Weilu Gao

List of Publications by Year
in descending order

52 papers	3,962 citations	236612 25 h-index	197535 49 g-index
53 all docs	53 docs citations	53 times ranked	6714 citing authors

#	Article	IF	Citations
1	Excitation of Plasmonic Waves in Graphene by Guided-Mode Resonances. ACS Nano, 2012, 6, 7806-7813.	7.3	610
2	Wafer-scale monodomain films of spontaneously aligned single-walled carbon nanotubes. Nature Nanotechnology, 2016, 11, 633-638.	15.6	292
3	An Atomically Layered InSe Avalanche Photodetector. Nano Letters, 2015, 15, 3048-3055.	4.5	253
4	Facile Synthesis of Single Crystal Vanadium Disulfide Nanosheets by Chemical Vapor Deposition for Efficient Hydrogen Evolution Reaction. Advanced Materials, 2015, 27, 5605-5609.	11.1	241
5	Excitation and Active Control of Propagating Surface Plasmon Polaritons in Graphene. Nano Letters, 2013, 13, 3698-3702.	4.5	238
6	Tunable room-temperature single-photon emission at telecom wavelengths from sp3 defects in carbon nanotubes. Nature Photonics, 2017, 11, 577-582.	15.6	235
7	Carbon Nanotube Terahertz Detector. Nano Letters, 2014, 14, 3953-3958.	4.5	223
8	High-Contrast Terahertz Wave Modulation by Gated Graphene Enhanced by Extraordinary Transmission through Ring Apertures. Nano Letters, 2014, 14, 1242-1248.	4.5	214
9	Direct chemical conversion of graphene to boron- and nitrogen- and carbon-containing atomic layers. Nature Communications, 2014, 5, 3193.	5.8	198
10	Efficient Modulation of 1.55 Î¼m Radiation with Gated Graphene on a Silicon Microring Resonator. Nano Letters, 2014, 14, 6811-6815.	4.5	137
11	Extraordinary sensitivity enhancement by metasurfaces in terahertz detection of antibiotics. Scientific Reports, 2015, 5, 8671.	1.6	135
12	Tailoring the Physical Properties of Molybdenum Disulfide Monolayers by Control of Interfacial Chemistry. Nano Letters, 2014, 14, 1354-1361.	4.5	129
13	Boron Nitrideâ€"Graphene Nanocapacitor and the Origins of Anomalous Size-Dependent Increase of Capacitance. Nano Letters, 2014, 14, 1739-1744.	4.5	120
14	Continuous transition between weak and ultrastrong coupling through exceptional points in carbon nanotube microcavity excitonâ€"polaritons. Nature Photonics, 2018, 12, 362-367.	15.6	99
15	Vacuum Blochâ€"Siegert shift in Landau polaritons with ultra-high cooperativity. Nature Photonics, 2018, 12, 324-329.	15.6	98
16	Suspended Si ring resonator for mid-IR application. Optics Letters, 2013, 38, 1122.	1.7	60
17	Ultrahigh-Sensitivity Molecular Sensing with Carbon Nanotube Terahertz Metamaterials. ACS Applied Materials & Interfaces, 2020, 12, 40629-40634.	4.0	55
18	Intersubband plasmons in the quantum limit in gated and aligned carbon nanotubes. Nature Communications, 2018, 9, 1121.	5.8	52

#	Article	IF	Citations
19	Solving the Thermoelectric Trade-Off Problem with Metallic Carbon Nanotubes. Nano Letters, 2019, 19, 7370-7376.	4.5	50
20	Recent Advances in Applications of Carbon Nanotubes for Desalination: A Review. Nanomaterials, 2020, 10, 1203.	1.9	44
21	Groove-Assisted Global Spontaneous Alignment of Carbon Nanotubes in Vacuum Filtration. Nano Letters, 2020, 20, 2332-2338.	4.5	38
22	Directional sensing based on flexible aligned carbon nanotube film nanocomposites. Nanoscale, 2018, 10, 14938-14946.	2.8	37
23	Science and applications of wafer-scale crystalline carbon nanotube films prepared through controlled vacuum filtration. Royal Society Open Science, 2019, 6, 181605.	1.1	37
24	Discrimination of Transgenic Rice containing the Cry1Ab Protein using Terahertz Spectroscopy and Chemometrics. Scientific Reports, 2015, 5, 11115.	1.6	35
25	Macroscopically Aligned Carbon Nanotubes as a Refractory Platform for Hyperbolic Thermal Emitters. ACS Photonics, 2019, 6, 1602-1609.	3.2	35
26	Isotropic Seebeck coefficient of aligned single-wall carbon nanotube films. Applied Physics Letters, 2018, 113, .	1.5	26
27	Real-time multi-task diffractive deep neural networks via hardware-software co-design. Scientific Reports, 2021, 11, 11013.	1.6	24
28	One-directional thermal transport in densely aligned single-wall carbon nanotube films. Applied Physics Letters, 2019, 115, .	1.5	23
29	Carbon Nanotube Devices for Quantum Technology. Materials, 2022, 15, 1535.	1.3	22
30	Terahertz Excitonics in Carbon Nanotubes: Exciton Autoionization and Multiplication. Nano Letters, 2020, 20, 3098-3105.	4.5	21
31	Macroscopically aligned carbon nanotubes for flexible and high-temperature electronics, optoelectronics, and thermoelectrics. Journal Physics D: Applied Physics, 2020, 53, 063001.	1.3	19
32	Colors of Singleâ€Wall Carbon Nanotubes. Advanced Materials, 2021, 33, e2006395.	11.1	18
33	High-Q terahertz Fano resonance with extraordinary transmission in concentric ring apertures. Optics Express, 2014, 22, 3747.	1.7	17
34	Modulationâ€Doped Multiple Quantum Wells of Aligned Singleâ€Wall Carbon Nanotubes. Advanced Functional Materials, 2017, 27, 1606022.	7.8	17
35	Terahertz Faraday and Kerr rotation spectroscopy of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mrow><mml:mn>1</m films in high magnetic fields up to 30 tesla. Physical Review B, 2019, 100, .	1.1	15
36	Direct observation of cross-polarized excitons in aligned single-chirality single-wall carbon nanotubes. Physical Review B, 2019, 99, .	1.1	15

#	Article	IF	Citations
37	Stability of High-Density Two-Dimensional Excitons against a Mott Transition in High Magnetic Fields Probed by Coherent Terahertz Spectroscopy. Physical Review Letters, 2016, 117, 207402.	2.9	12
38	Artificial Intelligence Accelerators Based on Graphene Optoelectronic Devices. Advanced Photonics Research, 2021, 2, 2100048.	1.7	11
39	Proposed high-speed micron-scale spatial light valve based on a silicon-graphene hybrid structure. Optics Letters, 2015, 40, 4480.	1.7	9
40	Ultrastrong lightâ€"matter coupling in semiconductors. Semiconductors and Semimetals, 2020, 105, 89-151.	0.4	7
41	Physics-informed recurrent neural network for time dynamics in optical resonances. Nature Computational Science, 2022, 2, 169-178.	3.8	7
42	Destabilization of Surfactant-Dispersed Carbon Nanotubes by Anions. Nanoscale Research Letters, 2017, 12, 81.	3.1	6
43	Graphene plasmonic spatial light modulator for reconfigurable diffractive optical neural networks. Optics Express, 2022, 30, 12712.	1.7	6
44	Band structure dependent electronic localization in macroscopic films of single-chirality single-wall carbon nanotubes. Carbon, 2021, 183, 774-779.	5.4	5
45	Low-Dimensional Nanomaterials and Their Functional Architectures: Synthesis, Properties, and Applications. Journal of Nanomaterials, 2017, 2017, 1-2.	1.5	4
46	Silicon Reconfigurable Electro-Optical Logic Circuit Enabled by a Single-Wavelength Light Input. IEEE Photonics Technology Letters, 2019, 31, 435-438.	1.3	4
47	Observation of Photoinduced Terahertz Gain in GaAs Quantum Wells: Evidence for Radiative Two-Exciton-to-Biexciton Scattering. Physical Review Letters, 2020, 125, 167401.	2.9	3
48	High-Voltage Breakdown and the Gunn Effect in GaAs/AlGaAs Nanoconstrictions. IEEE Nanotechnology Magazine, 2015, 14, 524-530.	1.1	2
49	Carbon Nanotubes: Colors of Singleâ€Wall Carbon Nanotubes (Adv. Mater. 8/2021). Advanced Materials, 2021, 33, 2170060.	11.1	1
50	Observation of Narrow-Band Terahertz Gain in Two-Dimensional Magnetoexcitons. , 2019, , .		1
51	Hall effect in gated single-wall carbon nanotube films. Scientific Reports, 2022, 12, 101.	1.6	1
52	High-sensitivity detection of trace imidacloprid and tetracycline hydrochloride by multi-frequency resonance metamaterials. Journal of Food Measurement and Characterization, 0, , 1.	1.6	1