Leiming Wu

List of Publications by Year
in descending order

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72 papers	5,277 citations	94433 37 h-index	85541 71 g-index
72 all docs	72 docs citations	72 times ranked	4556 citing authors

#	Article	IF	Citations
1	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. Nature Communications, 2019, 10, 28.	12.8	475
2	Sensitivity enhancement by using few-layer black phosphorus-graphene/TMDCs heterostructure in surface plasmon resonance biochemical sensor. Sensors and Actuators B: Chemical, 2017, 249, 542-548.	7.8	322
3	Fewâ€Layer Bismuthene: Sonochemical Exfoliation, Nonlinear Optics and Applications for Ultrafast Photonics with Enhanced Stability. Laser and Photonics Reviews, 2018, 12, 1700221.	8.7	311
4	MXeneâ€Enabled Electrochemical Microfluidic Biosensor: Applications toward Multicomponent Continuous Monitoring in Whole Blood. Advanced Functional Materials, 2019, 29, 1807326.	14.9	301
5	Broadband Nonlinear Optical Response in Fewâ€Layer Antimonene and Antimonene Quantum Dots: A Promising Optical Kerr Media with Enhanced Stability. Advanced Optical Materials, 2017, 5, 1700301.	7.3	269
6	Fewâ€Layer Tin Sulfide: A Promising Blackâ€Phosphorusâ€Analogue 2D Material with Exceptionally Large Nonlinear Optical Response, High Stability, and Applications in Allâ€Optical Switching and Wavelength Conversion. Advanced Optical Materials, 2018, 6, 1700985.	7.3	212
7	Kerr Nonlinearity in 2D Graphdiyne for Passive Photonic Diodes. Advanced Materials, 2019, 31, e1807981.	21.0	187
8	Graphdiyneâ€Based Flexible Photodetectors with High Responsivity and Detectivity. Advanced Materials, 2020, 32, e2001082.	21.0	171
9	Facile fabrication and characterization of two-dimensional bismuth(<scp>iii</scp>) sulfide nanosheets for high-performance photodetector applications under ambient conditions. Nanoscale, 2018, 10, 2404-2412.	5.6	166
10	Sensitivity Improved SPR Biosensor Based on the MoS2/Grapheneâ€“Aluminum Hybrid Structure. Journal of Lightwave Technology, 2017, 35, 82-87.	4.6	165
11	All-Optical Switching of Two Continuous Waves in Few Layer Bismuthene Based on Spatial Cross-Phase Modulation. ACS Photonics, 2017, 4, 2852-2861.	6.6	164
12	Few-layer Ti3C2Tx MXene: A promising surface plasmon resonance biosensing material to enhance the sensitivity. Sensors and Actuators B: Chemical, 2018, 277, 210-215.	7.8	163
13	Allâ€Optical Phosphorene Phase Modulator with Enhanced Stability Under Ambient Conditions. Laser and Photonics Reviews, 2018, 12, 1800016.	8.7	155
14	Enhanced Photodetection Properties of Tellurium@Selenium Rollâ€toâ€Roll Nanotube Heterojunctions. Small, 2019, 15, e1900902.	10.0	120
15	MXeneâ€Based Nonlinear Optical Information Converter for Allâ€Optical Modulator and Switcher. Laser and Photonics Reviews, 2018, 12, 1800215.	8.7	117
16	Nonlinear Fewâ€Layer Antimoneneâ€Based Allâ€Optical Signal Processing: Ultrafast Optical Switching and Highâ€Speed Wavelength Conversion. Advanced Optical Materials, 2018, 6, 1701287.	7.3	97
17	Ultrasensitive biosensors based on long-range surface plasmon polariton and dielectric waveguide modes. Photonics Research, 2016, 4, 262.	7.0	93
18	Perovskite CsPbX₃: A Promising Nonlinear Optical Material and Its Applications for Ambient Allâ€Optical Switching with Enhanced Stability. Advanced Optical Materials, 2018, 6, 1800400.	7.3	90

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19	MZIâ€Based Allâ€Optical Modulator Using MXene Ti₃C₂T_x (T =) Tj ETQq1 1 0.784314	5.8	87
20	Tuning and Sensitivity Enhancement of Surface Plasmon Resonance Biosensor With Graphene Covered Au-MoS 2-Au Films. IEEE Photonics Journal, 2016, 8, 1-8.	2.0	85
21	Refractive Index Sensors Based on Ti₃C₂T_x MXene Fibers. ACS Applied Nano Materials, 2020, 3, 303-311.	5.0	74
22	Nonlinear optical response, all optical switching, and all optical information conversion in NbSe₂nanosheets based on spatial self-phase modulation. Nanoscale, 2019, 11, 4515-4522.	5.6	61
23	A self-powered photodetector based on two-dimensional boron nanosheets. Nanoscale, 2020, 12, 5313-5323.	5.6	60
24	Ultrasensitive Terahertz Biosensors Based on Fano Resonance of a Graphene/Waveguide Hybrid Structure. Sensors, 2017, 17, 1924.	3.8	52
25	Broadband nonlinear optical resonance and all-optical switching of liquid phase exfoliated tungsten diselenide. Photonics Research, 2018, 6, 1040.	7.0	52
26	Engineering ultrafast charge transfer in a bismuthene/perovskite nanohybrid. Nanoscale, 2019, 11, 2637-2643.	5.6	51
27	An ultra-high sensitivity surface plasmon resonance sensor based on graphene-aluminum-graphene sandwich-like structure. Journal of Applied Physics, 2016, 120, .	2.5	50
28	Two-dimensional beta-lead oxide quantum dots. Nanoscale, 2018, 10, 20540-20547.	5.6	49
29	Selfâ€Healable Black Phosphorus Photodetectors. Advanced Functional Materials, 2019, 29, 1906610.	14.9	48
30	High-Performance Lossy-Mode Resonance Sensor Based on Few-Layer Black Phosphorus. Journal of Physical Chemistry C, 2018, 122, 7368-7373.	3.1	47
31	Two-Dimensional Black Arsenic Phosphorus for Ultrafast Photonics in Near- and Mid-Infrared Regimes. ACS Applied Materials & Interfaces, 2020, 12, 46509-46518.	8.0	47
32	Highly Sensitive Terahertz Gas Sensor Based on Surface Plasmon Resonance With Graphene. IEEE Photonics Journal, 2018, 10, 1-7.	2.0	46
33	Sensitivity Enhanced by MoS2â€“Graphene Hybrid Structure in Guided-Wave Surface Plasmon Resonance Biosensor. Plasmonics, 2018, 13, 281-285.	3.4	46
34	Epitaxial Growth of Topological Insulators on Semiconductors (Bi₂Se₃/Te@Se) toward Highâ€Performance Photodetectors. Small Methods, 2019, 3, 1900349.	8.6	45
35	Van der Waals Integration of Bismuth Quantum Dotsâ€“Decorated Tellurium Nanotubes (Te@Bi) Heterojunctions and Plasmaâ€Enhanced Optoelectronic Applications. Small, 2019, 15, e1903233.	10.0	45
36	Tunable terahertz/infrared coherent perfect absorption in a monolayer black phosphorus. Optics Express, 2018, 26, 5488.	3.4	44

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37	Long-Range Surface Plasmon With Graphene for Enhancing the Sensitivity and Detection Accuracy of Biosensor. IEEE Photonics Journal, 2016, 8, 1-9.	2.0	41
38	A promising nonlinear optical material and its applications for all-optical switching and information converters based on the spatial self-phase modulation (SSPM) effect of TaSe₂ nanosheets. Journal of Materials Chemistry C, 2019, 7, 3811-3816.	5.5	41
39	Fano resonance in double waveguides with graphene for ultrasensitive biosensor. Optics Express, 2018, 26, 16884.	3.4	40
40	Spatial self-phase modulation and all-optical switching of graphene oxide dispersions. Journal of Alloys and Compounds, 2019, 771, 900-904.	5.5	35
41	Recent Advances of Spatial Selfâ€Phase Modulation in 2D Materials and Passive Photonic Device Applications. Small, 2020, 16, e2002252.	10.0	35
42	Theoretical Investigation of Multilayer Ti₃C₂T_x MXene as the Plasmonic Material for Surface Plasmon Resonance Sensors in Near Infrared Region. IEEE Sensors Journal, 2019, 19, 11834-11838.	4.7	34
43	Absorption enhancement and total absorption in a graphene-waveguide hybrid structure. AIP Advances, 2017, 7, .	1.3	33
44	Ultrathin boron nanosheets as an emerging two-dimensional photoluminescence material for bioimaging. Nanoscale Horizons, 2020, 5, 705-713.	8.0	33
45	Manipulating the optical bistability at terahertz frequency in the Fabry-Perot cavity with graphene. Optics Express, 2015, 23, 31181.	3.4	32
46	Improving the Performance of an SPR Biosensor Using Long-Range Surface Plasmon of Ga-Doped Zinc Oxide. Sensors, 2018, 18, 2098.	3.8	31
47	Tunable polaritonic metasurface absorbers in mid-IR based on hexagonal boron nitride and vanadium dioxide layers. Journal Physics D: Applied Physics, 2019, 52, 164002.	2.8	30
48	Synthesis and optoelectronics of mixed-dimensional Bi/Te binary heterostructures. Nanoscale Horizons, 2020, 5, 847-856.	8.0	28
49	All-optical logic devices based on black arsenicâ€“phosphorus with strong nonlinear optical response and high stability. Opto-Electronic Advances, 2022, 5, 200046-200046.	13.3	25
50	GeSe nanosheets modified surface plasmon resonance sensors for enhancing sensitivity. Nanophotonics, 2020, 9, 327-336.	6.0	24
51	Enhancement of photonic spin Hall effect via bound states in the continuum. Journal Physics D: Applied Physics, 2019, 52, 045401.	2.8	23
52	Liquidâ€Exfoliated Fewâ€Layer InSe Nanosheets for Broadband Nonlinear Allâ€Optical Applications. Advanced Optical Materials, 2020, 8, 1901862.	7.3	20
53	High Sensitivity Intensity-Interrogated Bloch Surface Wave Biosensor With Graphene. IEEE Sensors Journal, 2018, 18, 106-110.	4.7	19
54	Broadband nonlinear optical response in Bi2Se3-Bi2Te3 heterostructure and its application in all-optical switching. AIP Advances, 2019, 9, .	1.3	19

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55	1D@0D hybrid dimensional heterojunction-based photonics logical gate and isolator. Applied Materials Today, 2020, 19, 100589.	4.3	19
56	Terahertz Biochemical Sensor Based on Strong Coupling Between Waveguide Mode and Surface Plasmons of Double-Layer Graphene. IEEE Sensors Journal, 2018, 18, 7436-7441.	4.7	18
57	Topological insulator overlayer to enhance the sensitivity and detection limit of surface plasmon resonance sensor. Nanophotonics, 2020, 9, 1941-1951.	6.0	18
58	Giant tunable Goosâ€“HÃnchen shifts based on surface plasmon resonance with Dirac semimetal films. Journal Physics D: Applied Physics, 2019, 53, 015107.	2.8	14
59	Application of Few-Layer Transition Metal Dichalcogenides to Detect the Refractive Index Variation in Lossy-Mode Resonance Sensors With High Figure of Merit. IEEE Sensors Journal, 2019, 19, 5030-5034.	4.7	14
60	High Figure of Merit Lossy Mode Resonance Sensor with Graphene. Plasmonics, 2019, 14, 929-934.	3.4	13
61	Ultrasensitive Multiple Guided-Mode Biosensor With Few-Layer Black Phosphorus. Journal of Lightwave Technology, 2020, 38, 1564-1571.	4.6	11
62	2D BP/InSe Heterostructures as a Nonlinear Optical Material for Ultrafast Photonics. Nanomaterials, 2022, 12, 1809.	4.1	11
63	Lossy-mode-resonance sensor based on perovskite nanomaterial with high sensitivity. Optics Express, 2021, 29, 17602.	3.4	10
64	Multifunctional VIâ€“VI binary heterostructure-based self-powered pH-sensitive photo-detector. Journal of Materials Chemistry C, 2020, 8, 5991-6000.	5.5	8
65	Enhancement of Sensitivity with Highâ^'Reflectiveâ^'Index Guidedâ^'Wave Nanomaterials for a Longâ^'Range Surface Plasmon Resonance Sensor. Nanomaterials, 2022, 12, 168.	4.1	6
66	Photodetectors: Graphdiyneâ€Based Flexible Photodetectors with High Responsivity and Detectivity (Adv. Mater. 23/2020). Advanced Materials, 2020, 32, 2070175.	21.0	5
67	CH3NH3PbBr3 Thin Film Served as Guided-Wave Layer for Enhancing the Angular Sensitivity of Plasmon Biosensor. Biosensors, 2021, 11, 415.	4.7	5
68	Quantum Dots: Broadband Nonlinear Optical Response in Fewâ€Layer Antimonene and Antimonene Quantum Dots: A Promising Optical Kerr Media with Enhanced Stability (Advanced Optical Materials) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7.4	4
69	Fano Resonance in Waveguide Coupled Surface Exciton Polaritons: Theory and Application in Biosensor. Sensors, 2018, 18, 4437.	3.8	3
70	Tunable Nonlinearity in 2D Graphdiyne Oxide for Highâ€Performance Allâ€Optical Modulation. Advanced Optical Materials, 2022, 10, .	7.3	3
71	Double Perovskite Ba2LaTaO6 for Ultrafast Fiber Lasers in Anomalous and Normal Net Dispersion Regime. Nanomaterials, 2022, 12, 2112.	4.1	3
72	Ultrasensitive Terahertz Imaging Sensors Based on the Strong Coupling of Surface Phonon Polariton and Graphene Surface Plasmon Polariton. IEEE Photonics Journal, 2018, 10, 1-9.	2.0	2