Jun-Peng Lu

List of Publications by Citations

78 papers	1,959 citations	25 h-index	42 g-index
82 ext. papers	2,415 ext. citations	10.5 avg, IF	5.06 L-index

#	Paper	IF	Citations
78	Atomic healing of defects in transition metal dichalcogenides. *Nano Letters*, **2015**, 15, 3524-32	11.5	147
77	Bandgap Engineering of Phosphorene by Laser Oxidation toward Functional 2D Materials. *ACS Nano*, **2015**, 9, 10411-21	16.7	102
76	Microlandscaping of Au nanoparticles on few-layer MoS2 films for chemical sensing. *Small*, **2015**, 11, 1792-800	11	102
75	Improved photoelectrical properties of MoS(2) films after laser micromachining. *ACS Nano*, **2014**, 8, 6334-43	16.7	94
74	Defect Engineering for Modulating the Trap States in 2D Photoconductors. *Advanced Materials*, **2018**, 30, e1804332	24	90
73	Ultrafast Electrochemical Expansion of Black Phosphorus toward High-Yield Synthesis of Few-Layer Phosphorene. *Chemistry of Materials*, **2018**, 30, 2742-2749	9.6	89
72	Engineering Bandgaps of Monolayer MoS2 and WS2 on Fluoropolymer Substrates by Electrostatically Tuned Many-Body Effects. *Advanced Materials*, **2016**, 28, 6457-64	24	89
71	Light-Matter Interactions in Phosphorene. *Accounts of Chemical Research*, **2016**, 49, 1806-15	24.3	89
70	Hybrid Bilayer WSe2 -CH3 NH3 PbI3 Organolead Halide Perovskite as a High-Performance Photodetector. *Angewandte Chemie - International Edition*, **2016**, 55, 11945-9	16.4	71
69	Fluorescence Concentric Triangles: A Case of Chemical Heterogeneity in WS2 Atomic Monolayer. *Nano Letters*, **2016**, 16, 5559-67	11.5	70
68	Metamaterials based on the phase transition of VO. *Nanotechnology*, **2018**, 29, 024002	3.4	57
67	Defect Activated Photoluminescence in WSe2 Monolayer. *Journal of Physical Chemistry C*, **2017**, 121, 12294-12299	3.8	53
66	Interactions between lasers and two-dimensional transition metal dichalcogenides. *Chemical Society Reviews*, **2016**, 45, 2494-515	58.5	49
65	Defect Engineering in 2D Materials: Precise Manipulation and Improved Functionalities. *Research*, **2019**, 2019, 4641739	7.8	46
64	High-performance position-sensitive detector based on graphene□ilicon heterojunction. *Optica*, **2018**, 5, 27	8.6	43
63	Hybrid Bilayer WSe2□CH3NH3PbI3 Organolead Halide Perovskite as a High-Performance Photodetector. *Angewandte Chemie*, **2016**, 128, 12124-12128	3.6	41
62	Highly sensitive and multispectral responsive phototransistor using tungsten-doped VO2 nanowires. *Nanoscale*, **2014**, 6, 7619-27	7.7	36

61	Abnormal Near-Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization. *Advanced Materials*, **2018**, 30, e1801931	24	35
60	Enhanced Photoresponse from Phosphorene-Phosphorene-Suboxide Junction Fashioned by Focused Laser Micromachining. *Advanced Materials*, **2016**, 28, 4090-6	24	35
59	Microsteganography on WS Monolayers Tailored by Direct Laser Painting. *ACS Nano*, **2017**, 11, 713-720	16.7	31
58	Ultrasensitive Phototransistor Based on K-Enriched MoO3 Single Nanowires. *Journal of Physical Chemistry C*, **2012**, 116, 22015-22020	3.8	31
57	The Role of Oxygen Atoms on Excitons at the Edges of Monolayer WS. *Nano Letters*, **2019**, 19, 4641-4650	11.5	28
56	Giant Emission Enhancement of Solid-State Gold Nanoclusters by Surface Engineering. *Angewandte Chemie - International Edition*, **2020**, 59, 8270-8276	16.4	28
55	Fast Photoelectric Conversion in the Near-Infrared Enabled by Plasmon-Induced Hot-Electron Transfer. *Advanced Materials*, **2019**, 31, e1903829	24	26
54	Optical and electrical applications of ZnS(x)Se(1-x) nanowires-network with uniform and controllable stoichiometry. *Nanoscale*, **2012**, 4, 976-81	7.7	26
53	Graphene-Based Infrared Position-Sensitive Detector for Precise Measurements and High-Speed Trajectory Tracking. *Nano Letters*, **2019**, 19, 8132-8137	11.5	23
52	Direct laser pruning of CdS(x)Se1-x nanobelts en route to a multicolored pattern with controlled functionalities. *ACS Nano*, **2012**, 6, 8298-307	16.7	23
51	Gate-Tunable Polar Optical Phonon to Piezoelectric Scattering in Few-Layer Bi O Se for High-Performance Thermoelectrics. *Advanced Materials*, **2021**, 33, e2004786	24	23
50	Layer-number dependent and structural defect related optical properties of InSe. *RSC Advances*, **2017**, 7, 54964-54968	3.7	22
49	Sulfur-Mastery: Precise Synthesis of 2D Transition Metal Dichalcogenides. *Advanced Functional Materials*, **2019**, 29, 1809261	15.6	21
48	Composition-dependent ultra-high photoconductivity in ternary CdS x Se1 nanobelts as measured by optical pump-terahertz probe spectroscopy. *Nano Research*, **2013**, 6, 808-821	10	21
47	Photocurrent Response in Multiwalled Carbon Nanotube Core Molybdenum Disulfide Shell Heterostructures. *Journal of Physical Chemistry C*, **2015**, 119, 24588-24596	3.8	20
46	Defect Heterogeneity in Monolayer WS2 Unveiled by Work Function Variance. *Chemistry of Materials*, **2019**, 31, 7970-7978	9.6	19
45	Defect Engineering in CdSxSe1 Nanobelts: An Insight into Carrier Relaxation Dynamics via Optical Pump Terahertz Probe Spectroscopy. *Journal of Physical Chemistry C*, **2012**, 116, 26036-26042	3.8	19
44	Transient Photoconductivity of Ternary CdSSe Nanobelts As Measured by Time-Resolved Terahertz Spectroscopy. *Journal of Physical Chemistry C*, **2013**, 117, 12379-12384	3.8	17

43	Negative terahertz photoconductivity in 2D layered materials. *Nanotechnology*, **2017**, 28, 464001	3.4	16
42	How defects influence the photoluminescence of TMDCs. *Nano Research*, **2021**, 14, 29-39	10	15
41	One-dimensional nanostructures of II-VI ternary alloys: synthesis, optical properties, and applications. *Nanoscale*, **2018**, 10, 17456-17476	7.7	15
40	A critical review on the carrier dynamics in 2D layered materials investigated using THz spectroscopy. *Optics Communications*, **2018**, 406, 24-35	2	14
39	Thermal transport and energy dissipation in two-dimensional Bi2O2Se. *Applied Physics Letters*, **2019**, 115, 193103	3.4	13
38	Bi2O2Se/BP van der Waals heterojunction for high performance broadband photodetector. *Science China Information Sciences*, **2021**, 64, 1	3.4	13
37	Ultrasensitive graphene-Si position-sensitive detector for motion tracking. *Informa□□Materi□y*, **2020**, 2, 761-768	23.1	11
36	Ultrahigh photoconductivity of bandgap-graded CdSxSe1-x nanowires probed by terahertz spectroscopy. *Scientific Reports*, **2016**, 6, 27387	4.9	11
35	Exciton dynamics in tungsten dichalcogenide monolayers. *Physical Chemistry Chemical Physics*, **2017**, 19, 17877-17882	3.6	10
34	High-Performance Graphene-Based Electrostatic Field Sensor. *IEEE Electron Device Letters*, **2017**, 38, 1136-1138	4.4	10
33	Behavior and Modeling of Ultra-High Performance Concrete-Filled FRP Tubes Under Cyclic Axial Compression. *Journal of Composites for Construction*, **2020**, 24, 04020045	3.3	10
32	Temperature and composition dependence of photoluminescence dynamics in CdSxSe1□ (0 □x □1) nanobelts. *Journal of Applied Physics*, **2012**, 111, 073112	2.5	9
31	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. *ACS Applied Materials & Interfaces*, **2021**, 13, 8518-8527	9.5	9
30	Composition-dependent electron transport in CdS(x)Se(1-x) nanobelts: a THz spectroscopy study. *Optics Letters*, **2014**, 39, 567-70	3	8
29	A Focused Laser Beam: A Useful and Versatile Tool for 1D Nanomaterials Research: A Review. *Journal of Materials Science and Technology*, **2015**, 31, 616-629	9.1	7
28	Giant Emission Enhancement of Solid-State Gold Nanoclusters by Surface Engineering. *Angewandte Chemie*, **2020**, 132, 8347-8353	3.6	7
27	Laser modified ZnO/CdSSe core-shell nanowire arrays for Micro-Steganography and improved photoconduction. *Scientific Reports*, **2014**, 4, 6350	4.9	7
26	Interfacial charge transfer in WS2 monolayer/CsPbBr3 microplate heterostructure. *Frontiers of Physics*, **2018**, 13, 1	3.7	6

25	Chemical Vapor Deposition Growth of Large-Areas Two-Dimensional Materials:Approaches and Mechanisms. *Wuli Xuebao/Acta Physica Sinica*, **2021**, 0-0	0.6	5
24	Defect-related dynamics of photoexcited carriers in 2D transition metal dichalcogenides. *Physical Chemistry Chemical Physics*, **2021**, 23, 8222-8235	3.6	5
23	Enriched Fluorescence Emission from WS2 Monoflake Empowered by Au Nanoexplorers. *Advanced Optical Materials*, **2017**, 5, 1700156	8.1	4
22	Controllable n-type doping in WSe2 monolayer via construction of anion vacancies. *Chinese Chemical Letters*, **2021**, 32, 3118-3118	8.1	4
21	The Thinnest Light Disk: Rewritable Data Storage and Encryption on WS2 Monolayers. *Advanced Functional Materials*, **2021**, 31, 2103140	15.6	4
20	Direct visualization of irreducible ferrielectricity in crystals. *Npj Quantum Materials*, **2020**, 5,	5	3
19	Competition between Oxygen Curing and Ion Migration in MAPbI Induced by Irradiation Exposure. *Journal of Physical Chemistry Letters*, **2020**, 11, 8477-8482	6.4	3
18	Multispectral photodetectors based on 2D material/CsBiIheterostructures with high detectivity. *Nanotechnology*, **2021**, 32,	3.4	3
17	Phosphorene: Enhanced Photoresponse from Phosphorene-Phosphorene-Suboxide Junction Fashioned by Focused Laser Micromachining (Adv. Mater. 21/2016). *Advanced Materials*, **2016**, 28, 4164	24	3
16	Ultrasensitive graphene position-sensitive detector induced by synergistic effects of charge injection and interfacial gating. *Nanophotonics*, **2020**, 9, 2531-2536	6.3	2
15	Excitonic Emission in Atomically Thin Electroluminescent Devices. *Laser and Photonics Reviews*, **2021**, 15, 2000587	8.3	2
14	Modulation of THz radiation via enhanced Dirac plasmon-dual phonon interaction. *Applied Physics Letters*, **2019**, 115, 251109	3.4	2
13	Position-sensitive detectors based on two-dimensional materials. *Nano Research*, **2021**, 14, 1889-1900	10	2
12	Highly Sensitive Mid-Infrared Photodetector Enabled by Plasmonic Hot Carriers in the First Atmospheric Window. *Chinese Physics Letters*, **2022**, 39, 058501	1.8	2
11	Photoluminescence enhancement at a high generation rate induced by exciton localization. *Optics Letters*, **2021**, 46, 2774-2777	3	1
10	Tunable self-trapped excitons in 2D layered rubrene. *Applied Physics Letters*, **2021**, 118, 253103	3.4	1
9	Tuning photoresponse of graphene-black phosphorus heterostructure by electrostatic gating and photo-induced doping. *Chinese Chemical Letters*, **2021**, 33, 368-368	8.1	1
8	Spectroscopic Perception of Trap States on the Performance of Methylammonium and Formamidinium Lead Iodide Perovskite Solar Cells. *Advanced Materials*, **2021**, 33, e2102241	24	1

7	Potassium Iodide Doping Strategy for High-Efficiency Perovskite Solar Cells Revealed by Ultrafast Spectroscopy.. *Journal of Physical Chemistry Letters*, **2022**, 13, 711-717	6.4	0
6	Thermoelectric Materials: Gate-Tunable Polar Optical Phonon to Piezoelectric Scattering in Few-Layer Bi2O2Se for High-Performance Thermoelectrics (Adv. Mater. 4/2021). *Advanced Materials*, **2021**, 33, 2170023	24	0
5	Correlated Dynamics of Free and Self-Trapped Excitons and Broadband Photodetection in BEA 2 PbBr 4 Layered Crystals. *Advanced Optical Materials*,2200223	8.1	0
4	Resonance Raman scattering on graded-composition WxMo1⊠S2 alloy with tunable excitons. *Applied Physics Letters*, **2022**, 120, 172104	3.4	0
3	Black Phosphorus: Abnormal Near-Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization (Adv. Mater. 43/2018). *Advanced Materials*, **2018**, 30, 1870325	24	
2	The Thinnest Light Disk: Rewritable Data Storage and Encryption on WS2 Monolayers (Adv. Funct. Mater. 36/2021). *Advanced Functional Materials*, **2021**, 31, 2170267	15.6	
1	Aggregation-Dependent Dielectric Permittivity in 2D Molecular Crystals.. *Small Methods*, **2022**, e2101198	12.8	