

Yang Xu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115
papers

4,761
citations

38
h-index

66
g-index

135
ext. papers

5,876
ext. citations

10.3
avg, IF

5.88
L-index

#	Paper	IF	Citations
115	2D Heterostructures for Ubiquitous Electronics and Optoelectronics: Principles, Opportunities, and Challenges.. <i>Chemical Reviews</i> , 2022 ,	68.1	28
114	Broadband Graphene Field-Effect Coupled Detectors: from Soft X-ray to Near-Infrared. <i>IEEE Electron Device Letters</i> , 2022 , 1-1	4.4	3
113	Ultrafast Digital Fabrication of Designable Architected Liquid Crystalline Elastomer. <i>Advanced Materials</i> , 2021 , 33, e2105597	24	8
112	UV curable micro-structured shape memory epoxy with tunable performance. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 51319	2.9	1
111	Transparent origami glass. <i>Nature Communications</i> , 2021 , 12, 4261	17.4	6
110	Twist angle dependent absorption feature induced by interlayer rotations in CVD bilayer graphene. <i>Nanophotonics</i> , 2021 , 10, 2695-2703	6.3	
109	Dynamic Covalent Polymer Networks: A Molecular Platform for Designing Functions beyond Chemical Recycling and Self-Healing. <i>Chemical Reviews</i> , 2021 , 121, 1716-1745	68.1	152
108	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. <i>Nature Communications</i> , 2020 , 11, 6368	17.4	9
107	3-D graphene aerogel sphere-based flexible sensors for healthcare applications. <i>Sensors and Actuators A: Physical</i> , 2020 , 312, 112144	3.9	12
106	Anion Engineering Enhanced Response Speed and Tunable Spectral Responsivity in Gallium-Oxynitrides-Based Ultraviolet Photodetectors. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 808-816 ⁴		6
105	High-performance silicon-graphene hybrid plasmonic waveguide photodetectors beyond 1.55 μm . <i>Light: Science and Applications</i> , 2020 , 9, 29	16.7	77
104	Visible-NIR Photodetectors Based on Low-Dimensional GeSe Micro-Crystals: Designed Morphology and Improved Photoresponsivity. <i>ChemPhysChem</i> , 2020 , 21, 397-405	3.2	4
103	On-Chip Measurement of Photoluminescence with High Sensitivity Monolithic Spectrometer. <i>Advanced Optical Materials</i> , 2020 , 8, 2000191	8.1	7
102	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. <i>Advanced Materials</i> , 2020 , 32, e1902039	24	53
101	Light-Driven WSe-ZnO Junction Field-Effect Transistors for High-Performance Photodetection. <i>Advanced Science</i> , 2020 , 7, 1901637	13.6	36
100	Room-temperature valleytronic transistor. <i>Nature Nanotechnology</i> , 2020 , 15, 743-749	28.7	33
99	Monolithic Full-Stokes Near-Infrared Polarimetry with Chiral Plasmonic Metasurface Integrated Graphene-Silicon Photodetector. <i>ACS Nano</i> , 2020 ,	16.7	30

98	Graphene photonic crystal fiber with large modulation depth. <i>Science China Chemistry</i> , 2020 , 63, 5-6	7.9	
97	Nanoplasmonically Enhanced High-Performance Metastable Phase β -GaO Solar-Blind Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 40283-40289	9.5	21
96	Highly Narrow-Band Polarization-Sensitive Solar-Blind Photodetectors Based on β -GaO Single Crystals. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7131-7137	9.5	38
95	High-Speed and High-Responsivity Hybrid Silicon/Black-Phosphorus Waveguide Photodetectors at 2 μ m. <i>Laser and Photonics Reviews</i> , 2019 , 13, 1900032	8.3	48
94	. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 2276-2281	2.9	33
93	Plasmon Excited Ultrahot Carriers and Negative Differential Photoresponse in a Vertical Graphene van der Waals Heterostructure. <i>Nano Letters</i> , 2019 , 19, 3295-3304	11.5	19
92	Transition of photoconductive and photovoltaic operation modes in amorphous Ga ₂ O ₃ -based solar-blind detectors tuned by oxygen vacancies. <i>Chinese Physics B</i> , 2019 , 28, 028501	1.2	13
91	Approaching the Collection Limit in Hot Electron Transistors with Ambipolar Hot Carrier Transport. <i>ACS Nano</i> , 2019 , 13, 14191-14197	16.7	15
90	Micron-Scale Photodetectors Based on One-Dimensional Single-Crystalline Sb ₂ S ₃ Microrods: Simultaneously Improving Responsivity and Extending Spectral Response Region. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 810-816	3.8	7
89	All-Two-Dimensional-Material Hot Electron Transistor. <i>IEEE Electron Device Letters</i> , 2018 , 39, 634-637	4.4	14
88	Trap Assisted Bulk Silicon Photodetector with High Photoconductive Gain, Low Noise, and Fast Response by Ag Hyperdoping. <i>Advanced Optical Materials</i> , 2018 , 6, 1700638	8.1	49
87	Titania nanowires functionalized polyester fabrics with enhanced photocatalytic and antibacterial performances. <i>Journal of Hazardous Materials</i> , 2018 , 343, 285-297	12.8	92
86	Identifying the stacking order of multilayer graphene grown by chemical vapor deposition via Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2018 , 49, 46-53	2.3	15
85	A high performance humidity sensor based on surface acoustic wave and graphene oxide on AlN/Si layered structure. <i>Sensors and Actuators B: Chemical</i> , 2018 , 255, 2454-2461	8.5	83
84	Broadband optoelectronic synaptic devices based on silicon nanocrystals for neuromorphic computing. <i>Nano Energy</i> , 2018 , 52, 422-430	17.1	97
83	Silicon-graphene photonic devices. <i>Journal of Semiconductors</i> , 2018 , 39, 061009	2.3	5
82	Direct formation of wafer-scale single-layer graphene films on the rough surface substrate by PECVD. <i>Carbon</i> , 2018 , 129, 456-461	10.4	43
81	Hybrid Structure of Silicon Nanocrystals and 2D WSe ₂ for Broadband Optoelectronic Synaptic Devices 2018 ,		10

80	2018,		2
79	A high performance broadband photodetector based on (SnxSb1-x)2Se3 nanorods with enhanced electrical conductivity. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 11078-11085	7.1	13
78	Light-induced negative differential resistance in gate-controlled graphene-silicon photodiode. <i>Applied Physics Letters</i> , 2018 , 112, 201109	3.4	6
77	Multifunctional wearable smart device based on conductive reduced graphene oxide/polyester fabric. <i>Applied Surface Science</i> , 2018 , 454, 218-226	6.7	76
76	Designing an Efficient Multimode Environmental Sensor Based on Graphene/Silicon Heterojunction. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600262	6.8	38
75	Flexible Dielectric Nanocomposites with Ultrawide Zero-Temperature Coefficient Windows for Electrical Energy Storage and Conversion under Extreme Conditions. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7591-7600	9.5	19
74	High quality graphene films with a clean surface prepared by an UV/ozone assisted transfer process. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 1880-1884	7.1	47
73	Illumination-Induced Hole Doping for Performance Improvement of Graphene/n-Silicon Solar Cells with P3HT Interlayer. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600516	6.4	15
72	Facile Synthesis of In Se Nanoflowers toward High Performance Self-Powered Broadband In Se /Si Heterojunction Photodiode. <i>Small</i> , 2017 , 13, 1604033	11	56
71	Photodetectors: Solvent-Based Soft-Patterning of Graphene Lateral Heterostructures for Broadband High-Speed Metal/Semiconductor/Metal Photodetectors (Adv. Mater. Technol. 2/2017). <i>Advanced Materials Technologies</i> , 2017 , 2,	6.8	2
70	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8	144
69	Photodetectors: A Broadband Fluorographene Photodetector (Adv. Mater. 22/2017). <i>Advanced Materials</i> , 2017 , 29,	24	1
68	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , 2017 , 29, 1700463	24	72
67	Ab initioelectronic transport study of two-dimensional silicon carbide-based p-n junctions. <i>Journal of Semiconductors</i> , 2017 , 38, 033002	2.3	4
66	Catalyst-Free Thermoset Polyurethane with Permanent Shape Reconfigurability and Highly Tunable Triple-Shape Memory Performance. <i>ACS Macro Letters</i> , 2017 , 6, 326-330	6.6	154
65	Single-electron transport in graphene-like nanostructures. <i>Physics Reports</i> , 2017 , 669, 1-42	27.7	16
64	Solvent-Based Soft-Patterning of Graphene Lateral Heterostructures for Broadband High-Speed Metal/Semiconductor/Metal Photodetectors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600241	6.8	43
63	Solar-Blind Photodetector with High Avalanche Gains and Bias-Tunable Detecting Functionality Based on Metastable Phase InGaO/ZnO Isotype Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 36997-37005	9.5	106

62	Tunable THz Multiband Frequency-Selective Surface Based on Hybrid Metal/Graphene Structures. <i>IEEE Nanotechnology Magazine</i> , 2017 , 16, 1132-1137	2.6	32
61	Plasmonic Silicon Quantum Dots Enabled High-Sensitivity Ultrabroadband Photodetection of Graphene-Based Hybrid Phototransistors. <i>ACS Nano</i> , 2017 , 11, 9854-9862	16.7	209
60	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. <i>Nature Communications</i> , 2017 , 8, 278	17.4	225
59	High-performance, flexible graphene/ultra-thin silicon ultra-violet image sensor 2017 ,		15
58	Graphene/silicon-quantum-dots/Si Schottky-PN cascade heterojunction for short-wavelength infrared photodetection 2017 ,		5
57	Pushing the Performance Limit of Sub-100 nm Molybdenum Disulfide Transistors. <i>Nano Letters</i> , 2016 , 16, 6337-6342	11.5	91
56	Interface coupling in graphene/fluorographene heterostructure for high-performance graphene/silicon solar cells. <i>Nano Energy</i> , 2016 , 28, 12-18	17.1	55
55	Three-dimensional macro-structures of two-dimensional nanomaterials. <i>Chemical Society Reviews</i> , 2016 , 45, 5541-5588	58.5	231
54	Graphene Coupled with Silicon Quantum Dots for High-Performance Bulk-Silicon-Based Schottky-Junction Photodetectors. <i>Advanced Materials</i> , 2016 , 28, 4912-9	24	163
53	Facile synthesis of hybrid nanorods with the Sb ₂ Se ₃ /AgSbSe ₂ heterojunction structure for high performance photodetectors. <i>Nanoscale</i> , 2016 , 8, 2277-83	7.7	32
52	A high-quality round-shaped monolayer MoS ₂ domain and its transformation. <i>Nanoscale</i> , 2016 , 8, 219-257	7.7	34
51	Ultrastiff and Strong Graphene Fibers via Full-Scale Synergetic Defect Engineering. <i>Advanced Materials</i> , 2016 , 28, 6449-56	24	217
50	Contacts between Two- and Three-Dimensional Materials: Ohmic, Schottky, and p-n Heterojunctions. <i>ACS Nano</i> , 2016 , 10, 4895-919	16.7	257
49	High sensitivity flexible Lamb-wave humidity sensors with a graphene oxide sensing layer. <i>Nanoscale</i> , 2015 , 7, 7430-6	7.7	80
48	Electronic structures of multilayer two-dimensional silicon carbide with oriented misalignment. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 9057-9062	7.1	20
47	Interference coordination strategy based on Nash bargaining for small-cell networks. <i>IET Communications</i> , 2015 , 9, 1583-1590	1.3	17
46	2015 ,		2
45	Flexible and Transparent Surface Acoustic Wave Microsensors and Microfluidics. <i>Procedia Engineering</i> , 2015 , 120, 717-720		7

44	Improved Slow Light Capacity In Graphene-based Waveguide. <i>Scientific Reports</i> , 2015 , 5, 15335	4.9	27
43	Development of flexible ZnO thin film surface acoustic wave strain sensors on ultrathin glass substrates. <i>Journal of Micromechanics and Microengineering</i> , 2015 , 25, 115005	2	15
42	Adaptive biasing scheme for load balancing in backhaul constrained small cell networks. <i>IET Communications</i> , 2015 , 9, 999-1005	1.3	7
41	A design of SPDT switch using graphene device 2015 ,		2
40	Mechanical properties of nickel-graphene composites synthesized by electrochemical deposition. <i>Nanotechnology</i> , 2015 , 26, 065706	3.4	91
39	Fast response and high sensitivity ZnO/glass surface acoustic wave humidity sensors using graphene oxide sensing layer. <i>Scientific Reports</i> , 2014 , 4, 7206	4.9	115
38	Enhancement of charge photo-generation and transport via an internal network of Sb ₂ Se ₃ /Cu ₂ GeSe ₃ heterojunctions. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 17099-17106	13	21
37	A non-contact graphene surface scattering rate characterization method at microwave frequency by combining Raman spectroscopy and coaxial connectors measurement. <i>Carbon</i> , 2014 , 77, 53-58	10.4	10
36	Fluorinated graphene and hexagonal boron nitride as ALD seed layers for graphene-based van der Waals heterostructures. <i>Nanotechnology</i> , 2014 , 25, 355202	3.4	5
35	Bendable ZnO thin film surface acoustic wave devices on polyethylene terephthalate substrate. <i>Applied Physics Letters</i> , 2014 , 104, 213504	3.4	18
34	Local and nonlocal optically induced transparency effects in graphene-silicon hybrid nanophotonic integrated circuits. <i>ACS Nano</i> , 2014 , 8, 11386-93	16.7	42
33	Graphene interconnects fully encapsulated in layered insulator hexagonal boron nitride. <i>Nanotechnology</i> , 2013 , 24, 355202	3.4	28
32	Ab initio study of electronic and optical behavior of two-dimensional silicon carbide. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 2131	7.1	111
31	Reconfigurable Parallel Plasmonic Transmission Lines With Nanometer Light Localization and Long Propagation Distance. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013 , 19, 4601809-4601809 ⁸		5
30	Ab initio optical study of graphene on hexagonal boron nitride and fluorographene substrates. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1618	7.1	35
29	Monolayer graphene/hexagonal boron nitride heterostructure. <i>Carbon</i> , 2013 , 54, 396-402	10.4	49
28	Low-chirp high-extinction-ratio modulator based on graphene-silicon waveguide. <i>Optics Letters</i> , 2013 , 38, 2512-5	3	43
27	Unidirectional surface plasmons in nonreciprocal graphene. <i>New Journal of Physics</i> , 2013 , 15, 113003	2.9	33

26	Layered insulator hexagonal boron nitride for surface passivation in quantum dot solar cell. <i>Applied Physics Letters</i> , 2013 , 103, 243904	3.4	10
25	Flexible surface acoustic wave resonators built on disposable plastic film for electronics and lab-on-a-chip applications. <i>Scientific Reports</i> , 2013 , 3, 2140	4.9	94
24	Experimental demonstration of a free-space cylindrical cloak without superluminal propagation. <i>Physical Review Letters</i> , 2012 , 109, 223903	7.4	79
23	Tailoring atomic structure to control the electronic transport in zigzag graphene nanoribbon. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012 , 376, 3277-3280	2.3	3
22	Ab initio study of energy-band modulation in graphene-based two-dimensional layered superlattices. <i>Journal of Materials Chemistry</i> , 2012 , 22, 23821		17
21	Logic Inverter Implemented with CVD-Assembled Graphene FET on Hexagonal Boron Nitride. <i>IEEE Nanotechnology Magazine</i> , 2012 , 11, 619-623	2.6	9
20	Ultraviolet dielectric hyperlens with layered graphene and boron nitride. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15863		28
19	Quantum and thermo-mechanical noise squeezing in nanoresonators: A comparative study. <i>Applied Physics Letters</i> , 2012 , 100, 023105	3.4	1
18	Exploring carrier transport phenomena in a CVD-assembled graphene FET on hexagonal boron nitride. <i>Nanotechnology</i> , 2012 , 23, 125706	3.4	24
17	CVD-Graphene Complementary Logic on Ultra-thin Multilayer Hexagonal Boron Nitride. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1407, 151		
16	Electronic transport anisotropy of buckling graphene under uniaxial compressive strain: Ab initio study. <i>Applied Physics Letters</i> , 2012 , 100, 052111	3.4	5
15	Linear and Nonlinear Optical Absorption of on-chip Silicon-on-insulator Nanowires with Graphene 2012 ,		2
14	A novel fabrication method of silicon nano-needles using MEMS TMAH etching techniques. <i>Nanotechnology</i> , 2011 , 22, 125301	3.4	6
13	In-plane and tunneling pressure sensors based on graphene/hexagonal boron nitride heterostructures. <i>Applied Physics Letters</i> , 2011 , 99, 133109	3.4	65
12	Sharp Silicon Nano-Needles Based on Boron Etch-Stop in TMAH Solutions. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1301, 225		
11	Quantum-squeezing effects of strained multilayer graphene NEMS. <i>Nanoscale Research Letters</i> , 2011 , 6, 355	5	3
10	Electronic transport in monolayer graphene with extreme physical deformation: ab initio density functional calculation. <i>Nanotechnology</i> , 2011 , 22, 365202	3.4	8
9	Defect symmetry influence on electronic transport of zigzag nanoribbons. <i>Nanoscale Research Letters</i> , 2011 , 6, 254	5	27

8	Carbon-based interconnect: Performance, scaling and reliability of 3D stacked multilayer graphene system 2011 ,		7
7	Electromechanical robustness of monolayer graphene with extreme bending. <i>Applied Physics Letters</i> , 2010 , 97, 223102	3.4	42
6	Detection of defective DNA in carbon nanotubes by combined molecular dynamics/tight-binding technique. <i>Applied Physics Letters</i> , 2009 , 95, 113116	3.4	6
5	Pull-in/out analysis of nano/microelectromechanical switches with defective oxide layers. <i>Applied Physics Letters</i> , 2009 , 95, 073112	3.4	6
4	Multiscale electrostatic analysis of silicon nanoelectromechanical systems (NEMS) via heterogeneous quantum models. <i>Physical Review B</i> , 2008 , 77,	3.3	12
3	Carbon nanotube screening effects on the water-ion channels. <i>Applied Physics Letters</i> , 2008 , 93, 43122	3.4	12
2	Combined semiclassical and effective-mass Schrödinger approach for multiscale analysis of semiconductor nanostructures. <i>Physical Review B</i> , 2007 , 76,	3.3	6
1	Physical models for coupled electromechanical analysis of silicon nanoelectromechanical systems. <i>Journal of Applied Physics</i> , 2005 , 97, 114304	2.5	31