

Lei Wang

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3314911/lei-wang-publications-by-year.pdf>

Version: 2024-04-25

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.

72
papers

16,085
citations

35
h-index

76
g-index

76
ext. papers

18,648
ext. citations

15.4
avg, IF

6.13
L-index

#	Paper	IF	Citations
72	Strong in-plane scattering of acoustic graphene plasmons by surface atomic steps.. <i>Nature Communications</i> , 2022 , 13, 983	17.4	1
71	A monolithically sculpted van der Waals nano-opto-electro-mechanical coupler.. <i>Light: Science and Applications</i> , 2022 , 11, 48	16.7	0
70	Dissipation-enabled hydrodynamic conductivity in a tunable bandgap semiconductor.. <i>Science Advances</i> , 2022 , 8, eabi8481	14.3	1
69	Tunable multi-bands in twisted double bilayer graphene. <i>2D Materials</i> , 2022 , 9, 034001	5.9	0
68	Accurate Measurement of the Gap of Graphene/h-BN Moiré Superlattice through Photocurrent Spectroscopy. <i>Physical Review Letters</i> , 2021 , 126, 146402	7.4	0
67	Moiré metrology of energy landscapes in van der Waals heterostructures. <i>Nature Communications</i> , 2021 , 12, 242	17.4	22
66	Structure effect on intrinsic piezoelectricity in septuple-atomic-layer MSi ₂ N ₄ (M=Mo and W). <i>Computational Materials Science</i> , 2021 , 188, 110223	3.2	19
65	Direct observation of widely tunable mid-infrared emission of graphene foam induced by modulated laser diode light. <i>Carbon</i> , 2021 , 179, 486-492	10.4	0
64	Stimulated piezotronic decontamination using Cu ₂ MgSnS ₄ modified BaTiO ₃ . <i>Materials Today Energy</i> , 2021 , 21, 100717	7	2
63	Self-powered skin electronics for energy harvesting and healthcare monitoring. <i>Materials Today Energy</i> , 2021 , 21, 100786	7	13
62	A top-down cutting method for construction of high-performance fiber-shaped quasi-solid-state asymmetric supercapacitors. <i>Materials Today Energy</i> , 2021 , 21, 100758	7	
61	Quantum criticality in twisted transition metal dichalcogenides. <i>Nature</i> , 2021 , 597, 345-349	50.4	17
60	Moiréless correlations in ABCA graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	21
59	Unconventional valley-dependent optical selection rules and Landau level mixing in bilayer graphene. <i>Nature Communications</i> , 2020 , 11, 2941	17.4	3
58	Correlated electronic phases in twisted bilayer transition metal dichalcogenides. <i>Nature Materials</i> , 2020 , 19, 861-866	27	197
57	Layered boron nitride enabling high-performance AlGa _N /Ga _N high electron mobility transistor. <i>Journal of Alloys and Compounds</i> , 2020 , 829, 154542	5.7	14
56	Tailoring the thermal transport properties of monolayer hexagonal boron nitride by grain size engineering. <i>2D Materials</i> , 2020 , 7, 015031	5.9	11

55	Magnetic field detection limits for ultraclean graphene Hall sensors. <i>Nature Communications</i> , 2020 , 11, 4163	17.4	13
54	Graphene Plasmonic Tamm States with Ultracompact Footprint. <i>Physical Review Applied</i> , 2019 , 12,	4.3	7
53	Properties and applications of new superlattice: twisted bilayer graphene. <i>Materials Today Physics</i> , 2019 , 9, 100099	8	31
52	Graphene transistor based on tunable Dirac fermion optics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 6575-6579	11.5	19
51	Graphene on Self-Assembled InGaN Quantum Dots Enabling Ultrahighly Sensitive Photodetectors. <i>Advanced Optical Materials</i> , 2019 , 7, 1801792	8.1	22
50	Deterministic and Etching-Free Transfer of Large-Scale 2D Layered Materials for Constructing Interlayer Coupled van der Waals Heterostructures. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700282	6.8	20
49	Ultrafast Graphene Light Emitters. <i>Nano Letters</i> , 2018 , 18, 934-940	11.5	75
48	Three-dimensional nanopores on monolayer graphene for hydrogen storage. <i>Materials Chemistry and Physics</i> , 2018 , 209, 134-145	4.4	5
47	Direct Growth of Graphene on Silicon by Metal-Free Chemical Vapor Deposition. <i>Nano-Micro Letters</i> , 2018 , 10, 20	19.5	35
46	Evolution of Two-Dimensional Mo _{1-x} W _x S ₂ Alloy-Based Vertical Heterostructures with Various Composition Ranges via Manipulating the Mo/W Precursors. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 28337-28346	3.8	12
45	Two-step fabrication of large-scale MoS ₂ hollow flakes. <i>CrystEngComm</i> , 2018 , 20, 5619-5624	3.3	6
44	Fundamental limits to graphene plasmonics. <i>Nature</i> , 2018 , 557, 530-533	50.4	280
43	Exceptionally large migration length of carbon and topographically-facilitated self-limiting molecular beam epitaxial growth of graphene on hexagonal boron nitride. <i>Carbon</i> , 2017 , 114, 579-584	10.4	10
42	Direct measurement of discrete valley and orbital quantum numbers in bilayer graphene. <i>Nature Communications</i> , 2017 , 8, 948	17.4	49
41	Frictional Magneto-Coulomb Drag in Graphene Double-Layer Heterostructures. <i>Physical Review Letters</i> , 2017 , 119, 056802	7.4	16
40	van der Waals epitaxial two-dimensional CdSSe semiconductor alloys with tunable-composition and application to flexible optoelectronics. <i>Nanoscale</i> , 2017 , 9, 13786-13793	7.7	17
39	Tunable excitons in bilayer graphene. <i>Science</i> , 2017 , 358, 907-910	33.3	89
38	Multiple hot-carrier collection in photo-excited graphene Moiré superlattices. <i>Science Advances</i> , 2016 , 2, e1600002	14.3	28

37	The hot pick-up technique for batch assembly of van der Waals heterostructures. <i>Nature Communications</i> , 2016 , 7, 11894	17.4	289
36	Specular interband Andreev reflections at van der Waals interfaces between graphene and NbSe ₂ . <i>Nature Physics</i> , 2016 , 12, 328-332	16.2	108
35	Ultrafast optical switching of infrared plasmon polaritons in high-mobility graphene. <i>Nature Photonics</i> , 2016 , 10, 244-247	33.9	252
34	Oxygen-activated growth and bandgap tunability of large single-crystal bilayer graphene. <i>Nature Nanotechnology</i> , 2016 , 11, 426-31	28.7	227
33	van der Waals epitaxy and photoresponse of two-dimensional CdSe plates. <i>Nanoscale</i> , 2016 , 8, 11375-9	7.7	28
32	Electron optics with p-n junctions in ballistic graphene. <i>Science</i> , 2016 , 353, 1522-1525	33.3	189
31	Piezophototronic Effect in Single-Atomic-Layer MoS for Strain-Gated Flexible Optoelectronics. <i>Advanced Materials</i> , 2016 , 28, 8463-8468	24	149
30	Multi-terminal transport measurements of MoS ₂ using a van der Waals heterostructure device platform. <i>Nature Nanotechnology</i> , 2015 , 10, 534-40	28.7	868
29	Flexible Graphene Field-Effect Transistors Encapsulated in Hexagonal Boron Nitride. <i>ACS Nano</i> , 2015 , 9, 8953-9	16.7	87
28	Large-Scale Growth of Two-Dimensional SnS ₂ Crystals Driven by Screw Dislocations and Application to Photodetectors. <i>Advanced Functional Materials</i> , 2015 , 25, 4255-4261	15.6	153
27	High-speed electro-optic modulator integrated with graphene-boron nitride heterostructure and photonic crystal nanocavity. <i>Nano Letters</i> , 2015 , 15, 2001-5	11.5	111
26	Evidence for a fractional fractal quantum Hall effect in graphene superlattices. <i>Science</i> , 2015 , 350, 1231-4	33.3	107
25	Topological phase transition in the Hofstadter-Hubbard model. <i>Physical Review B</i> , 2014 , 90,	3.3	16
24	Piezoelectricity of single-atomic-layer MoS ₂ for energy conversion and piezotronics. <i>Nature</i> , 2014 , 514, 470-4	50.4	1360
23	Physical adsorption and charge transfer of molecular Br ₂ on graphene. <i>ACS Nano</i> , 2014 , 8, 2943-50	16.7	54
22	Tailoring the electronic structure in bilayer molybdenum disulfide via interlayer twist. <i>Nano Letters</i> , 2014 , 14, 3869-75	11.5	213
21	Bilayer graphene. Tunable fractional quantum Hall phases in bilayer graphene. <i>Science</i> , 2014 , 345, 61-4	33.3	113
20	Measurement of collective dynamical mass of Dirac fermions in graphene. <i>Nature Nanotechnology</i> , 2014 , 9, 594-9	28.7	45

19	Single- and bi-layer graphene grown on sapphire by molecular beam epitaxy. <i>Solid State Communications</i> , 2014 , 189, 15-20	1.6	12
18	Seeing Hofstadter's butterfly in atomic Fermi gases. <i>Physical Review A</i> , 2014 , 89,	2.6	7
17	Slow gold adatom diffusion on graphene: effect of silicon dioxide and hexagonal boron nitride substrates. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 4305-12	3.4	28
16	One-dimensional electrical contact to a two-dimensional material. <i>Science</i> , 2013 , 342, 614-7	33.3	1676
15	The role of surface oxygen in the growth of large single-crystal graphene on copper. <i>Science</i> , 2013 , 342, 720-3	33.3	868
14	Effect of surface morphology on friction of graphene on various substrates. <i>Nanoscale</i> , 2013 , 5, 3063-9	7.7	124
13	Graphene Field-Effect Transistors Based on Boron Nitride Dielectrics. <i>Proceedings of the IEEE</i> , 2013 , 101, 1609-1619	14.3	114
12	Hofstadter's butterfly and the fractal quantum Hall effect in moiré superlattices. <i>Nature</i> , 2013 , 497, 598-602	60.4	1084
11	Graphene growth on h-BN by molecular beam epitaxy. <i>Solid State Communications</i> , 2012 , 152, 975-978	1.6	86
10	Graphene based heterostructures. <i>Solid State Communications</i> , 2012 , 152, 1275-1282	1.6	158
9	Chemical vapor deposition-derived graphene with electrical performance of exfoliated graphene. <i>Nano Letters</i> , 2012 , 12, 2751-6	11.5	321
8	Renormalization of the graphene dispersion velocity determined from scanning tunneling spectroscopy. <i>Physical Review Letters</i> , 2012 , 109, 116802	7.4	73
7	Negligible environmental sensitivity of graphene in a hexagonal boron nitride/graphene/h-BN sandwich structure. <i>ACS Nano</i> , 2012 , 6, 9314-9	16.7	85
6	Spin and valley quantum Hall ferromagnetism in graphene. <i>Nature Physics</i> , 2012 , 8, 550-556	16.2	255
5	High-frequency performance of graphene field effect transistors with saturating IV-characteristics 2011 ,		27
4	Multicomponent fractional quantum Hall effect in graphene. <i>Nature Physics</i> , 2011 , 7, 693-696	16.2	347
3	Boron nitride substrates for high-quality graphene electronics. <i>Nature Nanotechnology</i> , 2010 , 5, 722-6	28.7	4874
2	Probing layer number and stacking order of few-layer graphene by Raman spectroscopy. <i>Small</i> , 2010 , 6, 195-200	11	521

1 GrapheneBN Heterostructures 219-237