Qing Hua Wang

List of Publications by Year
in descending order

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58 papers	17,987 citations	136740 32 h-index	155451 55 g-index
59 all docs	59 docs citations	59 times ranked	25638 citing authors

#	Article	IF	Citations
1	Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. Nature Nanotechnology, 2012, 7, 699-712.	15.6	13,346
2	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	6.6	463
3	Room-temperature molecular-resolution characterization of self-assembled organic monolayers on epitaxial graphene. Nature Chemistry, 2009, 1, 206-211.	6.6	409
4	Bi- and trilayer graphene solutions. Nature Nanotechnology, 2011, 6, 439-445.	15.6	337
5	Breakdown in the Wetting Transparency of Graphene. Physical Review Letters, 2012, 109, 176101.	2.9	313
6	Transition metal oxides â€“ Thermoelectric properties. Progress in Materials Science, 2013, 58, 1443-1489.	16.0	302
7	Covalent Electron Transfer Chemistry of Graphene with Diazonium Salts. Accounts of Chemical Research, 2013, 46, 160-170.	7.6	277
8	Tuning Onâ€“Off Current Ratio and Field-Effect Mobility in a MoS₂â€“Graphene Heterostructure via Schottky Barrier Modulation. ACS Nano, 2014, 8, 5790-5798.	7.3	240
9	Low Cytotoxicity and Genotoxicity of Two-Dimensional MoS₂ and WS₂. ACS Biomaterials Science and Engineering, 2016, 2, 361-367.	2.6	186
10	Click Chemistry on Solution-Dispersed Graphene and Monolayer CVD Graphene. Chemistry of Materials, 2011, 23, 3362-3370.	3.2	169
11	Seeding Atomic Layer Deposition of High-k Dielectrics on Epitaxial Graphene with Organic Self-Assembled Monolayers. ACS Nano, 2011, 5, 5223-5232.	7.3	167
12	Metallized DNA nanolithography for encoding and transferring spatial information for graphene patterning. Nature Communications, 2013, 4, 1663.	5.8	155
13	The Magnetic Genome of Two-Dimensional van der Waals Materials. ACS Nano, 2022, 16, 6960-7079.	7.3	149
14	Current and future directions in electron transfer chemistry of graphene. Chemical Society Reviews, 2017, 46, 4530-4571.	18.7	125
15	Direct Covalent Chemical Functionalization of Unmodified Two-Dimensional Molybdenum Disulfide. Chemistry of Materials, 2018, 30, 2112-2128.	3.2	93
16	Observation of Switchable Photoresponse of a Monolayer WSe₂â€“MoS₂ Lateral Heterostructure via Photocurrent Spectral Atomic Force Microscopic Imaging. Nano Letters, 2016, 16, 3571-3577.	4.5	86
17	Layer Number Dependence of MoS₂ Photoconductivity Using Photocurrent Spectral Atomic Force Microscopic Imaging. ACS Nano, 2015, 9, 2843-2855.	7.3	84
18	A Chirality-Based Quantum Leap. ACS Nano, 2022, 16, 4989-5035.	7.3	74

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19	Excess Thermopower and the Theory of Thermopower Waves. ACS Nano, 2013, 7, 6533-6544.	7.3	72
20	Disorder Imposed Limits of Mono- and Bilayer Graphene Electronic Modification Using Covalent Chemistry. Nano Letters, 2013, 13, 809-817.	4.5	62
21	Structural analysis of PTCDA monolayers on epitaxial graphene with ultra-high vacuum scanning tunneling microscopy and high-resolution X-ray reflectivity. Surface Science, 2011, 605, 1685-1693.	0.8	58
22	Understanding Surfactant/Graphene Interactions Using a Graphene Field Effect Transistor: Relating Molecular Structure to Hysteresis and Carrier Mobility. Langmuir, 2012, 28, 8579-8586.	1.6	53
23	Nanofabrication of Heteromolecular Organic Nanostructures on Epitaxial Graphene via Room Temperature Feedback-Controlled Lithography. Nano Letters, 2011, 11, 589-593.	4.5	48
24	Acoustic robot navigation using distributed microphone arrays. Information Fusion, 2004, 5, 131-140.	11.7	45
25	Evolution of Physical and Electronic Structures of Bilayer Graphene upon Chemical Functionalization. Journal of the American Chemical Society, 2013, 135, 18866-18875.	6.6	43
26	Low Dimensional Carbon Materials for Applications in Mass and Energy Transport. Chemistry of Materials, 2014, 26, 172-183.	3.2	42
27	A study of bilayer phosphorene stability under MoS ₂ -passivation. 2D Materials, 2017, 4, 025091.	2.0	42
28	Identifying and characterizing epitaxial graphene domains on partially graphitized SiC(0001) surfaces using scanning probe microscopy. Applied Physics Letters, 2010, 96, .	1.5	41
29	Fabrication, Pressure Testing, and Nanopore Formation of Single-Layer Graphene Membranes. Journal of Physical Chemistry C, 2017, 121, 14312-14321.	1.5	39
30	Role of Adsorbed Surfactant in the Reaction of Aryl Diazonium Salts with Single-Walled Carbon Nanotubes. Langmuir, 2012, 28, 1309-1321.	1.6	37
31	A graphene-based physiometer array for the analysis of single biological cells. Scientific Reports, 2014, 4, 6865.	1.6	36
32	Conductive Atomic Force Microscope Nanopatterning of Epitaxial Graphene on SiC(0001) in Ambient Conditions. Advanced Materials, 2011, 23, 2181-2184.	11.1	34
33	Formation of MoO₃ and WO₃ nanoscrolls from MoS₂ and WS₂ with atmospheric air plasma. Journal of Materials Chemistry C, 2017, 5, 11301-11309.	2.7	32
34	Exfoliation of Quasi-Two-Dimensional Nanosheets of Metal Diborides. Journal of Physical Chemistry C, 2021, 125, 6787-6799.	1.5	32
35	Covalent chemical functionalization of semiconducting layered chalcogenide nanosheets. Molecular Systems Design and Engineering, 2019, 4, 962-973.	1.7	31
36	Reaction Kinetics for the Covalent Functionalization of Two-Dimensional MoS₂ by Aryl Diazonium Salts. Langmuir, 2019, 35, 5693-5701.	1.6	25

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37	Charge Transfer at Junctions of a Single Layer of Graphene and a Metallic Single Walled Carbon Nanotube. Small, 2013, 9, 1954-1963.	5.2	24
38	Rotational superstructure in van der Waals heterostructure of self-assembled C₆₀ monolayer on the WSe₂ surface. Nanoscale, 2017, 9, 13245-13256.	2.8	23
39	Synthesis of TiO₂ nanosheet photocatalysts from exfoliation of TiS₂ and hydrothermal treatment. Journal of Materials Research, 2018, 33, 3540-3548.	1.2	22
40	Orthogonal Self-Assembly of Interconnected One-Dimensional Inorganic and Organic Nanostructures on the Si(100) Surface. Journal of the American Chemical Society, 2008, 130, 12896-12897.	6.6	19
41	A bright future for defects. Nature Chemistry, 2013, 5, 812-813.	6.6	18
42	Exfoliation of boron carbide into ultrathin nanosheets. Nanoscale, 2021, 13, 1652-1662.	2.8	16
43	Elimination of Multidrug-Resistant Bacteria by Transition Metal Dichalcogenides Encapsulated by Synthetic Single-Stranded DNA. ACS Applied Materials & Interfaces, 2021, 13, 8082-8094.	4.0	16
44	Stochastic Pore Blocking and Gating in PDMSâ€“Glass Nanopores from Vaporâ€“Liquid Phase Transitions. Journal of Physical Chemistry C, 2013, 117, 9641-9651.	1.5	15
45	Evaluating the Exfoliation Efficiency of Quasi-2D Metal Diboride Nanosheets Using Hansen Solubility Parameters. Langmuir, 2021, 37, 1194-1205.	1.6	15
46	Chemical Functionalization of 2D Materials. Chemistry - A European Journal, 2020, 26, 6292-6295.	1.7	14
47	Characterization and nanopatterning of organically functionalized graphene with ultrahigh vacuum scanning tunneling microscopy. MRS Bulletin, 2011, 36, 532-542.	1.7	12
48	Superadiabaticity in reaction waves as a mechanism for energy concentration. Energy and Environmental Science, 2014, 7, 3391-3402.	15.6	11
49	Eradication of Fungi Using MoSe₂/Chitosan Nanosheets. ACS Applied Nano Materials, 2022, 5, 133-148.	2.4	8
50	Atomically Resolved Charge Redistribution for Ga Nanocluster Arrays on the Si(111)â€7â€‰Ã—â€‰7 Surface. Small, 2008, 4, 915-919.	5.2	6
51	Energy generation using thermopower waves: Experimental and analytical progress. AICHE Journal, 2013, 59, 3333-3341.	1.8	6
52	Interaction of Pb²⁺ ions in water with two-dimensional molybdenum disulfide. JPhys Materials, 2020, 3, 024007.	1.8	5
53	High-yield fabrication method for high-frequency graphene devices using titanium sacrificial layers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	0.6	4
54	Formation of High-Aspect-Ratio Helical Nanorods via Chiral Self-Assembly of Fullerodendrimers. Journal of Physical Chemistry Letters, 2014, 5, 929-934.	2.1	3

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55	Experimental Observation of Real Time Molecular Dynamics Using Electromigrated Tunnel Junctions. Journal of Physical Chemistry C, 2017, 121, 22550-22558.	1.5	3
56	Three-dimensional hollow grapheneâ€“metallic nanocomposite foam manufactured by polymer-templated electrochemical co-deposition. Journal of Materials Research, 0, , 1.	1.2	0
57	(Invited) Interfacial Engineering of Two-Dimensional Nanomaterials: Chemical Functionalization and Scanning Probe Characterization. ECS Meeting Abstracts, 2016, , .	0.0	0
58	(Invited) Chemical Functionalization and Transformation of 2D Layered Chalcogenide Materials. ECS Meeting Abstracts, 2020, MA2020-01, 816-816.	0.0	0