

Yuerui Lu

List of Publications by Citations

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106
papers

5,575
citations

36
h-index

73
g-index

121
ext. papers

6,693
ext. citations

12.3
avg, IF

5.86
L-index

#	Paper	IF	Citations
106	Extraordinary photoluminescence and strong temperature/angle-dependent Raman responses in few-layer phosphorene. <i>ACS Nano</i> , 2014 , 8, 9590-6	16.7	529
105	Selective etching of metallic carbon nanotubes by gas-phase reaction. <i>Science</i> , 2006 , 314, 974-7	33.3	448
104	Producing air-stable monolayers of phosphorene and their defect engineering. <i>Nature Communications</i> , 2016 , 7, 10450	17.4	358
103	Two-Dimensional CH _{3NH₃PbI₃} Perovskite: Synthesis and Optoelectronic Application. <i>ACS Nano</i> , 2016 , 10, 3536-42	16.7	303
102	Optical tuning of exciton and trion emissions in monolayer phosphorene. <i>Light: Science and Applications</i> , 2015 , 4, e312-e312	16.7	226
101	Ultrathin Metal-Organic Framework: An Emerging Broadband Nonlinear Optical Material for Ultrafast Photonics. <i>Advanced Optical Materials</i> , 2018 , 6, 1800561	8.1	214
100	Many-Body Complexes in 2D Semiconductors. <i>Advanced Materials</i> , 2019 , 31, e1706945	24	199
99	High-efficiency ordered silicon nano-conical-frustum array solar cells by self-powered parallel electron lithography. <i>Nano Letters</i> , 2010 , 10, 4651-6	11.5	182
98	DNA functionalization of carbon nanotubes for ultrathin atomic layer deposition of high kappa dielectrics for nanotube transistors with 60 mV/decade switching. <i>Journal of the American Chemical Society</i> , 2006 , 128, 3518-9	16.4	174
97	Schottky diode with Ag on (112 0) epitaxial ZnO film. <i>Applied Physics Letters</i> , 2002 , 80, 2132-2134	3.4	168
96	Hydrogenation and hydrocarbonation and etching of single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6026-7	16.4	147
95	Highly Efficient and Air-Stable Infrared Photodetector Based on 2D Layered Graphene-Black Phosphorus Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 36137-36145	9.5	138
94	Optical properties of ultrashort semiconducting single-walled carbon nanotube capsules down to sub-10 nm. <i>Journal of the American Chemical Society</i> , 2008 , 130, 6551-5	16.4	125
93	Robust Excitons and Trions in Monolayer MoTe ₂ . <i>ACS Nano</i> , 2015 , 9, 6603-9	16.7	114
92	ELECTRICAL TRANSPORT PROPERTIES AND FIELD EFFECT TRANSISTORS OF CARBON NANOTUBES. <i>Nano</i> , 2006 , 01, 1-13	1.1	113
91	Giant plasmene nanosheets, nanoribbons, and origami. <i>ACS Nano</i> , 2014 , 8, 11086-93	16.7	112
90	Light-Matter Interactions in Phosphorene. <i>Accounts of Chemical Research</i> , 2016 , 49, 1806-15	24.3	89

89	Atomically thin optical lenses and gratings. <i>Light: Science and Applications</i> , 2016 , 5, e16046	16.7	85
88	Enhanced second-harmonic generation from two-dimensional MoSe on a silicon waveguide. <i>Light: Science and Applications</i> , 2017 , 6, e17060	16.7	84
87	Extraordinarily Bound Quasi-One-Dimensional Trions in Two-Dimensional Phosphorene Atomic Semiconductors. <i>ACS Nano</i> , 2016 , 10, 2046-53	16.7	75
86	Power generation for wearable systems. <i>Energy and Environmental Science</i> , 2021 , 14, 2114-2157	35.4	66
85	Exciton and Trion Dynamics in Bilayer MoS ₂ . <i>Small</i> , 2015 , 11, 6384-90	11	61
84	Manipulation of photoluminescence of two-dimensional MoSe ₂ by gold nanoantennas. <i>Scientific Reports</i> , 2016 , 6, 22296	4.9	60
83	Fabrication and Deterministic Transfer of High-Quality Quantum Emitters in Hexagonal Boron Nitride. <i>ACS Photonics</i> , 2018 , 5, 2305-2312	6.3	55
82	Evidence of the direct-to-indirect band gap transition in strained two-dimensional WS ₂ , MoS ₂ , and WSe ₂ . <i>Physical Review Research</i> , 2020 , 2,	3.9	55
81	Layer-dependent surface potential of phosphorene and anisotropic/layer-dependent charge transfer in phosphorene-gold hybrid systems. <i>Nanoscale</i> , 2016 , 8, 129-35	7.7	54
80	Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus. <i>Advanced Functional Materials</i> , 2019 , 29, 1901991	15.6	50
79	Efficient and Layer-Dependent Exciton Pumping across Atomically Thin Organic-Inorganic Type-I Heterostructures. <i>Advanced Materials</i> , 2018 , 30, e1803986	24	46
78	Excited State Biexcitons in Atomically Thin MoSe. <i>ACS Nano</i> , 2017 , 11, 7468-7475	16.7	44
77	Radiation tolerance of two-dimensional material-based devices for space applications. <i>Nature Communications</i> , 2019 , 10, 1202	17.4	42
76	Exciton Brightening in Monolayer Phosphorene via Dimensionality Modification. <i>Advanced Materials</i> , 2016 , 28, 3493-8	24	41
75	Ferroelectric-Driven Exciton and Trion Modulation in Monolayer Molybdenum and Tungsten Diselenides. <i>ACS Nano</i> , 2019 , 13, 5335-5343	16.7	40
74	Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption. <i>Advanced Functional Materials</i> , 2016 , 26, 8202-8210	15.6	39
73	Compact Cavity-Enhanced Single-Photon Generation with Hexagonal Boron Nitride. <i>ACS Photonics</i> , 2019 , 6, 1955-1962	6.3	39
72	Nonalloyed Al ohmic contacts to Mg _x Zn _{1-x} O. <i>Journal of Electronic Materials</i> , 2002 , 31, 811-814	1.9	39

71	High-Efficiency Monolayer Molybdenum Ditelluride Light-Emitting Diode and Photodetector. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 43291-43298	9.5	39
70	Low-concentration mechanical biosensor based on a photonic crystal nanowire array. <i>Nature Communications</i> , 2011 , 2, 578	17.4	36
69	Wavelength-Tunable Mid-Infrared Lasing from Black Phosphorus Nanosheets. <i>Advanced Materials</i> , 2020 , 32, e1808319	24	34
68	Controlled Micro/Nanodome Formation in Proton-Irradiated Bulk Transition-Metal Dichalcogenides. <i>Advanced Materials</i> , 2019 , 31, e1903795	24	31
67	A Soft Resistive Acoustic Sensor Based on Suspended Standing Nanowire Membranes with Point Crack Design. <i>Advanced Functional Materials</i> , 2020 , 30, 1910717	15.6	30
66	2D Materials Based on Main Group Element Compounds: Phases, Synthesis, Characterization, and Applications. <i>Advanced Functional Materials</i> , 2020 , 30, 2001127	15.6	30
65	In-Plane Isotropic/Anisotropic 2D van der Waals Heterostructures for Future Devices. <i>Small</i> , 2019 , 15, e1804733	11	30
64	Two-step metalorganic chemical vapor deposition growth of piezoelectric ZnO thin film on SiO ₂ /Si substrate. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001 , 19, 1850-1853 ^{2,9}	2.9	29
63	Strongly enhanced photoluminescence in nanostructured monolayer MoS ₂ by chemical vapor deposition. <i>Nanotechnology</i> , 2016 , 27, 135706	3.4	28
62	Phosphorene: An emerging 2D material. <i>Journal of Materials Research</i> , 2017 , 32, 2839-2847	2.5	26
61	Highly Enhanced Many-Body Interactions in Anisotropic 2D Semiconductors. <i>Accounts of Chemical Research</i> , 2018 , 51, 1164-1173	24.3	25
60	A prospective future towards bio/medical technology and bioelectronics based on 2D vdWs heterostructures. <i>Nano Research</i> , 2020 , 13, 1-17	10	24
59	2D Materials and Heterostructures at Extreme Pressure. <i>Advanced Science</i> , 2020 , 7, 2002697	13.6	23
58	Defect Engineering in Few-Layer Phosphorene. <i>Small</i> , 2018 , 14, e1704556	11	23
57	Modulated interlayer charge transfer dynamics in a monolayer TMD/metal junction. <i>Nanoscale</i> , 2019 , 11, 418-425	7.7	22
56	Supertransport of excitons in atomically thin organic semiconductors at the 2D quantum limit. <i>Light: Science and Applications</i> , 2020 , 9, 116	16.7	21
55	Multiwavelength Single Nanowire InGaAs/InP Quantum Well Light-Emitting Diodes. <i>Nano Letters</i> , 2019 , 19, 3821-3829	11.5	20
54	Quantifying Quasi-Fermi Level Splitting and Mapping its Heterogeneity in Atomically Thin Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2019 , 31, e1900522	24	20

53	Mechanisms and Applications of Steady-State Photoluminescence Spectroscopy in Two-Dimensional Transition-Metal Dichalcogenides. <i>ACS Nano</i> , 2020 , 14, 14579-14604	16.7	20
52	2D organic semiconductors, the future of green nanotechnology. <i>Nano Materials Science</i> , 2019 , 1, 246-259	20.2	19
51	Room temperature single photon source using fiber-integrated hexagonal boron nitride. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 295101	3	19
50	Ultrathin Ga O Glass: A Large-Scale Passivation and Protection Material for Monolayer WS. <i>Advanced Materials</i> , 2021 , 33, e2005732	24	19
49	Tunable Optoelectronic Properties of WS ₂ by Local Strain Engineering and Folding. <i>Advanced Electronic Materials</i> , 2020 , 6, 1901381	6.4	18
48	Vacuum-free self-powered parallel electron lithography with sub-35-nm resolution. <i>Nano Letters</i> , 2010 , 10, 2197-201	11.5	18
47	Electrically driven light emission from hot single-walled carbon nanotubes at various temperatures and ambient pressures. <i>Applied Physics Letters</i> , 2007 , 91, 261102	3.4	17
46	Emission Control from Transition Metal Dichalcogenide Monolayers by Aggregation-Induced Molecular Rotors. <i>ACS Nano</i> , 2020 , 14, 7444-7453	16.7	15
45	Engineered Creation of Periodic Giant, Nonuniform Strains in MoS ₂ Monolayers. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000621	4.6	15
44	Atomic localization of quantum emitters in multilayer hexagonal boron nitride. <i>Nanoscale</i> , 2019 , 11, 14362-14374	14.7	15
43	Extraordinary Temperature Dependent Second Harmonic Generation in Atomically Thin Layers of Transition-Metal Dichalcogenides. <i>Advanced Optical Materials</i> , 2020 , 8, 2000441	8.1	15
42	A flexible electrostatic kinetic energy harvester based on electret films of electrospun nanofibers. <i>Smart Materials and Structures</i> , 2018 , 27, 014001	3.4	13
41	Anisotropic polaritons in van der Waals materials. <i>Information Materials</i> , 2020 , 2, 777-790	23.1	12
40	Direct Measurement of Folding Angle and Strain Vector in Atomically Thin WS Using Second-Harmonic Generation. <i>ACS Nano</i> , 2020 , 14, 15806-15815	16.7	12
39	Quasi-line Spectral Emissions from Highly Crystalline One-Dimensional Organic Nanowires. <i>Nano Letters</i> , 2019 , 19, 7877-7886	11.5	11
38	Photonic crystal based all-optical pressure sensor 2011 ,		11
37	Two-dimensional materials for light emitting applications: Achievement, challenge and future perspectives. <i>Nano Research</i> , 2021 , 14, 1912-1936	10	11
36	Ephase modulated monolayer supercritical lens. <i>Nature Communications</i> , 2021 , 12, 32	17.4	11

35	Carbon Nanotubes: From Growth, Placement and Assembly Control to 60mV/decade and Sub-60 mV/decade Tunnel Transistors 2006 ,		10
34	Vanadium-Doped Monolayer MoS ₂ with Tunable Optical Properties for Field-Effect Transistors. <i>ACS Applied Nano Materials</i> , 2021 , 4, 769-777	5.6	10
33	Generating strong room-temperature photoluminescence in black phosphorus using organic molecules. <i>2D Materials</i> , 2019 , 6, 015009	5.9	10
32	Tunable unidirectional nonlinear emission from transition-metal-dichalcogenide metasurfaces. <i>Nature Communications</i> , 2021 , 12, 5597	17.4	10
31	Optical properties of phosphorene. <i>Chinese Physics B</i> , 2017 , 26, 034201	1.2	9
30	Recent Developments in van der Waals Antiferromagnetic 2D Materials: Synthesis, Characterization, and Device Implementation. <i>ACS Nano</i> , 2021 ,	16.7	9
29	Nanoscale Measurements of Elastic Properties and Hydrostatic Pressure in H ₂ -Bulged MoS ₂ Membranes. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2001024	4.6	9
28	Aluminium and zinc co-doped CuInS ₂ QDs for enhanced trion modulation in monolayer WS ₂ toward improved electrical properties. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 15074-15081	7.1	9
27	Twist-driven wide freedom of indirect interlayer exciton emission in MoS ₂ /WS ₂ heterobilayers. <i>Cell Reports Physical Science</i> , 2021 , 2, 100509	6.1	9
26	A New Strategy for Selective Area Growth of Highly Uniform InGaAs/InP Multiple Quantum Well Nanowire Arrays for Optoelectronic Device Applications. <i>Advanced Functional Materials</i> , 2021 , 31, 2103057	15.6	8
25	Towards future physics and applications via two-dimensional material NEMS resonators. <i>Nanoscale</i> , 2020 , 12, 22366-22385	7.7	7
24	Constraints on downconversion in atomically thick films. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018 , 35, 672	1.7	7
23	Self-powered near field electron lithography. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, 2537		7
22	2D organic single crystals: Synthesis, novel physics, high-performance optoelectronic devices and integration. <i>Materials Today</i> , 2021 , 50, 442-442	21.8	7
21	Performance degradation and mitigation strategies of silver nanowire networks: a review. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2021 , 1-25	10.1	7
20	Optical Harmonic Generation in 2D Materials. <i>Advanced Functional Materials</i> , 2022 , 32, 2105259	15.6	7
19	Elastic and Inelastic Light-Matter Interactions in 2D Materials. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017 , 23, 206-213	3.8	6
18	Regulate the polarity of phosphorene's mechanical properties by oxidation. <i>Computational Materials Science</i> , 2017 , 139, 341-346	3.2	5

17	Electronic applications of graphene mechanical resonators. <i>IET Circuits, Devices and Systems</i> , 2015 , 9, 413-419	1.1	5
16	An Adaptive Soft Plasmonic Nanosheet Resonator. <i>Laser and Photonics Reviews</i> , 2019 , 13, 1800302	8.3	5
15	Giant Photoluminescence Enhancement and Resonant Charge Transfer in Atomically Thin Two-Dimensional CrGeTe/WS Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 7423-7433	9.5	4
14	Probing the chaotic boundary of a membrane resonator with nanowire arrays. <i>Nanoscale</i> , 2017 , 9, 17524-17532	7.7	3
13	Femtomolar sensitivity DNA photonic crystal nanowire array ultrasonic mass sensor 2012 ,		3
12	Analysis of temperature compensated SAW modes in ZnO/SiO ₂ /Si multilayer structures		3
11	Two-dimensional multiferroics. <i>Nanoscale</i> , 2021 , 13, 19324-19340	7.7	3
10	Ultra-sensitive photon sensor based on self-assembled nanoparticle plasmonic membrane resonator 2016 ,		2
9	Solar Cells: Quantifying Quasi-Fermi Level Splitting and Mapping its Heterogeneity in Atomically Thin Transition Metal Dichalcogenides (Adv. Mater. 25/2019). <i>Advanced Materials</i> , 2019 , 31, 1970180	24	1
8	Optoelectronics: Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus (Adv. Funct. Mater. 39/2019). <i>Advanced Functional Materials</i> , 2019 , 29, 1970272	15.6	1
7	Acoustic speaker based on high-efficiency broadband nano-pillar photonic crystal Opto-thermo-mechanical MEMS excitation 2011 ,		1
6	Black phosphorus: Light-matter interactions and potential applications 2020 , 159-173		1
5	A High-Efficiency Wavelength-Tunable Monolayer LED with Hybrid Continuous-Pulsed Injection. <i>Advanced Materials</i> , 2021 , 33, e2101375	24	1
4	2D Nanomaterials: Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption (Adv. Funct. Mater. 45/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 8356-8356	15.6	1
3	2D Materials: Controlled Micro/Nanodome Formation in Proton-Irradiated Bulk Transition-Metal Dichalcogenides (Adv. Mater. 44/2019). <i>Advanced Materials</i> , 2019 , 31, 1970314	24	
2	Radioisotope-powered ion gauge with super high stability, long life, and large sensitivity range from ultrahigh vacuum to high pressure. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010 , 28, L52-L54	1.3	
1	Applications of Ordered Si Nanowire Array to Solar Energy Harvesting and NEMS. <i>Springer Series in Materials Science</i> , 2013 , 67-88	0.9	