Gang Wang

List of Publications by Year
in descending order

77 papers	3,413 citations	159585 30 h-index	144013 57 g-index
77 all docs	77 docs citations	77 times ranked	4940 citing authors

#	Article	IF	Citations
1	C₃Nâ€"A 2D Crystalline, Holeâ€Free, Tunableâ€Narrowâ€Bandgap Semiconductor with Ferromagnetic Properties. Advanced Materials, 2017, 29, 1605625.	21.0	350
2	Antibacterial activity of large-area monolayer graphene film manipulated by charge transfer. Scientific Reports, 2014, 4, 4359.	3.3	342
3	Facile and Highly Effective Synthesis of Controllable Lattice Sulfur-Doped Graphene Quantum Dots via Hydrothermal Treatment of Durian. ACS Applied Materials & Interfaces, 2018, 10, 5750-5759.	8.0	201
4	Âµâ€Graphene Crosslinked CsPbI₃ Quantum Dots for High Efficiency Solar Cells with Much Improved Stability. Advanced Energy Materials, 2018, 8, 1800007.	19.5	198
5	Direct Growth of Graphene Film on Germanium Substrate. Scientific Reports, 2013, 3, 2465.	3.3	181
6	Carbonâ€Based Quantum Dots with Solidâ€State Photoluminescent: Mechanism, Implementation, and Application. Small, 2020, 16, e2004621.	10.0	141
7	Negative induction effect of graphite N on graphene quantum dots: tunable band gap photoluminescence. Journal of Materials Chemistry C, 2015, 3, 8810-8816.	5.5	139
8	A new mild, clean and highly efficient method for the preparation of graphene quantum dots without by-products. Journal of Materials Chemistry B, 2015, 3, 6871-6876.	5.8	120
9	Nitrogen-doped graphene quantum dots for 80% photoluminescence quantum yield for inorganic Î³-CsPbI₃ perovskite solar cells with efficiency beyond 16%. Journal of Materials Chemistry A, 2019, 7, 5740-5747.	10.3	113
10	Green, Rapid, and Universal Preparation Approach of Graphene Quantum Dots under Ultraviolet Irradiation. ACS Applied Materials & Interfaces, 2017, 9, 14470-14477.	8.0	99
11	Electron Injection of Phosphorus Doped gâ€C₃N₄ Quantum Dots: Controllable Photoluminescence Emission Wavelength in the Whole Visible Light Range with High Quantum Yield. Advanced Optical Materials, 2016, 4, 2095-2101.	7.3	86
12	Electrochemical Cutting in Weak Aqueous Electrolytes: The Strategy for Efficient and Controllable Preparation of Graphene Quantum Dots. Langmuir, 2018, 34, 250-258.	3.5	71
13	Seamless lateral graphene pâ€"n junctions formed by selective in situ doping for high-performance photodetectors. Nature Communications, 2018, 9, 5168.	12.8	71
14	Surface Modification of C₃N₄ through Oxygen-Plasma Treatment: A Simple Way toward Excellent Hydrophilicity. ACS Applied Materials & Interfaces, 2016, 8, 31419-31425.	8.0	66
15	Graphite-N Doped Graphene Quantum Dots as Semiconductor Additive in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 37796-37803.	8.0	61
16	A New Graphene Derivative: Hydroxylated Graphene with Excellent Biocompatibility. ACS Applied Materials & Interfaces, 2016, 8, 10226-10233.	8.0	59
17	Ambipolar Grapheneâ€"Quantum Dot Phototransistors with CMOS Compatibility. Advanced Optical Materials, 2018, 6, 1800985.	7.3	50
18	Biomass-derived nitrogen doped graphene quantum dots with color-tunable emission for sensing, fluorescence ink and multicolor cell imaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 227, 117671.	3.9	49

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19	Kinetically Enhanced Bubble-Exfoliation of Graphite toward High-Yield Preparation of High-Quality Graphene. Chemistry of Materials, 2017, 29, 8578-8582.	6.7	45
20	Synthesis of Layerâ€Tunable Graphene: A Combined Kinetic Implantation and Thermal Ejection Approach. Advanced Functional Materials, 2015, 25, 3666-3675.	14.9	43
21	Synthesis of multi-color fluorine and nitrogen co-doped graphene quantum dots for use in tetracycline detection, colorful solid fluorescent ink, and film. Journal of Colloid and Interface Science, 2021, 602, 689-698.	9.4	42
22	Conductive graphene-based E-textile for highly sensitive, breathable, and water-resistant multimodal gesture-distinguishable sensors. Journal of Materials Chemistry A, 2020, 8, 14778-14787.	10.3	38
23	Facile and highly effective synthesis of nitrogen-doped graphene quantum dots as a fluorescent sensing probe for Cu2+ detection. Current Applied Physics, 2020, 20, 538-544.	2.4	38
24	Bandgap engineering of two-dimensional C3N bilayers. Nature Electronics, 2021, 4, 486-494.	26.0	36
25	Anode coverage for enhanced electrochemical oxidation: a green and efficient strategy towards water-dispersible graphene. Green Chemistry, 2018, 20, 1306-1315.	9.0	35
26	Yellow emissive nitrogen-doped graphene quantum dots as a label-free fluorescent probe for Fe3+ sensing and bioimaging. Diamond and Related Materials, 2020, 104, 107749.	3.9	34
27	Insights into the Oxidation Mechanism of sp²â€"sp³ Hybrid Carbon Materials: Preparation of a Water-Soluble 2D Porous Conductive Network and Detectable Molecule Separation. Langmuir, 2017, 33, 913-919.	3.5	33
28	Interface Engineering-Assisted 3D-Graphene/Germanium Heterojunction for High-Performance Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 15606-15614.	8.0	33
29	Controllable growth of vertically oriented graphene for high sensitivity gas detection. Journal of Materials Chemistry C, 2019, 7, 5995-6003.	5.5	32
30	Multifunctional N-doped graphene quantum dots towards tetracycline detection, temperature sensing and high-performance WLEDs. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 405, 112977.	3.9	32
31	Deep ultraviolet emission photoluminescence and high luminescece efficiency of ferric passivated graphene quantum dots: Strong negative inductive effect of Fe. Synthetic Metals, 2015, 209, 468-472.	3.9	31
32	An Ultrasensitive Contact Lens Sensor Based On Selfâ€Assembly Graphene For Continuous Intraocular Pressure Monitoring. Advanced Functional Materials, 2021, 31, 2010991.	14.9	31
33	Selective supramolecular interaction of ethylenediamine functionalized graphene quantum dots: Ultra-sensitive photoluminescence detection for nickel ion in vitro. Synthetic Metals, 2018, 244, 106-112.	3.9	30
34	Promising Fast Energy Transfer System Between Graphene Quantum Dots and the Application in Fluorescent Bioimaging. Langmuir, 2019, 35, 760-766.	3.5	29
35	Green preparation of lattice phosphorus doped graphene quantum dots with tunable emission wavelength for bio-imaging. Materials Letters, 2019, 242, 156-159.	2.6	28
36	Distinct antibacterial activity of a vertically aligned graphene coating against Gram-positive and Gram-negative bacteria. Journal of Materials Chemistry B, 2020, 8, 6069-6079.	5.8	28

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37	A smartphone-integrated optical sensing platform based on Lycium ruthenicum derived carbon dots for real-time detection of Ag+. Science of the Total Environment, 2022, 825, 153913.	8.0	27
38	Green and Mild Oxidation: An Efficient Strategy toward Water-Dispersible Graphene. ACS Applied Materials & Interfaces, 2017, 9, 2856-2866.	8.0	24
39	Application of graphene nanowalls in an intraocular pressure sensor. Journal of Materials Chemistry B, 2020, 8, 8794-8802.	5.8	22
40	Electrochemical method for large size and few-layered water-dispersible graphene. Carbon, 2019, 143, 559-563.	10.3	21
41	Graphene Quantum Dot-Decorated Vertically Oriented Graphene/Germanium Heterojunctions for Near-Infrared Photodetectors. ACS Applied Nano Materials, 2020, 3, 6915-6924.	5.0	21
42	Polarizing Graphene Quantum Dots toward Long-Acting Intracellular Reactive Oxygen Species Evaluation and Tumor Detection. ACS Applied Materials & Interfaces, 2020, 12, 10781-10790.	8.0	21
43	Sensitive, Reusable, Surface-Enhanced Raman Scattering Sensors Constructed with a 3D Graphene/Si Hybrid. ACS Applied Materials & Interfaces, 2021, 13, 23081-23091.	8.0	19
44	Fine coverage and uniform phase distribution in 2D (PEA)2Cs3Pb4I13 solar cells with a record efficiency beyond 15%. Nano Energy, 2022, 92, 106790.	16.0	19
45	Multifunctional red-emission graphene quantum dots with tunable light emissions for trace water sensing, WLEDs and information encryption. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 622, 126593.	4.7	18
46	Hydrothermal synthesis of N, P co-doped graphene quantum dots for high-performance Fe3+ detection and bioimaging. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	16
47	Boosting carrier transfer at flexible schottky junctions with moisture: A strategy for high-performance wearable direct-current nanogenerators. Nano Energy, 2021, 90, 106593.	16.0	14
48	Solid-state fluorescent nitrogen doped graphene quantum dots with yellow emission for white light-emitting diodes. Synthetic Metals, 2021, 277, 116787.	3.9	13
49	Ultraviolet light-driven controllable doping of graphene quantum dots with tunable emission wavelength for fluorescence bio-imaging. Materials Letters, 2020, 266, 127468.	2.6	13
50	Perovskite quantum dots integrated with vertically aligned graphene toward ambipolar multifunctional photodetectors. Journal of Materials Chemistry C, 2021, 9, 609-619.	5.5	12
51	Direct integration of polycrystalline graphene on silicon as a photodetector <i>via</i> plasma-assisted chemical vapor deposition. Journal of Materials Chemistry C, 2018, 6, 9682-9690.	5.5	11
52	High-performance humidity sensor constructed with vertically aligned graphene arrays on silicon Schottky junctions. Materials Letters, 2020, 277, 128343.	2.6	11
53	Selective homocysteine detection of nitrogen-doped graphene quantum dots: Synergistic effect of surface catalysis and photoluminescence sensing. Synthetic Metals, 2020, 267, 116432.	3.9	11
54	Scalable and atom economic preparation of red-near-infrared emitted N-doped graphene quantum dots with a high quantum yield. Diamond and Related Materials, 2021, 116, 108395.	3.9	10

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55	Interfacial monolayer graphene growth on arbitrary substrate by nickel-assisted ion implantation. Journal of Materials Science, 2018, 53, 2631-2637.	3.7	8
56	Seedâ€Initiated Synthesis and Tunable Doping Graphene for Highâ€Performance Photodetectors. Advanced Optical Materials, 2019, 7, 1901388.	7.3	7
57	<i>In situ</i> synthesis of monolayer graphene on silicon for near-infrared photodetectors. RSC Advances, 2019, 9, 37512-37517.	3.6	7
58	Graphene Quantum Dots Promoted the Synthesis of Heavily n-Type Graphene for Near-Infrared Photodetectors. Journal of Physical Chemistry C, 2020, 124, 1674-1680.	3.1	7
59	High-performance near-infrared photodetectors based on C₃N quantum dots integrated with single-crystal graphene. Journal of Materials Chemistry C, 2021, 9, 1333-1338.	5.5	7
60	Intact Vertical 3Dâ€“0Dâ€“2D Carbonâ€Based pâ€“n Junctions for Use in Highâ€Performance Photodetectors. Advanced Optical Materials, 2021, 9, 2100387.	7.3	7
61	Role of interfacial 2D graphene in high performance 3D graphene/germanium Schottky junction humidity sensors. Journal of Materials Chemistry C, 2020, 8, 14196-14202.	5.5	6
62	Resonant nanocavity-enhanced graphene photodetectors on reflecting silicon-on-insulator wafers. Applied Physics Letters, 2021, 119, .	3.3	6
63	Barrier-assisted ion beam synthesis of transfer-free graphene on an arbitrary substrate. Applied Physics Letters, 2019, 115, .	3.3	5
64	Ordered Element Distributed C₃N Quantum Dots Manipulated Crystallization Kinetics for 2D CsPbI₃ Solar Cells with Ultraâ€High Performance. Small, 2022, 18, e2108090.	10.0	5
65	Super-hydrophilicity of hydroxy modified poly(m-phenylenediamine) aerogel for separation of oil/water and biocompatibility. Materials Research Express, 2018, 5, 045301.	1.6	4
66	Oxygen-etchant-promoted synthesis of vertically aligned graphene arrays in a Joule heater and defogger. Diamond and Related Materials, 2021, 120, 108697.	3.9	4
67	2D Graphene in Interface Engineering of 3D Grapheneâ€Based Thermal Management. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000576.	1.8	3
68	Graphene quantum dots assisted synthesis of highconcentration nitrogen doped graphene for infrared photodetectors. Diamond and Related Materials, 2022, 121, 108774.	3.9	3
69	Investigation of a Highly Sensitive Surface-Enhanced Raman Scattering Substrate Formed by a Three-Dimensional/Two-Dimensional Graphene/Germanium Heterostructure. ACS Applied Materials & Interfaces, 2022, 14, 14764-14773.	8.0	3
70	Dual-Enhanced Photodetectors Combining Graphene Plasmonic Nanoresonators With Germanium-on-Insulator Optical Cavities. IEEE Transactions on Electron Devices, 2022, 69, 3246-3250.	3.0	3
71	Direct growth of single-layer graphene on Ni surface manipulated by Si barrier. Applied Physics Letters, 2014, 104, 213101.	3.3	2
72	Exceptional cracking behavior in H-implanted Si/B-doped Si0.70Ge0.30/Si heterostructures. Applied Physics Express, 2018, 11, 011301.	2.4	2

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73	Dual-enhanced Raman scattering sensors incorporating graphene plasmonic nanoresonators. Journal of Materials Chemistry C, 2021, 9, 12768-12777.	5.5	2
74	A fluorescence labelling and switchable nanosensor based on nitrogen-doped graphene quantum dots. Bulletin of Materials Science, 2022, 45, 1.	1.7	2
75	Natural Graphene Plasmonic <scp>Nanoâ€Resonators</scp> for Highly Active <scp>Surfaceâ€Enhanced</scp> Raman Scattering Platforms. Energy and Environmental Materials, 2023, 6, .	12.8	2
76	Welding of reduced graphene oxide with high quality and sizeable lateral size by coupling reaction. Materials Letters, 2020, 261, 127010.	2.6	0
77	High-performance photodetectors based on Schottky junctions formed by vertical 2D-3D-2D graphene sandwich nanocavity and germanium substrate. Diamond and Related Materials, 2022, , 109043.	3.9	0