Jie Sun

List of Publications by Year in descending order

95 papers	2,100 citations	218381 26 h-index	264894 42 g-index
95 all docs	95 docs citations	95 times ranked	3061 citing authors

#	Article	IF	Citations
1	Quantum-dot array with a random rough interface encapsulated by atomic layer deposition. Optics Letters, 2022, 47, 166.	1.7	16
2	Insights into the Mechanism for Vertical Graphene Growth by Plasma-Enhanced Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2022, 14, 7152-7160.	4.0	20
3	Hybrid Device of Blue GaN Light-Emitting Diodes and Organic Light-Emitting Diodes with Color Tunability for Smart Lighting Sources. ACS Omega, 2022, 7, 5502-5509.	1.6	7
4	Tripling Light Conversion Efficiency of Î¼LED Displays by Light Recycling Black Matrix. IEEE Photonics Journal, 2022, 14, 1-7.	1.0	10
5	GaN LEDs with in situ synthesized transparent graphene heat-spreading electrodes fabricated by PECVD and penetration etching. Journal of Materials Chemistry C, 2022, 10, 6794-6804.	2.7	3
6	Role of surface microstructure and shape on light extraction efficiency enhancement of GaN micro-LEDs: A numerical simulation study. Displays, 2022, 73, 102172.	2.0	8
7	Unveiling the charge transfer dynamics steered by built-in electric fields in BiOBr photocatalysts. Nature Communications, 2022, 13, 2230.	5.8	117
8	Research on the reliability of Micro LED high-density solder joints under thermal cycling conditions. Journal of Physics: Conference Series, 2022, 2221, 012010.	0.3	5
9	Perovskite Quantum Dots for Emerging Displays: Recent Progress and Perspectives. Nanomaterials, 2022, 12, 2243.	1.9	30
10	Aspiration-assisted fabrication of patterned quantum dot films for photo-emissive color conversion. Journal of Materials Science, 2021, 56, 1504-1514.	1.7	3
11	Metallization Reliability of GaN-Based High-Voltage Light-Emitting Diodes. IEEE Transactions on Device and Materials Reliability, 2021, 21, 472-478.	1.5	0
12	Dynamic phase manipulation of vertical-cavity surface-emitting lasers via on-chip integration of microfluidic channels. Optics Express, 2021, 29, 1481.	1.7	1
13	Asymmetric Quantum-Dot Pixelation for Color-Converted White Balance. ACS Photonics, 2021, 8, 2158-2165.	3.2	30
14	Quantum Dot Color Conversion Efficiency Enhancement in Micro-Light-Emitting Diodes by Non-Radiative Energy Transfer. IEEE Electron Device Letters, 2021, 42, 1184-1187.	2.2	8
15	Direct Growth of Transparent Graphene Electrodes on GaN LEDs Using Metal Proximity Catalytic Effect. , 2021, , .		0
16	Graphene-assisted preparation of large-scale single-crystal Ag(111) nanoparticle arrays for surface-enhanced Raman scattering. Nanotechnology, 2021, 32, 025301.	1.3	2
17	Graphene coated magnetic nanoparticles facilitate the release of biofuels and oleochemicals from yeast cell factories. Scientific Reports, 2021, 11, 20612.	1.6	1
18	In Situ Growth of CVD Graphene Directly on Dielectric Surface toward Application. ACS Applied Electronic Materials, 2020, 2, 238-246.	2.0	17

#	Article	IF	Citations
19	Morphology regulation of TiO2 thin film by ALD growth temperature and its applications to encapsulation and light extraction. Journal of Materials Science: Materials in Electronics, 2020, 31, 21316-21324.	1.1	2
20	High Quality Graphene Thin Films Synthesized by Glow Discharge Method in A Chemical Vapor Deposition System Using Solid Carbon Source. Materials, 2020, 13, 2026.	1.3	1
21	Multiple growth of graphene from a pre-dissolved carbon source. Nanotechnology, 2020, 31, 345601.	1.3	5
22	Direct growth of high quality graphene nanowalls on dielectric surfaces by plasma-enhanced chemical vapor deposition for photo detection. Optical Materials Express, 2020, 10, 2909.	1.6	13
23	Facile growth of aluminum oxide thin film by chemical liquid deposition and its application in devices. Nanotechnology Reviews, 2020, 9, 876-885.	2.6	7
24	Direct Patterned Growth of PECVD Graphene Transparent Electrodes on GaN LED Epiwafers Using Co as a Sacrificial Catalyst Layer. , 2020, , .		0
25	High-responsivity photodetectors made of graphene nanowalls grown on Si. Applied Physics Letters, 2019, 115, .	1.5	23
26	Transfer-Free Graphene-Like Thin Films on GaN LED Epiwafers Grown by PECVD Using an Ultrathin Pt Catalyst for Transparent Electrode Applications. Materials, 2019, 12, 3533.	1.3	7
27	Reliability of High-Voltage GaN-Based Light-Emitting Diodes. IEEE Transactions on Device and Materials Reliability, 2019, 19, 402-408.	1.5	7
28	Process Optimization of Passive Matrix GaN-Based Micro-LED Arrays for Display Applications. Journal of Electronic Materials, 2019, 48, 5195-5201.	1.0	18
29	Metal-Catalyst-Free Growth of Patterned Graphene on SiO₂ Substrates by Annealing Plasma-Induced Cross-Linked Parylene for Optoelectronic Device Applications. ACS Applied Materials & Interfaces, 2019, 11, 14427-14436.	4.0	8
30	Monolithic Integrated Device of GaN Micro-LED with Graphene Transparent Electrode and Graphene Active-Matrix Driving Transistor. Materials, 2019, 12, 428.	1.3	17
31	The Growth of Graphene on Niâ€“Cu Alloy Thin Films at a Low Temperature and Its Carbon Diffusion Mechanism. Nanomaterials, 2019, 9, 1633.	1.9	9
32	Chemical vapor deposition of graphene on refractory metals: The attempt of growth at much higher temperature. Synthetic Metals, 2019, 247, 233-239.	2.1	7
33	Ultra-compact electrically controlled beam steering chip based on coherently coupled VCSEL array directly integrated with optical phased array. Optics Express, 2019, 27, 13910.	1.7	9
34	Direct Growth of Large-area Graphene by Cross-linked Parylene Graphitization toward Photodetection. , 2019, , .		0
35	Vertically Aligned Graphene Coating is Bactericidal and Prevents the Formation of Bacterial Biofilms. Advanced Materials Interfaces, 2018, 5, 1701331.	1.9	72
36	Two-In-One Method for Graphene Transfer: Simplified Fabrication Process for Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2018, 10, 7289-7295.	4.0	29

#	Article	IF	Citations
37	Graphene bolometer with thermoelectric readout and capacitive coupling to an antenna. Applied Physics Letters, 2018, 112, .	1.5	23
38	Transfer-free, lithography-free, and micrometer-precision patterning of CVD graphene on SiO2 toward all-carbon electronics. APL Materials, 2018, 6, 026802.	2.2	14
39	Large-Scale Proton-Implant-Defined VCSEL Arrays With Narrow Beamwidth. IEEE Electron Device Letters, 2018, 39, 390-393.	2.2	11
40	Dependence of Beam Quality on Optical Intensity Asymmetry in In-Phase Coherently Coupled VCSEL Array. IEEE Journal of Quantum Electronics, 2018, 54, 1-6.	1.0	10
41	Transfer-free, lithography-free and fast growth of patterned CVD graphene directly on insulators by using sacrificial metal catalyst. Nanotechnology, 2018, 29, 365301.	1.3	22
42	Analysis of optical coupling behavior in two-dimensional implant-defined coherently coupled vertical-cavity surface-emitting laser arrays. Photonics Research, 2018, 6, 1048.	3.4	7
43	Chiral charge pumping in graphene deposited on a magnetic insulator. Physical Review B, 2017, 95, .	1.1	22
44	Encapsulation of graphene in Parylene. Applied Physics Letters, 2017, 110, .	1.5	18
45	New Strategy for Black Phosphorus Crystal Growth through Ternary Clathrate. Crystal Growth and Design, 2017, 17, 6579-6585.	1.4	38
46	Thermoelectric effects in graphene at high bias current and under microwave irradiation. Scientific Reports, 2017, 7, 15542.	1.6	4
47	Synthesis Methods of Two-Dimensional MoS2: A Brief Review. Crystals, 2017, 7, 198.	1.0	138
48	Electrochemical Bubbling Transfer of Graphene Using a Polymer Support with Encapsulated Air Gap as Permeation Stopping Layer. Journal of Nanomaterials, 2016, 2016, 1-7.	1.5	18
49	Graphene Transfer: A Mechanism for Highly Efficient Electrochemical Bubbling Delamination of CVD-Grown Graphene from Metal Substrates (Adv. Mater. Interfaces 8/2016). Advanced Materials Interfaces, 2016, 3, .	1.9	1
50	A Mechanism for Highly Efficient Electrochemical Bubbling Delamination of CVDâ€Grown Graphene from Metal Substrates. Advanced Materials Interfaces, 2016, 3, 1500492.	1.9	33
51	High Light Extraction Efficiency AlGaInP LEDs With Proton Implanted Current Blocking Layer. IEEE Electron Device Letters, 2016, 37, 1303-1306.	2.2	2
52	Ultrahigh Surfaceâ€Enhanced Raman Scattering of Graphene from Au/Graphene/Au Sandwiched Structures with Subnanometer Gap. Advanced Optical Materials, 2016, 4, 2021-2027.	3.6	38
53	ZnO nanorods/graphene/Ni/Au hybrid structures as transparent conductive layer in GaN LED for low work voltage and high light extraction. Solid-State Electronics, 2016, 126, 5-9.	0.8	9
54	High responsivity sensing of unfocused laser and white light using graphene photodetectors grown by chemical vapor deposition. Optical Materials Express, 2016, 6, 2158.	1.6	3

#	Article	IF	Citations
55	Rapid chemical vapor deposition of graphene on liquid copper. Synthetic Metals, 2016, 216, 93-97.	2.1	18
56	A Hybridâ€Type CVD System for Graphene Growth. Chemical Vapor Deposition, 2015, 21, 176-180.	1.4	1
57	Mechanism of Electrochemical Delamination of Two-Dimensional Materials from Their Native Substrates by Bubbling. Sensors, 2015, 15, 31811-31820.	2.1	7
58	Pore-free bubbling delamination of chemical vapor deposited graphene from copper foils. Journal of Materials Chemistry C, 2015, 3, 8634-8641.	2.7	29
59	Graphene GaN-Based Schottky Ultraviolet Detectors. IEEE Transactions on Electron Devices, 2015, 62, 2802-2808.	1.6	50
60	Catalyst-Free, Selective Growth of ZnO Nanowires on SiO₂ by Chemical Vapor Deposition for Transfer-Free Fabrication of UV Photodetectors. ACS Applied Materials & Interfaces, 2015, 7, 20264-20271.	4.0	69
61	Growth mechanism of graphene on platinum: Surface catalysis and carbon segregation. Applied Physics Letters, 2014, 104, .	1.5	56
62	Unusual thermopower of inhomogeneous graphene grown by chemical vapor deposition. Applied Physics Letters, 2014, 104, 021902.	1.5	13
63	Influence of graphene synthesizing techniques on the photocatalytic performance of grapheneâ€“TiO₂nanocomposites. Physical Chemistry Chemical Physics, 2013, 15, 15528-15537.	1.3	43
64	Frame assisted H2O electrolysis induced H2 bubbling transfer of large area graphene grown by chemical vapor deposition on Cu. Applied Physics Letters, 2013, 102, .	1.5	109
65	GaN nanorod light emitting diodes with suspended graphene transparent electrodes grown by rapid chemical vapor deposition. Applied Physics Letters, 2013, 103, 222105.	1.5	14
66	Quantum Hall effect in graphene decorated with disordered multilayer patches. Applied Physics Letters, 2013, 103, .	1.5	39
67	Metal-Free Graphene as Transparent Electrode for GaN-Based Light-Emitters. Japanese Journal of Applied Physics, 2013, 52, 08JG05.	0.8	2
68	Noncatalytic chemical vapor deposition of graphene on high-temperature substrates for transparent electrodes. Applied Physics Letters, 2012, 100, .	1.5	66
69	Comment on â€œMechanism of non-metal catalytic growth of graphene on siliconâ€•[Appl. Phys. Lett. 100, 231604 (2012)]. Applied Physics Letters, 2012, 101, 096101.	1.5	1
70	Chemical vapor deposition of nanocrystalline graphene directly on arbitrary high-temperature insulating substrates. , 2012, , .		1
71	Low Partial Pressure Chemical Vapor Deposition of Graphene on Copper. IEEE Nanotechnology Magazine, 2012, 11, 255-260.	1.1	57
72	Graphene Conductance Uniformity Mapping. Nano Letters, 2012, 12, 5074-5081.	4.5	152

#	Article	IF	Citations
73	Direct Chemical Vapor Deposition of Large-Area Carbon Thin Films on Gallium Nitride for Transparent Electrodes: A First Attempt. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 494-501.	1.4	23
74	Controllable chemical vapor deposition of large area uniform nanocrystalline graphene directly on silicon dioxide. Journal of Applied Physics, 2012, 111, .	1.1	59
75	Graphene pâ€“nâ€“p junctions controlled by local gates made of naturally oxidized thin aluminium films. Carbon, 2012, 50, 1987-1992.	5.4	16
76	Memristive and Memcapacitive Characteristics of a Au/Tiâ€“ $hbox{HfO}_{2}$-InP/InGaAs Diode. IEEE Electron Device Letters, 2011, 32, 131-133.	2.2	30
77	Large-area uniform graphene-like thin films grown by chemical vapor deposition directly on silicon nitride. Applied Physics Letters, 2011, 98, .	1.5	81
78	Gate-defined double quantum dot with integrated charge sensors realized in InGaAs/InP by incorporating a high-Îº dielectric. Applied Physics Letters, 2010, 96, .	1.5	9
79	Nonlinear electrical properties of Si three-terminal junction devices. Applied Physics Letters, 2010, 97, .	1.5	16
80	Gate-defined quantum-dot devices realized in InGaAs/InP by incorporating a HfO2 layer as gate dielectric. Applied Physics Letters, 2009, 94, 042114.	1.5	18
81	Gate-defined quantum devices realized on an InGaAs/InP heterostructure by incorporating a high-κ dielectric material. , 2009, , .		0
82	Electrical Properties of Self-Assembled Branched InAs Nanowire Junctions. Nano Letters, 2008, 8, 1100-1104.	4.5	56
83	A Novel SR Latch Device Realized by Integration of Three-Terminal Ballistic Junctions in InGaAs/InP. IEEE Electron Device Letters, 2008, 29, 540-542.	2.2	29
84	Transport properties of three-terminal ballistic junctions realized by focused ion beam enhanced etching in InGaAs/InP. Applied Physics Letters, 2008, 93, 133110.	1.5	5
85	A sequential logic device realized by integration of in-plane gate transistors in InGaAsâˆ•InP. Applied Physics Letters, 2008, 92, 012116.	1.5	6
86	SCANNING ELECTRON MICROSCOPY OBSERVATION OF IN-DEVICE InAs/AlAs QUANTUM DOTS BY SELECTIVE ETCHING OF CAPPING LAYERS. Modern Physics Letters B, 2007, 21, 859-866.	1.0	1
87	Frequency mixing and phase detection functionalities of three-terminal ballistic junctions. Nanotechnology, 2007, 18, 195205.	1.3	30
88	Electron Resonant Tunneling Through InAsâˆ•GaAs Quantum Dots Embedded in a Schottky Diode with an AlAs Insertion Layer. Journal of the Electrochemical Society, 2006, 153, G703.	1.3	4
89	Room-Temperature Observation of Electron Resonant Tunneling Through InAsâˆ•AlAs Quantum Dots. Electrochemical and Solid-State Letters, 2006, 9, G167.	2.2	4
90	Changing planar thin film growth into self-assembled island formation by adjusting experimental conditions. Thin Solid Films, 2005, 476, 68-72.	0.8	6

#	Article	IF	Citations
91	Silica and Alumina Thin Films Grown by Liquid Phase Deposition. Materials Science Forum, 2005, 475-479, 1725-1728.	0.3	7
92	Extremely low density InAs quantum dots realized in situ on (100) GaAs. Nanotechnology, 2004, 15, 1763-1766.	1.3	35
93	Micro-fabricated Al/sub 0.3/Ga/sub 0.7/As pyramids for potential SPM applications. , 2004, , .		0
94	Chemical liquid phase deposition of thin aluminum oxide films. Chinese Journal of Chemistry, 2004, 22, 661-667.	2.6	12
95	<title>Self-organized LPE growth of Al<formula><inf><roman>0.3</roman></inf></formula>Ga<formula><inf><roman>0.7</roman></inf></formula>As microtips for integrated SNOM sensors</title>. , 2002, , .		3