Lin Gan

List of Publications by Year
in descending order

102 papers	8,291 citations	26567 56 h-index	46693 89 g-index
108 all docs	108 docs citations	108 times ranked	11574 citing authors

#	Article	IF	Citations
1	Ultrathin SnSe₂ Flakes Grown by Chemical Vapor Deposition for Highâ€Performance Photodetectors. Advanced Materials, 2015, 27, 8035-8041.	11.1	460
2	Two-dimensional layered nanomaterials for gas-sensing applications. Inorganic Chemistry Frontiers, 2016, 3, 433-451.	3.0	306
3	Largeâ€Size Growth of Ultrathin SnS₂ Nanosheets and High Performance for Phototransistors. Advanced Functional Materials, 2016, 26, 4405-4413.	7.8	279
4	Photonic Potentiation and Electric Habituation in Ultrathin Memristive Synapses Based on Monolayer MoS₂. Small, 2018, 14, e1800079.	5.2	224
5	Turning off Hydrogen To Realize Seeded Growth of Subcentimeter Single-Crystal Graphene Grains on Copper. ACS Nano, 2013, 7, 9480-9488.	7.3	219
6	Chemical Vapor Deposition Synthesis of Ultrathin Hexagonal ReSe₂ Flakes for Anisotropic Raman Property and Optoelectronic Application. Advanced Materials, 2016, 28, 8296-8301.	11.1	206
7	Largeâ€Area Bilayer ReS₂ Film/Multilayer ReS₂ Flakes Synthesized by Chemical Vapor Deposition for High Performance Photodetectors. Advanced Functional Materials, 2016, 26, 4551-4560.	7.8	199
8	Controlled Synthesis of Ultrathin 2D Î²â€In₂S₃ with Broadband Photoresponse by Chemical Vapor Deposition. Advanced Functional Materials, 2017, 27, 1702448.	7.8	194
9	Vertical heterostructures based on SnSe ₂ /MoS ₂ for high performance photodetectors. 2D Materials, 2017, 4, 025048.	2.0	183
10	Van der Waals Coupled Organic Molecules with Monolayer MoS₂ for Fast Response Photodetectors with Gate-Tunable Responsivity. ACS Nano, 2018, 12, 4062-4073.	7.3	183
11	A Fully Transparent and Flexible Ultravioletâ€“Visible Photodetector Based on Controlled Electrospun ZnOâ€CdO Heterojunction Nanofiber Arrays. Advanced Functional Materials, 2015, 25, 5885-5894.	7.8	181
12	Booming Development of Group IVâ€“VI Semiconductors: Fresh Blood of 2D Family. Advanced Science, 2016, 3, 1600177.	5.6	181
13	Layered phosphorus-like GeP₅: a promising anode candidate with high initial coulombic efficiency and large capacity for lithium ion batteries. Energy and Environmental Science, 2015, 8, 3629-3636.	15.6	179
14	Understanding Charge Transfer at PbSâ€Decorated Graphene Surfaces toward a Tunable Photosensor. Advanced Materials, 2012, 24, 2715-2720.	11.1	177
15	2D layered group IIIA metal chalcogenides: synthesis, properties and applications in electronics and optoelectronics. CrystEngComm, 2016, 18, 3968-3984.	1.3	171
16	Highâ€Performance Solarâ€Blind Deep Ultraviolet Photodetector Based on Individual Singleâ€Crystalline Zn₂GeO₄ Nanowire. Advanced Functional Materials, 2016, 26, 704-712.	7.8	163
17	An Enhanced UVâ€“Visâ€“NIR an d Flexible Photodetector Based on Electrospun ZnO Nanowire Array/PbS Quantum Dots Film Heterostructure. Advanced Science, 2017, 4, 1600316.	5.6	160
18	Building Highâ€Throughput Molecular Junctions Using Indented Graphene Point Contacts. Angewandte Chemie - International Edition, 2012, 51, 12228-12232.	7.2	157

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19	Decorating Perovskite Quantum Dots in TiO₂ Nanotubes Array for Broadband Response Photodetector. Advanced Functional Materials, 2017, 27, 1703115.	7.8	142
20	Direct Optical Characterization of Graphene Growth and Domains on Growth Substrates. Scientific Reports, 2012, 2, 707.	1.6	137
21	Spaceâ€Confined Chemical Vapor Deposition Synthesis of Ultrathin HfS₂ Flakes for Optoelectronic Application. Advanced Functional Materials, 2017, 27, 1702918.	7.8	122
22	Self-powered high performance photodetectors based on CdSe nanobelt/graphene Schottky junctions. Journal of Materials Chemistry, 2012, 22, 2863.	6.7	115
23	Interlayer Coupling Induced Infrared Response in WS₂/MoS₂ Heterostructures Enhanced by Surface Plasmon Resonance. Advanced Functional Materials, 2018, 28, 1800339.	7.8	114
24	High performance near-infrared photodetectors based on ultrathin SnS nanobelts grown via physical vapor deposition. Journal of Materials Chemistry C, 2016, 4, 2111-2116.	2.7	113
25	Ternary Ta₂NiSe₅ Flakes for a Highâ€Performance Infrared Photodetector. Advanced Functional Materials, 2016, 26, 8281-8289.	7.8	112
26	CVD Growth of Large Area Smooth-edged Graphene Nanomesh by Nanosphere Lithography. Scientific Reports, 2013, 3, 1238.	1.6	111
27	Ultrathin Nonâ€van der Waals Magnetic Rhombohedral Cr₂S₃: Spaceâ€Confined Chemical Vapor Deposition Synthesis and Raman Scattering Investigation. Advanced Functional Materials, 2019, 29, 1805880.	7.8	103
28	Achieving highly uniform two-dimensional PbI 2 flakes for photodetectors via space confined physical vapor deposition. Science Bulletin, 2017, 62, 1654-1662.	4.3	102
29	Highly reversible sodium storage in a GeP₅/C composite anode with large capacity and low voltage. Journal of Materials Chemistry A, 2017, 5, 4413-4420.	5.2	97
30	Chemical functionalization of single-walled carbon nanotube field-effect transistors as switches and sensors. Coordination Chemistry Reviews, 2010, 254, 1101-1116.	9.5	96
31	Stacking-mode confined growth of 2H-MoTe2/MoS2 bilayer heterostructures for UVâ€“visâ€“IR photodetectors. Nano Energy, 2018, 49, 200-208.	8.2	96
32	Strategies on Phase Control in Transition Metal Dichalcogenides. Advanced Functional Materials, 2018, 28, 1802473.	7.8	90
33	Theoretical Investigation of the Intercalation Chemistry of Lithium/Sodium Ions in Transition Metal Dichalcogenides. Journal of Physical Chemistry C, 2017, 121, 13599-13605.	1.5	87
34	Pâ€GaSe/Nâ€MoS₂ Vertical Heterostructures Synthesized by van der Waals Epitaxy for Photoresponse Modulation. Small, 2018, 14, 1702731.	5.2	87
35	Submillimeter and lead-free Cs₃Sb₂Br₉perovskite nanoflakes: inverse temperature crystallization growth and application for ultrasensitive photodetectors. Nanoscale Horizons, 2019, 4, 1372-1379.	4.1	85
36	Generalized Selfâ€Doping Engineering towards Ultrathin and Largeâ€Sized Twoâ€Dimensional Homologous Perovskites. Angewandte Chemie - International Edition, 2017, 56, 14893-14897.	7.2	81

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37	Highâ€Performance Langmuirâ€“Blodgett Monolayer Transistors with High Responsivity. Angewandte Chemie - International Edition, 2010, 49, 6319-6323.	7.2	80
38	A simple and scalable graphene patterning method and its application in CdSe nanobelt/graphene Schottky junction solar cells. Nanoscale, 2011, 3, 1477.	2.8	80
39	A Ternary Solvent Method for Largeâ€Sized Twoâ€Dimensional Perovskites. Angewandte Chemie - International Edition, 2017, 56, 2390-2394.	7.2	80
40	Ultrathin Singleâ€Crystalline Boron Nanosheets for Enhanced Electroâ€Optical Performances. Advanced Science, 2015, 2, 1500023.	5.6	78
41	Achieving Uniform Monolayer Transition Metal Dichalcogenides Film on Silicon Wafer via Silanization Treatment: A Typical Study on WS₂. Advanced Materials, 2017, 29, 1603550.	11.1	77
42	Space-confined vapor deposition synthesis of two dimensional materials. Nano Research, 2018, 11, 2909-2931.	5.8	76
43	Scalable production of self-supported WS2/CNFs by electrospinning as the anode for high-performance lithium-ion batteries. Science Bulletin, 2016, 61, 227-235.	4.3	74
44	Enhancing the performance of Li₃VO₄ by combining nanotechnology and surface carbon coating for lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 11253-11260.	5.2	73
45	Nonlayered Two-Dimensional Defective Semiconductor Î³-Ga₂S₃ toward Broadband Photodetection. ACS Nano, 2019, 13, 6297-6307.	7.3	72
46	Photoactive Gate Dielectrics. Advanced Materials, 2010, 22, 3282-3287.	11.1	71
47	Ultrasensitive water-processed monolayer photodetectors. Chemical Science, 2011, 2, 796.	3.7	71
48	Generalized Selfâ€Doping Engineering towards Ultrathin and Largeâ€Sized Twoâ€Dimensional Homologous Perovskites. Angewandte Chemie, 2017, 129, 15089-15093.	1.6	65
49	Spaceâ€Confined Synthesis of 2D Allâ€Inorganic CsPbI₃ Perovskite Nanosheets for Multiphotonâ€Pumped Lasing. Advanced Optical Materials, 2018, 6, 1800879.	3.6	65
50	Evolution of the Raman spectrum of graphene grown on copper upon oxidation of the substrate. Nano Research, 2014, 7, 1613-1622.	5.8	63
51	Self-supported Zn₃P₂ nanowire arrays grafted on carbon fabrics as an advanced integrated anode for flexible lithium ion batteries. Nanoscale, 2016, 8, 8666-8672.	2.8	63
52	Inversion Symmetry Broken 2D 3Râ€MoTe₂. Advanced Functional Materials, 2018, 28, 1800785.	7.8	63
53	TiO2-decorated graphenes as efficient photoswitches with high oxygen sensitivity. Chemical Science, 2011, 2, 1860.	3.7	59
54	Multicolor graphene nanoribbon/semiconductor nanowire heterojunction light-emitting diodes. Journal of Materials Chemistry, 2011, 21, 11760.	6.7	58

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55	Ternary Oxide Nanocrystals: Universal Laserâ€Hydrothermal Synthesis, Optoelectronic and Electrochemical Applications. Advanced Functional Materials, 2016, 26, 5051-5060.	7.8	58
56	Graphene-templated growth of hollow Ni₃S₂nanoparticles with enhanced pseudocapacitive performance. Journal of Materials Chemistry A, 2014, 2, 19214-19220.	5.2	56
57	Hierarchical Self-Assembly of Nanowires on the Surface by Metallo-Supramolecular Truncated Cuboctahedra. Journal of the American Chemical Society, 2021, 143, 5826-5835.	6.6	53
58	One-pot synthesis of Zn-doped SnO₂ nanosheet-based hierarchical architectures as a glycol gas sensor and photocatalyst. CrystEngComm, 2015, 17, 4394-4401.	1.3	52
59	Narrowband spectrally selective near-infrared photodetector based on up-conversion nanoparticles used in a 2D hybrid device. Journal of Materials Chemistry C, 2017, 5, 1591-1595.	2.7	51
60	Rhenium dichalcogenides (ReX₂, X = S or Se): an emerging class of TMDs family. Materials Chemistry Frontiers, 2017, 1, 1917-1932.	3.2	51
61	Detaching graphene from copper substrate by oxidation-assisted water intercalation. Carbon, 2016, 98, 138-143.	5.4	49
62	Phaseâ€Engineered Synthesis of Ultrathin Hexagonal and Monoclinic GaTe Flakes and Phase Transition Study. Advanced Functional Materials, 2019, 29, 1901012.	7.8	39
63	Electrochemistry: An Efficient Way to Chemically Modify Individual Monolayers of Graphene. Small, 2012, 8, 1326-1330.	5.2	35
64	Stacking-Mode-Induced Reactivity Enhancement for Twisted Bilayer Graphene. Chemistry of Materials, 2016, 28, 1034-1039.	3.2	35
65	Phaseâ€Engineered Growth of Ultrathin InSe Flakes by Chemical Vapor Deposition for Highâ€Efficiency Second Harmonic Generation. Chemistry - A European Journal, 2018, 24, 15678-15684.	1.7	34
66	Solutionâ€Crystallized Organic Semiconductors with High Carrier Mobility and Air Stability. Advanced Materials, 2012, 24, 5576-5580.	11.1	33
67	Electrospun nanowire arrays for electronics and optoelectronics. Science China Materials, 2016, 59, 200-216.	3.5	32
68	Geometry-induced high performance ultraviolet photodetectors in kinked SnO₂nanowires. Journal of Materials Chemistry C, 2015, 3, 8300-8306.	2.7	31
69	Synthesis of Bi₂S₃â€“Au Dumbbell Heteronanostructures with Enhanced Photocatalytic and Photoresponse Properties. Langmuir, 2016, 32, 11639-11645.	1.6	31
70	In situ fabrication and investigation of nanostructures and nanodevices with a microscope. Chemical Society Reviews, 2016, 45, 2694-2713.	18.7	30
71	Temperature Difference Triggering Controlled Growth of Allâ€Inorganic Perovskite Nanowire Arrays in Air. Small, 2018, 14, e1803010.	5.2	29
72	Tuning the graphene work function by uniaxial strain. Applied Physics Letters, 2015, 106, .	1.5	28

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73	A Ternary Solvent Method for Largeâ€Sized Twoâ€Dimensional Perovskites. Angewandte Chemie, 2017, 129, 2430-2434.	1.6	28
74	Strain-sensitive ferromagnetic two-dimensional Cr2Te3. Nano Research, 2022, 15, 1254-1259.	5.8	26
75	Wrapping Sb₂Te₃ with a Graphite Layer toward High Volumetric Energy and Long Cycle Li-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 16264-16275.	4.0	25
76	Quasi-one-dimensional graphene superlattices formed on high-index surfaces. Physical Review B, 2014, 89, .	1.1	22
77	Grain size control in the fabrication of large single-crystal bilayer graphene structures. Nanoscale, 2015, 7, 2391-2399.	2.8	22
78	Graphene Amplification by Continued Growth on Seed Edges. Chemistry of Materials, 2014, 26, 4137-4143.	3.2	21
79	Understanding the Growth Mechanism of GaN Epitaxial Layers on Mechanically Exfoliated Graphite. Nanoscale Research Letters, 2018, 13, 130.	3.1	21
80	Enhancement of MoTe2 near-infrared absorption with gold hollow nanorods for photodetection. Nano Research, 2020, 13, 1636-1643.	5.8	21
81	Geometry dependent photoconductivity of In2S3 kinks synthesized by kinetically controlled thermal deposition. Nano Research, 2016, 9, 3848-3857.	5.8	20
82	Interfacial thermal resistance across graphene/Al2O3 and graphene/metal interfaces and post-annealing effects. Carbon, 2017, 123, 18-25.	5.4	20
83	New Approach to Unveiling Individual Atomic Layers of 2D Materials and Their Heterostructures. Chemistry of Materials, 2018, 30, 1718-1728.	3.2	19
84	GaN epitaxial layers grown on multilayer graphene by MOCVD. AIP Advances, 2018, 8, .	0.6	18
85	Mirror-Image Photoswitching in a Single Organic Thin-Film Transistor. Journal of Physical Chemistry Letters, 2010, 1, 1269-1276.	2.1	17
86	Tuning the properties of graphene using a reversible gas-phase reaction. NPG Asia Materials, 2012, 4, e31-e31.	3.8	16
87	Novel optoelectronic devices based on single semiconductor nanowires (nanobelts). Nanoscale Research Letters, 2012, 7, 218.	3.1	13
88	Facilitating Allâ€Inorganic Halide Perovskites Fabrication in Confinedâ€Space Deposition. Small Methods, 2020, 4, 2000102.	4.6	13
89	Boosting in-plane anisotropy by periodic phase engineering in two-dimensional VO2 single crystals. Fundamental Research, 2022, 2, 456-461.	1.6	11
90	The mechanism of the modulation of electronic anisotropy in two-dimensional ReS₂. Nanoscale, 2020, 12, 8915-8921.	2.8	10

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91	Revealing Interfaceâ€Assisted Chargeâ€Transfer Mechanisms by Using Silicon Nanowires as Local Probes. Angewandte Chemie - International Edition, 2013, 52, 3369-3373.	7.2	9
92	Polar-surface-driven growth of ZnS microsprings with novel optoelectronic properties. NPG Asia Materials, 2015, 7, e213-e213.	3.8	9
93	Towards wafer-size strictly monolayer graphene on copper via cyclic atmospheric chemical vapor deposition. Carbon, 2016, 110, 384-389.	5.4	9
94	In situ formed nanoparticle-assisted growth of large-size single crystalline h-BN on copper. Nanoscale, 2018, 10, 17865-17872.	2.8	9
95	Controlled removal of monolayers for bilayer graphene preparation and visualization. RSC Advances, 2015, 5, 25471-25476.	1.7	8
96	Photodetectors: Ultrathin SnSe2Flakes Grown by Chemical Vapor Deposition for High-Performance Photodetectors (Adv. Mater. 48/2015). Advanced Materials, 2015, 27, 8119-8119.	11.1	6
97	Breakdown of self-limiting growth on oxidized copper substrates: a facile method for large-size high-quality bi- and trilayer graphene synthesis. RSC Advances, 2015, 5, 56293-56298.	1.7	5
98	Spread of in-plane anisotropy in CsPbBr₃/ReS₂ heterostructures by proximity effect. Journal of Materials Chemistry C, 0, , .	2.7	4
99	Electrical Characteristics: High-Performance Solar-Blind Deep Ultraviolet Photodetector Based on Individual Single-Crystalline Zn2GeO4Nanowire (Adv. Funct. Mater. 5/2016). Advanced Functional Materials, 2016, 26, 804-804.	7.8	3
100	Photodetectors: Interlayer Coupling Induced Infrared Response in WS₂/MoS₂ Heterostructures Enhanced by Surface Plasmon Resonance (Adv. Funct. Mater. 22/2018). Advanced Functional Materials, 2018, 28, 1870151.	7.8	2
101	Organic Semiconductors: Solutionâ€Crystallized Organic Semiconductors with High Carrier Mobility and Air Stability (Adv. Mater. 41/2012). Advanced Materials, 2012, 24, 5518-5518.	11.1	1
102	Synthesis of large-size graphene by chemical vapor deposition. , 2015, , .		0