Jun-Peng Lu

List of Publications by Year
in descending order

80 papers	2,857 citations	159573 30 h-index	175241 52 g-index
82 all docs	82 docs citations	82 times ranked	5031 citing authors

#	Article	IF	Citations
1	Atomic Healing of Defects in Transition Metal Dichalcogenides. Nano Letters, 2015, 15, 3524-3532.	9.1	194
2	Defect Engineering for Modulating the Trap States in 2D Photoconductors. Advanced Materials, 2018, 30, e1804332.	21.0	146
3	Ultrafast Electrochemical Expansion of Black Phosphorus toward High-Yield Synthesis of Few-Layer Phosphorene. Chemistry of Materials, 2018, 30, 2742-2749.	6.7	132
4	Bandgap Engineering of Phosphorene by Laser Oxidation toward Functional 2D Materials. ACS Nano, 2015, 9, 10411-10421.	14.6	126
5	Engineering Bandgaps of Monolayer MoS₂ and WS₂ on Fluoropolymer Substrates by Electrostatically Tuned Manyâ€Body Effects. Advanced Materials, 2016, 28, 6457-6464.	21.0	116
6	Microlandscaping of Au Nanoparticles on Few-Layer MoS₂Films for Chemical Sensing. Small, 2015, 11, 1792-1800.	10.0	113
7	Improved Photoelectrical Properties of MoS₂ Films after Laser Micromachining. ACS Nano, 2014, 8, 6334-6343.	14.6	112
8	Defect Engineering in 2D Materials: Precise Manipulation and Improved Functionalities. Research, 2019, 2019, 4641739.	5.7	101
9	Lightâ€“Matter Interactions in Phosphorene. Accounts of Chemical Research, 2016, 49, 1806-1815.	15.6	97
10	Hybrid Bilayer WSe₂â€“CH₃NH₃PbI₃ Organolead Halide Perovskite as a Highâ€Performance Photodetector. Angewandte Chemie - International Edition, 2016, 55, 11945-11949.	13.8	91
11	Metamaterials based on the phase transition of VO₂. Nanotechnology, 2018, 29, 024002.	2.6	90
12	Defect Activated Photoluminescence in WSe₂ Monolayer. Journal of Physical Chemistry C, 2017, 121, 12294-12299.	3.1	83
13	Fluorescence Concentric Triangles: A Case of Chemical Heterogeneity in WS₂ Atomic Monolayer. Nano Letters, 2016, 16, 5559-5567.	9.1	76
14	High-performance position-sensitive detector based on grapheneâ€“silicon heterojunction. Optica, 2018, 5, 27.	9.3	63
15	Giant Emission Enhancement of Solidâ€State Gold Nanoclusters by Surface Engineering. Angewandte Chemie - International Edition, 2020, 59, 8270-8276.	13.8	63
16	Interactions between lasers and two-dimensional transition metal dichalcogenides. Chemical Society Reviews, 2016, 45, 2494-2515.	38.1	61
17	Graphene-Based Infrared Position-Sensitive Detector for Precise Measurements and High-Speed Trajectory Tracking. Nano Letters, 2019, 19, 8132-8137.	9.1	52
18	Hybrid Bilayer WSe₂â€“CH₃NH₃PbI₃ Organolead Halide Perovskite as a Highâ€Performance Photodetector. Angewandte Chemie, 2016, 128, 12124-12128.	2.0	51

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19	How defects influence the photoluminescence of TMDCs. Nano Research, 2021, 14, 29-39.	10.4	51
20	Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics. Advanced Materials, 2021, 33, e2004786.	21.0	48
21	Fast Photoelectric Conversion in the Nearâ€Infrared Enabled by Plasmonâ€Induced Hotâ€Electron Transfer. Advanced Materials, 2019, 31, e1903829.	21.0	44
22	Microsteganography on WS₂ Monolayers Tailored by Direct Laser Painting. ACS Nano, 2017, 11, 713-720.	14.6	43
23	Abnormal Nearâ€Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization. Advanced Materials, 2018, 30, e1801931.	21.0	43
24	Highly sensitive and multispectral responsive phototransistor using tungsten-doped VO₂ nanowires. Nanoscale, 2014, 6, 7619-7627.	5.6	42
25	High output mode-locked laser empowered by defect regulation in 2D Bi2O2Se saturable absorber. Nature Communications, 2022, 13, .	12.8	41
26	The Role of Oxygen Atoms on Excitons at the Edges of Monolayer WS₂. Nano Letters, 2019, 19, 4641-4650.	9.1	39
27	Enhanced Photoresponse from Phosphoreneâ€“Phosphoreneâ€Suboxide Junction Fashioned by Focused Laser Micromachining. Advanced Materials, 2016, 28, 4090-4096.	21.0	38
28	Layer-number dependent and structural defect related optical properties of InSe. RSC Advances, 2017, 7, 54964-54968.	3.6	36
29	Sulfurâ€Mastery: Precise Synthesis of 2D Transition Metal Dichalcogenides. Advanced Functional Materials, 2019, 29, 1809261.	14.9	36
30	Ultrasensitive Phototransistor Based on K-Enriched MoO₃ Single Nanowires. Journal of Physical Chemistry C, 2012, 116, 22015-22020.	3.1	34
31	Defect Heterogeneity in Monolayer WS₂ Unveiled by Work Function Variance. Chemistry of Materials, 2019, 31, 7970-7978.	6.7	31
32	Bi2O2Se/BP van der Waals heterojunction for high performance broadband photodetector. Science China Information Sciences, 2021, 64, 1.	4.3	31
33	Optical and electrical applications of ZnSxSe1â^'x nanowires-network with uniform and controllable stoichiometry. Nanoscale, 2012, 4, 976.	5.6	28
34	Thermal transport and energy dissipation in two-dimensional Bi2O2Se. Applied Physics Letters, 2019, 115, .	3.3	28
35	Direct Laser Pruning of CdSxSe1â€“x Nanobelts en Route to a Multicolored Pattern with Controlled Functionalities. ACS Nano, 2012, 6, 8298-8307.	14.6	24
36	Defect Engineering in CdS_xSe_{1â€“x} Nanobelts: An Insight into Carrier Relaxation Dynamics via Optical Pumpâ€“Terahertz Probe Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 26036-26042.	3.1	23

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37	Composition-dependent ultra-high photoconductivity in ternary CdS x Se1â^'x nanobelts as measured by optical pump-terahertz probe spectroscopy. Nano Research, 2013, 6, 808-821.	10.4	23
38	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 8518-8527.	8.0	23
39	A critical review on the carrier dynamics in 2D layered materials investigated using THz spectroscopy. Optics Communications, 2018, 406, 24-35.	2.1	22
40	Negative terahertz photoconductivity in 2D layered materials. Nanotechnology, 2017, 28, 464001.	2.6	21
41	Photocurrent Response in Multiwalled Carbon Nanotube Coreâ€"Molybdenum Disulfide Shell Heterostructures. Journal of Physical Chemistry C, 2015, 119, 24588-24596.	3.1	20
42	One-dimensional nanostructures of IIâ€"VI ternary alloys: synthesis, optical properties, and applications. Nanoscale, 2018, 10, 17456-17476.	5.6	20
43	Behavior and Modeling of Ultra-High Performance Concrete-Filled FRP Tubes Under Cyclic Axial Compression. Journal of Composites for Construction, 2020, 24, .	3.2	20
44	Ultrasensitive grapheneâ€Si positionâ€sensitive detector for motion tracking. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 761-768.	17.3	20
45	Transient Photoconductivity of Ternary CdSSe Nanobelts As Measured by Time-Resolved Terahertz Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 12379-12384.	3.1	18
46	Interfacial charge transfer in WS2 monolayer/CsPbBr3 microplate heterostructure. Frontiers of Physics, 2018, 13, 1.	5.0	17
47	Ultrahigh photoconductivity of bandgap-graded CdSxSe1â^'x nanowires probed by terahertz spectroscopy. Scientific Reports, 2016, 6, 27387.	3.3	15
48	Giant Emission Enhancement of Solidâ€State Gold Nanoclusters by Surface Engineering. Angewandte Chemie, 2020, 132, 8347-8353.	2.0	15
49	Exciton dynamics in tungsten dichalcogenide monolayers. Physical Chemistry Chemical Physics, 2017, 19, 17877-17882.	2.8	14
50	Position-sensitive detectors based on two-dimensional materials. Nano Research, 2021, 14, 1889-1900.	10.4	14
51	Defect-related dynamics of photoexcited carriers in 2D transition metal dichalcogenides. Physical Chemistry Chemical Physics, 2021, 23, 8222-8235.	2.8	13
52	High-Performance Graphene-Based Electrostatic Field Sensor. IEEE Electron Device Letters, 2017, 38, 1136-1138.	3.9	12
53	Temperature and composition dependence of photoluminescence dynamics in CdSxSe1â^'x (0â€‰â‰€xâ€‰â‰€1) nanobelts. Journal of Applied Physics, 2012, 111, 073112.	2.5	11
54	Direct visualization of irreducible ferrielectricity in crystals. Npj Quantum Materials, 2020, 5, .	5.2	9

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55	Chemical vapor deposition growth of large-areas two dimensional materials: Approaches and mechanisms. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 026802.	0.5	9
56	Controllable n-type doping in WSe2 monolayer via construction of anion vacancies. Chinese Chemical Letters, 2021, 32, 3118-3122.	9.0	9
57	Composition-dependent electron transport in CdS_xSe_1â^'x nanobelts: a THz spectroscopy study. Optics Letters, 2014, 39, 567.	3.3	8
58	Laser Modified ZnO/CdSSe Core-Shell Nanowire Arrays for Micro-Steganography and Improved Photoconduction. Scientific Reports, 2015, 4, 6350.	3.3	8
59	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.	10.7	8
60	Enriched Fluorescence Emission from WS₂ Monoflake Empowered by Au Nanoexplorers. Advanced Optical Materials, 2017, 5, 1700156.	7.3	7
61	Excitonic Emission in Atomically Thin Electroluminescent Devices. Laser and Photonics Reviews, 2021, 15, 2000587.	8.7	7
62	Tunable self-trapped excitons in 2D layered rubrene. Applied Physics Letters, 2021, 118, .	3.3	7
63	The Thinnest Light Disk: Rewritable Data Storage and Encryption on WS₂ Monolayers. Advanced Functional Materials, 2021, 31, 2103140.	14.9	7
64	Multispectral photodetectors based on 2D material/Cs₃Bi₂I₉ heterostructures with high detectivity. Nanotechnology, 2021, 32, 415202.	2.6	7
65	Spectroscopic Perception of Trap States on the Performance of Methylammonium and Formamidinium Lead Iodide Perovskite Solar Cells. Advanced Materials, 2021, 33, 2102241.	21.0	7
66	Competition between Oxygen Curing and Ion Migration in MAPbI₃ Induced by Irradiation Exposure. Journal of Physical Chemistry Letters, 2020, 11, 8477-8482.	4.6	5
67	Tuning photoresponse of graphene-black phosphorus heterostructure by electrostatic gating and photo-induced doping. Chinese Chemical Letters, 2022, 33, 368-373.	9.0	5
68	Correlated Dynamics of Free and Selfâ€Trapped Excitons and Broadband Photodetection in BEA₂PbBr₄ Layered Crystals. Advanced Optical Materials, 2022, 10, .	7.3	5
69	Phosphorene: Enhanced Photoresponse from Phosphoreneâ€"Phosphoreneâ€Suboxide Junction Fashioned by Focused Laser Micromachining (Adv. Mater. 21/2016). Advanced Materials, 2016, 28, 4164-4164.	21.0	4
70	Ultrasensitive graphene position-sensitive detector induced by synergistic effects of charge injection and interfacial gating. Nanophotonics, 2020, 9, 2531-2536.	6.0	4
71	Potassium Iodide Doping Strategy for High-Efficiency Perovskite Solar Cells Revealed by Ultrafast Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 711-717.	4.6	3
72	Resonance Raman scattering on graded-composition WxMo1â€"xS2 alloy with tunable excitons. Applied Physics Letters, 2022, 120, .	3.3	3

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73	Highly Sensitive Mid-Infrared Photodetector Enabled by Plasmonic Hot Carriers in the First Atmospheric Window. Chinese Physics Letters, 2022, 39, 058501.	3.3	3
74	Modulation of THz radiation via enhanced Dirac plasmon-dual phonon interaction. Applied Physics Letters, 2019, 115, .	3.3	2
75	Photoluminesence enhancement at high generation rate induced by exciton localization. Optics Letters, 2021, 46, 2774-2777.	3.3	2
76	Thermoelectric Materials: Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics (Adv. Mater. 4/2021). Advanced Materials, 2021, 33, 2170023.	21.0	1
77	The Thinnest Light Disk: Rewritable Data Storage and Encryption on WS₂ Monolayers (Adv.) Tj ETQq1 1 0.784314 rgBT /O	14.9	1
78	2D Materials: Enriched Fluorescence Emission from WS₂ Monoflake Empowered by Au Nanoexplorers (Advanced Optical Materials 14/2017). Advanced Optical Materials, 2017, 5, .	7.3	0
79	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.	21.0	0
80	Aggregationâ€Dependent Dielectric Permittivity in 2D Molecular Crystals. Small Methods, 2022, , 2101198.	8.6	0