

# Ke He

## List of Publications by Year in descending order

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130  
papers

14,790  
citations

36271

51  
h-index

18115

120  
g-index

133  
all docs

133  
docs citations

133  
times ranked

11049  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Observation of the Quantum Anomalous Hall Effect in a Magnetic Topological Insulator. Science, 2013, 340, 167-170.	6.0	2,821
2	Crossover of the three-dimensional topological insulator Bi <sub>2</sub> Se <sub>3</sub> to the two-dimensional limit. Nature Physics, 2010, 6, 584-588.	6.5	1,227
3	Interface-Induced High-Temperature Superconductivity in Single Unit-Cell FeSe Films on SrTiO <sub>3</sub> . Chinese Physics Letters, 2012, 29, 037402.	1.3	972
4	Intrinsic magnetic topological insulators in van der Waals layered MnBi <sub>2</sub> Te <sub>4</sub> -family materials. Science Advances, 2019, 5, eaaw5685.	4.7	675
5	Experimental Demonstration of Topological Surface States Protected by Time-Reversal Symmetry. Physical Review Letters, 2009, 103, 266803.	2.9	653
6	Robust axion insulator and Chern insulator phases in a two-dimensional antiferromagnetic topological insulator. Nature Materials, 2020, 19, 522-527.	13.3	536
7	Superconductivity in one-atomic-layer metal films grown on Si(111). Nature Physics, 2010, 6, 104-108.	6.5	479
8	Band structure engineering in (Bi <sub>1-x</sub> Sbx) <sub>2</sub> Te <sub>3</sub> ternary topological insulators. Nature Communications, 2011, 2, 574.	5.8	460
9	Experimental Realization of an Intrinsic Magnetic Topological Insulator. Chinese Physics Letters, 2019, 36, 076801.	1.3	457
10	Intrinsic Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> Thin Films on Si and Their Thickness Limit. Advanced Materials, 2010, 22, 4002-4007.	11.1	376
11	Crossover between Weak Antilocalization and Weak Localization in a Magnetically Doped Topological Insulator. Physical Review Letters, 2012, 108, 036805.	2.9	295
12	Phase separation and magnetic order in K-doped iron selenide superconductor. Nature Physics, 2012, 8, 126-130.	6.5	280
13	Thin Films of Magnetically Doped Topological Insulator with Carrier-Independent Long-Range Ferromagnetic Order. Advanced Materials, 2013, 25, 1065-1070.	11.1	246
14	Evidence for electron-electron interaction in topological insulator thin films. Physical Review B, 2011, 83, .	1.1	244
15	Interaction-driven insulating ground state in Bi <sub>2</sub> Se <sub>3</sub> . Physical Review B, 2011, 83, .	1.1	226
16	Topology-Driven Magnetic Quantum Phase Transition in Topological Insulators. Science, 2013, 339, 1582-1586.	6.0	206
17	Superconductivity in few-layer stanene. Nature Physics, 2018, 14, 344-348.	6.5	182
18	Topological insulator Bi <sub>2</sub> Se <sub>3</sub> thin films grown on double-layer graphene by molecular beam epitaxy. Applied Physics Letters, 2010, 97, .	1.5	154

#	ARTICLE	IF	CITATIONS
19	Fully gapped topological surface states in Bi <sub>2</sub> Se <sub>3</sub> films induced by a d-wave high-temperature superconductor. Nature Physics, 2013, 9, 621-625.	6.5	149
20	Molecular-beam epitaxy and robust superconductivity of stoichiometric FeSe crystalline films on bilayer graphene. Physical Review B, 2011, 84, .	1.1	146
21	Enhancing the Quantum Anomalous Hall Effect by Magnetic Codoping in a Topological Insulator. Advanced Materials, 2018, 30, 1703062.	11.1	141
22	Topological Materials: Quantum Anomalous Hall System. Annual Review of Condensed Matter Physics, 2018, 9, 329-344.	5.2	134
23	Interface charge doping effects on superconductivity of single-unit-cell FeSe films on SrTiO <sub>3</sub> . Physical Review B, 2014, 89, .	2.9	128
24	Experimental Observation of Dirac-like Surface States and Topological Phase Transition in Pb <sub>1-x</sub> Bi <sub>x</sub> Te. Physical Review Letters, 2014, 112, 186801.	2.9	109
25	Atomically smooth ultrathin films of topological insulator Sb <sub>2</sub> Te <sub>3</sub> . Nano Research, 2010, 3, 874-880.	5.8	104
26	Evidence of anisotropic Majorana bound states in 2M-WS <sub>2</sub> . Nature Physics, 2019, 15, 1046-1051.	6.5	104
27	Chemical-Potential-Dependent Gap Opening at the Dirac Surface States of Bi <sub>2</sub> Te <sub>3</sub> by Aggregated Substitutional Cr Atoms. Physical Review Letters, 2014, 112, 056801.	2.9	102
28	Quantum anomalous Hall effect. National Science Review, 2014, 1, 38-48.	4.6	102
29	Observation of the Zero Hall Plateau in a Quantum Anomalous Hall Insulator. Physical Review Letters, 2015, 115, 126801.	2.9	101
30	Dimensional Crossover-Induced Topological Hall Effect in a Magnetic Topological Insulator. Physical Review Letters, 2017, 119, 176809.	2.9	93
31	Observation of Double-Dome Superconductivity in Potassium-Doped FeSe Thin Films. Physical Review Letters, 2016, 116, 157001.	2.9	88
32	Molecular beam epitaxy growth and scanning tunneling microscopy study of TiSe <sub>2</sub> films. Physical Review B, 2015, 91, .	2.9	87
33	Molecular Beam Epitaxy-Grown SnSe in the Rock-Salt Structure: An Artificial Topological Crystalline Insulator Material. Advanced Materials, 2015, 27, 4150-4154.	11.1	83
34	Observation of Anderson Localization in Ultrathin Films of Three-Dimensional Topological Insulators. Physical Review Letters, 2015, 114, 216601.	2.9	82
35	Detection of a Superconducting Phase in a Two-Atom Layer of Hexagonal Ga Film Grown on Semiconducting GaN(0001). Physical Review Letters, 2015, 114, 107003.	2.9	81
36	Type-II Ising pairing in few-layer stanene. Science, 2020, 367, 1454-1457.	6.0	81

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37	Anomalous anisotropic magnetoresistance in topological insulator films. Nano Research, 2012, 5, 739-746.	5.8	71
38	Electronic States and Magnetic Response of $\text{MnBi}_2\text{Te}_4$ by Scanning Tunneling Microscopy and Spectroscopy. Nano Letters, 2020, 20, 3271-3277. Synthesis, structure and electronic properties of the Cr-doped topological insulator $\text{Bi}_2\text{Se}_3$	4.5	71
39	$\frac{1}{\mu_0} \frac{\partial \mathbf{M}}{\partial t} = \mathbf{M} \times \frac{d\mathbf{M}}{dt} + \gamma \mathbf{M} \times \nabla \times \mathbf{M} + \mathbf{M} \times \nabla \times \mathbf{H} + \mathbf{M} \times \nabla \times \mathbf{H}_e$ Interface-enhanced electron-phonon coupling and high-temperature superconductivity in	1.1	70
40	potassium-coated ultrathin FeSe films on $\text{SrTiO}_3$ . Physical Review B, 2016, 93, .	1.1	70
41	Power-law decay of standing waves on the surface of topological insulators. Physical Review B, 2011, 84, .	1.1	69
42	Demonstration of surface transport in a hybrid $\text{Bi}_2\text{Se}_3/\text{Bi}_2\text{Te}_3$ heterostructure. Scientific Reports, 2013, 3, 3060.	1.6	67
43	Direct evidence of ferromagnetism in a quantum anomalous Hall system. Nature Physics, 2018, 14, 791-795.	6.5	65
44	Thickness Dependence of the Quantum Anomalous Hall Effect in Magnetic Topological Insulator Films. Advanced Materials, 2016, 28, 6386-6390.	11.1	63
45	Realizing an Epitaxial Decorated Stanene with an Insulating Bandgap. Advanced Functional Materials, 2018, 28, 1802723.	7.8	63
46	Quantum and Classical Magnetoresistance in Ambipolar Topological Insulator Transistors with Gate-tunable Bulk and Surface Conduction. Scientific Reports, 2014, 4, 4859.	1.6	62
47	Molecular beam epitaxy of bilayer $\text{Bi}(111)$ films on topological insulator $\text{Bi}_2\text{Te}_3$ : A scanning tunneling microscopy study. Applied Physics Letters, 2012, 101, 081603.	1.5	59
48	Superconductivity in Ca-intercalated epitaxial graphene on silicon carbide. Applied Physics Letters, 2013, 103, .	1.5	58
49	Two-dimensional superconductivity and topological states in $\text{PdTe}_2$ thin films. Physical Review Materials, 2018, 2, .	0.9	57
50	$\text{MnBi}_2\text{Te}_4$ -family intrinsic magnetic topological materials. Npj Quantum Materials, 2020, 5, .	1.8	55
51	Crossover between Weak Antilocalization and Weak Localization of Bulk States in Ultrathin $\text{Bi}_2\text{Se}_3$ Films. Scientific Reports, 2014, 4, 5817. Interface-enhanced high-temperature superconductivity in single-unit-cell $\text{FeTe}$	1.6	52
52	$\frac{1}{\mu_0} \frac{\partial \mathbf{M}}{\partial t} = \mathbf{M} \times \frac{d\mathbf{M}}{dt} + \gamma \mathbf{M} \times \nabla \times \mathbf{M} + \mathbf{M} \times \nabla \times \mathbf{H} + \mathbf{M} \times \nabla \times \mathbf{H}_e$ films on $\text{SrTiO}_3$ . Physical Review	1.1	48
53	Broadband High-Responsivity Photodetectors Based on Large-Scale Topological Crystalline Insulator $\text{SnTe}$ Ultrathin Film Grown by Molecular Beam Epitaxy. Advanced Optical Materials, 2017, 5, 1600727.	3.6	48
54	Interplay between topological insulators and superconductors. Physical Review B, 2012, 85, .	1.1	47

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55	Electrically tuned magnetic order and magnetoresistance in a topological insulator. Nature Communications, 2014, 5, 4915.	5.8	47
56	Superconductivity dichotomy in K-coated single and double unit cell FeSe films on $\text{SrTiO}_3$ . Physical Review B, 2015, 92, .	1.1	47
57	Doping effects of Sb and Pb in epitaxial topological insulator $\text{Bi}_2\text{Se}_3$ thin films: An <i>in situ</i> angle-resolved photoemission spectroscopy study. Applied Physics Letters, 2010, 97, .	1.5	43
58	Gating the charge state of single Fe dopants in the topological insulator $\text{Bi}_2\text{Se}_3$ with a scanning tunneling microscope. Physical Review B, 2012, 86, .	1.1	42
59	GROWTH OF QUANTUM WELL FILMS OF TOPOLOGICAL INSULATOR $\text{Bi}_2\text{Se}_3$ ON INSULATING SUBSTRATE. Spin, 2011, 01, 21-25.	0.6	41
60	Enhanced electron dephasing in three-dimensional topological insulators. Nature Communications, 2017, 8, 16071.	5.8	41
61	Selective adsorption and electronic interaction of $\text{F}_6\text{CuPc}$ on epitaxial graphene. Physical Review B, 2010, 82, .	1.1	37
62	From magnetically doped topological insulator to the quantum anomalous Hall effect. Chinese Physics B, 2013, 22, 067305.	0.7	35
63	Band Engineering of Dirac Surface States in Topological-Insulator-Based van der Waals Heterostructures. Physical Review Letters, 2015, 115, 136801.	2.9	34
64	Quantum Anomalous Hall Multilayers Grown by Molecular Beam Epitaxy. Chinese Physics Letters, 2018, 35, 076802.	1.3	34
65	Observation of interface superconductivity in a $\text{SnSe}_2$ /epitaxial graphene van der Waals heterostructure. Physical Review B, 2018, 98, .	1.1	33
66	Tunable interlayer magnetism and band topology in van der Waals heterostructures of $\text{MnBi}_2$ -family materials. Physical Review B, 2020, 102, .	1.1	32
67	Disentangling the magnetoelectric and thermoelectric transport in topological insulator thin films. Physical Review B, 2015, 91, .	1.1	32
68	Imaging the Electron-Boson Coupling in Superconducting FeSe Films Using a Scanning Tunneling Microscope. Physical Review Letters, 2014, 112, 057002.	2.9	31
69	Photoinduced Inverse Spin Hall Effect of Surface States in the Topological Insulator $\text{Bi}_2\text{Se}_3$ . Nano Letters, 2017, 17, 7878-7885.	4.5	29
70	Gate-Variable Mid-Infrared Optical Transitions in a $(\text{BiSb})_2\text{Te}_3$ Topological Insulator. Nano Letters, 2017, 17, 255-260.	4.5	27
71	Ferromagnetism in vanadium-doped $\text{Bi}_2\text{Se}_3$ topological insulator films. APL Materials, 2017, 5, .	2.2	27
72	Tunable photoresponse of epitaxial graphene on SiC. Applied Physics Letters, 2013, 103, .	1.5	26

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73	Mapping the Electronic Structure of Each Ingredient Oxide Layer of High-T <sub>c</sub> Cuprate Superconductor. <i>Physical Review B</i> , 2018, 97, .	2.9	26
74	Extensive impurity-scattering study on the pairing symmetry of monolayer FeSe films on SrTiO <sub>3</sub> . <i>Physical Review B</i> , 2018, 97, .	2.9	26
75	Observation of spin-split surface states in magnetically doped topological insulator MnBi <sub>2</sub> Te <sub>4</sub> films. <i>Physical Review B</i> , 2019, 100, .	1.1	22
76	Magnetic quantum phase transition in Cr-doped Bi <sub>2</sub> (SexTe <sub>1-x</sub> ) <sub>3</sub> driven by the Stark effect. <i>Nature Nanotechnology</i> , 2017, 12, 953-957.	15.6	22
77	Charge ordering in stoichiometric FeTe: Scanning tunneling microscopy and spectroscopy. <i>Physical Review B</i> , 2016, 93, .	1.1	21
78	Investigating and manipulating the molecular beam epitaxy growth kinetics of intrinsic magnetic topological insulator MnBi <sub>2</sub> Te <sub>4</sub> with in situ angle-resolved photoemission spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 475002.	0.7	21
79	Simultaneous Electrical-Field-Effect Modulation of Both Top and Bottom Dirac Surface States of Epitaxial Thin Films of Three-Dimensional Topological Insulators. <i>Nano Letters</i> , 2015, 15, 1090-1094.	4.5	19
80	Helicity-dependent photocurrent of the top and bottom Dirac surface states of epitaxial thin films of three-dimensional topological insulators Bi <sub>2</sub> Te <sub>3</sub> . <i>Physical Review B</i> , 2019, 100, .	1.1	19
81	Control of Circular Photogalvanic Effect of Surface States in the Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> via Spin Injection. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 18091-18100.	4.0	18
82	Incommensurate smectic phase in close proximity to the high-T <sub>c</sub> superconductor FeSe/SrTiO <sub>3</sub> . <i>Nature Communications</i> , 2021, 12, 2196.	5.8	17
83	Numerical study of PbTe-Pb hybrid nanowires for engineering Majorana zero modes. <i>Physical Review B</i> , 2022, 105, .	1.1	17
84	Two-dimensional growth of Fe thin films with perpendicular magnetic anisotropy on GaN(0001). <i>Applied Physics Letters</i> , 2006, 88, 232503.	1.5	16
85	Heavily Cr-doped (Bi,Sb) <sub>2</sub> Te <sub>3</sub> as a ferromagnetic insulator with electrically tunable conductivity. <i>APL Materials</i> , 2016, 4, 086101.	2.2	16
86	Edge States at Nematic Domain Walls in FeSe Films. <i>Nano Letters</i> , 2018, 18, 7176-7180.	4.5	16
87	Dimensional Crossover and Topological Nature of the Thin Films of a Three-Dimensional Topological Insulator by Band Gap Engineering. <i>Nano Letters</i> , 2019, 19, 4627-4633.	4.5	16
88	Selective area epitaxy of PbTe-Pb hybrid nanowires on a lattice-matched substrate. <i>Physical Review Materials</i> , 2022, 6, .	0.9	16
89	Topological crystalline insulator PbxSn <sub>1-x</sub> Te thin films on SrTiO <sub>3</sub> (001) with tunable Fermi levels. <i>APL Materials</i> , 2014, 2, .	2.2	15
90	Probing Dirac Fermion Dynamics in Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> with a Scanning Tunneling Microscope. <i>Physical Review Letters</i> , 2015, 114, 176602.	2.9	15

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91	Transport properties of $\text{Sb}_2\text{Te}_3/\text{Bi}_2\text{Te}_3$ topological insulator heterostructures. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013, 7, 142-144.	1.2	14
92	Crystallinity of tellurium capping and epitaxy of ferromagnetic topological insulator films on $\text{SrTiO}_3$ . <i>Scientific Reports</i> , 2015, 5, 11595.	1.6	14
93	Order in a topological insulator: Codoping-enhanced magnetism in $\text{Bi}_4\text{Te}_3$ metal doped $\text{Bi}_2\text{Te}_3$ .	1.1	14
94	Field-effect modulation of anomalous Hall effect in diluted ferromagnetic topological insulator epitaxial films. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	2.0	14
95	Atomic visualization of copper oxide structure in the infinite-layer cuprate $\text{SrCu}_2\text{O}_7$ . <i>Physical Review B</i> , 2018, 97, .	1.1	14
96	Signature of Superconductivity in Orthorhombic $\text{CoSb}$ Monolayer Films on $\text{SrTiO}_3(001)$ . <i>ACS Nano</i> , 2019, 13, 10434-10439.	7.3	13
97	Electronic structure of the ingredient planes of the cuprate superconductor $\text{Bi}_2\text{Te}_3$ . A comparison study with $\text{Bi}_2\text{Se}_3$ . <i>Physical Review B</i> , 2016, 93, .	1.1	12
98	Anisotropic superconductivity and elongated vortices with unusual bound states in quasi-one-dimensional nickel-bismuth compounds. <i>Physical Review B</i> , 2018, 97, .	1.1	12
99	Superconductivity in a single-layer alkali-doped $\text{FeSe}$ : A weakly coupled two-leg ladder system. <i>Physical Review B</i> , 2013, 88, .	1.1	11
100	Interference evidence for Rashba-type spin splitting on a semimetallic $\text{WTe}_2$ surface. <i>Physical Review B</i> , 2016, 94, .	1.1	11
101	Scanning tunneling microscopy study of the superconducting properties of three-atomic-layer $\text{Pb}$ films. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	10
102	Visualizing superconductivity in $\text{FeSe}$ nanoflakes on $\text{SrTiO}_3$ scanning tunneling microscopy. <i>Physical Review B</i> , 2015, 91, .	1.1	10
103	Distinct Quantum Anomalous Hall Ground States Induced by Magnetic Disorders. <i>Physical Review X</i> , 2020, 10, .	2.8	10
104	Quantum anomalous Hall heterostructures. <i>National Science Review</i> , 2019, 6, 202-204.	4.6	9
105	Electrically Tunable Wafer-Sized Three-Dimensional Topological Insulator Thin Films Grown by Magnetron Sputtering*. <i>Chinese Physics Letters</i> , 2020, 37, 057301.	1.3	9
106	Growth and magnetism of self-organized $\text{Co}$ nanoplatelets on $\text{Si}(111)$ surface. <i>Surface and Interface Analysis</i> , 2006, 38, 1028-1033.	0.8	8
107	Visualizing the elongated vortices in $\text{In}_2\text{S}_3$ - $\text{Ga}$ nanostrips. <i>Physical Review B</i> , 2016, 93, .	1.1	8
108	The Quantum Hall Effect Gets More Practical. <i>Physics Magazine</i> , 2015, 8, .	0.1	7

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109	Giant photoinduced anomalous Hall effect of the topological surface states in three dimensional topological insulators Bi <sub>2</sub> Te <sub>3</sub> . Applied Physics Letters, 2020, 116, 141603.	1.5	7
110	Observation of current-induced spin polarization in the topological insulator $\text{Bi}_2\text{Te}_3$ via circularly polarized photoconductive differential current. Physical Review B, 2021, 104, .	2.1	7
111	Observation of Aharonov-Bohm effect in PbTe nanowire networks. Physical Review B, 2022, 105, .	1.1	7
112	Selective trapping of hexagonally warped topological surface states in a triangular quantum corral. Science Advances, 2019, 5, eaaw3988.	4.7	6
113	The Road to High-Temperature Quantum Anomalous Hall Effect in Magnetic Topological Insulators. Spin, 2019, 09, .	0.6	6
114	Experimental evidence of the thickness- and electric-field-dependent topological phase transitions in topological crystalline insulator SnTe(111) thin films. Nano Research, 2018, 11, 6045-6050.	5.8	5
115	Ambi-polar anomalous Nernst effect in a magnetic topological insulator. New Journal of Physics, 2017, 19, 113009.	1.2	4
116	Tunable chiral and helical edge state transport in a magnetic topological insulator bilayer. Physical Review B, 2019, 100, .	1.1	4
117	AlO <sub>x</sub> /LiF composite protection layer for Cr-doped (Bi,Sb) <sub>2</sub> Te <sub>3</sub> quantum anomalous Hall films. Chinese Physics B, 2016, 25, 087307.	0.7	3
118	Ambi-chiral anomalous Hall effect in magnetically doped topological insulators. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	2.0	3
119	Topological insulator: Both two- and three-dimensional. Frontiers of Physics, 2012, 7, 148-149.	2.4	1
120	Nanoscale superconductivity of $\text{In}_2\text{S}_3$ -Ga islands grown by molecular beam epitaxy. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1.	2.0	1
121	Photodetectors: Broadband High-Responsivity Photodetectors Based on Large-Scale Topological Crystalline Insulator SnTe Ultrathin Film Grown by Molecular Beam Epitaxy (Advanced Optical) Tj ETQq1 1 0.784314.6gBT /Overlock 18	1.1	1
122	Surface symmetry breaking and disorder effects on superconductivity in perovskite BaBi <sub>3</sub> epitaxial films. Physical Review B, 2018, 98, .	1.1	1
123	Raise quantum anomalous Hall states up. National Science Review, 2021, 8, nwaa214.	4.6	1
124	Conductance fluctuation and weak antilocalization in epitaxial Bi <sub>2</sub> Se <sub>3</sub> . , 2013, , .		0
125	Quantum anomalous Hall effect in magnetic topological insulators. , 2016, , .		0
126	A parity-time symmetry-protected single-mode laser based on graphene. Journal of Modern Optics, 2017, 64, 2133-2140.	0.6	0



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127	Graphene integrated hybrid silicon DFB laser. , 2017, , .		0
128	In-plane magnetic field induced helicity dependent photogalvanic effect on the surface states of topological insulators (Bi <sub>x</sub> Sb <sub>1-x</sub> ) <sub>2</sub> Te <sub>3</sub> . Journal of Applied Physics, 2021, 130, 085305.	1.1	0
129	Quantum Anomalous Hall Effect in Magnetic Topological Insulators. , 2021, , 389-401.		0
130	Spin-Split Quantum-Well States Induced by Hybridization with Rashba-Split Surface States. Hyomen Kagaku, 2010, 31, 493-499.	0.0	0