Yang Xu

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/8688386/publications.pdf

Version: 2024-02-01

133 papers	7,269 citations	53794 45 h-index	58581 82 g-index
135 all docs	135 docs citations	135 times ranked	10225 citing authors

#	Article	IF	Citations
1	Optical sensors: deciphering plant phenomics in breeding factories. Trends in Plant Science, 2022, 27, 209-210.	8.8	5
2	2D Heterostructures for Ubiquitous Electronics and Optoelectronics: Principles, Opportunities, and Challenges. Chemical Reviews, 2022, 122, 6514-6613.	47.7	187
3	Macroscopic assembled graphene nanofilms based room temperature ultrafast midâ€infrared photodetectors. InformaÃ•Â-MateriÃ¡ly, 2022, 4, .	17.3	24
4	Broadband Graphene Field-Effect Coupled Detectors: From Soft X-Ray to Near-Infrared. IEEE Electron Device Letters, 2022, 43, 902-905.	3.9	15
5	Graphene charge-injection photodetectors. Nature Electronics, 2022, 5, 281-288.	26.0	70
6	Homogroup Bi/Sb Lattice Substitution to Enhance the Photoelectric Properties of Sb₂Se₃ Crystals. Journal of Physical Chemistry C, 2022, 126, 8913-8921.	3.1	3
7	Graphene Nanofilms/Silicon Near-Infrared Avalanche Photodetectors. IEEE Nanotechnology Magazine, 2022, 21, 307-310.	2.0	9
8	Dynamic Covalent Polymer Networks: A Molecular Platform for Designing Functions beyond Chemical Recycling and Self-Healing. Chemical Reviews, 2021, 121, 1716-1745.	47.7	587
9	<scp>UV</scp> curable microâ€structured shape memory epoxy with tunable performance. Journal of Applied Polymer Science, 2021, 138, 51319.	2.6	2
10	Transparent origami glass. Nature Communications, 2021, 12, 4261.	12.8	24
11	Twist angle dependent absorption feature induced by interlayer rotations in CVD bilayer graphene. Nanophotonics, 2021, 10, 2695-2703.	6.0	1
12	Ultrafast Digital Fabrication of Designable Architectured Liquid Crystalline Elastomer. Advanced Materials, 2021, 33, e2105597.	21.0	37
13	High-performance Silicon Photonic Filters based on High-order Adiabatic Elliptical-microrings. , 2021, , .		0
14	Macroscopic-Assembled-Graphene Nanofilms/Germanium Broadband Photodetectors. , 2021, , .		6
15	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. Advanced Materials, 2020, 32, e1902039.	21.0	127
16	Graphene photonic crystal fiber with large modulation depth. Science China Chemistry, 2020, 63, 5-6.	8.2	0
17	Lightâ€Driven WSe₂â€ZnO Junction Fieldâ€Effect Transistors for Highâ€Performance Photodetection. Advanced Science, 2020, 7, 1901637.	11.2	66
18	Room-temperature valleytronic transistor. Nature Nanotechnology, 2020, 15, 743-749.	31.5	87

#	Article	IF	Citations
19	Monolithic Full-Stokes Near-Infrared Polarimetry with Chiral Plasmonic Metasurface Integrated Grapheneâ€“Silicon Photodetector. ACS Nano, 2020, 14, 16634-16642.	14.6	94
20	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. Nature Communications, 2020, 11, 6368.	12.8	32
21	Robust and Sensitive Sensing of Unsteady Flows Using a Hair-Like Macroscopic Graphene Fiber. , 2020, , .		0
22	3-D graphene aerogel sphere-based flexible sensors for healthcare applications. Sensors and Actuators A: Physical, 2020, 312, 112144.	4.1	35
23	Graphene muscle with artificial intelligence. , 2020, , .		1
24	Graphene light-field camera. Nature Photonics, 2020, 14, 134-136.	31.4	13
25	Anion Engineering Enhanced Response Speed and Tunable Spectral Responsivity in Gallium-Oxynitrides-Based Ultraviolet Photodetectors. ACS Applied Electronic Materials, 2020, 2, 808-816.	4.3	18
26	High-performance siliconâ^'graphene hybrid plasmonic waveguide photodetectors beyond 1.55â€‰Î¼m. Light: Science and Applications, 2020, 9, 29.	16.6	155
27	Visibleâ€“NIR Photodetectors Based on Lowâ€Dimensional GeSe Microâ€Crystals: Designed Morphology and Improved Photoresponsivity. ChemPhysChem, 2020, 21, 397-405.	2.1	7
28	Onâ€Chip Measurement of Photoluminescence with High Sensitivity Monolithic Spectrometer. Advanced Optical Materials, 2020, 8, 2000191.	7.3	18
29	Nanoplasmonically Enhanced High-Performance Metastable Phase Î±-Ga₂O₃ Solar-Blind Photodetectors. ACS Applied Materials & Interfaces, 2019, 11, 40283-40289.	8.0	31
30	Highly Narrow-Band Polarization-Sensitive Solar-Blind Photodetectors Based on Î²-Ga₂O₃ Single Crystals. ACS Applied Materials & Interfaces, 2019, 11, 7131-7137.	8.0	55
31	Highâ€Speed and Highâ€Responsivity Hybrid Silicon/Blackâ€Phosphorus Waveguide Photodetectors at 2ÂÂµm. Laser and Photonics Reviews, 2019, 13, 1900032.	8.7	91
32	Carrier Transport and Gain Mechanisms in eta â€“Ga₂O₃-Based Metalâ€“Semiconductorâ€“Metal Solar-Blind Schottky Photodetectors. IEEE Transactions on Electron Devices, 2019, 66, 2276-2281.	3.0	59
33	Plasmon Excited Ultrahot Carriers and Negative Differential Photoresponse in a Vertical Graphene van der Waals Heterostructure. Nano Letters, 2019, 19, 3295-3304.	9.1	28
34	Transition of photoconductive and photovoltaic operation modes in amorphous Ga ₂ O ₃ -based solar-blind detectors tuned by oxygen vacancies. Chinese Physics B, 2019, 28, 028501.	1.4	26
35	Approaching the Collection Limit in Hot Electron Transistors with Ambipolar Hot Carrier Transport. ACS Nano, 2019, 13, 14191-14197.	14.6	21
36	Micron-Scale Photodetectors Based on One-Dimensional Single-Crystalline Sb2â€“xSnxSe3 Microrods: Simultaneously Improving Responsivity and Extending Spectral Response Region. Journal of Physical Chemistry C, 2019, 123, 810-816.	3.1	14

#	Article	IF	Citations
37	All-Two-Dimensional-Material Hot Electron Transistor. IEEE Electron Device Letters, 2018, 39, 634-637.	3.9	19
38	Trap Assisted Bulk Silicon Photodetector with High Photoconductive Gain, Low Noise, and Fast Response by Ag Hyperdoping. Advanced Optical Materials, 2018, 6, 1700638.	7.3	75
39	Titania nanowires functionalized polyester fabrics with enhanced photocatalytic and antibacterial performances. Journal of Hazardous Materials, 2018, 343, 285-297.	12.4	110
40	Identifying the stacking order of multilayer graphene grown by chemical vapor deposition via Raman spectroscopy. Journal of Raman Spectroscopy, 2018, 49, 46-53.	2.5	22
41	A high performance humidity sensor based on surface acoustic wave and graphene oxide on AlN/Si layered structure. Sensors and Actuators B: Chemical, 2018, 255, 2454-2461.	7.8	110
42	Direct formation of wafer-scale single-layer graphene films on the rough surface substrate by PECVD. Carbon, 2018, 129, 456-461.	10.3	60
43	Hybrid Structure of Silicon Nanocrystals and 2D WSe<inf>2</inf> for Broadband Optoelectronic Synaptic Devices. , 2018, , .		15
44	High Performance Graphene/Silicon Photodetectors and Image Sensors. , 2018, , .		3
45	A high performance broadband photodetector based on (Sn_xSb_{1â”x})₂Se₃ nanorods with enhanced electrical conductivity. Journal of Materials Chemistry C, 2018, 6, 11078-11085.	5.5	24
46	Light-induced negative differential resistance in gate-controlled graphene-silicon photodiode. Applied Physics Letters, 2018, 112, .	3.3	14
47	Multifunctional wearable smart device based on conductive reduced graphene oxide/polyester fabric. Applied Surface Science, 2018, 454, 218-226.	6.1	106
48	Broadband optoelectronic synaptic devices based on silicon nanocrystals for neuromorphic computing. Nano Energy, 2018, 52, 422-430.	16.0	150
49	Silicon-graphene photonic devices. Journal of Semiconductors, 2018, 39, 061009.	3.7	12
50	Designing an Efficient Multimode Environmental Sensor Based on Grapheneâ€“Silicon Heterojunction. Advanced Materials Technologies, 2017, 2, 1600262.	5.8	55
51	Flexible Dielectric Nanocomposites with Ultrawide Zero-Temperature Coefficient Windows for Electrical Energy Storage and Conversion under Extreme Conditions. ACS Applied Materials & Interfaces, 2017, 9, 7591-7600.	8.0	29
52	High quality graphene films with a clean surface prepared by an UV/ozone assisted transfer process. Journal of Materials Chemistry C, 2017, 5, 1880-1884.	5.5	54
53	Illuminationâ€Induced Hole Doping for Performance Improvement of Graphene/nâ€Silicon Solar Cells with P3HT Interlayer. Advanced Electronic Materials, 2017, 3, 1600516.	5.1	20
54	Facile Synthesis of Î³â€In₂Se₃ Nanoflowers toward High Performance Selfâ€Powered Broadband Î³â€In₂Se₃/Si Heterojunction Photodiode. Small, 2017, 13, 1604033.	10.0	64

#	Article	IF	Citations
55	Photodetectors: Solventâ€Based Softâ€Patterning of Graphene Lateral Heterostructures for Broadband Highâ€Speed Metalâ€“Semiconductorâ€“Metal Photodetectors (Adv. Mater. Technol. 2/2017). Advanced Materials Technologies, 2017, 2, .	5.8	2
56	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. Npj 2D Materials and Applications, 2017, 1, .	7.9	211
57	Photodetectors: A Broadband Fluorographene Photodetector (Adv. Mater. 22/2017). Advanced Materials, 2017, 29, .	21.0	1
58	A Broadband Fluorographene Photodetector. Advanced Materials, 2017, 29, 1700463.	21.0	110
59	Ab initioelectronic transport study of two-dimensional silicon carbide-based pâ€“n junctions. Journal of Semiconductors, 2017, 38, 033002.	3.7	5
60	Catalyst-Free Thermoset Polyurethane with Permanent Shape Reconfigurability and Highly Tunable Triple-Shape Memory Performance. ACS Macro Letters, 2017, 6, 326-330.	4.8	198
61	Single-electron transport in graphene-like nanostructures. Physics Reports, 2017, 669, 1-42.	25.6	22
62	Solventâ€Based Softâ€Patterning of Graphene Lateral Heterostructures for Broadband Highâ€Speed Metalâ€“Semiconductorâ€“Metal Photodetectors. Advanced Materials Technologies, 2017, 2, 1600241.	5.8	53
63	Solar-Blind Photodetector with High Avalanche Gains and Bias-Tunable Detecting Functionality Based on Metastable Phase Î±-Ga₂O₃/ZnO Isotype Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 36997-37005.	8.0	158
64	Tunable THz Multiband Frequency-Selective Surface Based on Hybrid Metalâ€“Graphene Structures. IEEE Nanotechnology Magazine, 2017, 16, 1132-1137.	2.0	41
65	Plasmonic Silicon Quantum Dots Enabled High-Sensitivity Ultrabroadband Photodetection of Graphene-Based Hybrid Phototransistors. ACS Nano, 2017, 11, 9854-9862.	14.6	285
66	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. Nature Communications, 2017, 8, 278.	12.8	311
67	High-performance, flexible graphene/ultra-thin silicon ultra-violet image sensor. , 2017, , .		28
68	Graphene/silicon-quantum-dots/Si Schottky-PN cascade heterojunction for short-wavelength infrared photodetection. , 2017, , .		11
69	Ultrastiff and Strong Graphene Fibers via Fullâ€Scale Synergetic Defect Engineering. Advanced Materials, 2016, 28, 6449-6456.	21.0	279
70	Contacts between Two- and Three-Dimensional Materials: Ohmic, Schottky, and pâ€“n Heterojunctions. ACS Nano, 2016, 10, 4895-4919.	14.6	308
71	Pushing the Performance Limit of Sub-100 nm Molybdenum Disulfide Transistors. Nano Letters, 2016, 16, 6337-6342.	9.1	117
72	Interface coupling in graphene/fluorographene heterostructure for high-performance graphene/silicon solar cells. Nano Energy, 2016, 28, 12-18.	16.0	73

#	Article	IF	Citations
73	Three-dimensional macro-structures of two-dimensional nanomaterials. Chemical Society Reviews, 2016, 45, 5541-5588.	38.1	280
74	Graphene coupled with silicon quantum dots for high-performance silicon Schottky photodetectors. , 2016, , .		1
75	Graphene Coupled with Silicon Quantum Dots for Highâ€Performance Bulkâ€Siliconâ€Based Schottkyâ€Junction Photodetectors. Advanced Materials, 2016, 28, 4912-4919.	21.0	206
76	Facile synthesis of hybrid nanorods with the Sb₂Se₃/AgSbSe₂ heterojunction structure for high performance photodetectors. Nanoscale, 2016, 8, 2277-2283.	5.6	48
77	A high-quality round-shaped monolayer MoS₂domain and its transformation. Nanoscale, 2016, 8, 219-225.	5.6	43
78	Exploring graphene loaded antenna for GHz potential applications by experiment. , 2015, , .		4
79	Flexible and Transparent Surface Acoustic Wave Microsensors and Microfluidics. Procedia Engineering, 2015, 120, 717-720.	1.2	8
80	Improved Slow Light Capacity In Graphene-based Waveguide. Scientific Reports, 2015, 5, 15335.	3.3	31
81	Development of flexible ZnO thin film surface acoustic wave strain sensors on ultrathin glass substrates. Journal of Micromechanics and Microengineering, 2015, 25, 115005.	2.6	21
82	Adaptive biasing scheme for load balancing in backhaul constrained small cell networks. IET Communications, 2015, 9, 999-1005.	2.2	10
83	A graphene-based terahertz wavelength division multiplexer. , 2015, , .		0
84	A design of SPDT switch using graphene device. , 2015, , .		2
85	Mechanical properties of nickel-graphene composites synthesized by electrochemical deposition. Nanotechnology, 2015, 26, 065706.	2.6	116
86	High sensitivity flexible Lamb-wave humidity sensors with a graphene oxide sensing layer. Nanoscale, 2015, 7, 7430-7436.	5.6	95
87	Electronic structures of multilayer two-dimensional silicon carbide with oriented misalignment. Journal of Materials Chemistry C, 2015, 3, 9057-9062.	5.5	27
88	Interference coordination strategy based on Nash bargaining for smallâ€cell networks. IET Communications, 2015, 9, 1583-1590.	2.2	19
89	Fluorinated graphene and hexagonal boron nitride as ALD seed layers for graphene-based van der Waals heterostructures. Nanotechnology, 2014, 25, 355202.	2.6	5
90	Bendable ZnO thin film surface acoustic wave devices on polyethylene terephthalate substrate. Applied Physics Letters, 2014, 104, .	3.3	31

#	Article	IF	Citations
91	Local and Nonlocal Optically Induced Transparency Effects in Grapheneâ€“Silicon Hybrid Nanophotonic Integrated Circuits. ACS Nano, 2014, 8, 11386-11393.	14.6	55
92	Enhancement of charge photo-generation and transport via an internal network of Sb₂Se₃/Cu₂GeSe₃heterojunctions. Journal of Materials Chemistry A, 2014, 2, 17099-17106.	10.3	26
93	A non-contact graphene surface scattering rate characterization method at microwave frequency by combining Raman spectroscopy and coaxial connectors measurement. Carbon, 2014, 77, 53-58.	10.3	17
94	Fast Response and High Sensitivity ZnO/glass Surface Acoustic Wave Humidity Sensors Using Graphene Oxide Sensing Layer. Scientific Reports, 2014, 4, 7206.	3.3	149
95	Graphene interconnects fully encapsulated in layered insulator hexagonal boron nitride. Nanotechnology, 2013, 24, 355202.	2.6	33
96	Ab initio study of electronic and optical behavior of two-dimensional silicon carbide. Journal of Materials Chemistry C, 2013, 1, 2131.	5.5	148
97	Reconfigurable Parallel Plasmonic Transmission Lines With Nanometer Light Localization and Long Propagation Distance. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 4601809-4601809.	2.9	6
98	Joint CFO and sparse channel estimation for MIMO-OFDM systems via the SAGE algorithm. , 2013, , .		3
99	Ab initio optical study of graphene on hexagonal boron nitride and fluorographene substrates. Journal of Materials Chemistry C, 2013, 1, 1618.	5.5	39
100	Monolayer graphene/hexagonal boron nitride heterostructure. Carbon, 2013, 54, 396-402.	10.3	60
101	Fabrication of large-scale suspended graphene clamp-clamp beam by FIB cutting. , 2013, , .		0
102	Low-chirp high-extinction-ratio modulator based on grapheneâ€“silicon waveguide. Optics Letters, 2013, 38, 2512.	3.3	55
103	A theoretical study of fluorographene as substrates for mono-/Bi-layer graphene. , 2013, , .		1
104	Unidirectional surface plasmons in nonreciprocal graphene. New Journal of Physics, 2013, 15, 113003.	2.9	40
105	Layered insulator hexagonal boron nitride for surface passivation in quantum dot solar cell. Applied Physics Letters, 2013, 103, .	3.3	13
106	Flexible surface acoustic wave resonators built on disposable plastic film for electronics and lab-on-a-chip applications. Scientific Reports, 2013, 3, 2140.	3.3	116
107	Quantum and thermo-mechanical noise squeezing in nanoresonators: A comparative study. Applied Physics Letters, 2012, 100, .	3.3	2
108	Exploring carrier transport phenomena in a CVD-assembled graphene FET on hexagonal boron nitride. Nanotechnology, 2012, 23, 125706.	2.6	28

#	Article	IF	Citations
109	CVD-Graphene Complementary Logic on Ultra-thin Multilayer Hexagonal Boron Nitride. Materials Research Society Symposia Proceedings, 2012, 1407, 151.	0.1	0
110	Electronic transport anisotropy of buckling graphene under uniaxial compressive strain: Ab initio study. Applied Physics Letters, 2012, 100, .	3.3	6
111	Experimental Demonstration of a Free-Space Cylindrical Cloak without Superluminal Propagation. Physical Review Letters, 2012, 109, 223903.	7.8	87
112	Large scale cylindrical cloak in free space without superluminal propagation. , 2012, , .		0
113	Tailoring atomic structure to control the electronic transport in zigzag graphene nanoribbon. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3277-3280.	2.1	3
114	Ab initio study of energy-band modulation in graphene-based two-dimensional layered superlattices. Journal of Materials Chemistry, 2012, 22, 23821.	6.7	18
115	Logic Inverter Implemented with CVD-Assembled Graphene FET on Hexagonal Boron Nitride. IEEE Nanotechnology Magazine, 2012, 11, 619-623.	2.0	10
116	Ultraviolet dielectric hyperlens with layered graphene and boron nitride. Journal of Materials Chemistry, 2012, 22, 15863.	6.7	29
117	Linear and Nonlinear Optical Absorption of on-chip Silicon-on-insulator Nanowires with Graphene. , 2012, , .		5
118	A novel fabrication method of silicon nano-needles using MEMS TMAH etching techniques. Nanotechnology, 2011, 22, 125301.	2.6	7
119	In-plane and tunneling pressure sensors based on graphene/hexagonal boron nitride heterostructures. Applied Physics Letters, 2011, 99, .	3.3	74
120	Sharp Silicon Nano-Needles Based on Boron Etch-Stop in TMAH Solutions. Materials Research Society Symposia Proceedings, 2011, 1301, 225.	0.1	0
121	Quantum Squeezing Effects of Monolayer Graphene NEMS. , 2011, , .		1
122	Negative Differential Resistances Observed In Suspended-Channel FETs. AIP Conference Proceedings, 2011, , .	0.4	0
123	Quantum-squeezing effects of strained multilayer graphene NEMS. Nanoscale Research Letters, 2011, 6, 355.	5.7	5
124	Electronic transport in monolayer graphene with extreme physical deformation:ab initiodensity functional calculation. Nanotechnology, 2011, 22, 365202.	2.6	10
125	Defect symmetry influence on electronic transport of zigzag nanoribbons. Nanoscale Research Letters, 2011, 6, 254.	5.7	31
126	Carbon-based interconnect: Performance, scaling and reliability of 3D stacked multilayer graphene system. , 2011, , .		9

#	Article	IF	Citations
127	Electromechanical robustness of monolayer graphene with extreme bending. Applied Physics Letters, 2010, 97, 223102.	3.3	48
128	Detection of defective DNA in carbon nanotubes by combined molecular dynamics/tight-binding technique. Applied Physics Letters, 2009, 95, 113116.	3.3	6
129	Pull-in/out analysis of nano/microelectromechanical switches with defective oxide layers. Applied Physics Letters, 2009, 95, 073112.	3.3	7
130	Multiscale electrostatic analysis of silicon nanoelectromechanical systems (NEMS) via heterogeneous quantum models. Physical Review B, 2008, 77, .	3.2	15
131	Carbon nanotube screening effects on the water-ion channels. Applied Physics Letters, 2008, 93, 43122.	3.3	14
132	Combined semiclassical and effective-mass SchrÃ¶dinger approach for multiscale analysis of semiconductor nanostructures. Physical Review B, 2007, 76, .	3.2	6
133	Physical models for coupled electromechanical analysis of silicon nanoelectromechanical systems. Journal of Applied Physics, 2005, 97, 114304.	2.5	34