

High-Mobility InSe Transistors: The Role of Surface Oxide

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Citation Report

#	ARTICLE	IF	CITATIONS
4	Scalable van der Waals Heterojunctions for High-Performance Photodetectors. ACS Applied Materials & Interfaces, 2017, 9, 36181-36188.	4.0	29
5	The Advent of Indium Selenide: Synthesis, Electronic Properties, Ambient Stability and Applications. Nanomaterials, 2017, 7, 372.	1.9	50
6	Interaction of the O atom with the InSe monolayer: A first-principles study. Vacuum, 2018, 153, 53-61.	1.6	6
7	Effects of graphene/BN encapsulation, surface functionalization and molecular adsorption on the electronic properties of layered InSe: a first-principles study. Physical Chemistry Chemical Physics, 2018, 20, 12939-12947.	1.3	27
8	Pronounced photogating effect in atomically thin WSe ₂ with a self-limiting surface oxide layer. Applied Physics Letters, 2018, 112, .	1.5	38
9	The role of the intrinsic Se and In vacancies in the interaction of O ₂ and H ₂ O molecules with the InSe monolayer. Applied Surface Science, 2018, 434, 215-227.	3.1	27
10	Suppressing Ambient Degradation of Exfoliated InSe Nanosheet Devices via Seeded Atomic Layer Deposition Encapsulation. Nano Letters, 2018, 18, 7876-7882.	4.5	54
11	Hole-Doped 2D InSe for Spintronic Applications. ACS Applied Nano Materials, 2018, 1, 6656-6665.	2.4	41
12	Spatially and Precisely Controlled Large-Scale and Persistent Optical Gating in a TiO ₂ /MoS ₂ Heterostructure. ACS Applied Materials & Interfaces, 2018, 10, 38319-38325.	4.0	2
13	High Mobilities in Layered InSe Transistors with Indium-Encapsulation-Induced Surface Charge Doping. Advanced Materials, 2018, 30, e1803690.	11.1	101
14	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
15	Thin EOT MoS ₂ FET for Efficient Photodetection and Gas Sensing. , 2018, , .		1
16	Producing air-stable InSe nanosheet through mild oxygen plasma treatment. Semiconductor Science and Technology, 2018, 33, 074002.	1.0	24
17	Ultrahigh Conductivity in Two-Dimensional InSe via Remote Doping at Room Temperature. Journal of Physical Chemistry Letters, 2018, 9, 3897-3903.	2.1	23
18	Type-II InSe/MoSe ₂ (WSe ₂) van der Waals heterostructures: vertical strain and electric field effects. Journal of Materials Chemistry C, 2018, 6, 10010-10019.	2.7	59
19	Synthesis of Large-Area InSe Monolayers by Chemical Vapor Deposition. Small, 2018, 14, e1802351.	5.2	81
20	Solution-Based Processing of Optoelectronically Active Indium Selenide. Advanced Materials, 2018, 30, e1802990.	11.1	78
21	Semiconducting edges and flake-shape evolution of monolayer GaSe: role of edge reconstructions. Nanoscale, 2018, 10, 12133-12140.	2.8	10

#	ARTICLE	IF	CITATIONS
22	Magnetotransport and lateral confinement in an InSe van der Waals Heterostructure. 2D Materials, 2018, 5, 035040.	2.0	7
23	Many-Body Effect and Device Performance Limit of Monolayer InSe. ACS Applied Materials & Interfaces, 2018, 10, 23344-23352.	4.0	98
24	Stable InSe transistors with high-field effect mobility for reliable nerve signal sensing. Npj 2D Materials and Applications, 2019, 3, .	3.9	31
25	Schottky-barrier thin-film transistors based on HfO ₂ -capped InSe. Applied Physics Letters, 2019, 115, .	1.5	13
26	Plasmonic Transition Metal Carbide Electrodes for High-Performance InSe Photodetectors. ACS Nano, 2019, 13, 8804-8810.	7.3	69
27	Gate-Induced Metal-Insulator Transition in 2D van der Waals Layers of Copper Indium Selenide Based Field-Effect Transistors. ACS Nano, 2019, 13, 13413-13420.	7.3	20
28	Effective Hexagonal Boron Nitride Passivation of Few-Layered InSe and GaSe to Enhance Their Electronic and Optical Properties. ACS Applied Materials & Interfaces, 2019, 11, 43480-43487.	4.0	44
29	Strong Electron-Phonon Coupling and its Influence on the Transport and Optical Properties of Hole-Doped Single-Layer InSe. Physical Review Letters, 2019, 123, 176401.	2.9	37
30	High-Mobility InSe Transistors: The Nature of Charge Transport. ACS Applied Materials & Interfaces, 2019, 11, 35969-35976.	4.0	23
31	Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. Nature Communications, 2019, 10, 4133.	5.8	39
32	High-performance sub-10 nm monolayer Bi ₂ O ₂ Se transistors. Nanoscale, 2019, 11, 532-540.	2.8	196
33	Highly efficient photogenerated electron transfer at a black phosphorus/indium selenide heterostructure interface from ultrafast dynamics. Journal of Materials Chemistry C, 2019, 7, 1864-1870.	2.7	53
34	Recent advances in oxidation and degradation mechanisms of ultrathin 2D materials under ambient conditions and their passivation strategies. Journal of Materials Chemistry A, 2019, 7, 4291-4312.	5.2	158
35	Absorption and diffusion of lithium on layered InSe. Computational Condensed Matter, 2019, 21, e00404.	0.9	9
36	End-Bonded Metal Contacts on WSe ₂ Field-Effect Transistors. ACS Nano, 2019, 13, 8146-8154.	7.3	44
37	Sn-Doping Enhanced Ultrahigh Mobility In _{1-x} Sn _x Se Phototransistor. ACS Applied Materials & Interfaces, 2019, 11, 24269-24278.	4.0	17
38	A homogeneous p-n junction diode by selective doping of few layer MoSe ₂ using ultraviolet ozone for high-performance photovoltaic devices. Nanoscale, 2019, 11, 13469-13476.	2.8	41
39	Thickness-Dependent Resonant Raman and Raman Photoluminescence Spectra of Indium Selenide and Indium Selenide/Graphene Heterostructures. Journal of Physical Chemistry C, 2019, 123, 15345-15353.	1.5	16

#	ARTICLE	IF	CITATIONS
40	Determination of Carrier Diffusion Length Using Transient Electron Photoemission Microscopy in the GaAs/InSe Heterojunction. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900126.	0.7	1
41	Flexible quantum spin Hall insulator in O-functionalized GaSe monolayer. <i>Journal of Alloys and Compounds</i> , 2019, 788, 1113-1118.	2.8	7
42	Ultrafast Monolayer In/Gr-WS ₂ -Gr Hybrid Photodetectors with High Gain. <i>ACS Nano</i> , 2019, 13, 3269-3279.	7.3	44
43	Crystal structure and optical performance in bulk \hat{I}^3 -InSe single crystals. <i>AIP Advances</i> , 2019, 9, .	0.6	15
44	Low-voltage Operational, Low-power Consuming, and High Sensitive Tactile Switch Based on 2D Layered InSe Tribotronics. <i>Advanced Functional Materials</i> , 2019, 29, 1809119.	7.8	28
45	Tuning spin-orbit coupling in 2D materials for spintronics: a topical review. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 193001.	0.7	48
46	Controlled surface oxidation of HfSe ₂ via oxygen-plasma treatment. <i>Materials Letters</i> , 2019, 243, 96-99.	1.3	12
47	Effect of Sputtering Process Parameters on Optical and Dielectric Properties of Thin Film Indium Selenide. , 2019, , .		0
48	Ultrasensitive Flexible Strain Sensor based on Two-Dimensional InSe for Human Motion Surveillance. , 2019, , .		3
49	Synthesis and emerging properties of 2D layered III-VI metal chalcogenides. <i>Applied Physics Reviews</i> , 2019, 6, 041312.	5.5	89
50	Pressure-induced semiconductor-to-metal phase transition of a charge-ordered indium halide perovskite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 23404-23409.	3.3	45
51	Oxidized-monolayer tunneling barrier for strong Fermi-level depinning in layered InSe transistors. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	19
52	Recent Advances in Optoelectronic Devices Based on 2D Materials and Their Heterostructures. <i>Advanced Optical Materials</i> , 2019, 7, 1800441.	3.6	229
53	First-principles study of the surface reparation of ultrathin InSe with Se-atom vacancies by thiol chemistry. <i>Applied Surface Science</i> , 2019, 475, 487-493.	3.1	6
54	Hot Carrier and Surface Recombination Dynamics in Layered InSe Crystals. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 493-499.	2.1	22
55	Two Dimensional \hat{I}^2 -InSe with Layer-Dependent Properties: Band Alignment, Work Function and Optical Properties. <i>Nanomaterials</i> , 2019, 9, 82.	1.9	43
56	Optical studies of the thermal stability of InSe nanosheets. <i>Applied Surface Science</i> , 2019, 467-468, 860-867.	3.1	6
57	The role of traps in the photocurrent generation mechanism in thin InSe photodetectors. <i>Materials Horizons</i> , 2020, 7, 252-262.	6.4	164

#	ARTICLE	IF	CITATIONS
58	Nanowire Grid Polarization and Polarized Excitonic Emission Observed in Multilayer GaTe. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 608-617.	2.1	20
59	Piezopotential gated two-dimensional InSe field-effect transistor for designing a pressure sensor based on piezotronic effect. <i>Nano Energy</i> , 2020, 70, 104457.	8.2	35
60	Edge- π Epitaxial Growth of InSe Nanowires toward High-Performance Photodetectors. <i>Small</i> , 2020, 16, e1905902.	5.2	22
61	Graphene-Transition Metal Dichalcogenide Heterojunctions for Scalable and Low-Power Complementary Integrated Circuits. <i>ACS Nano</i> , 2020, 14, 985-992.	7.3	46
62	Thickness Identification of Thin InSe by Optical Microscopy Methods. <i>Advanced Photonics Research</i> , 2020, 1, 2000025.	1.7	11
63	Optical and structural properties of n^+ and p^+ InSe/In ₂ O ₃ heterostructures. <i>Journal of Luminescence</i> , 2020, 227, 117550.	1.5	1
64	Interfacial Charge Transfer and Gate-Induced Hysteresis in Monochalcogenide InSe/GaSe Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46854-46861.	4.0	15
65	Evolutions of morphology and electronic properties of few-layered MoS ₂ exposed to UVO. <i>Results in Physics</i> , 2020, 19, 103634.	2.0	10
66	Sub-5-nm Monolayer Silicane Transistor: A First-Principles Quantum Transport Simulation. <i>Physical Review Applied</i> , 2020, 14, .	1.5	38
67	Fast growth of large-grain and continuous MoS ₂ films through a self-capping vapor-liquid-solid method. <i>Nature Communications</i> , 2020, 11, 3682.	5.8	76
68	Ga ₂ Se ₃ Defect Semiconductors: The Study of Direct Band Edge and Optical Properties. <i>ACS Omega</i> , 2020, 5, 18527-18534.	1.6	14
69	The optical properties of few-layer InSe. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	23
70	Large-area optoelectronic-grade InSe thin films via controlled phase evolution. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	17
71	Reduction of the ambient effect in multilayer InSe transistors and a strategy toward stable 2D-based optoelectronic applications. <i>Nanoscale</i> , 2020, 12, 18356-18362.	2.8	13
72	All-Dry Transferred ReS ₂ Nanosheets for Ultrasensitive Room-Temperature NO ₂ Sensing under Visible Light Illumination. <i>ACS Sensors</i> , 2020, 5, 3172-3181.	4.0	34
73	Liquid-Phase Exfoliated GeSe Nanoflakes for Photoelectrochemical-Type Photodetectors and Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48598-48613.	4.0	56
74	Combinatorial Large-Area MoS ₂ /Anatase-TiO ₂ Interface: A Pathway to Emergent Optical and Optoelectronic Functionalities. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44345-44359.	4.0	10
75	Enhanced Electrocatalytic Activity in GaSe and InSe Nanosheets: The Role of Surface Oxides. <i>Advanced Functional Materials</i> , 2020, 30, 2005466.	7.8	35

#	ARTICLE	IF	CITATIONS
76	Surface-Modified Ultrathin InSe Nanosheets with Enhanced Stability and Photoluminescence for High-Performance Optoelectronics. ACS Nano, 2020, 14, 11373-11382.	7.3	34
77	Ferroelectric-Gated InSe Photodetectors with High On/Off Ratios and Photoresponsivity. Nano Letters, 2020, 20, 6666-6673.	4.5	53
78	Scalable T-Gate Aligned WS ₂ /Gr Radio-Frequency Field-Effect Transistors. ACS Applied Electronic Materials, 2020, 2, 3898-3905.	2.0	11
79	Electronic Structure and Optical Properties of a Mn-Doped InSe/WSe ₂ van der Waals Heterostructure: First Principles Calculations. Journal of the Korean Physical Society, 2020, 77, 587-591.	0.3	2
80	InSe Schottky Diodes Based on Van Der Waals Contacts. Advanced Functional Materials, 2020, 30, 2001307.	7.8	44
81	Low Lattice Mismatch InSe/Se Vertical Van der Waals Heterostructure for High-Performance Transistors via Strong Fermi Level Depinning. Small Methods, 2020, 4, 2000238.	4.6	22
82	Oxidation-boosted charge trapping in ultra-sensitive van der Waals materials for artificial synaptic features. Nature Communications, 2020, 11, 2972.	5.8	83
83	Ohmic contacts of monolayer TiO ₂ field-effect transistors. Journal of Materials Science, 2020, 55, 11439-11450.	1.7	9
84	The role of hybrid dielectric interfaces in improving the performance of multilayer InSe transistors. Journal of Materials Chemistry C, 2020, 8, 6701-6709.	2.7	8
85	High-performance III-VI monolayer transistors for flexible devices. Physical Chemistry Chemical Physics, 2020, 22, 7039-7047.	1.3	10
86	Contact engineering of single core/shell SiC/SiO ₂ nanowire memory unit with high current tolerance using focused femtosecond laser irradiation. Nanoscale, 2020, 12, 5618-5626.	2.8	11
87	Liquid Phase Exfoliated Indium Selenide Based Highly Sensitive Photodetectors. Advanced Functional Materials, 2020, 30, 1908427.	7.8	42
88	Enormous enhancement in electrical performance of few-layered MoTe ₂ due to Schottky barrier reduction induced by ultraviolet ozone treatment. Nano Research, 2020, 13, 952-958.	5.8	25
89	Study of Structural, Thermoelectric, and Photoelectric Properties of Layered Tin Monochalcogenides SnX (X = S, Se) for Energy Application. ACS Applied Energy Materials, 2020, 3, 4896-4905.	2.5	22
90	InSe/hBN/graphite heterostructure for high-performance 2D electronics and flexible electronics. Nano Research, 2020, 13, 1127-1132.	5.8	48
91	Structural investigation of InSe layered semiconductors. Solid State Communications, 2020, 311, 113855.	0.9	26
92	Performance Limit of Monolayer WSe ₂ Transistors; Significantly Outperform Their MoS ₂ Counterpart. ACS Applied Materials & Interfaces, 2020, 12, 20633-20644.	4.0	39
93	CVD growth of large-area InS atomic layers and device applications. Nanoscale, 2020, 12, 9366-9374.	2.8	9

#	ARTICLE	IF	CITATIONS
94	Recent progress in contact, mobility, and encapsulation engineering of InSe and GaSe. <i>Informa</i> <i>Materials</i> , 2021, 3, 662-693.	8.5	49
95	Multiterminal Transport Measurements of Multilayer InSe Encapsulated by hBN. <i>ACS Applied Electronic Materials</i> , 2021, 3, 163-169.	2.0	3
96	Atomically Thin Hexagonal Boron Nitride and Its Heterostructures. <i>Advanced Materials</i> , 2021, 33, e2000769.	11.1	71
97	Engineering an Indium Selenide van der Waals Interface for Multilevel Charge Storage. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 4618-4625.	4.0	12
98	The band-edge excitons observed in few-layer NiPS ₃ . <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	21
99	Heterostructures of titanium-based MXenes in energy conversion and storage devices. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8395-8465.	2.7	30
100	Atomically thin photoanode of InSe/graphene heterostructure. <i>Nature Communications</i> , 2021, 12, 91.	5.8	26
101	Quantum Transport in Monolayer InSe Field-Effect Transistors. <i>Advanced Electronic Materials</i> , 2021, 7, 2001169.	2.6	6
102	Bandgap engineering of layered mono-chalcogenides via pressure. <i>Journal of Applied Physics</i> , 2021, 129, 155703.	1.1	2
103	Oxidations of two-dimensional semiconductors: Fundamentals and applications. <i>Chinese Chemical Letters</i> , 2022, 33, 177-185.	4.8	6
104	Encapsulation strategies on 2D materials for field effect transistors and photodetectors. <i>Chinese Chemical Letters</i> , 2022, 33, 2281-2290.	4.8	17
105	Anisotropic Properties of Quasi-1D In_4Se_3 : Mechanical Exfoliation, Electronic Transport, and Polarization-Dependent Photoresponse. <i>Advanced Functional Materials</i> , 2021, 31, 2106459.	7.8	11
106	Sub-10Ånm two-dimensional transistors: Theory and experiment. <i>Physics Reports</i> , 2021, 938, 1-72.	10.3	80
107	Tunable spin-orbit coupling in two-dimensional InSe. <i>Physical Review B</i> , 2021, 104, .	1.1	9
108	Thermodynamic Perspective on the Oxidation of Layered Materials and Surface Oxide Amelioration in 2D Devices. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 43282-43289.	4.0	10
109	Defects-induced oxidation of two-dimensional In_2S_3 and its optoelectronic properties. <i>Optical Materials</i> , 2021, 119, 111372.	1.7	13
110	Observation of nonvolatile resistive switching behaviors in 2D layered InSe nanosheets through controllable oxidation. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	6
111	Stability studies of few-layer InSe nanosheets by Raman spectroscopy. <i>Solid State Communications</i> , 2021, 336, 114417.	0.9	4

#	ARTICLE	IF	CITATIONS
112	Liquid-Phase Exfoliated Gallium Selenide for Light-Driven Thin-Film Transistors. <i>Advanced Electronic Materials</i> , 2021, 7, 2001080.	2.6	18
113	Silicon-based two-dimensional chalcogenide of p-type semiconducting silicon telluride nanosheets for ultrahigh sensitive photodetector applications. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10478-10486.	2.7	5
114	Contact-Barrier Free, High Mobility, Dual-Gated Junctionless Transistor Using Tellurium Nanowire. <i>Advanced Functional Materials</i> , 2021, 31, 2006278.	7.8	14
115	Reversible Half Wave Rectifier Based on 2D InSe/GeSe Heterostructure with Near-Broken Band Alignment. <i>Advanced Science</i> , 2021, 8, 1903252.	5.6	38
116	Layered Semiconducting 2D Materials for Future Transistor Applications. <i>Small Structures</i> , 2021, 2, 2000103.	6.9	85
117	Interfaces between MoO_x and MoX_2 ($X = \text{S}, \text{Se}, \text{and Te}$)*. <i>Chinese Physics B</i> , 2020, 29, 116802.	0.7	7
118	Nonlinear Optical Properties and Ultrafast Carrier Dynamics of 2D Indium Selenide Nanosheets. <i>Advanced Optical Materials</i> , 2021, 9, 2101432.	3.6	14
119	Promising Properties of a Sub-5-nm Monolayer MoSi_2N_4 Transistor. <i>Physical Review Applied</i> , 2021, 16, .	2.9	39
120	Doping Engineered InSe Flakes for High Mobility Phototransistor. , 2020, , .		1
121	Tuning Schottky barrier in graphene/InSe van der Waals heterostructures by electric field. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 157302.	0.2	3
122	Charge Transfer at the Hetero-Interface of WSe_2/InSe Induces Efficient Doping to Achieve Multi-Functional Lateral Homo-Junctions. <i>Advanced Electronic Materials</i> , 2021, 7, 2100584.	2.6	5
123	Selective crystal growth of indium selenide compounds from saturated solutions grown in a selenium vapor. <i>Results in Materials</i> , 2022, 13, 100253.	0.9	5
124	Two-Dimensional MoSi_2N_4 : An Excellent 2-D Semiconductor for Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 406-413.	1.6	28
126	Indium Selenide/Antimonene Heterostructure for Multifunctional Optoelectronics. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1155-1161.	1.6	8
127	High-Performance Phototransistors by Alumina Encapsulation of a 2D Semiconductor with Self-Aligned Contacts. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	5
128	Construction and physical properties of low-dimensional structures for nanoscale electronic devices. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 9082-9117.	1.3	3
129	Phase Modulation of Self-Gating in Ionic Liquid-Functionalized InSe Field-Effect Transistors. <i>Nano Letters</i> , 2022, 22, 2270-2276.	4.5	5
130	Degradation Chemistry and Kinetic Stabilization of Magnetic CrI_3 . <i>Journal of the American Chemical Society</i> , 2022, 144, 5295-5303.	6.6	13

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131	Enhancement of InSe Field-Effect-Transistor Performance against Degradation of InSe Film in Air Environment. <i>Nanomaterials</i> , 2021, 11, 3311.	1.9	5
132	Performance Enhancement of SnS/BN Heterostructure p-Type FET via the Thermodynamically Predicted Surface Oxide Conversion Method. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 19928-19937.	4.0	4
133	Morphotaxy of Layered van der Waals Materials. <i>ACS Nano</i> , 2022, 16, 7144-7167.	7.3	8
134	X-ray diffraction characterization of nanostructured native oxide films on indium selenide by modified Sherrer and Williamson-Hall methods. <i>Journal of Physical Studies</i> , 2022, 26, .	0.2	0
135	Metal chalcogenide-based photoelectrodes for photoelectrochemical water splitting. <i>Journal of Energy Chemistry</i> , 2022, 73, 189-213.	7.1	40
136	Enhancement of Photoresponsivity of $\text{In}_2\text{S}_3/\text{Si}$ Broadband Photodetector by Decorating With Reduced-Graphene Oxide. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 4355-4361.	1.6	2
137	Large and anisotropic carrier mobility in monolayers of the MA_2Z_4 series (M) Tj ETQq0 0,0 rgBT /Overlock 10	2.8	16
138	Polarization-Resolved and Helicity-Resolved Raman Intensity of Monolayer and Bilayer In_2Se_3 . <i>Journal of Physical Chemistry C</i> , 2022, 126, 11219-11228.	1.5	0
139	High-Performance p-type 2D FET Based on Monolayer GeC with High Hole Mobility: A DFT-NEGF Study. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	6
140	Properties, Synthesis, and Device Applications of 2D Layered InSe. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	23
141	Strong Anisotropy of Multilayer In_2Se_3 -Enabled Polarization Division Multiplexing Photodetection. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	3
142	A non-two-dimensional van der Waals InSe semispherical array grown by vapor-liquid-solid method for hydrogen evolution. <i>Chinese Chemical Letters</i> , 2023, 34, 107826.	4.8	0
143	Fully Encapsulated and Stable Black Phosphorus Field-Effect Transistors. <i>Advanced Materials Technologies</i> , 0, , 2200546.	3.0	4
144	2D Bi ₂ Se ₃ Based Highly Selective and Sensitive Toxic Non-Condensable Gas Sensor. <i>IEEE Nanotechnology Magazine</i> , 2022, , 1-7.	1.1	1
145	Bandgap engineering of high mobility two-dimensional semiconductors toward optoelectronic devices. <i>Journal of Materiomics</i> , 2022, , .	2.8	1
146	Band Structure and Quantum Conductance of Surface-unsaturated and Hydrogenated Sb and Bi Monolayer Nanoribbons. <i>ECS Journal of Solid State Science and Technology</i> , 2022, 11, 121006.	0.9	0
147	Fast and direct identification of SARS-CoV-2 variants via 2D InSe field-effect transistors. <i>Informa-Materiály</i> , 2023, 5, .	8.5	4
148	Carrier and phonon transport in 2D InSe and its Janus structures. <i>Journal of Physics Condensed Matter</i> , 2023, 35, 133001.	0.7	4

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149	Ultrafast carrier dynamics and layer-dependent carrier recombination rate in InSe. <i>Nanoscale</i> , 0, , .	2.8	0
150	Extreme Anisotropic Dispersion and One-Dimensional Confined Electrons in 2-D SiPä,, FETs With High Transmission Coefficients. <i>IEEE Transactions on Electron Devices</i> , 2023, 70, 1330-1337.	1.6	2
151	The tunability of electronic and transport properties of InSe/MoSe2 van der Waals heterostructure: A first-principles study. <i>Surfaces and Interfaces</i> , 2023, 36, 102634.	1.5	5
152	Van der Waals Heteroepitaxy of GaSe and InSe, Quantum Wells, and Superlattices. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	3
153	Highly Stable InSe-FET Biosensor for Ultra-Sensitive Detection of Breast Cancer Biomarker CA125. <i>Biosensors</i> , 2023, 13, 193.	2.3	7
154	A Novel InSeâ€FET Biosensor based on Carrierâ€Scattering Regulation Derived from the DNA Probe Assemblyâ€Determined Electrostatic Potential Distribution. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	8
155	Multifunctional indium selenide devices based on van der Waals contacts: High-quality Schottky diodes and optoelectronic memories. <i>Nano Energy</i> , 2023, 108, 108238.	8.2	5
156	Double-Heterostructure Resonant Tunneling Transistors of Surface-Functionalized Sb and Bi Monolayer Nanoribbons. <i>Crystals</i> , 2023, 13, 379.	1.0	0
157	Phase Instability in van der Waals In₂Se₃ Determined by Surface Coordination. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	2
158	Phase Instability in van der Waals In₂Se₃ Determined by Surface Coordination. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	0
159	Subnanometer-Wide Indium Selenide Nanoribbons. <i>ACS Nano</i> , 2023, 17, 6062-6072.	7.3	5
160	Ballistic two-dimensional InSe transistors. <i>Nature</i> , 2023, 616, 470-475.	13.7	66
161	Long-range electrostatic contribution to electron-phonon couplings and mobilities of two-dimensional and bulk materials. <i>Physical Review B</i> , 2023, 107, .	1.1	6
164	Recent progress in functional two-dimensional photovoltaic photodetectors and related emerging applications. <i>Journal of Materials Chemistry A</i> , 2023, 11, 11548-11571.	5.2	5