Liang He

List of Publications by Year
in descending order

92	4,110	218677	114465
papers	citations	26 h-index	63 g-index

92	92	92	5219
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetization switching through giant spinâ€“orbit torque in a magnetically doped topological insulator heterostructure. Nature Materials, 2014, 13, 699-704.	27.5	773
2	Scale-Invariant Quantum Anomalous Hall Effect in Magnetic Topological Insulators beyond the Two-Dimensional Limit. Physical Review Letters, 2014, 113, 137201.	7.8	453
3	Manipulating surface states in topological insulator nanoribbons. Nature Nanotechnology, 2011, 6, 216-221.	31.5	382
4	Room-temperature intrinsic ferromagnetism in epitaxial CrTe2 ultrathin films. Nature Communications, 2021, 12, 2492.	12.8	179
5	A robust and tuneable mid-infrared optical switch enabled by bulk Dirac fermions. Nature Communications, 2017, 8, 14111.	12.8	174
6	Surface-Dominated Conduction in a 6 nm thick Bi₂Se₃ Thin Film. Nano Letters, 2012, 12, 1486-1490.	9.1	162
7	Electrical Detection of Spin-Polarized Surface States Conduction in (Bi_{0.53}Sb_{0.47})₂Te₃ Topological Insulator. Nano Letters, 2014, 14, 5423-5429.	9.1	150
8	Review of 3D topological insulator thinâ€ film growth by molecular beam epitaxy and potential applications. Physica Status Solidi - Rapid Research Letters, 2013, 7, 50-63.	2.4	145
9	Competing Weak Localization and Weak Antilocalization in Ultrathin Topological Insulators. Nano Letters, 2013, 13, 48-53.	9.1	128
10	Epitaxial growth of Bi2Se3 topological insulator thin films on Si (111). Journal of Applied Physics, 2011, 109, .	2.5	126
11	Interplay between Different Magnetisms in Cr-Doped Topological Insulators. ACS Nano, 2013, 7, 9205-9212.	14.6	114
12	Revelation of Topological Surface States in Bi₂Se₃ Thin Films by In Situ Al Passivation. ACS Nano, 2012, 6, 295-302.	14.6	102
13	Enhancing Magnetic Ordering in Cr-Doped Bi₂Se₃ Using High-T_C Ferrimagnetic Insulator. Nano Letters, 2015, 15, 764-769.	9.1	80
14	Gate-tunable quantum oscillations in ambipolar Cd3As2 thin films. NPG Asia Materials, 2015, 7, e221-e221.	7.9	68
15	Three-Dimensional Topological Insulator Bi₂Te₃/Organic Thin Film Heterojunction Photodetector with Fast and Wideband Response from 450 to 3500 Nanometers. ACS Nano, 2019, 13, 755-763.	14.6	68
16	Light-Tunable Ferromagnetism in Atomically Thin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Fe</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow> Driven by Femtosecond Laser Pulse. Physical Review Letters, 2020, 125, 267205.	7.8	57
17	Atomic-Scale Magnetism of Cr-Doped Bi₂Se₃ Thin Film Topological Insulators. ACS Nano, 2015, 9, 10237-10243.	14.6	54
18	Ultrahigh Stability 3D TI Bi₂Se₃/MoO₃ Thin Film Heterojunction Infrared Photodetector at Optical Communication Waveband. Advanced Functional Materials, 2020, 30, 1909659.	14.9	50

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19	Thickness-dependent bulk electronic properties in Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>thin films revealed by infrared spectroscopy. Physical Review B, 2013, 88, .	3.2	45
20	Separation of top and bottom surface conduction in Bi2Te3thin films. Nanotechnology, 2013, 24, 015705.	2.6	44
21	Evidence of the two surface states of (Bi0.53Sb0.47)2Te3 films grown by van der Waals epitaxy. Scientific Reports, 2013, 3, 3406.	3.3	36
22	First-principles study of nonmetal doped monolayer MoSe2 for tunable electronic and photocatalytic properties. Scientific Reports, 2017, 7, 17088.	3.3	36
23	Epitaxial Topological Insulator Bi₂Te₃ for Fast Visible to Mid-Infrared Heterojunction Photodetector by Graphene As Charge Collection Medium. ACS Nano, 2022, 16, 4851-4860.	14.6	35
24	Giant Topological Hall Effect in van der Waals Heterostructures of CrTe₂/Bi₂Te₃. ACS Nano, 2021, 15, 15710-15719.	14.6	34
25	Enhanced Photocatalytic Activity of 2H-MoSe₂ by 3d Transition-Metal Doping. Journal of Physical Chemistry C, 2018, 122, 26570-26575.	3.1	28
26	Transient enhancement of magnetization damping in CoFeB film via pulsed laser excitation. Applied Physics Letters, 2016, 109, .	3.3	26
27	Signature of quantum Griffiths singularity state in a layered quasi-one-dimensional superconductor. Nature Communications, 2018, 9, 4656.	12.8	21
28	Direct observation of high spin polarization in Co2FeAl thin films. Scientific Reports, 2018, 8, 8074.	3.3	20
29	Enhanced photocatalytic activity of nonmetal doped monolayer MoSe2 by hydrogen passivation: First-principles study. Applied Surface Science, 2018, 456, 133-139.	6.1	20
30	Polarimetric Three-Dimensional Topological Insulators/Organics Thin Film Heterojunction Photodetectors. ACS Nano, 2019, 13, 10810-10817.	14.6	20
31	Tuning the magnetic properties of the monolayer MoSe 2 by nonmetal doping: First-principles study. Solid State Communications, 2018, 281, 6-11.	1.9	19
32	Ferromagnetism in two-dimensional CrTe2 epitaxial films down to a few atomic layers. AIP Advances, 2021, 11, .	1.3	19
33	Improved photocatalytic property of monolayer MoS2 by B and F co-doping: First principles study. Journal of Catalysis, 2020, 382, 280-285.	6.2	19
34	Experimental observation of dual magnetic states in topological insulators. Science Advances, 2019, 5, eaav2088.	10.3	18
35	Observation of Shubnikov-de Haas Oscillations in Large-Scale Weyl Semimetal WTe2 Films. Chinese Physics Letters, 2020, 37, 017104.	3.3	18
36	Nanoscale Î²-nuclear magnetic resonance depth imaging of topological insulators. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3645-50.	7.1	16

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37	Antisymmetric magnetoresistance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">GeTe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> nanodevices of inhomogeneous thickness. Physical Review B, 2021, 104, .	3.2	16
38	Evidence for Layered Quantized Transport in Dirac Semimetal ZrTe5. Scientific Reports, 2018, 8, 5125.	3.3	15
39	Crystal structure and optical performance in bulk Î³-InSe single crystals. AIP Advances, 2019, 9, .	1.3	15
40	Photoresponsivity of an all-semimetal heterostructure based on graphene and WTe2. Scientific Reports, 2018, 8, 12840.	3.3	14
41	Ultrafast Orbitalâ€Oriented Control of Magnetization in Halfâ€Metallic La_{0.7}Sr_{0.3}MnO₃ Films. Advanced Materials, 2019, 31, e1806443.	21.0	13
42	Adjustable electronic, optical and photocatalytic properties of black phosphorene by nonmetal doping. Applied Surface Science, 2020, 505, 144488.	6.1	13
43	Observation of Quantum Hall effect in an ultra-thin (Bi0.53Sb0.47)2Te3 film. Applied Physics Letters, 2017, 110, .	3.3	12
44	Spin-ARPES EUV Beamline for Ultrafast Materials Research and Development. Applied Sciences (Switzerland), 2019, 9, 370.	2.5	12
45	Two stage magnetization in van der Waals layered CrXTe3 (Xâ€¯=â€¯Si, Ge) single crystals. Materials Letters, 2019, 246, 60-62.	2.6	12
46	Enhancing photocatalytic activity in monolayer MoS2 by charge compensated co-doping with P and Cl: First principles study. Molecular Catalysis, 2019, 468, 94-99.	2.0	12
47	Strong interface-induced spin-charge conversion in YIG/Cr heterostructures. Applied Physics Letters, 2020, 117, .	3.3	12
48	Probing the atomic-scale ferromagnetism in van der Waals magnet CrSiTe3. Applied Physics Letters, 2021, 119, .	3.3	12
49	Large Linear Magnetoresistance of Highâ€Mobility 2D Electron System at Nonisostructural Î³â€Al₂O₃/SrTiO₃ Heterointerfaces. Advanced Materials Interfaces, 2021, 8, 2101235.	3.7	12
50	The effect of growth sequence on magnetization damping in Ta/CoFeB/MgO structures. Journal of Magnetism and Magnetic Materials, 2018, 450, 65-69.	2.3	10
51	Selfâ€Intercalation Tunable Interlayer Exchange Coupling in a Synthetic van der Waals Antiferromagnet. Advanced Functional Materials, 2022, 32, .	14.9	10
52	Intrinsic Topological Insulator Bi1.5Sb0.5Te3-xSex Thin Crystals. Scientific Reports, 2015, 5, 7931.	3.3	9
53	Quantum Oscillations from Nontrivial States in Quasi-Two-Dimensional Dirac Semimetal ZrTe5 Nanowires. Scientific Reports, 2019, 9, 3558.	3.3	9
54	Modulation of the electronic properties and photocatalytic performance of black phase monolayer GeSe by noble metal doping. New Journal of Chemistry, 2021, 45, 15378-15385.	2.8	9

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55	Evidence for ferromagnetic coupling at the doped topological insulator/ferrimagnetic insulator interface. AIP Advances, 2016, 6, 055813.	1.3	8
56	Ultra-sensitive anomalous Hall effect sensors based on Cr-doped Bi₂Te₃ topological insulator thin films. Journal Physics D: Applied Physics, 2020, 53, 505001.	2.8	8
57	Mapping the domain wall pinning profile by stochastic imaging reconstruction. Physical Review B, 2013, 87, .	3.2	7
58	The Unique Current-Direction Dependent On-Off Switching in BiSbTeSe₂ Topological Insulator Based Spin Valve Transistors. IEEE Electron Device Letters, 2016, , 1-1.	3.9	7
59	Electronic and photocatalytic properties of N/F co-doped anatase TiO2. RSC Advances, 2017, 7, 55282-55287.	3.6	7
60	The atomic-scale magnetism of Co2FeAl Heusler alloy epitaxial thin films. Applied Physics Letters, 2018, 113, .	3.3	7
61	Multiple magnetic phase transition and short-range ferromagnetic behavior influence on magnetocaloric effect of Sm2NiMnO6 nanoparticles. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	7
62	Manipulation of Gilbert damping in ultrathin half-metallic Co2FeAl1+x by composition-deficiency-compensation. Applied Physics Letters, 2020, 116, .	3.3	7
63	Large-Area Freestanding Weyl Semimetal WTe2 Membranes. Chinese Physics Letters, 2021, 38, 017101.	3.3	7
64	Directional Spin Wave in Spin-Torque Oscillators Induced by Interfacial Dzyaloshinskiiâ€“Moriya Interaction. IEEE Magnetics Letters, 2017, 8, 1-4.	1.1	6
65	Enhancement of the spinâ€“orbit torque efficiency in W/Cu/CoFeB heterostructures via interface engineering. Applied Physics Letters, 2020, 117, 082409.	3.3	6
66	Tuning magnetic and optical properties of monolayer WSe2 by doping C, N, P, O, S, F, and Cl: First principles study. Solid State Communications, 2021, 327, 114233.	1.9	6
67	Sub-100 femtosecond time scale spin dynamics in epitaxial Fe3O4 thin film. Applied Surface Science, 2022, 572, 151456.	6.1	6
68	Temperature-induced band shift in bulk Î³-InSe by angle-resolved photoemission spectroscopy. AIP Advances, 2018, 8, 055123.	1.3	5
69	Component manipulated magnetic anisotropy and damping in Heusler-like compound Co_{2+x}Fe_{1â^’x}Al. Journal of Physics Condensed Matter, 2019, 31, 075802.	1.8	5
70	Increasing the photocatalytic properties of monolayer black phase GeSe by 3d transition metal doping: From ultraviolet to infrared absorption. Molecular Catalysis, 2020, 496, 111195.	2.0	5
71	The metal-insulator transition in ZrTe5 induced by temperature. AIP Advances, 2018, 8, .	1.3	4
72	Femtosecond laser-heating effect on the magnetization dynamics in perpendicularly magnetized Ta/CoFeB/MgO film. New Journal of Physics, 2019, 21, 053032.	2.9	4

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73	Solution Combustion Synthesis of Rare Earth Orthoferrite Nanoparticles: a Comparative Study on Multiferroic Properties of Erâ€“FeO3 vs (La,Yb)FeO3. Journal of Superconductivity and Novel Magnetism, 2020, 33, 3621-3629.	1.8	4
74	Manipulating the electronic and photocatalytic properties of anatase TiO2 by metalloid doping. Chemical Physics Letters, 2021, 780, 138907.	2.6	4
75	Isotropic spin polarization in Heusler Co2FeAl thin films. AIP Advances, 2022, 12, 025005.	1.3	4
76	Direct observation of spin polarization in epitaxial Fe3O4(001)/MgO thin films grown by magnetron sputtering. Applied Physics Letters, 2022, 120, .	3.3	4
77	Structural and magnetic properties in the Heusler compounds Co_{3â^'x}Fe _x Al thin films. Journal Physics D: Applied Physics, 2022, 55, 395002.	2.8	4
78	Site Preference of Se and Te in Bi₂Se_{3 â^' x}Te_x Thin Films. Chinese Physics Letters, 2020, 37, 077501.	3.3	3
79	Impurity band assisted carrier relaxation in Cr doped topological insulator Bi2Se3. Applied Physics Letters, 2021, 118, .	3.3	3
80	Surface doping of nonmetal atoms enhances photocatalytic performance of monolayer GeSe for degradation of organic pollution. Chemical Physics Letters, 2021, 785, 139156.	2.6	3
81	Magnetic anisotropy of half-metallic Co2FeAl ultra-thin films epitaxially grown on GaAs(001). AIP Advances, 2019, 9, 065002.	1.3	2
82	Observation of Small Polaron and Acoustic Phonon Coupling in Ultrathin La 0.7 Sr 0.3 MnO 3 /SrTiO 3 Structures. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800657.	2.4	2
83	Thermal induced spin-polarized current protected by spin-momentum locking in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>ZrTe</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:math> nanowires. Physical Review B, 2021, 104, .	3.2	2
84	Sub-Femtosecond Timing Jitter From a SESAM Mode-Locked Yb-Fiber Laser. IEEE Photonics Technology Letters, 2021, 33, 1309-1312.	2.5	2
85	Enhanced magnetoresistance in NiFe/GaAs/Fe hybrid magnon valve. Applied Physics Letters, 2019, 115, .	3.3	1
86	Photodetectors: Ultrahigh Stability 3D TI Bi₂Se₃/MoO₃ Thin Film Heterojunction Infrared Photodetector at Optical Communication Waveband (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	14.9	1
87	Magnetic topological insulators: growth, structure, and properties. , 2020, , 191-226.		1
88	Tuning interfacial spin pump in Ta/CoFeB/MgO films by ultrafast laser pulse. Applied Physics Letters, 2021, 119, 092404.	3.3	1
89	Charge compensation co-doping enhances the photocatalytic activity of black phosphorus. Molecular Catalysis, 2021, 516, 112008.	2.0	1
90	Interface Magnetic and Electrical Properties of CoFeB /InAs Heterostructures. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	0

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91	Current-Direction-Dependent Depinning of Vortex Domain Walls in Permalloy Zigzag Nanowires. IEEE Transactions on Magnetics, 2021, 57, 1-5.	2.1	0
92	Observation of an anisotropic ultrafast spin relaxation process in large-area WTe₂ films. Journal of Applied Physics, 2022, 131, 163903.	2.5	0