

Dacheng Wei

List of Publications by Year in descending order

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papers

6,612
citations

147801

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71685

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77
all docs

77
docs citations

77
times ranked

10193
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of N-Doped Graphene by Chemical Vapor Deposition and Its Electrical Properties. Nano Letters, 2009, 9, 1752-1758.	9.1	2,822
2	Controllable Synthesis of Graphene and Its Applications. Advanced Materials, 2010, 22, 3225-3241.	21.0	375
3	Patterned Graphene as Source/Drain Electrodes for Bottom-Contact Organic Field-Effect Transistors. Advanced Materials, 2008, 20, 3289-3293.	21.0	373
4	Scalable Synthesis of Few-Layer Graphene Ribbons with Controlled Morphologies by a Template Method and Their Applications in Nanoelectromechanical Switches. Journal of the American Chemical Society, 2009, 131, 11147-11154.	13.7	214
5	Hierarchical graphene foam-based phase change materials with enhanced thermal conductivity and shape stability for efficient solar-to-thermal energy conversion and storage. Nano Research, 2017, 10, 802-813.	10.4	206
6	Rapid and ultrasensitive electromechanical detection of ions, biomolecules and SARS-CoV-2 RNA in unamplified samples. Nature Biomedical Engineering, 2022, 6, 276-285.	22.5	153
7	The Intramolecular Junctions of Carbon Nanotubes. Advanced Materials, 2008, 20, 2815-2841.	21.0	126
8	Critical Crystal Growth of Graphene on Dielectric Substrates at Low Temperature for Electronic Devices. Angewandte Chemie - International Edition, 2013, 52, 14121-14126.	13.8	125
9	Controllable unzipping for intramolecular junctions of graphene nanoribbons and single-walled carbon nanotubes. Nature Communications, 2013, 4, 1374.	12.8	125
10	Low Temperature Critical Growth of High Quality Nitrogen Doped Graphene on Dielectrics by Plasma-Enhanced Chemical Vapor Deposition. ACS Nano, 2015, 9, 164-171.	14.6	125
11	Raman enhancement on ultra-clean graphene quantum dots produced by quasi-equilibrium plasma-enhanced chemical vapor deposition. Nature Communications, 2018, 9, 193.	12.8	117
12	A New Method to Synthesize Complicated Multibranched Carbon Nanotubes with Controlled Architecture and Composition. Nano Letters, 2006, 6, 186-192.	9.1	93
13	Two-Dimensional Field-Effect Transistor Sensors: The Road toward Commercialization. Chemical Reviews, 2022, 122, 10319-10392.	47.7	89
14	Controllable Chemical Vapor Deposition Growth of Few Layer Graphene for Electronic Devices. Accounts of Chemical Research, 2013, 46, 106-115.	15.6	88
15	Free radical sensors based on inner-cutting graphene field-effect transistors. Nature Communications, 2019, 10, 1544.	12.8	85
16	Direct SARS-CoV-2 Nucleic Acid Detection by Y-Shaped DNA Dual-Probe Transistor Assay. Journal of the American Chemical Society, 2021, 143, 17004-17014.	13.7	79
17	Anisotropic ultrasensitive PdTe ₂ -based phototransistor for room-temperature long-wavelength detection. Science Advances, 2020, 6, .	10.3	74
18	Conformal hexagonal-boron nitride dielectric interface for tungsten diselenide devices with improved mobility and thermal dissipation. Nature Communications, 2019, 10, 1188.	12.8	71

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19	Enhanced photoelectrical response of thermodynamically epitaxial organic crystals at the two-dimensional limit. <i>Nature Communications</i> , 2019, 10, 756.	12.8	71
20	Ultrasensitive Detection of SARS-CoV-2 Antibody by Graphene Field-Effect Transistors. <i>Nano Letters</i> , 2021, 21, 7897-7904.	9.1	64
21	Hierarchical Porous Carbon Materials Derived from Sheep Manure for High-Capacity Supercapacitors. <i>ChemSusChem</i> , 2016, 9, 932-937.	6.8	63
22	Microconformal electrode-dielectric integration for flexible ultrasensitive robotic tactile sensing. <i>Nano Energy</i> , 2021, 80, 105580.	16.0	63
23	Plasma-Enhanced Chemical Vapor Deposition of Two-Dimensional Materials for Applications. <i>Accounts of Chemical Research</i> , 2021, 54, 1011-1022.	15.6	63
24	Ultra-fast single-crystal polymerization of large-sized covalent organic frameworks. <i>Nature Communications</i> , 2021, 12, 5077.	12.8	63
25	Real Time and in Situ Control of the Gap Size of Nanoelectrodes for Molecular Devices. <i>Nano Letters</i> , 2008, 8, 1625-1630.	9.1	50
26	Ultraprecise Antigen 10-in-1 Pool Testing by Multiantibodies Transistor Assay. <i>Journal of the American Chemical Society</i> , 2021, 143, 19794-19801.	13.7	48
27	Tunable optical absorption and interactions in graphene via oxygen plasma. <i>Physical Review B</i> , 2014, 89, .	3.2	42
28	A Magnetism-Assisted Chemical Vapor Deposition Method To Produce Branched or Iron-Encapsulated Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2007, 129, 7364-7368.	13.7	37
29	Self-Controlled Growth of Covalent Organic Frameworks by Repolymerization. <i>Chemistry of Materials</i> , 2020, 32, 5634-5640.	6.7	37
30	Direct Growth of Graphene Films on 3D Grating Structural Quartz Substrates for High-Performance Pressure-Sensitive Sensors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 16869-16875.	8.0	35
31	Rapid SARS-CoV-2 Nucleic Acid Testing and Pooled Assay by Tetrahedral DNA Nanostructure Transistor. <i>Nano Letters</i> , 2021, 21, 9450-9457.	9.1	33
32	Towards sensitive terahertz detection via thermoelectric manipulation using graphene transistors. <i>NPG Asia Materials</i> , 2018, 10, 318-327.	7.9	31
33	A comprehensive nano-interpenetrating semiconducting photoresist toward all-photolithography organic electronics. <i>Science Advances</i> , 2021, 7, .	10.3	31
34	Two-Dimensional Metal-Organic Frameworks and Covalent Organic Frameworks. <i>Chinese Journal of Chemistry</i> , 2022, 40, 1359-1385.	4.9	31
35	Room-Temperature High-Gain Long-Wavelength Photodetector via Optical-Electrical Controlling of Hot Carriers in Graphene. <i>Advanced Optical Materials</i> , 2018, 6, 1800836.	7.3	28
36	Large photoelectric-gating effect of two-dimensional van-der-Waals organic/tungsten diselenide heterointerface. <i>Npj 2D Materials and Applications</i> , 2018, 2, .	7.9	28

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37	Abnormal n-type doping effect in nitrogen-doped tungsten diselenide prepared by moderate ammonia plasma treatment. <i>Nano Research</i> , 2018, 11, 4923-4930.	10.4	27
38	Antifouling Field-Effect Transistor Sensing Interface Based on Covalent Organic Frameworks. <i>Advanced Electronic Materials</i> , 2020, 6, 1901169.	5.1	26
39	A Generalized Method for Evaluating the Metallic-to-Semiconducting Ratio of Separated Single-Walled Carbon Nanotubes by UV-vis-NIR Characterization. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12095-12098.	3.1	24
40	Triple-Probe DNA Framework-Based Transistor for SARS-CoV-2 10-in-1 Pooled Testing. <i>Nano Letters</i> , 2022, 22, 3307-3316.	9.1	24
41	Broadband InSb/Si heterojunction photodetector with graphene transparent electrode. <i>Nanotechnology</i> , 2020, 31, 315204.	2.6	22
42	Synthesis and Device Integration of Carbon Nanotube/Silica Core-Shell Nanowires. <i>Journal of Physical Chemistry C</i> , 2007, 111, 7661-7665.	3.1	19
43	Photo-switchable field-effect transistors based on two-dimensional stilbene oligomer crystals. <i>Journal of Materials Chemistry C</i> , 2017, 5, 9597-9601.	5.5	19
44	Shape-Engineerable Silk Fibroin Papers for Ideal Substrate Alternatives of Plastic Electronics. <i>Advanced Functional Materials</i> , 2021, 31, 2104088.	14.9	18
45	Colossal Terahertz Photoresponse at Room Temperature: A Signature of Type-II Dirac Fermiology. <i>ACS Nano</i> , 2021, 15, 5138-5146.	14.6	17
46	Fabrication and characterization of molecular scale field-effect transistors. <i>Journal of Materials Chemistry</i> , 2010, 20, 2305.	6.7	16
47	Solvent-Free Process to Produce Three Dimensional Graphene Network with High Electrochemical Stability. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3062-3069.	3.1	16
48	Catalyst-Free Growth of Two-Dimensional BC _x N Materials on Dielectrics by Temperature-Dependent Plasma-Enhanced Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33113-33120.	8.0	15
49	Self-Expanding Molten Salt-Driven Growth of Patterned Transition-Metal Dichalcogenide Crystals. <i>Journal of the American Chemical Society</i> , 2022, 144, 8746-8755.	13.7	15
50	Two-dimensional self-healing hydrogen-bond-based supramolecular polymer film. <i>Chinese Chemical Letters</i> , 2019, 30, 961-965.	9.0	14
51	Minimizing purification-induced defects in single-walled carbon nanotubes gives films with improved conductivity. <i>Nano Research</i> , 2009, 2, 865.	10.4	13
52	Hydrogen-bonding-directed helical nanofibers in a polythiophene-based all-conjugated diblock copolymer. <i>Soft Matter</i> , 2018, 14, 5906-5912.	2.7	13
53	Distinctive Performance of Terahertz Photodetection Driven by Charge-Density-Wave Order in CVD-Grown Tantalum Diselenide. <i>Advanced Functional Materials</i> , 2019, 29, 1905057.	14.9	13
54	Ultra-Fast Synthesis of Single-Crystalline Three-Dimensional Covalent Organic Frameworks and Their Applications in Polarized Optics. <i>Chemistry of Materials</i> , 2022, 34, 2886-2895.	6.7	12

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55	Direct growth of nanographene at low temperature from carbon black for highly sensitive temperature detectors. <i>Nanotechnology</i> , 2016, 27, 505603.	2.6	10
56	Graphene plasmonic nanoresonators/graphene heterostructures for efficient room-temperature infrared photodetection. <i>Journal of Semiconductors</i> , 2020, 41, 072907.	3.7	9
57	High-performance mid-infrared photodetection based on Bi ₂ Se ₃ maze and free-standing nanoplates. <i>Nanotechnology</i> , 2021, 32, 105705.	2.6	9
58	Hemin/Au nanorods/self-doped TiO ₂ nanowires as a novel photoelectrochemical bioanalysis platform. <i>Analyst</i> , 2017, 142, 2805-2811.	3.5	8
59	A two-dimensional cross-linked polythiophene network. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9362-9368.	5.5	8
60	Graphene Field-Effect Transistors on Hexagonal Boron Nitride for Enhanced Interfacial Thermal Dissipation. <i>Advanced Electronic Materials</i> , 2020, 6, 2000059.	5.1	8
61	Synthesis of large-area uniform Si ₂ Te ₃ thin films for p-type electronic devices. <i>Nanoscale</i> , 2020, 12, 11242-11250.	5.6	8
62	Olefin-linked covalent organic frameworks with twisted tertiary amine knots for enhanced ultraviolet detection. <i>Chinese Chemical Letters</i> , 2022, 33, 2621-2624.	9.0	7
63	Strain-Sensitive Fluorescence from Two-Dimensional Organic Crystal. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1909-1914.	4.6	6
64	Short-wavelength ultraviolet dosimeters based on DNA nanostructure-modified graphene field-effect transistors. <i>Chemical Communications</i> , 2021, 57, 5071-5074.	4.1	6
65	Nanophotoswitches with a high on/off ratio based on a structure of indium tin oxide/organic insulator/metal. <i>Applied Physics Letters</i> , 2008, 92, 043302.	3.3	5
66	Nanoscale thermal mapping of few-layer organic crystals. <i>CrystEngComm</i> , 2019, 21, 5402-5409.	2.6	5
67	Nitrogen Doped Carbons Derived From Graphene Aerogel Templated Triazine-Based Conjugated Microporous Polymers for High-Performance Supercapacitors. <i>Frontiers in Chemistry</i> , 2019, 7, 142.	3.6	5
68	Flexible force sensitive frequency reconfigurable antenna base on stretchable conductive fabric. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 195301.	2.8	5
69	Inner-Evaporator Modification of Low-Cost Metal Electrodes of Organic Field-Effect Transistors by 2D Polyporphyrin. <i>Advanced Electronic Materials</i> , 2019, 5, 1900447.	5.1	4
70	Epitaxial etching of organic single crystals. <i>Chinese Chemical Letters</i> , 2022, 33, 533-536.	9.0	3
71	Shape-Engineerable Silk Fibroin Papers for Ideal Substrate Alternatives of Plastic Electronics (Adv.) <i>TJ ETQq1 1 0.784314 rgBT /Overl</i>	14.9	3
72	Highly stable all-in-one photoelectrochemical electrodes based on carbon nanowalls. <i>Nanotechnology</i> , 2020, 31, 335401.	2.6	2

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73	Surface Catalytic Modification of Conjugated Polymer on Low-Cost Bottom Contact for Improved Injection Efficiency of Organic Transistors. <i>Advanced Electronic Materials</i> , 2019, 5, 1900028.	5.1	1
74	Inside Front Cover: The Intramolecular Junctions of Carbon Nanotubes (<i>Adv. Mater.</i> 15/2008). <i>Advanced Materials</i> , 2008, 20, NA-NA.	21.0	0