

# Li Yang

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

108  
papers

14,614  
citations

51  
h-index

114  
g-index

114  
ext. papers

16,625  
ext. citations

8.9  
avg, IF

6.98  
L-index

#	Paper	IF	Citations
108	Layer-controlled band gap and anisotropic excitons in few-layer black phosphorus. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	1650
107	Graphene at the edge: stability and dynamics. <i>Science</i> , <b>2009</b> , 323, 1705-8	33.3	1042
106	Highly anisotropic and robust excitons in monolayer black phosphorus. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 517-21	28.7	999
105	Strain-engineering the anisotropic electrical conductance of few-layer black phosphorus. <i>Nano Letters</i> , <b>2014</b> , 14, 2884-9	11.5	984
104	Quasiparticle energies and band gaps in graphene nanoribbons. <i>Physical Review Letters</i> , <b>2007</b> , 99, 186801-4	7.4	937
103	Enhanced thermoelectric efficiency via orthogonal electrical and thermal conductances in phosphorene. <i>Nano Letters</i> , <b>2014</b> , 14, 6393-9	11.5	571
102	Evidence for moiré excitons in van der Waals heterostructures. <i>Nature</i> , <b>2019</b> , 567, 71-75	50.4	538
101	Anisotropic behaviours of massless Dirac fermions in graphene under periodic potentials. <i>Nature Physics</i> , <b>2008</b> , 4, 213-217	16.2	531
100	Excitonic effects on the optical response of graphene and bilayer graphene. <i>Physical Review Letters</i> , <b>2009</b> , 103, 186802	7.4	509
99	Quantum confinement and electronic properties of silicon nanowires. <i>Physical Review Letters</i> , <b>2004</b> , 92, 236805	7.4	438
98	Giant piezoelectricity of monolayer group IV monochalcogenides: SnSe, SnS, GeSe, and GeS. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 173104	3.4	418
97	New generation of massless Dirac fermions in graphene under external periodic potentials. <i>Physical Review Letters</i> , <b>2008</b> , 101, 126804	7.4	316
96	Ferroelectricity and Phase Transitions in Monolayer Group-IV Monochalcogenides. <i>Physical Review Letters</i> , <b>2016</b> , 117, 097601	7.4	309
95	Tensile strain switched ferromagnetism in layered NbS <sub>2</sub> and NbSe <sub>2</sub> . <i>ACS Nano</i> , <b>2012</b> , 6, 9727-36	16.7	265
94	Quantum oscillations in a two-dimensional electron gas in black phosphorus thin films. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 608-13	28.7	245
93	Scaling laws for the band gap and optical response of phosphorene nanoribbons. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	226
92	Excitonic effects in the optical spectra of graphene nanoribbons. <i>Nano Letters</i> , <b>2007</b> , 7, 3112-5	11.5	225

91	Electron beam supercollimation in graphene superlattices. <i>Nano Letters</i> , <b>2008</b> , 8, 2920-4	11.5	223
90	Ligand-field helical luminescence in a 2D ferromagnetic insulator. <i>Nature Physics</i> , <b>2018</b> , 14, 277-281	16.2	192
89	Widely tunable black phosphorus mid-infrared photodetector. <i>Nature Communications</i> , <b>2017</b> , 8, 1672	17.4	191
88	Interfacial Properties of Monolayer and Bilayer MoS2 Contacts with Metals: Beyond the Energy Band Calculations. <i>Scientific Reports</i> , <b>2016</b> , 6, 21786	4.9	186
87	Efficient electrical control of thin-film black phosphorus bandgap. <i>Nature Communications</i> , <b>2017</b> , 8, 14474	17.4	183
86	Lattice vibrational modes and Raman scattering spectra of strained phosphorene. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 083120	3.4	140
85	Interlayer interactions in anisotropic atomically thin rhenium diselenide. <i>Nano Research</i> , <b>2015</b> , 8, 3651-3661	16.1	133
84	Landau levels and quantum Hall effect in graphene superlattices. <i>Physical Review Letters</i> , <b>2009</b> , 103, 046808	7.4	125
83	Magnetic edge-state excitons in zigzag graphene nanoribbons. <i>Physical Review Letters</i> , <b>2008</b> , 101, 186401	7.4	125
82	Quasiparticle band-edge energy and band offsets of monolayer of molybdenum and tungsten chalcogenides. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 042106	3.4	119
81	Connectivity of icosahedral network and a dramatically growing static length scale in Cu-Zr binary metallic glasses. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	119
80	Black phosphorus and its isoelectronic materials. <i>Nature Reviews Physics</i> , <b>2019</b> , 1, 306-317	23.6	107
79	Quasiparticle band gaps, excitonic effects, and anisotropic optical properties of the monolayer distorted 1T diamond-chain structures ReS2 and ReSe2. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	103
78	Van Hove singularities and excitonic effects in the optical conductivity of twisted bilayer graphene. <i>Nano Letters</i> , <b>2014</b> , 14, 3353-7	11.5	99
77	Carrier plasmon induced nonlinear band gap renormalization in two-dimensional semiconductors. <i>Physical Review Letters</i> , <b>2015</b> , 114, 063001	7.4	95
76	Size and orientation dependence in the electronic properties of silicon nanowires. <i>Physical Review B</i> , <b>2007</b> , 76,	3.3	93
75	Low-symmetry two-dimensional materials for electronic and photonic applications. <i>Nano Today</i> , <b>2016</b> , 11, 763-777	17.9	85
74	Schottky Barriers in Bilayer Phosphorene Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 12694-12705	9.5	81

73	First-principles study of NaAlH <sub>4</sub> and Na <sub>3</sub> AlH <sub>6</sub> complex hydrides. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	78
72	Topologically protected Dirac cones in compressed bulk black phosphorus. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	74
71	Tellurization Velocity-Dependent Metallic-Semiconducting-Metallic Phase Evolution in Chemical Vapor Deposition Growth of Large-Area, Few-Layer MoTe. <i>ACS Nano</i> , <b>2017</b> , 11, 1964-1972	16.7	72
70	Microsecond Valley Lifetime of Defect-Bound Excitons in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2018</b> , 121, 057403	7.4	69
69	Electronic structure and quasiparticle bandgap of silicene structures. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 133106	3.4	68
68	Excitons in intrinsic and bilayer graphene. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	66
67	Interlayer Coupling and Gate-Tunable Excitons in Transition Metal Dichalcogenide Heterostructures. <i>Nano Letters</i> , <b>2017</b> , 17, 7809-7813	11.5	65
66	Excitonic effects on optical absorption spectra of doped graphene. <i>Nano Letters</i> , <b>2011</b> , 11, 3844-7	11.5	65
65	Quantum confinement effect in Si/Ge core-shell nanowires: First-principles calculations. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	64
64	Ultrahigh Electrical Conductivity of Graphene Embedded in Metals. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1806792	15.6	61
63	Remarkable anisotropic phonon response in uniaxially strained few-layer black phosphorus. <i>Nano Research</i> , <b>2015</b> , 8, 3944-3953	10	58
62	Emerging photoluminescence from the dark-exciton phonon replica in monolayer WSe. <i>Nature Communications</i> , <b>2019</b> , 10, 2469	17.4	57
61	Enhanced electron-hole interaction and optical absorption in a silicon nanowire. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	57
60	Dynamical Excitonic Effects in Doped Two-Dimensional Semiconductors. <i>Nano Letters</i> , <b>2016</b> , 16, 5568-73	11.5	56
59	Quasiparticle energies, excitons, and optical spectra of few-layer black phosphorus. <i>2D Materials</i> , <b>2015</b> , 2, 044014	5.9	55
58	Raman response and transport properties of tellurium atomic chains encapsulated in nanotubes. <i>Nature Electronics</i> , <b>2020</b> , 3, 141-147	28.4	54
57	Renormalization of the quasiparticle band gap in doped two-dimensional materials from many-body calculations. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	45
56	Highly Conducting, n-Type Bi <sub>2</sub> O <sub>15</sub> Cl <sub>6</sub> Nanosheets with Superlattice-like Structure. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 7710-7718	9.6	44

55	A locally preferred structure characterises all dynamical regimes of a supercooled liquid. <i>Philosophical Magazine</i> , <b>2016</b> , 96, 1212-1227	1.6	43
54	Tunable Optical Excitations in Twisted Bilayer Graphene Form Strongly Bound Excitons. <i>Nano Letters</i> , <b>2015</b> , 15, 5932-7	11.5	42
53	Widely tunable mid-infrared light emission in thin-film black phosphorus. <i>Science Advances</i> , <b>2020</b> , 6, eaay6134	6.34	42
52	Off-plane polarization ordering in metal chalcogen diphosphates from bulk to monolayer. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	42
51	Temperature effect on optical spectra of monolayer molybdenum disulfide. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 193110	3.4	41
50	Giant gate-tunable bandgap renormalization and excitonic effects in a 2D semiconductor. <i>Science Advances</i> , <b>2019</b> , 5, eaaw2347	14.3	37
49	Artificial Multiferroics and Enhanced Magnetoelectric Effect in van der Waals Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 6243-6249	9.5	35
48	Direct Observation of Semiconductor-Metal Phase Transition in Bilayer Tungsten Diselenide Induced by Potassium Surface Functionalization. <i>ACS Nano</i> , <b>2018</b> , 12, 2070-2077	16.7	32
47	Strain-controlled fundamental gap and structure of bulk black phosphorus. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	31
46	Anomalous thermal contraction of the first coordination shell in metallic alloy liquids. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 044505	3.9	29
45	Exciton spectra in two-dimensional graphene derivatives. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	28
44	Anomalous Above-Gap Photoexcitations and Optical Signatures of Localized Charge Puddles in Monolayer Molybdenum Disulfide. <i>ACS Nano</i> , <b>2017</b> , 11, 2115-2123	16.7	25
43	First-principles study of the optical absorption spectra of electrically gated bilayer graphene. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	24
42	Strain engineering of band offsets in Si/Ge core-shell nanowires. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 093114	3.4	23
41	Modulated interlayer exciton properties in a two-dimensional moiré crystal. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	22
40	Strain-tunable topological quantum phase transition in buckled honeycomb lattices. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 183107	3.4	21
39	Curie temperature of emerging two-dimensional magnetic structures. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	21
38	Interlayer Exciton Transport in MoSe/WSe Heterostructures. <i>ACS Nano</i> , <b>2021</b> , 15, 1539-1547	16.7	21

37	Meron-like topological spin defects in monolayer CrCl. <i>Nature Communications</i> , <b>2020</b> , 11, 4724	17.4	20
36	Dependence of excited-state properties of tellurium on dimensionality: From bulk to two dimensions to one dimensions. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	19
35	Optically Driven Magnetic Phase Transition of Monolayer RuCl. <i>Nano Letters</i> , <b>2019</b> , 19, 7673-7680	11.5	18
34	Raman Spectra Shift of Few-Layer IV-VI 2D Materials. <i>Scientific Reports</i> , <b>2019</b> , 9, 19826	4.9	18
33	Anomalous structural evolution and liquid fragility signatures in Cu <sub>2</sub> Zr and Cu <sub>2</sub> Hf liquids and glasses. <i>Acta Materialia</i> , <b>2013</b> , 61, 7411-7421	8.4	17
32	Lattice vibrational modes and their frequency shifts in semiconductor nanowires. <i>Nano Letters</i> , <b>2011</b> , 11, 2618-21	11.5	17
31	Standing and sitting adlayers in atomic layer deposition of ZnO. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2016</b> , 34, 01A143	2.9	17
30	Modulation Doping via a Two-Dimensional Atomic Crystalline Acceptor. <i>Nano Letters</i> , <b>2020</b> , 20, 8446-8452	12.5	16
29	Vertical dielectric screening of few-layer van der Waals semiconductors. <i>Nanoscale</i> , <b>2017</b> , 9, 14540-14547	7.7	15
28	Quasiparticle band gaps and optical spectra of strained monolayer transition-metal dichalcogenides. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	15
27	Tunable Second Harmonic Generation in Twisted Bilayer Graphene. <i>Matter</i> , <b>2020</b> , 3, 1361-1376	12.7	15
26	Mechanism of Extreme Optical Nonlinearities in Spiral WS above the Bandgap. <i>Nano Letters</i> , <b>2020</b> , 20, 2667-2673	11.5	14
25	Electronic Structure and Optical Absorption of Fluorographene. <i>Materials Research Society Symposia Proceedings</i> , <b>2011</b> , 1370, 37		14
24	Giant photogalvanic effect and second-harmonic generation in magnetic axion insulators. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	13
23	Strongly bound excitons in gapless two-dimensional structures. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	12
22	Enhanced doping effect on tuning structural phases of monolayer antimony. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 213104	3.4	11
21	First-principles Studies of Second-Order Nonlinear Optical Properties of Organic-Inorganic Hybrid Halide Perovskites. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	10
20	Off-Plane Dielectric Screening of Few-Layer Graphdiyne and Its Family. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 2571-2578	9.5	10

19	Spontaneous ripple formation in phosphorene: electronic properties and possible applications. <i>Nanoscale</i> , <b>2016</b> , 8, 11827-33	7.7	9
18	Many-electron effects on optical absorption spectra of strained graphene. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 403-409	2.5	8
17	Stark effect of doped two-dimensional transition metal dichalcogenides. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 193104	3.4	7
16	Quasiparticle energy and optical excitations of gated bilayer graphene. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	7
15	Theoretical investigation of the vertical dielectric screening dependence on defects for few-layered van der Waals materials.. <i>RSC Advances</i> , <b>2019</b> , 9, 40309-40315	3.7	7
14	Switchable Enhanced Spin Photocurrent in Rashba and Cubic Dresselhaus Ferroelectric Semiconductors. <i>Nano Letters</i> , <b>2021</b> , 21, 2265-2271	11.5	6
13	Nonreciprocal second-harmonic generation in few-layer chromium triiodide. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	5
12	Photodegradation Protection in 2D In-Plane Heterostructures Revealed by Hyperspectral Nanoimaging: The Role of Nanointerface 2D Alloys. <i>ACS Nano</i> , <b>2021</b> , 15, 2447-2457	16.7	5
11	Thermodynamic second law in irreversible processes of chaotic few-body systems. <i>Physical Review E</i> , <b>2001</b> , 64, 045102	2.4	4
10	PT-Symmetry-Enabled Spin Circular Photogalvanic Effect in Antiferromagnetic Insulators. <i>Physical Review Letters</i> , <b>2021</b> , 127, 207402	7.4	3
9	High-pressure investigations on the semi-Heusler compound CuMnSb. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	2
8	Edge-insensitive magnetism and half metallicity in graphene nanoribbons. <i>Journal of Physics Condensed Matter</i> , <b>2018</b> , 30, 48LT01	1.8	2
7	Emerging Optical In-Memory Computing Sensor Synapses Based on Low-Dimensional Nanomaterials for Neuromorphic Networks. <i>Advanced Intelligent Systems</i> , 2100236	6	2
6	Noncollinearity-modulated Electronic Properties of Monolayer CrI <sub>3</sub> . <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	1
5	Photonic Platforms Using In-Plane Optical Anisotropy of Tin (II) Selenide and Black Phosphorus. <i>Advanced Photonics Research</i> , <b>2021</b> , 2, 2100176	1.9	0
4	Excited-State Properties of Thin Silicon Nanowires <b>2018</b> , 1-18		0
3	Wedge energy bands of monolayer black phosphorus: a first-principles study. <i>Journal of Physics Condensed Matter</i> , <b>2016</b> , 28, 305301	1.8	
2	Excited-State Properties of Thin Silicon Nanowires <b>2019</b> , 1-18		

1 Excited-State Properties of Thin Silicon Nanowires **2020**, 617-633