

Li Yang

List of Publications by Year in descending order

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111
papers

18,449
citations

25034

57
h-index

24982

109
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114
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114
docs citations

114
times ranked

17887
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoactive Control of Surface-Enhanced Raman Scattering with Reduced Graphene Oxide in Gas Atmosphere. ACS Nano, 2022, 16, 577-587.	14.6	10
2	Multi-Meron Interactions and Statistics in Two-Dimensional Materials. Journal of Physics Condensed Matter, 2022, , .	1.8	0
3	Emerging Optical In-Memory Computing Sensor Synapses Based on Low-Dimensional Nanomaterials for Neuromorphic Networks. Advanced Intelligent Systems, 2022, 4, .	6.1	13
4	Interlayer Exciton Transport in MoSe ₂ /WSe ₂ Heterostructures. ACS Nano, 2021, 15, 1539-1547.	14.6	61
5	Photodegradation Protection in 2D In-Plane Heterostructures Revealed by Hyperspectral Nanoimaging: The Role of Nanointerface 2D Alloys. ACS Nano, 2021, 15, 2447-2457.	14.6	14
6	Switchable Enhanced Spin Photocurrent in Rashba and Cubic Dresselhaus Ferroelectric Semiconductors. Nano Letters, 2021, 21, 2265-2271.	9.1	15
7	Photonic Platforms Using In-Plane Optical Anisotropy of Tin (II) Selenide and Black Phosphorus. Advanced Photonics Research, 2021, 2, 2100176.	3.6	4
8	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:mi} \text{P} \langle \text{mml:mi} \text{T} \langle \text{mml:mrow} \langle \text{mml:math} \rangle \text{-Symmetry-Enabled Spin Circular Photogalvanic Effect in Antiferromagnetic Insulators. Physical Review Letters, 2021, 127, 207402.} \rangle \rangle \rangle \rangle \rangle$	7.8	22
9	Artificial Multiferroics and Enhanced Magnetoelectric Effect in van der Waals Heterostructures. ACS Applied Materials & Interfaces, 2020, 12, 6243-6249.	8.0	81
10	Modulation Doping via a Two-Dimensional Atomic Crystalline Acceptor. Nano Letters, 2020, 20, 8446-8452.	9.1	44
11	Giant photogalvanic effect and second-harmonic generation in magnetic axion insulators. Physical Review B, 2020, 102, .	3.2	39
12	Meron-like topological spin defects in monolayer CrCl ₃ . Nature Communications, 2020, 11, 4724.	12.8	65
13	Quasiparticle energies and excitonic effects of chromium trichloride: From two dimensions to bulk. Physical Review B, 2020, 101, .	3.2	6
14	Mechanism of Extreme Optical Nonlinearities in Spiral WS ₂ above the Bandgap. Nano Letters, 2020, 20, 2667-2673.	9.1	25
15	Nonreciprocal second-harmonic generation in few-layer chromium triiodide. Physical Review B, 2020, 102, .	3.2	13
16	Raman response and transport properties of tellurium atomic chains encapsulated in nanotubes. Nature Electronics, 2020, 3, 141-147.	26.0	126
17	Widely tunable mid-infrared light emission in thin-film black phosphorus. Science Advances, 2020, 6, eaay6134.	10.3	80
18	Tunable Second Harmonic Generation in Twisted Bilayer Graphene. Matter, 2020, 3, 1361-1376.	10.0	40

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19	First-principles Studies of Second-Order Nonlinear Optical Properties of Organic-Inorganic Hybrid Halide Perovskites. <i>Physical Review Applied</i> , 2020, 13, .	3.8	24
20	Excited-State Properties of Thin Silicon Nanowires. , 2020, , 617-633.		0
21	Giant gate-tunable bandgap renormalization and excitonic effects in a 2D semiconductor. <i>Science Advances</i> , 2019, 5, eaaw2347.	10.3	80
22	Optically Driven Magnetic Phase Transition of Monolayer RuCl ₃ . <i>Nano Letters</i> , 2019, 19, 7673-7680.	9.1	45
23	Curie temperature of emerging two-dimensional magnetic structures. <i>Physical Review B</i> , 2019, 100, .	3.2	47
24	Modulated interlayer exciton properties in a two-dimensional moiré crystal. <i>Physical Review B</i> , 2019, 100, .	3.2	48
25	Emerging photoluminescence from the dark-exciton phonon replica in monolayer WSe ₂ . <i>Nature Communications</i> , 2019, 10, 2469.	12.8	102
26	Noncollinearity-modulated Electronic Properties of Monolayer CrI ₃ . <i>Physical Review Applied</i> , 2019, 11, .	3.8	3
27	Black phosphorus and its isoelectronic materials. <i>Nature Reviews Physics</i> , 2019, 1, 306-317.	26.6	196
28	Evidence for moiré excitons in van der Waals heterostructures. <i>Nature</i> , 2019, 567, 71-75.	27.8	933
29	Ultrahigh Electrical Conductivity of Graphene Embedded in Metals. <i>Advanced Functional Materials</i> , 2019, 29, 1806792.	14.9	126
30	Theoretical investigation of the vertical dielectric screening dependence on defects for few-layered van der Waals materials. <i>RSC Advances</i> , 2019, 9, 40309-40315.	3.6	12
31	Raman Spectra Shift of Few-Layer IV-VI 2D Materials. <i>Scientific Reports</i> , 2019, 9, 19826.	3.3	36
32	Off-Plane Dielectric Screening of Few-Layer Graphdiyne and Its Family. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 2571-2578.	8.0	13
33	Excited-State Properties of Thin Silicon Nanowires. , 2019, , 1-18.		0
34	Direct Observation of Semiconductorâ€“Metal Phase Transition in Bilayer Tungsten Diselenide Induced by Potassium Surface Functionalization. <i>ACS Nano</i> , 2018, 12, 2070-2077.	14.6	44
35	Ligand-field helical luminescence in a 2D ferromagnetic insulator. <i>Nature Physics</i> , 2018, 14, 277-281.	16.7	275
36	Excited-State Properties of Thin Silicon Nanowires. , 2018, , 1-18.		1

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37	Edge-insensitive magnetism and half metallicity in graphene nanoribbons. Journal of Physics Condensed Matter, 2018, 30, 48LT01.	1.8	3
38	Enhanced doping effect on tuning structural phases of monolayer antimony. Applied Physics Letters, 2018, 112, 213104.	3.3	13
39	Microsecond Valley Lifetime of Defect-Bound Excitons in Monolayer WS_2 . Physical Review Letters, 2018, 121, 057403.	7.8	114
40	Dependence of excited-state properties of tellurium on dimensionality: From bulk to two dimensions to one dimensions. Physical Review B, 2018, 98, .	3.2	27
41	High-pressure investigations on the semi-Heusler compound CuMnSb. Physical Review B, 2018, 98, .	3.2	4
42	Anomalous Above-Gap Photoexcitations and Optical Signatures of Localized Charge Puddles in Monolayer Molybdenum Disulfide. ACS Nano, 2017, 11, 2115-2123.	14.6	29
43	Tellurization Velocity-Dependent Metallic \rightarrow Semiconducting \rightarrow Metallic Phase Evolution in Chemical Vapor Deposition Growth of Large-Area, Few-Layer $MoTe_2$. ACS Nano, 2017, 11, 1964-1972.	14.6	96
44	Efficient electrical control of thin-film black phosphorus bandgap. Nature Communications, 2017, 8, 14474.	12.8	249
45	Schottky Barriers in Bilayer Phosphorene Transistors. ACS Applied Materials & Interfaces, 2017, 9, 12694-12705.	8.0	94
46	Renormalization of the quasiparticle band gap in doped two-dimensional materials from many-body calculations. Physical Review B, 2017, 96, .	3.2	69
47	Off-plane polarization ordering in metal chalcogen diphosphates from bulk to monolayer. Physical Review B, 2017, 96, .	3.2	60
48	Interlayer Coupling and Gate-Tunable Excitons in Transition Metal Dichalcogenide Heterostructures. Nano Letters, 2017, 17, 7809-7813.	9.1	95
49	Widely tunable black phosphorus mid-infrared photodetector. Nature Communications, 2017, 8, 1672.	12.8	283
50	Stark effect of doped two-dimensional transition metal dichalcogenides. Applied Physics Letters, 2017, 111, .	3.3	12
51	Quasiparticle band gaps and optical spectra of strained monolayer transition-metal dichalcogenides. Physical Review B, 2017, 96, .	3.2	28
52	Vertical dielectric screening of few-layer van der Waals semiconductors. Nanoscale, 2017, 9, 14540-14547.	5.6	20
53	Standing and sitting adlayers in atomic layer deposition of ZnO. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	20
54	Spontaneous ripple formation in phosphorene: electronic properties and possible applications. Nanoscale, 2016, 8, 11827-11833.	5.6	11

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55	Dynamical Excitonic Effects in Doped Two-Dimensional Semiconductors. Nano Letters, 2016, 16, 5568-5573.	9.1	79
56	Strain-controlled fundamental gap and structure of bulk black phosphorus. Physical Review B, 2016, 94, .	3.2	40
57	Ferroelectricity and Phase Transitions in Monolayer Group-IV Monochalcogenides. Physical Review Letters, 2016, 117, 097601.	7.8	468
58	Interfacial Properties of Monolayer and Bilayer MoS ₂ Contacts with Metals: Beyond the Energy Band Calculations. Scientific Reports, 2016, 6, 21786.	3.3	224
59	Low-symmetry two-dimensional materials for electronic and photonic applications. Nano Today, 2016, 11, 763-777.	11.9	113
60	Wedge energy bands of monolayer black phosphorus: a first-principles study. Journal of Physics Condensed Matter, 2016, 28, 305301.	1.8	1
61	A locally preferred structure characterises all dynamical regimes of a supercooled liquid. Philosophical Magazine, 2016, 96, 1212-1227.	1.6	47
62	Topologically protected Dirac cones in compressed bulk black phosphorus. Physical Review B, 2015, 91, .	3.2	90
63	Quasiparticle band gaps, excitonic effects, and anisotropic optical properties of the monolayer distorted structures. $1 < T < 131$	3.2	131
64	Giant piezoelectricity of monolayer group IV monochalcogenides: SnSe, SnS, GeSe, and GeS. Applied Physics Letters, 2015, 107, .	3.3	569
65	Remarkable anisotropic phonon response in uniaxially strained few-layer black phosphorus. Nano Research, 2015, 8, 3944-3953.	10.4	68
66	Quasiparticle energies, excitons, and optical spectra of few-layer black phosphorus. 2D Materials, 2015, 2, 044014.	4.4	77
67	Carrier Plasmon Induced Nonlinear Band Gap Renormalization in Two-Dimensional Semiconductors. Physical Review Letters, 2015, 114, 063001.	7.8	118
68	Tunable Optical Excitations in Twisted Bilayer Graphene Form Strongly Bound Excitons. Nano Letters, 2015, 15, 5932-5937.	9.1	53
69	Highly anisotropic and robust excitons in monolayer black phosphorus. Nature Nanotechnology, 2015, 10, 517-521.	31.5	1,204
70	Quantum oscillations in a two-dimensional electron gas in black phosphorus thin films. Nature Nanotechnology, 2015, 10, 608-613.	31.5	282
71	Highly Conducting, <i>n</i> -Type Bi ₁₂ O ₁₅ Cl ₆ Nanosheets with Superlattice-like Structure. Chemistry of Materials, 2015, 27, 7710-7718.	6.7	55
72	Interlayer interactions in anisotropic atomically thin rhenium diselenide. Nano Research, 2015, 8, 3651-3661.	10.4	159

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73	Strain-tunable topological quantum phase transition in buckled honeycomb lattices. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	22
74	Lattice vibrational modes and Raman scattering spectra of strained phosphorene. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	154
75	Strongly bound excitons in gapless two-dimensional structures. <i>Physical Review B</i> , 2014, 90, .	3.2	17
76	Anomalous thermal contraction of the first coordination shell in metallic alloy liquids. <i>Journal of Chemical Physics</i> , 2014, 140, 044505.	3.0	31
77	Strain-Engineering the Anisotropic Electrical Conductance of Few-Layer Black Phosphorus. <i>Nano Letters</i> , 2014, 14, 2884-2889.	9.1	1,125
78	Enhanced Thermoelectric Efficiency via Orthogonal Electrical and Thermal Conductances in Phosphorene. <i>Nano Letters</i> , 2014, 14, 6393-6399.	9.1	680
79	Temperature effect on optical spectra of monolayer molybdenum disulfide. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	51
80	Layer-controlled band gap and anisotropic excitons in few-layer black phosphorus. <i>Physical Review B</i> , 2014, 89, .	3.2	1,940
81	Van Hove Singularities and Excitonic Effects in the Optical Conductivity of Twisted Bilayer Graphene. <i>Nano Letters</i> , 2014, 14, 3353-3357.	9.1	132
82	Scaling laws for the band gap and optical response of phosphorene nanoribbons. <i>Physical Review B</i> , 2014, 89, .	3.2	256
83	Exciton spectra in two-dimensional graphene derivatives. <i>Physical Review B</i> , 2013, 88, .	3.2	31
84	Electronic structure and quasiparticle bandgap of silicene structures. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	79
85	Anomalous structural evolution and liquid fragility signatures in Cu–Zr and Cu–Hf liquids and glasses. <i>Acta Materialia</i> , 2013, 61, 7411-7421.	7.9	21
86	Quasiparticle band-edge energy and band offsets of monolayer of molybdenum and tungsten chalcogenides. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	132
87	Connectivity of icosahedral network and a dramatically growing static length scale in Cu-Zr binary metallic glasses. <i>Physical Review B</i> , 2013, 87, .	3.2	143
88	Many-electron effects on optical absorption spectra of strained graphene. <i>Journal of Materials Research</i> , 2012, 27, 403-409.	2.6	10
89	Quasiparticle energy and optical excitations of gated bilayer graphene. <i>Physical Review B</i> , 2012, 86, .	3.2	8
90	Tensile Strain Switched Ferromagnetism in Layered NbS ₂ and NbSe ₂ . <i>ACS Nano</i> , 2012, 6, 9727-9736.	14.6	325

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91	Electronic Structure and Optical Absorption of Fluorographene. Materials Research Society Symposia Proceedings, 2011, 1370, 37.	0.1	14
92	Excitonic Effects on Optical Absorption Spectra of Doped Graphene. Nano Letters, 2011, 11, 3844-3847.	9.1	73
93	Excitons in intrinsic and bilayer graphene. Physical Review B, 2011, 83, .	3.2	75
94	Strain engineering of band offsets in Si/Ge core-shell nanowires. Applied Physics Letters, 2011, 98, .	3.3	26
95	Lattice Vibrational Modes and their Frequency Shifts in Semiconductor Nanowires. Nano Letters, 2011, 11, 2618-2621.	9.1	19
96	First-principles study of the optical absorption spectra of electrically gated bilayer graphene. Physical Review B, 2010, 81, .	3.2	28
97	Excitonic Effects on the Optical Response of Graphene and Bilayer Graphene. Physical Review Letters, 2009, 103, 186802.	7.8	604
98	Landau Levels and Quantum Hall Effect in Graphene Superlattices. Physical Review Letters, 2009, 103, 046808.	7.8	137
99	Graphene at the Edge: Stability and Dynamics. Science, 2009, 323, 1705-1708.	12.6	1,153
100	Anisotropic behaviours of massless Dirac Fermions in graphene under periodic potentials. Nature Physics, 2008, 4, 213-217.	16.7	609
101	Electron Beam Supercollimation in Graphene Superlattices. Nano Letters, 2008, 8, 2920-2924.	9.1	253
102	New Generation of Massless Dirac Fermions in Graphene under External Periodic Potentials. Physical Review Letters, 2008, 101, 126804.	7.8	370
103	Quantum confinement effect in Si/Ge core-shell nanowires: First-principles calculations. Physical Review B, 2008, 77, .	3.2	69
104	Magnetic Edge-State Excitons in Zigzag Graphene Nanoribbons. Physical Review Letters, 2008, 101, 186401.	7.8	139
105	Quasiparticle Energies and Band Gaps in Graphene Nanoribbons. Physical Review Letters, 2007, 99, 186801.	7.8	1,092
106	Size and orientation dependence in the electronic properties of silicon nanowires. Physical Review B, 2007, 76, .	3.2	101
107	Enhanced electron-hole interaction and optical absorption in a silicon nanowire. Physical Review B, 2007, 75, .	3.2	65
108	Excitonic Effects in the Optical Spectra of Graphene Nanoribbons. Nano Letters, 2007, 7, 3112-3115.	9.1	254

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109	First-principles study of NaAlH ₄ and Na ₃ AlH ₆ complex hydrides. Physical Review B, 2004, 70, .	3.2	80
110	Quantum Confinement and Electronic Properties of Silicon Nanowires. Physical Review Letters, 2004, 92, 236805.	7.8	468
111	Thermodynamic second law in irreversible processes of chaotic few-body systems. Physical Review E, 2001, 64, 045102.	2.1	4