study. Journal of Physical Chemistry C, 2022, 126, 15558-15564.	1.5	4
1232	Symmetric domain segmentation in WS <sub>2</sub> flakes: correlating spatially resolved photoluminescence, conductance with valley polarization. Nanotechnology, 2022, 33, 495203.	1.3	1
1233	Trigonal distortion in zigzag-antiferromagnet iron phosphorus trisulfide. Physical Review B, 2022, 106, .	1.1	3
1234	Emerging low-dimensional materials for nanoelectromechanical systems resonators. Materials Research Letters, 2023, 11, 21-52.	4.1	6
1235	Impact of histidine amino acid on 2D molybdenum disulfide catalytic properties for hydrogen evolution reaction. Journal of Applied Electrochemistry, 2023, 53, 85-94.	1.5	1
1236	Lowering Contact Resistances of Two-Dimensional Semiconductors by Memristive Forming. Nano Letters, 2022, 22, 7094-7103.	4.5	4
1238	New CrOX (XÂ=ÂCl, Br, I) monolayer with ultra-wide single spin states. Europhysics Letters, 2022, 140, 16002.	0.7	0
1239	Internal Thermal Stress-Driven Phase Transformation in Van der Waals Layered Materials. ACS Nano, 2022, 16, 17033-17040.	7.3	3
1240	High-throughput design of functional-engineered MXene transistors with low-resistive contacts. Npj Computational Materials, 2022, 8, .	3.5	16
1241	<scp>2D‶MDs</scp> based electrode material for supercapacitor applications. International Journal of Energy Research, 2022, 46, 22336-22364.	2.2	37
1242	Magnetic Fieldâ€Assisted Construction and Enhancement of Electrocatalysts. ChemSusChem, 2022, 15, .	3.6	18
1243	Two dimensional semiconducting materials for ultimately scaled transistors. IScience, 2022, 25, 105160.	1.9	11
1244	Bilayer CdS Structure: A Promising Candidate for Photocatalytic and Optoelectronic Applications. , 2023, 1, 201-208.		9

#	Article	IF	CITATIONS
1245	Giant tunneling magnetoresistance in two-dimensional magnetic tunnel junctions based on double transition metal MXene ScCr2C2F2. Nanoscale Advances, 0, , .	2.2	0
1246	Transistors and logic circuits enabled by 2D transition metal dichalcogenides: a state-of-the-art survey. Journal of Materials Chemistry C, 2022, 10, 17002-17026.	2.7	6
1247	Gate-voltage-induced reversible electrical phase transitions in Mo <sub>0.67</sub> W <sub>0.33</sub> Se <sub>2</sub> devices. Nanoscale, 2022, 14, 16611-16617.	2.8	2
1248	Two-dimensional van der Waals heterostructures (vdWHs) with band alignment transformation in multi-functional devices. RSC Advances, 2022, 12, 31456-31465.	1.7	2
1249	Insights into the multifunctional applications of strategically Co doped MoS <sub>2</sub> nanoflakes. Materials Advances, 2022, 3, 8740-8759.	2.6	1
1250	Electronic fingerprint mechanism of NOx sensor based on single-material SnP3 logical junction. Npj Computational Materials, 2022, 8, .	3.5	2
1251	Two-dimensional devices and integration towards the silicon lines. Nature Materials, 2022, 21, 1225-1239.	13.3	79
1252	Interface Influence on the Photoelectric Performance of Transition Metal Dichalcogenide Lateral Heterojunctions. ACS Omega, 2022, 7, 39187-39196.	1.6	2
1253	Recent Progress in Contact Engineering of Field-Effect Transistor Based on Two-Dimensional Materials. Nanomaterials, 2022, 12, 3845.	1.9	3
1254	Challenges for Nanoscale CMOS Logic Based on Two-Dimensional Materials. Nanomaterials, 2022, 12, 3548.	1.9	13
1255	The phenomenon of increasing capacitance induced by 1T/2H-MoS2 surface modification with Pt particles – Influence on composition and energy storage mechanism. Electrochimica Acta, 2022, 435, 141389.	2.6	7
1256	Electrochemical exfoliation of MoS2 nanosheets with ultrahigh stability for lead adsorption. Journal of Water Process Engineering, 2022, 50, 103212.	2.6	5
1257	Mixed-phase 1T/2H-WS2 nanosheets on N-doped multichannel carbon nanofiber as current collector-integrated electrode for potassium battery anode. Journal of Colloid and Interface Science, 2023, 630, 823-832.	5.0	9
1258	Synthesis and phase-engineering of ultrathin two-dimensional nanomaterials. , 2022, , .		0
1259	Fracture of Low-Dimensional Materials. , 2023, , 196-216.		0
1260	Manipulation of the 1T-MoS <sub>2</sub> domain in a 2H-MoS <sub>2</sub> main phase induced by V-doping <i>via</i> a CVD vapor–liquid–solid mechanism. CrystEngComm, 2022, 24, 8517-8524.	1.3	2
1261	Nonvolatile n-Type Doping and Metallic State in Multilayer-MoS <sub>2</sub> Induced by Hydrogenation Using Ionic-Liquid Gating. Nano Letters, 2022, 22, 8957-8965.	4.5	0
1262	Challenges and Opportunities of Chemiresistors Based on Microelectromechanical Systems for Chemical Olfaction. ACS Nano, 2022, 16, 17778-17801.	7.3	6

		CITATION R	EPORT	
#	Article		IF	CITATIONS
1263	Biomolecule capturing and sensing on 2D transition metal dichalcogenide canvas. , 2023,	, 2, e9120043.		14
1264	Data-driven discovery of 2D materials by deep generative models. Npj Computational Mat	terials, 2022, 8,	3.5	30
1265	Theoretical study on the electronic and transport properties of top and edge contact Mos heterostructure. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022	Si2N4/Au 2, 456, 128535.	0.9	2
1266	Metallic group VB transition metal dichalcogenides for electrochemical energy storage. M Today Chemistry, 2022, 26, 101241.	aterials	1.7	5
1267	Formation of In-Plane Semiconductor–Metal Contacts in 2D Platinum Telluride by Conv PtTe <sub>2</sub> to Pt <sub>2</sub> Te <sub>2</sub> . Nano Letters, 2022, 22, 9571-95	erting 577.	4.5	6
1268	Defect engineering of two-dimensional materials towards next-generation electronics and optoelectronics. Nano Research, 2023, 16, 3104-3124.		5.8	6
1269	Chrysanthemum-like spinel nanomaterials assembled with bundled nanowires as an efficient for the oxygen evolution reaction. Sustainable Energy and Fuels, 2022, 7, 310-318.	ent catalyst	2.5	2
1270	Tunable plasticity in functionalized honeycomb synaptic memristor for neurocomputing. Today Physics, 2023, 30, 100947.	Materials	2.9	5
1271	Epitaxial Atomic Substitution for MoS <sub>2</sub> –MoN Heterostructure Synthesis. A Materials & Interfaces, 2022, 14, 57144-57152.	ACS Applied	4.0	4
1272	High-performance junction-free field-effect transistor based on blue phosphorene. Npj 2D and Applications, 2022, 6, .	Materials	3.9	5
1273	Strainâ€Enhanced Photovoltaic Effect in MoTe <sub>2</sub> . Laser and Photonics Review	vs, 2023, 17, .	4.4	5
1275	A "Click―Reaction to Engineer MoS <sub>2</sub> Field-Effect Transistors with Low C Resistance. ACS Nano, 2022, 16, 20647-20655.	Contact	7.3	4
1276	Tunable Schottky contact at the graphene/Janus SMoSiN <sub>2</sub> interface for high electronic devices. Journal Physics D: Applied Physics, 2023, 56, 045306.	-efficiency	1.3	3
1277	Advancing the Understanding of the Structure–Activity–Durability Relation of 2D Mo for the Hydrogen Evolution Reaction. ACS Catalysis, 2023, 13, 342-354.	S <sub>2</sub>	5.5	11
1278	Dual-Gate All-Electrical Valleytronic Transistors. Nano Letters, 2023, 23, 192-197.		4.5	5
1279	Interfacial engineering in two-dimensional heterojunction photocatalysts. International Jo Hydrogen Energy, 2023, 48, 12257-12287.	urnal of	3.8	16
1280	2D Transition Metal Dichalcogenides for Photocatalysis. Angewandte Chemie - Internation 2023, 62, .	nal Edition,	7.2	65
1281	Discovery of Clustered-P1 Borophene and Its Application as the Lightest High-Performanc ACS Applied Materials & amp; Interfaces, 2023, 15, 3182-3191.	e Transistor.	4.0	8

		CITATION RE	PORT	
#	Article		IF	CITATIONS
1282	Approaching the quantum limit in two-dimensional semiconductor contacts. Nature, 2	.023, 613, 274-279.	13.7	100
1283	Electrical Contacts With 2D Materials: Current Developments and Future Prospects. S	mall, 2023, 19, .	5.2	9
1284	2D Transition Metal Dichalcogenides for Photocatalysis. Angewandte Chemie, 2023, 1	35,.	1.6	3
1285	Probing the electrical performance improvement of FET device based on multilayer Mo Results in Physics, 2023, 44, 106206.	S2 material.	2.0	1
1286	Modifying the Power and Performance of 2-Dimensional MoS <sub>2</sub> Field Effe Research, 2023, 6, .	ct Transistors.	2.8	9
1287	Antibacterial Pathways in Transition Metal-Based Nanocomposites: A Mechanistic Ove International Journal of Nanomedicine, 0, Volume 17, 6821-6842.	rview.	3.3	13
1288	Electrochemically Deposited MoS2 and MnS Multilayers on Nickel Substrates in Invers Structure as Supercapacitor Microelectrodes. Micromachines, 2023, 14, 361.	e Opal	1.4	1
1289	One-dimensional semimetal contacts to two-dimensional semiconductors. Nature Con 2023, 14, .	nmunications,	5.8	13
1290	2D materials for flexible electronics. , 2023, , 169-206.			1
1291	3D printing of 2D nano-inks for multifarious applications. , 2023, , 91-124.			2
1292	Layer-Structured Anisotropic Metal Chalcogenides: Recent Advances in Synthesis, Mod Applications. Chemical Reviews, 2023, 123, 3329-3442.	Julation, and	23.0	23
1293	The plasticity of synaptic memristor based on 2D-MoS2 thin film prepared in large-scal PLD-assisted CVD method. Materials Today Communications, 2023, 35, 105511.	e by a	0.9	0
1294	Solvothermal temperature-control of active 1T phase in carbon cloth-supported MoS2 cluster electrodeposition for hydrogen evolution reaction. Journal of Alloys and Compo 942, 169035.	and Pt-Ni bunds, 2023,	2.8	4
1295	The electronic and optical properties of multi-layer Bi2O2X (XÂ=ÂS, Se, Te) by first-prir calculations. Applied Surface Science, 2023, 618, 156541.	nciples	3.1	7
1296	Suppressed Fermi Level Pinning and Wide-Range Tunable Schottky Barrier in CrX <sub< td=""><td>-3 (X = l,) Tj ETQq0 (</td><td>0 0 rgBT /C</td><td>Dvgrlock 10 T</td></sub<>	-3 (X = l,) Tj ETQq0 (	0 0 rgBT /C	Dvgrlock 10 T
1297	Dynamic phase evolution of MoS <sub>3</sub> accompanied by organodiselenide me enhanced performance rechargeable lithium battery. Proceedings of the National Acad of the United States of America, 2023, 120, .	diation enables lemy of Sciences	3.3	6
1298	Unlocking performance potential of two-dimensional SnS2 transistors with solution-pr high-k Y:HfO2 film and semimetal bismuth contact. Applied Surface Science, 2023, 61	ocessed 7, 156577.	3.1	1
1299	Positive charge-mediated phase modulation of MoTe2 synthesized by molecular beam Surface Science, 2023, 623, 156988.	epitaxy. Applied	3.1	0
#	Article	IF	CITATIONS	
------	--	--------------	---------------	
1300	A critical review of fabrication challenges and reliability issues in top/bottom gated MoS <sub>2</sub> field-effect transistors. Nanotechnology, 2023, 34, 232001.	1.3	4	
1301	Improving Contacts and Electrical Performances of Nanofilms of MoS <sub>2</sub> Transistors through Ultrastrong vdW Integration with Dirac Semimetal PtTe <sub>2</sub> . ACS Applied Nano Materials, 2023, 6, 2285-2291.	2.4	6	
1302	Visible-Light-Enhanced NO <sub>2</sub> Sensing Based on the Hybrid Orthorhombic/Monoclinic-PdSe <sub>2</sub> Nanostructures. ACS Applied Nano Materials, 2023, 6, 2672-2681.	2.4	2	
1303	Defect-Dependent Surface Phase Transformation on 1 <i>T</i> -TiS <sub>2</sub> Assisted by Water. Journal of Physical Chemistry C, 2023, 127, 3462-3469.	1.5	0	
1304	Synthesis of atomically thin sheets by the intercalation-based exfoliation of layered materials. , 2023, 2, 101-118.		42	
1305	Inkjet-Printed MoS <sub>2</sub> Nanoplates on Flexible Substrates for High-Performance Field Effect Transistors and Gas Sensing Applications. ACS Applied Nano Materials, 2023, 6, 3236-3244.	2.4	4	
1306	二维朖™èŒfå¾·åŽå™¨ä»¶ä,界é¢çš"é€å°"电åæ~¾å¾®èj¨å¾• Chinese Science Bulletin, 2023, , .	0.4	1	
1307	Low resistance electrical contacts to few-layered MoS <sub>2</sub> by local pressurization. 2D Materials, 2023, 10, 021003.	2.0	0	
1308	Resolving Interface Barrier Deviation from the Schottky–Mott Rule: A Mitigation Strategy via Engineering MoS <sub>2</sub> –Metal van der Waals Contact. Journal of Physical Chemistry Letters, 2023, 14, 2940-2949.	2.1	1	
1309	é¢å'ç"µæžæŽ¥è§¦åº"ç"∵的二维金属性èᇿ;j金属ç;«å±žåŒ–å•̂物的å^¶å <b>¤</b> å'Œå™ïä»¶ç"ç©¶èį›å±•. (	Chincese Sci	ience Bulleti	
1310	The importance of the image forces and dielectric environment in modeling contacts to two-dimensional materials. Npj 2D Materials and Applications, 2023, 7, .	3.9	4	
1311	Fabrication and applications of van der Waals heterostructures. International Journal of Extreme Manufacturing, 2023, 5, 022007.	6.3	6	
1312	Keep in contact. Science Bulletin, 2023, 68, 787-787.	4.3	0	
1313	Nanocomposites of Quasicrystal Nanosheets and MoS <sub>2</sub> Nanoflakes for NO <sub>2</sub> Gas Sensors. ACS Applied Nano Materials, 2023, 6, 5952-5962.	2.4	9	
1314	Growth and applications of two-dimensional single crystals. 2D Materials, 2023, 10, 032001.	2.0	4	
1315	Anisotropic Low Schottky Barrier and Transport Properties of the Co-Intercalated Bilayer SnS <sub>2</sub> /Monolayer SnS <sub>2</sub> Junction from First Principles. ACS Applied Electronic Materials, 0, , .	2.0	0	
1316	Grapheneâ€Enhanced Metal Transfer Printing for Strong van der Waals Contacts between 3D Metals and 2D Semiconductors. Advanced Functional Materials, 2023, 33,	7.8	5	
1317	Rational Engineering of 2D Materials as Advanced Catalyst Cathodes for Highâ€Performance Metal–Carbon Dioxide Batteries. Small Structures, 2023, 4, .	6.9	2	

CITATION REPORT

CITATION REPORT

#	Article	IF	CITATIONS
1318	Electrical performance of monolayer MoS <sub>2</sub> transistor with MoS <sub>2</sub> nanobelt metallic edges as electrodes. Nanotechnology, 2023, 34, 285203.	1.3	2
1319	Interfacial configuration and interfacial regulation of electronic properties of MoS2 heterophase junctions. Materials Chemistry and Physics, 2023, 303, 127789.	2.0	0
1320	Two-Dimensional Materials-Based Plasmonic Sensors for Health Monitoring Systems—A Review. IEEE Sensors Journal, 2023, 23, 11324-11335.	2.4	1
1321	Contacts for 2D-Material MOSFETs: Recent Advances and Outstanding Challenges. , 2023, , .		1
1331	Preparation and pulsed fiber laser applications of emerging nanostructured materials. Journal of Materials Chemistry C, 2023, 11, 7538-7569.	2.7	1
1350	Synthetic two-dimensional electronics for transistor scaling. Frontiers of Physics, 2023, 18, .	2.4	0
1367	Recent advances on liquid intercalation and exfoliation of transition metal dichalcogenides: From fundamentals to applications. Nano Research, 2024, 17, 2088-2110.	5.8	2
1374	Uncovering the photoelectronic/catalytic property modulation and applications of 2D MoS <sub>2</sub> : from the perspective of constructing heterogeneous interfaces. Journal of Materials Chemistry A, 2023, 11, 19736-19763.	5.2	2
1375	Hydrogen-bonding enables two-dimensional metal/semiconductor tunable contacts approaching the quantum limit and the modified Schottky–Mott limit simultaneously. Materials Horizons, 0, , .	6.4	0
1390	Recent advances in synthesis of water-stable metal halide perovskites and photocatalytic applications. Journal of Materials Chemistry A, 2023, 11, 22656-22687.	5.2	4
1398	Reduction of Schottky Barrier Height for Au-WS <sub>2</sub> Interface with lodine Doping - A Physical Insight. , 2023, , .		0
1403	van der Waals 2D transition metal dichalcogenide/organic hybridized heterostructures: recent breakthroughs and emerging prospects of the device. Nanoscale Horizons, 2023, 9, 44-92.	4.1	1
1415	Getting two-dimensional materials ready for industrial manufacturing. Nature Electronics, 0, , .	13.1	0
1445	Stacking engineering in layered homostructures: transitioning from 2D to 3D architectures. Physical Chemistry Chemical Physics, 2024, 26, 7988-8012.	1.3	0