Lain-Jong Li

List of Publications by Year
in descending order

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451 papers	66,146 citations	807 118 h-index	794 247 g-index
458 all docs	458 docs citations	458 times ranked	51416 citing authors

#	Article	IF	Citations
1	The chemistry of two-dimensional layered transition metal dichalcogenide nanosheets. Nature Chemistry, 2013, 5, 263-275.	6.6	8,051
2	Synthesis of Largeâ€Area MoS₂ Atomic Layers with Chemical Vapor Deposition. Advanced Materials, 2012, 24, 2320-2325.	11.1	2,956
3	Growth of Large-Area and Highly Crystalline MoS₂ Thin Layers on Insulating Substrates. Nano Letters, 2012, 12, 1538-1544.	4.5	1,749
4	Integrated Circuits Based on Bilayer MoS₂ Transistors. Nano Letters, 2012, 12, 4674-4680.	4.5	1,526
5	Janus monolayers of transition metal dichalcogenides. Nature Nanotechnology, 2017, 12, 744-749.	15.6	1,459
6	Monolayer MoS₂ Heterojunction Solar Cells. ACS Nano, 2014, 8, 8317-8322.	7.3	1,081
7	Synthesis of Few-Layer Hexagonal Boron Nitride Thin Film by Chemical Vapor Deposition. Nano Letters, 2010, 10, 4134-4139.	4.5	1,058
8	Epitaxial growth of a monolayer WSe ₂ -MoS ₂ lateral p-n junction with an atomically sharp interface. Science, 2015, 349, 524-528.	6.0	1,009
9	Graphene and two-dimensional materials for silicon technology. Nature, 2019, 573, 507-518.	13.7	936
10	High-Quality Thin Graphene Films from Fast Electrochemical Exfoliation. ACS Nano, 2011, 5, 2332-2339.	7.3	896
11	Highâ€Gain Phototransistors Based on a CVD MoS₂ Monolayer. Advanced Materials, 2013, 25, 3456-3461.	11.1	891
12	van der Waals Epitaxy of MoS₂ Layers Using Graphene As Growth Templates. Nano Letters, 2012, 12, 2784-2791.	4.5	888
13	Large-Area Synthesis of Highly Crystalline WSe₂ Monolayers and Device Applications. ACS Nano, 2014, 8, 923-930.	7.3	885
14	Ultrahigh-Gain Photodetectors Based on Atomically Thin Graphene-MoS2 Heterostructures. Scientific Reports, 2014, 4, 3826.	1.6	771
15	Highly Flexible MoS₂ Thin-Film Transistors with Ion Gel Dielectrics. Nano Letters, 2012, 12, 4013-4017.	4.5	746
16	Recent advances in controlled synthesis of two-dimensional transition metal dichalcogenides via vapour deposition techniques. Chemical Society Reviews, 2015, 44, 2744-2756.	18.7	709
17	Highly Efficient Electrocatalytic Hydrogen Production by MoS_x Grown on Grapheneâ€Protected 3D Ni Foams. Advanced Materials, 2013, 25, 756-760.	11.1	693
18	Wafer-scale MoS2 thin layers prepared by MoO3 sulfurization. Nanoscale, 2012, 4, 6637.	2.8	621

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19	Synthesis and Transfer of Single-Layer Transition Metal Disulfides on Diverse Surfaces. Nano Letters, 2013, 13, 1852-1857.	4.5	612
20	Few-Layer MoS₂ with High Broadband Photogain and Fast Optical Switching for Use in Harsh Environments. ACS Nano, 2013, 7, 3905-3911.	7.3	584
21	Ultralow contact resistance between semimetal and monolayer semiconductors. Nature, 2021, 593, 211-217.	13.7	579
22	Exceptional Tunability of Band Energy in a Compressively Strained Trilayer MoS₂ Sheet. ACS Nano, 2013, 7, 7126-7131.	7.3	550
23	Doping Singleâ€Layer Graphene with Aromatic Molecules. Small, 2009, 5, 1422-1426.	5.2	537
24	Determination of band alignment in the single-layer MoS2/WSe2 heterojunction. Nature Communications, 2015, 6, 7666.	5.8	524
25	Electrical Detection of DNA Hybridization with Singleâ€Base Specificity Using Transistors Based on CVDâ€Grown Graphene Sheets. Advanced Materials, 2010, 22, 1649-1653.	11.1	516
26	Monolayer MoSe₂ Grown by Chemical Vapor Deposition for Fast Photodetection. ACS Nano, 2014, 8, 8582-8590.	7.3	515
27	Intercorrelated In-Plane and Out-of-Plane Ferroelectricity in Ultrathin Two-Dimensional Layered Semiconductor In₂Se₃. Nano Letters, 2018, 18, 1253-1258.	4.5	509
28	Work Function Engineering of Graphene ElectrodeviaChemical Doping. ACS Nano, 2010, 4, 2689-2694.	7.3	501
29	Graphene-modified LiFePO4 cathode for lithium ion battery beyond theoretical capacity. Nature Communications, 2013, 4, 1687.	5.8	481
30	Electrical and Spectroscopic Characterizations of Ultra-Large Reduced Graphene Oxide Monolayers. Chemistry of Materials, 2009, 21, 5674-5680.	3.2	476
31	Heterostructures based on two-dimensional layered materials and their potential applications. Materials Today, 2016, 19, 322-335.	8.3	469
32	Strain engineering and epitaxial stabilization of halide perovskites. Nature, 2020, 577, 209-215.	13.7	417
33	Interlayer couplings, MoirÃ© patterns, and 2D electronic superlattices in MoS ₂ /WSe ₂ hetero-bilayers. Science Advances, 2017, 3, e1601459.	4.7	414
34	Wafer-scale single-crystal hexagonal boron nitride monolayers on CuÂ(111). Nature, 2020, 579, 219-223.	13.7	409
35	Nanoelectronic biosensors based on CVD grown graphene. Nanoscale, 2010, 2, 1485.	2.8	408
36	Intrinsic homogeneous linewidth and broadening mechanisms of excitons in monolayer transition metal dichalcogenides. Nature Communications, 2015, 6, 8315.	5.8	408

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37	Direct Imaging of Band Profile in Single Layer MoS₂ on Graphite: Quasiparticle Energy Gap, Metallic Edge States, and Edge Band Bending. Nano Letters, 2014, 14, 2443-2447.	4.5	402
38	Heterostructured WS₂/CH₃NH₃PbI₃ Photoconductors with Suppressed Dark Current and Enhanced Photodetectivity. Advanced Materials, 2016, 28, 3683-3689.	11.1	396
39	Second Harmonic Generation from Artificially Stacked Transition Metal Dichalcogenide Twisted Bilayers. ACS Nano, 2014, 8, 2951-2958.	7.3	388
40	Atomically thin resonant tunnel diodes built from synthetic van der Waals heterostructures. Nature Communications, 2015, 6, 7311.	5.8	382
41	Selective Decoration of Au Nanoparticles on Monolayer MoS2 Single Crystals. Scientific Reports, 2013, 3, 1839.	1.6	380
42	Role of Metal Contacts in High-Performance Phototransistors Based on WSe₂ Monolayers. ACS Nano, 2014, 8, 8653-8661.	7.3	380
43	Bandgap tunability at single-layer molybdenum disulphide grain boundaries. Nature Communications, 2015, 6, 6298.	5.8	358
44	CoP nanosheet assembly grown on carbon cloth: A highly efficient electrocatalyst for hydrogen generation. Nano Energy, 2015, 15, 634-641.	8.2	357
45	Graphene-based biosensors for detection of bacteria and their metabolic activities. Journal of Materials Chemistry, 2011, 21, 12358.	6.7	343
46	Transistors based on two-dimensional materials for future integrated circuits. Nature Electronics, 2021, 4, 786-799.	13.1	335
47	Enhancing the conductivity of transparent graphene films via doping. Nanotechnology, 2010, 21, 285205.	1.3	321
48	Optical properties of monolayer transition metal dichalcogenides probed by spectroscopic ellipsometry. Applied Physics Letters, 2014, 105, .	1.5	317
49	Toward the Extraction of Single Species of Single-Walled Carbon Nanotubes Using Fluorene-Based Polymers. Nano Letters, 2007, 7, 3013-3017.	4.5	314
50	Direct Formation of Wafer Scale Graphene Thin Layers on Insulating Substrates by Chemical Vapor Deposition. Nano Letters, 2011, 11, 3612-3616.	4.5	302
51	Self-assembly of hierarchical MoSx/CNT nanocomposites (2<x<3): towards high performance anode materials for lithium ion batteries. Scientific Reports, 2013, 3, 2169.	1.6	290
52	Graphene/MoS₂ Heterostructures for Ultrasensitive Detection of DNA Hybridisation. Advanced Materials, 2014, 26, 4838-4844.	11.1	290
53	Spectroscopic Signatures for Interlayer Coupling in MoS₂â€“WSe₂ van der Waals Stacking. ACS Nano, 2014, 8, 9649-9656.	7.3	288
54	Epitaxial Growth of Two-Dimensional Layered Transition-Metal Dichalcogenides: Growth Mechanism, Controllability, and Scalability. Chemical Reviews, 2018, 118, 6134-6150.	23.0	285

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55	Pressure-Dependent Optical and Vibrational Properties of Monolayer Molybdenum Disulfide. Nano Letters, 2015, 15, 346-353.	4.5	284
56	Recent Progress on Two-Dimensional Materials. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2021, .	2.2	269
57	Nitrogen-Doped Graphene Sheets Grown by Chemical Vapor Deposition: Synthesis and Influence of Nitrogen Impurities on Carrier Transport. ACS Nano, 2013, 7, 6522-6532.	7.3	264
58	Ultrafast generation of pseudo-magnetic field for valley excitons in WSe ₂ monolayers. Science, 2014, 346, 1205-1208.	6.0	261
59	Two-dimensional materials with piezoelectric and ferroelectric functionalities. Npj 2D Materials and Applications, 2018, 2, .	3.9	258
60	Strong Rashba-Edelstein Effect-Induced Spinâ€“Orbit Torques in Monolayer Transition Metal Dichalcogenide/Ferromagnet Bilayers. Nano Letters, 2016, 16, 7514-7520.	4.5	247
61	Diameter-selective encapsulation of metallocenes in single-walled carbon nanotubes. Nature Materials, 2005, 4, 481-485.	13.3	245
62	Giant photoluminescence enhancement in tungsten-diselenideâ€“gold plasmonic hybrid structures. Nature Communications, 2016, 7, 11283.	5.8	244
63	Highly Efficient Restoration of Graphitic Structure in Graphene Oxide Using Alcohol Vapors. ACS Nano, 2010, 4, 5285-5292.	7.3	242
64	Roomâ€Temperature Ferroelectricity in Hexagonally Layered Î±â€In₂Se₃ Nanoflakes down to the Monolayer Limit. Advanced Functional Materials, 2018, 28, 1803738.	7.8	241
65	Emerging energy applications of two-dimensionalÂlayered transition metal dichalcogenides. Nano Energy, 2015, 18, 293-305.	8.2	236
66	Mode locking of ceramic Nd:yttrium aluminum garnet with graphene as a saturable absorber. Applied Physics Letters, 2010, 96, .	1.5	234
67	Piezoelectric effect in chemical vapour deposition-grown atomic-monolayer triangular molybdenum disulfide piezotronics. Nature Communications, 2015, 6, 7430.	5.8	233
68	Metalâ€“Organic Framework-Based Separators for Enhancing Liâ€“S Battery Stability: Mechanism of Mitigating Polysulfide Diffusion. ACS Energy Letters, 2017, 2, 2362-2367.	8.8	229
69	Symmetry Breaking of Graphene Monolayers by Molecular Decoration. Physical Review Letters, 2009, 102, 135501.	2.9	224
70	Recognizing the Mechanism of Sulfurized Polyacrylonitrile Cathode Materials for Liâ€“S Batteries and beyond in Alâ€“S Batteries. ACS Energy Letters, 2018, 3, 2899-2907.	8.8	224
71	Direct measurement of exciton valley coherence in monolayer WSe2. Nature Physics, 2016, 12, 677-682.	6.5	223
72	Opening an Electrical Band Gap of Bilayer Graphene with Molecular Doping. ACS Nano, 2011, 5, 7517-7524.	7.3	222

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73	How 2D semiconductors could extend Mooreâ€™s law. Nature, 2019, 567, 169-170.	13.7	222
74	Observation of chiral phonons. Science, 2018, 359, 579-582.	6.0	217
75	New Insights on Graphite Anode Stability in Rechargeable Batteries: Li Ion Coordination Structures Prevail over Solid Electrolyte Interphases. ACS Energy Letters, 2018, 3, 335-340.	8.8	217
76	Multidirection Piezoelectricity in Mono- and Multilayered Hexagonal Î±-In₂Se₃. ACS Nano, 2018, 12, 4976-4983.	7.3	215
77	Strain distributions and their influence on electronic structures of WSe2â€“MoS2 laterally strained heterojunctions. Nature Nanotechnology, 2018, 13, 152-158.	15.6	206
78	Layer-by-Layer Graphene/TCNQ Stacked Films as Conducting Anodes for Organic Solar Cells. ACS Nano, 2012, 6, 5031-5039.	7.3	199
79	Nitrogen-Doped Nanoporous Carbon Membranes with Co/CoP Janus-Type Nanocrystals as Hydrogen Evolution Electrode in Both Acidic and Alkaline Environments. ACS Nano, 2017, 11, 4358-4364.	7.3	199
80	Enhanced Thermoelectric Performance of PEDOT:PSS Flexible Bulky Papers by Treatment with Secondary Dopants. ACS Applied Materials & Interfaces, 2015, 7, 94-100.	4.0	194
81	Extraordinarily Stretchable Allâ€Carbon Collaborative Nanoarchitectures for Epidermal Sensors. Advanced Materials, 2017, 29, 1606411.	11.1	194
82	Comparative study on MoS2 and WS2 for electrocatalytic water splitting. International Journal of Hydrogen Energy, 2013, 38, 12302-12309.	3.8	193
83	Ultrafast Transient Terahertz Conductivity of Monolayer MoS₂ and WSe₂ Grown by Chemical Vapor Deposition. ACS Nano, 2014, 8, 11147-11153.	7.3	191
84	Highly acid-durable carbon coated Co3O4 nanoarrays as efficient oxygen evolution electrocatalysts. Nano Energy, 2016, 25, 42-50.	8.2	187
85	Label-free detection of DNA hybridization using transistors based on CVD grown graphene. Biosensors and Bioelectronics, 2013, 41, 103-109.	5.3	185
86	(n,m) Selectivity of Single-Walled Carbon Nanotubes by Different Carbon Precursors on Coâ^'Mo Catalysts. Journal of the American Chemical Society, 2007, 129, 9014-9019.	6.6	184
87	One-step growth of grapheneâ€“carbon nanotube hybrid materials by chemical vapor deposition. Carbon, 2011, 49, 2944-2949.	5.4	182
88	Enhanced Thermopower of Graphene Films with Oxygen Plasma Treatment. ACS Nano, 2011, 5, 2749-2755.	7.3	181
89	Graphene-Based High-Efficiency Surface-Enhanced Raman Scattering-Active Platform for Sensitive and Multiplex DNA Detection. Analytical Chemistry, 2012, 84, 4622-4627.	3.2	180
90	Photoluminescence Enhancement and Structure Repairing of Monolayer MoSe₂ by Hydrohalic Acid Treatment. ACS Nano, 2016, 10, 1454-1461.	7.3	179

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91	Highâ€Sulfurâ€Vacancy Amorphous Molybdenum Sulfide as a High Current Electrocatalyst in Hydrogen Evolution. Small, 2016, 12, 5530-5537.	5.2	177
92	Ultra-large single-layer graphene obtained from solution chemical reduction and its electrical properties. Physical Chemistry Chemical Physics, 2010, 12, 2164.	1.3	176
93	Probing Critical Point Energies of Transition Metal Dichalcogenides: Surprising Indirect Gap of Single Layer WSe₂. Nano Letters, 2015, 15, 6494-6500.	4.5	175
94	Stable mode-locked fiber laser based on CVD fabricated graphene saturable absorber. Optics Express, 2012, 20, 2460.	1.7	174
95	Effective doping of single-layer graphene from underlying<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2009, 79, .	1.1	173
96	Defect Structure of Localized Excitons in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Monolayer. Physical Review Letters, 2017, 119, 046101.	2.9	170
97	New Insight on the Role of Electrolyte Additives in Rechargeable Lithium Ion Batteries. ACS Energy Letters, 2019, 4, 2613-2622.	8.8	160
98	Growth of large-sized graphene thin-films by liquid precursor-based chemical vapor deposition under atmospheric pressure. Carbon, 2011, 49, 3672-3678.	5.4	158
99	Using oxidation to increase the electrical conductivity of carbon nanotube electrodes. Carbon, 2009, 47, 1867-1870.	5.4	152
100	Optically initialized robust valley-polarized holes in monolayer WSe2. Nature Communications, 2015, 6, 8963.	5.8	151
101	Three-Dimensional Heterostructures of MoS₂ Nanosheets on Conducting MoO₂ as an Efficient Electrocatalyst To Enhance Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2015, 7, 23328-23335.	4.0	150
102	Interfacing Glycosylated Carbonâ€Nanotubeâ€Network Devices with Living Cells to Detect Dynamic Secretion of Biomolecules. Angewandte Chemie - International Edition, 2009, 48, 2723-2726.	7.2	148
103	Fluorinated Graphene as High Performance Dielectric Materials and the Applications for Graphene Nanoelectronics. Scientific Reports, 2014, 4, 5893.	1.6	147
104	DNA Sensing by Field-Effect Transistors Based on Networks of Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 14427-14432.	6.6	144
105	Synthesis of single-crystal-like nanoporous carbon membranes and their application in overall water splitting. Nature Communications, 2017, 8, 13592.	5.8	142
106	Direct determination of monolayer MoS₂and WSe₂exciton binding energies on insulating and metallic substrates. 2D Materials, 2018, 5, 025003.	2.0	142
107	Photoelectrical Response in Singleâ€Layer Graphene Transistors. Small, 2009, 5, 2005-2011.	5.2	141
108	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

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109	Activating basal-plane catalytic activity of two-dimensional MoS2 monolayer with remote hydrogen plasma. Nano Energy, 2016, 30, 846-852.	8.2	136
110	Hole mobility enhancement and p -doping in monolayer WSe ₂ by gold decoration. 2D Materials, 2014, 1, 034001.	2.0	134
111	Novel Field-Effect Schottky Barrier Transistors Based on Graphene-MoS2 Heterojunctions. Scientific Reports, 2014, 4, 5951.	1.6	134
112	Rugae-like FeP nanocrystal assembly on a carbon cloth: an exceptionally efficient and stable cathode for hydrogen evolution. Nanoscale, 2015, 7, 10974-10981.	2.8	133
113	Atomically Thin Heterostructures Based on Single-Layer Tungsten Diselenide and Graphene. Nano Letters, 2014, 14, 6936-6941.	4.5	132
114	MXene based self-assembled cathode and antifouling separator for high-rate and dendrite-inhibited Liâ€“S battery. Nano Energy, 2019, 61, 478-485.	8.2	131
115	Point Defects and Localized Excitons in 2D WSe₂. ACS Nano, 2019, 13, 6050-6059.	7.3	127
116	Formation of Segregation Morphology in Crystalline/Amorphous Polymer Blends:Â Molecular Weight Effect. Macromolecules, 1998, 31, 2255-2264.	2.2	123
117	Bidirectional Allâ€Optical Synapses Based on a 2D Bi₂O₂Se/Graphene Hybrid Structure for Multifunctional Optoelectronics. Advanced Functional Materials, 2020, 30, 2001598.	7.8	123
118	Gateâ€Tunable and Multidirectionâ€Switchable Memristive Phenomena in a Van Der Waals Ferroelectric. Advanced Materials, 2019, 31, e1901300.	11.1	121
119	Extreme sensitivity of graphene photoconductivity to environmental gases. Nature Communications, 2012, 3, 1228.	5.8	120
120	Visualizing band offsets and edge states in bilayerâ€“monolayer transition metal dichalcogenides lateral heterojunction. Nature Communications, 2016, 7, 10349.	5.8	120
121	Selective Synthesis of (9,8) Single Walled Carbon Nanotubes on Cobalt Incorporated TUD-1 Catalysts. Journal of the American Chemical Society, 2010, 132, 16747-16749.	6.6	119
122	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>G</mml:mi></mml:math>-band Raman double resonance in twisted bilayer graphene: Evidence of band splitting and folding. Physical Review B, 2009, 80, .	1.1	116
123	Symmetrical synergy of hybrid Co9S8-MoSx electrocatalysts for hydrogen evolution reaction. Nano Energy, 2017, 32, 470-478.	8.2	116
124	Labelâ€Free Electrical Detection of DNA Hybridization on Graphene using Hall Effect Measurements: Revisiting the Sensing Mechanism. Advanced Functional Materials, 2013, 23, 2301-2307.	7.8	114
125	Synthesis and Characterization of New Soluble Polyimides from 3,3â€˜,4,4â€˜-Benzhydrol Tetracarboxylic Dianhydride and Various Diamines. Chemistry of Materials, 1998, 10, 734-739.	3.2	113
126	Observing Grain Boundaries in CVD-Grown Monolayer Transition Metal Dichalcogenides. ACS Nano, 2014, 8, 11401-11408.	7.3	113

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127	Highly Flexible and Highâ€Performance Complementary Inverters of Largeâ€Area Transition Metal Dichalcogenide Monolayers. Advanced Materials, 2016, 28, 4111-4119.	11.1	112
128	Single Atomically Sharp Lateral Monolayer pâ€n Heterojunction Solar Cells with Extraordinarily High Power Conversion Efficiency. Advanced Materials, 2017, 29, 1701168.	11.1	111
129	Band Gapâ€Tunable Molybdenum Sulfide Selenide Monolayer Alloy. Small, 2014, 10, 2589-2594.	5.2	109
130	Colorless-to-colorful switching electrochromic polyimides with very high contrast ratio. Nature Communications, 2019, 10, 1239.	5.8	109
131	High-Îº perovskite membranes as insulators for two-dimensional transistors. Nature, 2022, 605, 262-267.	13.7	109
132	Synergistic additive-mediated CVD growth and chemical modification of 2D materials. Chemical Society Reviews, 2019, 48, 4639-4654.	18.7	108
133	Structurally Deformed MoS₂ for Electrochemically Stable, Thermally Resistant, and Highly Efficient Hydrogen Evolution Reaction. Advanced Materials, 2017, 29, 1703863.	11.1	107
134	Two-dimensional materials for electronic applications. MRS Bulletin, 2014, 39, 711-718.	1.7	104
135	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. Nature Materials, 2020, 19, 1300-1306.	13.3	104
136	Spherulitic Crystallization Behavior of Poly(Îµ-caprolactone) with a Wide Range of Molecular Weight. Macromolecules, 1997, 30, 1718-1722.	2.2	102
137	Plasmonic Gold Nanorods Coverage Influence on Enhancement of the Photoluminescence of Two-Dimensional MoS2 Monolayer. Scientific Reports, 2015, 5, 16374.	1.6	102
138	Substrate Lattice-Guided Seed Formation Controls the Orientation of 2D Transition-Metal Dichalcogenides. ACS Nano, 2017, 11, 9215-9222.	7.3	102
139	Converting Graphene Oxide Monolayers into Boron Carbonitride Nanosheets by Substitutional Doping. Small, 2012, 8, 1384-1391.	5.2	101
140	Molybdenum Sulfide Supported on Crumpled Graphene Balls for Electrocatalytic Hydrogen Production. Advanced Energy Materials, 2014, 4, 1400398.	10.2	101
141	Low overpotential and high current CO2 reduction with surface reconstructed Cu foam electrodes. Nano Energy, 2016, 27, 121-129.	8.2	100
142	Lithiumâ€Ion Desolvation Induced by Nitrate Additives Reveals New Insights into High Performance Lithium Batteries. Advanced Functional Materials, 2021, 31, 2101593.	7.8	100
143	Evidence of indirect gap in monolayer WSe2. Nature Communications, 2017, 8, 929.	5.8	98
144	Selectively Plasmon-Enhanced Second-Harmonic Generation from Monolayer Tungsten Diselenide on Flexible Substrates. ACS Nano, 2018, 12, 1859-1867.	7.3	97

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145	Sub-nanometre channels embedded in two-dimensional materials. Nature Materials, 2018, 17, 129-133.	13.3	97
146	Electrical Detection of Femtomolar DNA via Goldâ€Nanoparticle Enhancement in Carbonâ€Nanotubeâ€Network Fieldâ€Effect Transistors. Advanced Materials, 2008, 20, 2389-2393.	11.1	96
147	Fabrication of stretchable MoS2 thin-film transistors using elastic ion-gel gate dielectrics. Applied Physics Letters, 2013, 103, .	1.5	96
148	Comparative studies on acid and thermal based selective purification of HiPCO produced single-walled carbon nanotubes. Chemical Physics Letters, 2004, 386, 239-243.	1.2	95
149	Multilayer Grapheneâ€“WSe₂ Heterostructures for WSe₂ Transistors. ACS Nano, 2017, 11, 12817-12823.	7.3	95
150	Cellular behavior of human mesenchymal stem cells cultured on single-walled carbon nanotube film. Carbon, 2010, 48, 1095-1104.	5.4	94
151	Direct electrochemistry-based hydrogen peroxide biosensor formed from single-layer graphene nanoplateletâ€“enzyme composite film. Talanta, 2010, 82, 1344-1348.	2.9	90
152	Negative circular polarization emissions from WSe2/MoSe2 commensurate heterobilayers. Nature Communications, 2018, 9, 1356.	5.8	88
153	Heterointerface Screening Effects between Organic Monolayers and Monolayer Transition Metal Dichalcogenides. ACS Nano, 2016, 10, 2476-2484.	7.3	87
154	A flexible hydrophilic-modified graphene microprobe for neural and cardiac recording. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 600-604.	1.7	86
155	Bifunctional separator as a polysulfide mediator for highly stable Liâ€“S batteries. Journal of Materials Chemistry A, 2016, 4, 9661-9669.	5.2	86
156	Observation of Switchable Photoresponse of a Monolayer WSe₂â€“MoS₂ Lateral Heterostructure via Photocurrent Spectral Atomic Force Microscopic Imaging. Nano Letters, 2016, 16, 3571-3577.	4.5	86
157	Differentiation of Gas Molecules Using Flexible and All-Carbon Nanotube Devices. Journal of Physical Chemistry C, 2008, 112, 650-653.	1.5	85
158	Band Gap Tuning of Graphene by Adsorption of Aromatic Molecules. Journal of Physical Chemistry C, 2012, 116, 13788-13794.	1.5	85
159	Layered Semiconducting 2D Materials for Future Transistor Applications. Small Structures, 2021, 2, 2000103.	6.9	85
160	Controllable Synthesis of Band-Gap-Tunable and Monolayer Transition-Metal Dichalcogenide Alloys. Frontiers in Energy Research, 2014, 2, .	1.2	84
161	Multilayer Approach for Advanced Hybrid Lithium Battery. ACS Nano, 2016, 10, 6037-6044.	7.3	83
162	Decoupling of CVD graphene by controlled oxidation of recrystallized Cu. RSC Advances, 2012, 2, 3008.	1.7	82

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163	Threeâ€Dimensional Molybdenum Sulfide Sponges for Electrocatalytic Water Splitting. Small, 2014, 10, 895-900.	5.2	82
164	Symmetric synergy of hybrid CoS₂â€“WS₂ electrocatalysts for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 15552-15558.	5.2	81
165	Exciton Mapping at Subwavelength Scales in Two-Dimensional Materials. Physical Review Letters, 2015, 114, 107601.	2.9	79
166	Enhanced Electrocatalytic Activity of MoS_x on TCNQ-Treated Electrode for Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2014, 6, 17679-17685.	4.0	78
167	Scalable Approach To Construct Free-Standing and Flexible Carbon Networks for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2017, 9, 8047-8054.	4.0	78
168	High quantity and quality few-layers transition metal disulfide nanosheets from wet-milling exfoliation. RSC Advances, 2013, 3, 13193.	1.7	76
169	Functional Two-Dimensional Coordination Polymeric Layer as a Charge Barrier in Liâ€“S Batteries. ACS Nano, 2018, 12, 836-843.	7.3	76
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