

# Lei Liu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5854201/publications.pdf>

Version: 2024-02-01

44  
papers

2,271  
citations

394421

19  
h-index

243625

44  
g-index

45  
all docs

45  
docs citations

45  
times ranked

4171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering Interlayer Electron-Phonon Coupling in WS <sub>2</sub> /BN Heterostructures. Nano Letters, 2022, 22, 2725-2733.	9.1	7
2	Direct observation of highly confined phonon polaritons in suspended monolayer hexagonal boron nitride. Nature Materials, 2021, 20, 43-48.	27.5	84
3	Four-dimensional vibrational spectroscopy for nanoscale mapping of phonon dispersion in BN nanotubes. Nature Communications, 2021, 12, 1179.	12.8	24
4	Microscopic Kinetics Pathway of Salt Crystallization in Graphene Nanocapillaries. Physical Review Letters, 2021, 126, 136001.	7.8	22
5	Raman spectra evidence for the covalent-like quasi-bonding between exfoliated MoS <sub>2</sub> and Au films. Science China Information Sciences, 2021, 64, 1.	4.3	10
6	Modification of the Interlayer Coupling and Chemical Reactivity of Multilayer Graphene through Wrinkle Engineering. Chemistry of Materials, 2021, 33, 2506-2515.	6.7	10
7	Three-dimensional monolithic micro-LED display driven by atomically thin transistor matrix. Nature Nanotechnology, 2021, 16, 1231-1236.	31.5	120
8	Synthesis of centimeter-scale high-quality polycrystalline hexagonal boron nitride films from Fe fluxes. Nanoscale, 2021, 13, 11223-11231.	5.6	9
9	Femtosecond Laser Irradiation-Mediated MoS <sub>2</sub> -Metal Contact Engineering for High-Performance Field-Effect Transistors and Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 54246-54257.	8.0	15
10	Isotope Effect of Hydrogen Functionalization in Layered Germanane: Implications for Germanane-Based Optoelectronics. ACS Applied Nano Materials, 2021, 4, 13708-13715.	5.0	6
11	Universal mechanical exfoliation of large-area 2D crystals. Nature Communications, 2020, 11, 2453.	12.8	394
12	Synthesis of Honeycomb-Structured Beryllium Oxide via Graphene Liquid Cells. Angewandte Chemie, 2020, 132, 15864-15870.	2.0	0
13	Synthesis of Honeycomb-Structured Beryllium Oxide via Graphene Liquid Cells. Angewandte Chemie - International Edition, 2020, 59, 15734-15740.	13.8	18
14	Valley Polarization in Superacid-Treated Monolayer MoS <sub>2</sub> . ACS Applied Electronic Materials, 2020, 2, 1981-1988.	4.3	4
15	Visualizing Anisotropic Oxygen Diffusion in Ceria under Activated Conditions. Physical Review Letters, 2020, 124, 056002.	7.8	12
16	Laser annealing towards high-performance monolayer MoS <sub>2</sub> and WSe <sub>2</sub> field effect transistors. Nanotechnology, 2020, 31, 30LT02.	2.6	6
17	Low-temperature epitaxy of transferable high-quality Pd(111) films on hybrid graphene/Cu(111) substrate. Nano Research, 2019, 12, 2712-2717.	10.4	5
18	High-efficiency modulation of coupling between different polaritons in an in-plane graphene/hexagonal boron nitride heterostructure. Nanoscale, 2019, 11, 2703-2709.	5.6	24

#	ARTICLE	IF	CITATIONS
19	Sub-10 nm stable graphene quantum dots embedded in hexagonal boron nitride. <i>Nanoscale</i> , 2019, 11, 4226-4230.	5.6	18
20	Direct imaging of the nitrogen-rich edge in monolayer hexagonal boron nitride and its band structure tuning. <i>Nanoscale</i> , 2019, 11, 20676-20684.	5.6	10
21	Electrical Control of Circular Photogalvanic Spin-Valley Photocurrent in a Monolayer Semiconductor. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 3334-3341.	8.0	19
22	Visualizing grain boundaries in monolayer MoSe <sub>2</sub> using mild H <sub>2</sub> O vapor etching. <i>Nano Research</i> , 2018, 11, 4082-4089.	10.4	22
23	Mapping the layer count of few-layer hexagonal boron nitride at high lateral spatial resolutions. <i>2D Materials</i> , 2018, 5, 015007.	4.4	8
24	Graphene-based in-plane heterostructures for atomically thin electronics. <i>New Carbon Materials</i> , 2018, 33, 481-492.	6.1	8
25	Experimentally determined edge orientation of triangular crystals of hexagonal boron nitride. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1700069.	1.5	13
26	Towards the controlled CVD growth of graphitic B <sup>15</sup> N atomic layer films: The key role of B <sup>15</sup> C delivery molecular precursor. <i>Nano Research</i> , 2016, 9, 1221-1235.	10.4	16
27	Interplay between intercalated oxygen superstructures and monolayer h-BN on Cu(100). <i>Physical Review B</i> , 2016, 94, .	3.2	16
28	Tunneling spectra of graphene on copper unraveled. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 17081-17090.	2.8	2
29	Peculiar Plasmon Peak Position in Electron Energy Loss Spectrum of Hexagonal Boron Nitride/Graphene Double Layer. <i>Microscopy and Microanalysis</i> , 2015, 21, 985-986.	0.4	5
30	Heteroepitaxial Growth of Two-Dimensional Hexagonal Boron Nitride Templated by Graphene Edges. <i>Science</i> , 2014, 343, 163-167.	12.6	479
31	Spatially resolved one-dimensional boundary states in graphene-hexagonal boron nitride planar heterostructures. <i>Nature Communications</i> , 2014, 5, 5403.	12.8	71
32	Tunneling characteristics in chemical vapor deposited graphene-hexagonal boron nitride-graphene junctions. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	49
33	Unusual role of epilayer-substrate interactions in determining orientational relations in van der Waals epitaxy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 16670-16675.	7.1	64
34	Synthesis of Millimeter-Size Hexagon-Shaped Graphene Single Crystals on Resolidified Copper. <i>ACS Nano</i> , 2013, 7, 8924-8931.	14.6	178
35	Synthesis of nitrogen-doped single-walled carbon nanotubes and monitoring of doping by Raman spectroscopy. <i>Chinese Physics B</i> , 2013, 22, 086101.	1.4	7
36	Controlled oxidative functionalization of monolayer graphene by water-vapor plasma etching. <i>Carbon</i> , 2012, 50, 3039-3044.	10.3	35

#	ARTICLE	IF	CITATIONS
37	Ferroelectric Gated Electrical Transport in CdS Nanotetrapods. Nano Letters, 2011, 11, 1913-1918.	9.1	23
38	Wet-Chemistry-Assisted Nanotube-Substitution Reaction for High-Efficiency and Bulk-Quantity Synthesis of Boron- and Nitrogen-Codoped Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2011, 133, 13216-13219.	13.7	39
39	Electrical Conductivity, Chemistry, and Bonding Alternations under Graphene Oxide to Graphene Transition As Revealed by <i>In Situ</i> TEM. ACS Nano, 2011, 5, 4401-4406.	14.6	98
40	Nanosphere Lithography for the Fabrication of Ultranarrow Graphene Nanoribbons and On-Chip Bandgap Tuning of Graphene. Advanced Materials, 2011, 23, 1246-1251.	21.0	126
41	Carbon nanotube transistors with graphene oxide films as gate dielectrics. Science China: Physics, Mechanics and Astronomy, 2010, 53, 828-833.	5.1	23
42	Higher-order harmonic resonances and mechanical properties of individual cadmium sulphide nanowires measured by in situ transmission electron microscopy. Journal of Electron Microscopy, 2010, 59, 285-289.	0.9	15
43	Two-bit ferroelectric field-effect transistor memories assembled on individual nanotubes. Nanotechnology, 2009, 20, 475305.	2.6	20
44	Bandgap engineering of graphene: A density functional theory study. Applied Physics Letters, 2009, 95, .	3.3	121