

# Liangbo Liang

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7754949/liangbo-liang-publications-by-year.pdf>

**Version:** 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

96  
papers

7,328  
citations

40  
h-index

85  
g-index

108  
ext. papers

8,709  
ext. citations

9.7  
avg, IF

5.86  
L-index

#	Paper	IF	Citations
96	Electronic Raman scattering in the 2D antiferromagnet NiPS <sub>2</sub> . <i>Science Advances</i> , <b>2022</b> , 8, eabl7707	14.3	2
95	Mesoscale interplay between phonons and crystal electric field excitations in quantum spin liquid candidate CsYbSe <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , <b>2022</b> , 10, 4148-4156	7.1	0
94	Understanding Heterogeneities in Quantum Materials.. <i>Advanced Materials</i> , <b>2022</b> , e2106909	24	1
93	Magnetostriction of ERuCl <sub>3</sub> Flakes in the Zigzag Phase. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 25687-25694	3.86	1
92	On-surface cyclodehydrogenation reaction pathway determined by selective molecular deuterations.. <i>Chemical Science</i> , <b>2021</b> , 12, 15637-15644	9.4	1
91	Thickness and Spin Dependence of Raman Modes in Magnetic Layered Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2001159	6.4	6
90	Resonance-Enhanced Excitation of Interlayer Vibrations in Atomically Thin Black Phosphorus. <i>Nano Letters</i> , <b>2021</b> , 21, 4809-4815	11.5	2
89	Observation of single-defect memristor in an MoS <sub>2</sub> atomic sheet. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 58-62	28.7	50
88	Switching interlayer magnetic order in bilayer CrI <sub>3</sub> by stacking reversal. <i>Nanoscale</i> , <b>2021</b> , 13, 16172-16181	7.7	4
87	Low-frequency Raman signature of Ag-intercalated few-layer MoS <sub>2</sub> . <i>2D Materials</i> , <b>2021</b> , 8, 025031	5.9	5
86	A Library of Atomically Thin 2D Materials Featuring the Conductive-Point Resistive Switching Phenomenon. <i>Advanced Materials</i> , <b>2021</b> , 33, 2007792	24	27
85	The magnetic, electronic, and light-induced topological properties in two-dimensional hexagonal FeX <sub>2</sub> (X = Cl, Br, I) monolayers. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 192404	3.4	4
84	Polytypism in few-layer gallium selenide. <i>Nanoscale</i> , <b>2020</b> , 12, 8563-8573	7.7	11
83	Low Energy Implantation into Transition-Metal Dichalcogenide Monolayers to Form Janus Structures. <i>ACS Nano</i> , <b>2020</b> , 14, 3896-3906	16.7	56
82	Anisotropic Phonon Response of Few-Layer PdSe <sub>2</sub> under Uniaxial Strain. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003215	15.6	14
81	Atomically Precise PdSe Pentagonal Nanoribbons. <i>ACS Nano</i> , <b>2020</b> , 14, 1951-1957	16.7	14
80	Engineering Edge States of Graphene Nanoribbons for Narrow-Band Photoluminescence. <i>ACS Nano</i> , <b>2020</b> , 14, 5090-5098	16.7	12

79	Interlayer magnetism in Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	8
78	The role of mid-gap phonon modes in thermal transport of transition metal dichalcogenides. <i>Journal of Physics Condensed Matter</i> , <b>2020</b> , 32, 025306	1.8	2
77	Defects in Highly Anisotropic Transition-Metal Dichalcogenide PdSe. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 740-746	6.4	18
76	Optimized Substrates and Measurement Approaches for Raman Spectroscopy of Graphene Nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , <b>2019</b> , 256, 1900343	1.3	13
75	Ab initio investigation of the cyclodehydrogenation process for polyanthrylene transformation to graphene nanoribbons. <i>Npj Computational Materials</i> , <b>2019</b> , 5,	10.9	6
74	Isotope-Engineering the Thermal Conductivity of Two-Dimensional MoS. <i>ACS Nano</i> , <b>2019</b> , 13, 2481-2489	16.7	32
73	Bifacial Raman Enhancement on Monolayer Two-Dimensional Materials. <i>Nano Letters</i> , <b>2019</b> , 19, 1124-1130	10.5	7
72	Modeling the Kondo effect of a magnetic atom adsorbed on graphene. <i>2D Materials</i> , <b>2019</b> , 6, 035038	5.9	3
71	On-Surface Synthesis and Characterization of Acene-Based Nanoribbons Incorporating Four-Membered Rings. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 12074-12082	4.8	18
70	Surface-Synthesized Graphene Nanoribbons for Room Temperature Switching Devices: Substrate Transfer and ex Situ Characterization. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 2184-2192	5.6	49
69	Direct Observation of Symmetry-Dependent Electron-Phonon Coupling in Black Phosphorus. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 18994-19001	16.4	10
68	Direct writing of heterostructures in single atomically precise graphene nanoribbons. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	14
67	First-principles study of the thermodynamic and vibrational properties of ReS <sub>2</sub> under pressure. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	5
66	Exploring the air stability of PdSe <sub>2</sub> via electrical transport measurements and defect calculations. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	34
65	Design of Atomically Precise Nanoscale Negative Differential Resistance Devices. <i>Advanced Theory and Simulations</i> , <b>2019</b> , 2, 1800172	3.5	17
64	Anomalous interlayer vibrations in strongly coupled layered PdSe <sub>2</sub> . <i>2D Materials</i> , <b>2018</b> , 5, 035016	5.9	46
63	Electronic characterization of silicon intercalated chevron graphene nanoribbons on Au(111). <i>Chemical Communications</i> , <b>2018</b> , 54, 1619-1622	5.8	14
62	A physical catalyst for the electrolysis of nitrogen to ammonia. <i>Science Advances</i> , <b>2018</b> , 4, e1700336	14.3	196

61	3D Imaging and Manipulation of Subsurface Selenium Vacancies in PdSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2018</b> , 121, 086101	7.4	43
60	Anisotropic Electron-Phonon Interactions in Angle-Resolved Raman Study of Strained Black Phosphorus. <i>ACS Nano</i> , <b>2018</b> , 12, 12512-12522	16.7	25
59	Laser Synthesis, Processing, and Spectroscopy of Atomically-Thin Two Dimensional Materials. <i>Springer Series in Materials Science</i> , <b>2018</b> , 1-37	0.9	
58	Atmospheric and Long-term Aging Effects on the Electrical Properties of Variable Thickness WSe Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 36540-36548	9.5	21
57	Distinct spin-lattice and spin-phonon interactions in monolayer magnetic CrI <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 23546-23555	3.6	54
56	On-Surface Synthesis and Characterization of 9-Atom Wide Armchair Graphene Nanoribbons. <i>ACS Nano</i> , <b>2017</b> , 11, 1380-1388	16.7	196
55	Aminopolymer functionalization of boron nitride nanosheets for highly efficient capture of carbon dioxide. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 16241-16248	13	45
54	Hydro-deoxygenation of CO on functionalized carbon nanotubes for liquid fuels production. <i>Carbon</i> , <b>2017</b> , 121, 274-284	10.4	10
53	Controllable conversion of quasi-freestanding polymer chains to graphene nanoribbons. <i>Nature Communications</i> , <b>2017</b> , 8, 14815	17.4	45
52	Interlayer bond polarizability model for stacking-dependent low-frequency Raman scattering in layered materials. <i>Nanoscale</i> , <b>2017</b> , 9, 15340-15355	7.7	32
51	PdSe: Pentagonal Two-Dimensional Layers with High Air Stability for Electronics. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 14090-14097	16.4	318
50	Seamless Staircase Electrical Contact to Semiconducting Graphene Nanoribbons. <i>Nano Letters</i> , <b>2017</b> , 17, 6241-6247	11.5	51
49	High Conduction Hopping Behavior Induced in Transition Metal Dichalcogenides by Percolating Defect Networks: Toward Atomically Thin Circuits. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702829	15.6	41
48	Anomalous vibrational modes in few layer WTe <sub>2</sub> revealed by polarized Raman scattering and first-principles calculations. <i>2D Materials</i> , <b>2017</b> , 4, 035024	5.9	21
47	Low-Frequency Shear and Layer-Breathing Modes in Raman Scattering of Two-Dimensional Materials. <i>ACS Nano</i> , <b>2017</b> , 11, 11777-11802	16.7	109
46	High-temperature magnetostructural transition in van der Waals-layered MoCl <sub>3</sub> . <i>Physical Review Materials</i> , <b>2017</b> , 1,	3.2	28
45	Electronic, vibrational, Raman, and scanning tunneling microscopy signatures of two-dimensional boron nanomaterials. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	11
44	Transition-Metal Substitution Doping in Synthetic Atomically Thin Semiconductors. <i>Advanced Materials</i> , <b>2016</b> , 28, 9735-9743	24	145

43	Catalytic Dealkylation of Ethers to Alcohols on Metal Surfaces. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 9881-5	16.4	17
42	Tailoring Vacancies Far Beyond Intrinsic Levels Changes the Carrier Type and Optical Response in Monolayer MoSe <sub>2-x</sub> Crystals. <i>Nano Letters</i> , <b>2016</b> , 16, 5213-20	11.5	85
41	The role of collective motion in the ultrafast charge transfer in van der Waals heterostructures. <i>Nature Communications</i> , <b>2016</b> , 7, 11504	17.4	79
40	Catalytic Dealkylation of Ethers to Alcohols on Metal Surfaces. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 10035-10039	16.7	6
39	Nanoforging Single Layer MoSe <sub>2</sub> Through Defect Engineering with Focused Helium Ion Beams. <i>Scientific Reports</i> , <b>2016</b> , 6, 30481	4.9	55
38	Low-Frequency Interlayer Raman Modes to Probe Interface of Twisted Bilayer MoS <sub>2</sub> . <i>Nano Letters</i> , <b>2016</b> , 16, 1435-44	11.5	130
37	Twisted MoSe <sub>2</sub> Bilayers with Variable Local Stacking and Interlayer Coupling Revealed by Low-Frequency Raman Spectroscopy. <i>ACS Nano</i> , <b>2016</b> , 10, 2736-44	16.7	95
36	Raman Shifts in Electron-Irradiated Monolayer MoS <sub>2</sub> . <i>ACS Nano</i> , <b>2016</b> , 10, 4134-42	16.7	226
35	Anisotropic Electron-Photon and Electron-Phonon Interactions in Black Phosphorus. <i>Nano Letters</i> , <b>2016</b> , 16, 2260-7	11.5	266
34	Ultrathin nanosheets of CrSiTe <sub>3</sub> : a semiconducting two-dimensional ferromagnetic material. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 315-322	7.1	171
33	Quasi one-dimensional band dispersion and surface metallization in long-range ordered polymeric wires. <i>Nature Communications</i> , <b>2016</b> , 7, 10235	17.4	79
32	Controlled Sculpture of Black Phosphorus Nanoribbons. <i>ACS Nano</i> , <b>2016</b> , 10, 5687-95	16.7	84
31	In-Plane Heterojunctions Enable Multiphasic Two-Dimensional (2D) MoS <sub>2</sub> Nanosheets As Efficient Photocatalysts for Hydrogen Evolution from Water Reduction. <i>ACS Catalysis</i> , <b>2016</b> , 6, 6723-6729	13.1	84
30	High-Selectivity Electrochemical Conversion of CO <sub>2</sub> to Ethanol using a Copper Nanoparticle/N-Doped Graphene Electrode. <i>ChemistrySelect</i> , <b>2016</b> , 1, 6055-6061	1.8	175
29	Modification of the electronic properties of hexagonal boron-nitride in BN/graphene vertical heterostructures. <i>2D Materials</i> , <b>2016</b> , 3, 045002	5.9	7
28	Low-Frequency Raman Fingerprints of Two-Dimensional Metal Dichalcogenide Layer Stacking Configurations. <i>ACS Nano</i> , <b>2015</b> , 9, 6333-42	16.7	121
27	Low-Frequency Interlayer Breathing Modes in Few-Layer Black Phosphorus. <i>Nano Letters</i> , <b>2015</b> , 15, 4080-8	11.5	154
26	Molecular selectivity of graphene-enhanced Raman scattering. <i>Nano Letters</i> , <b>2015</b> , 15, 2892-901	11.5	136

25	Ultrasensitive gas detection of large-area boron-doped graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 14527-32	11.5	146
24	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , <b>2015</b> , 9, 11509-39	16.7	1581
23	Charge carrier transport and separation in pristine and nitrogen-doped graphene nanowiggle heterostructures. <i>Carbon</i> , <b>2015</b> , 95, 833-842	10.4	13
22	Elastic, plastic, and fracture mechanisms in graphene materials. <i>Journal of Physics Condensed Matter</i> , <b>2015</b> , 27, 373002	1.8	22
21	Enhanced Raman Scattering on In-Plane Anisotropic Layered Materials. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 15511-7	16.4	97
20	Electronic, structural, and substrate effect properties of single-layer covalent organic frameworks. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 184708	3.9	15
19	Atomically Precise Graphene Nanoribbon Heterojunctions for Excitonic Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 775-783	3.8	28
18	First-principles Raman spectra of MoS <sub>2</sub> , WS <sub>2</sub> and their heterostructures. <i>Nanoscale</i> , <b>2014</b> , 6, 5394-401	7.7	261
17	Electronic bandgap and edge reconstruction in phosphorene materials. <i>Nano Letters</i> , <b>2014</b> , 14, 6400-6	11.5	365
16	Graphene nanoribbon heterojunctions. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 896-900	28.7	443
15	Interfacial properties and design of functional energy materials. <i>Accounts of Chemical Research</i> , <b>2014</b> , 47, 3395-405	24.3	13
14	Probing the interlayer coupling of twisted bilayer MoS <sub>2</sub> using photoluminescence spectroscopy. <i>Nano Letters</i> , <b>2014</b> , 14, 5500-8	11.5	168
13	Heterospin Junctions in Zigzag-Edged Graphene Nanoribbons. <i>Applied Sciences (Switzerland)</i> , <b>2014</b> , 4, 351-365	2.6	1
12	Role of antiferromagnetic ordering in the (1 $\bar{1}$ ) surface reconstruction of Ca(Fe(1-x)Co(x)) <sub>2</sub> As <sub>2</sub> . <i>Physical Review Letters</i> , <b>2014</b> , 112, 077205	7.4	6
11	Electronic and thermoelectric properties of assembled graphene nanoribbons with elastic strain and structural dislocation. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 143101	3.4	25
10	Quasiparticle band gaps of graphene nanowiggles and their magnetism on Au(111). <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	14
9	Electronic Transport in Graphitic Carbon Nanoribbons <b>2013</b> , 319-346		2
8	Electronic structure of assembled graphene nanoribbons: Substrate and many-body effects. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	42

7	Structural and electronic properties of graphitic nanowiggles. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	21
6	Enhanced thermoelectric figure of merit in assembled graphene nanoribbons. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	68
5	Emergence of atypical properties in assembled graphene nanoribbons. <i>Physical Review Letters</i> , <b>2011</b> , 107, 135501	7.4	65
4	Fabrication of rare-earth/quantum-dot nanocomposites for color-tunable sensing applications. <i>Journal of Nanoparticle Research</i> , <b>2011</b> , 13, 525-531	2.3	15
3	Efficient manganese luminescence induced by Ce <sup>3+</sup> -Mn <sup>2+</sup> energy transfer in rare earth fluoride and phosphate nanocrystals. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 119	5	18
2	Bimodal Fluorescence and Magnetic Resonance Imaging Using Water-Soluble Hexagonal NaYF <sub>4</sub> :Ce,Tb,Gd Nanocrystals. <i>Journal of Nanomaterials</i> , <b>2011</b> , 2011, 1-7	3.2	6
1	Greatly enhanced and controlled manganese photoluminescence in water-soluble ZnCdS:Mn/ZnS core/shell quantum dots. <i>Chemical Physics Letters</i> , <b>2010</b> , 488, 73-76	2.5	19