Qing-Hong Yuan

List of Publications by Year
in descending order

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79 papers	3,790 citations	136740 32 h-index	128067 60 g-index
84 all docs	84 docs citations	84 times ranked	5677 citing authors

#	Article	IF	Citations
1	Fast growth of inch-sized single-crystalline graphene from a controlled single nucleus on Cuâ€“Ni alloys. Nature Materials, 2016, 15, 43-47.	13.3	515
2	Seamless Stitching of Graphene Domains on Polished Copper (111) Foil. Advanced Materials, 2015, 27, 1376-1382.	11.1	314
3	Synthesis of large single-crystal hexagonal boron nitride grains on Cuâ€“Ni alloy. Nature Communications, 2015, 6, 6160.	5.8	310
4	Thin Film Fieldâ€Effect Phototransistors from Bandgapâ€Tunable, Solutionâ€Processed, Fewâ€Layer Reduced Graphene Oxide Films. Advanced Materials, 2010, 22, 4872-4876.	11.1	209
5	Magic Carbon Clusters in the Chemical Vapor Deposition Growth of Graphene. Journal of the American Chemical Society, 2012, 134, 2970-2975.	6.6	138
6	Evaluating the Catalytic Efficiency of Paired, Single-Atom Catalysts for the Oxygen Reduction Reaction. ACS Catalysis, 2019, 9, 7660-7667.	5.5	128
7	Formation of Carbon Clusters in the Initial Stage of Chemical Vapor Deposition Graphene Growth on Ni(111) Surface. Journal of Physical Chemistry C, 2011, 115, 17695-17703.	1.5	119
8	Regulating Infrared Photoresponses in Reduced Graphene Oxide Phototransistors by Defect and Atomic Structure Control. ACS Nano, 2013, 7, 6310-6320.	7.3	112
9	Efficient Defect Healing in Catalytic Carbon Nanotube Growth. Physical Review Letters, 2012, 108, 245505.	2.9	100
10	Phosphorus and Oxygen Dualâ€Doped Porous Carbon Spheres with Enhanced Reaction Kinetics as Anode Materials for Highâ€Performance Potassiumâ€Ion Hybrid Capacitors. Advanced Functional Materials, 2021, 31, 2102060.	7.8	96
11	How Graphene Islands Are Unidirectionally Aligned on the Ge(110) Surface. Nano Letters, 2016, 16, 3160-3165.	4.5	92
12	Ultra-stable all-solid-state sodium metal batteries enabled by perfluoropolyether-based electrolytes. Nature Materials, 2022, 21, 1057-1065.	13.3	92
13	Towards chirality control of graphene nanoribbons embedded in hexagonal boron nitride. Nature Materials, 2021, 20, 202-207.	13.3	80
14	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. Science Advances, 2019, 5, eaaw8337.	4.7	77
15	The transition metal surface dependent methane decomposition in graphene chemical vapor deposition growth. Nanoscale, 2017, 9, 11584-11589.	2.8	76
16	Exploiting Differential Electrochemical Stripping Behaviors of Fe₃O₄Nanocrystals toward Heavy Metal Ions by Crystal Cutting. ACS Applied Materials & Interfaces, 2014, 6, 12203-12213.	4.0	71
17	Engineering the Electrochemical Temperature Coefficient for Efficient Lowâ€Grade Heat Harvesting. Advanced Functional Materials, 2018, 28, 1803129.	7.8	64
18	Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, 14446-14451.	7.2	64

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19	Edge-Catalyst Wetting and Orientation Control of Graphene Growth by Chemical Vapor Deposition Growth. Journal of Physical Chemistry Letters, 2014, 5, 3093-3099.	2.1	63
20	Diradical Mechanisms for the Cycloaddition Reactions of 1,3-Butadiene, Benzene, Thiophene, Ethylene, and Acetylene on a Si(111)-7Ã—7 Surface. Journal of the American Chemical Society, 2003, 125, 7923-7929.	6.6	61
21	Transitionâ€Metalâ€Catalyzed Unzipping of Singleâ€Walled Carbon Nanotubes into Narrow Graphene Nanoribbons at Low Temperature. Angewandte Chemie - International Edition, 2011, 50, 8041-8045.	7.2	61
22	Upright Standing Graphene Formation on Substrates. Journal of the American Chemical Society, 2011, 133, 16072-16079.	6.6	47
23	Prenylated Benzoylphloroglucinols and Xanthones from the Leaves of Garcinia oblongifolia with Antienteroviral Activity. Journal of Natural Products, 2014, 77, 1037-1046.	1.5	45
24	Synthesis of Ni/NiO@MoO_{3â^'}_x Composite Nanoarrays for High Current Density Hydrogen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	10.2	45
25	Synthesis of Layerâ€Tunable Graphene: A Combined Kinetic Implantation and Thermal Ejection Approach. Advanced Functional Materials, 2015, 25, 3666-3675.	7.8	43
26	Controllable nitrogen-doping of nanoporous carbons enabled by coordination frameworks. Journal of Materials Chemistry A, 2019, 7, 647-656.	5.2	43
27	Chemical Trends of Electronic Properties of Two-Dimensional Halide Perovskites and Their Potential Applications for Electronics and Optoelectronics. Journal of Physical Chemistry C, 2016, 120, 24682-24687.	1.5	41
28	Earth-Abundant and Non-Toxic SiX (X = S, Se) Monolayers as Highly Efficient Thermoelectric Materials. Journal of Physical Chemistry C, 2017, 121, 123-128.	1.5	41
29	One-pot synthesis of highly sintering- and coking-resistant Ni nanoparticles encapsulated in dendritic mesoporous SiO₂ for methane dry reforming. Chemical Communications, 2018, 54, 13993-13996.	2.2	41
30	Cytotoxic and Anti-Inflammatory Prenylated Benzoylphloroglucinols and Xanthones from the Twigs of Garcinia esculenta. Journal of Natural Products, 2014, 77, 1700-1707.	1.5	38
31	Bandgap engineering of two-dimensional C3N bilayers. Nature Electronics, 2021, 4, 486-494.	13.1	36
32	Threshold Barrier of Carbon Nanotube Growth. Physical Review Letters, 2011, 107, 156101.	2.9	33
33	The favourable large misorientation angle grain boundaries in graphene. Nanoscale, 2015, 7, 20082-20088.	2.8	31
34	Design of two-dimensional carbon-nitride structures by tuning the nitrogen concentration. Npj Computational Materials, 2020, 6, .	3.5	31
35	Catalysis based on ferroelectrics: controllable chemical reaction with boosted efficiency. Nanoscale, 2021, 13, 7096-7107.	2.8	27
36	Formation of carbyne and graphyne on transition metal surfaces. Nanoscale, 2014, 6, 12727-12731.	2.8	26

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37	Sidewall Epoxidation of Single-Walled Carbon Nanotubes:â€‰ A Theoretical Prediction. Organic Letters, 2003, 5, 3527-3530.	2.4	25
38	How Low Nucleation Density of Graphene on CuNi Alloy is Achieved. Advanced Science, 2018, 5, 1700961.	5.6	25
39	Wafer-scale growth of single-crystal graphene on vicinal Ge(001) substrate. Nano Today, 2020, 34, 100908.	6.2	23
40	How a Zigzag Carbon Nanotube Grows. Angewandte Chemie - International Edition, 2015, 54, 5924-5928.	7.2	22
41	Shaping the Future of Solidâ€State Electrolytes through Computational Modeling. Advanced Materials, 2020, 32, e1908041.	11.1	22
42	Formation of Graphene Grain Boundaries on Cu(100) Surface and a Route Towards Their Elimination in Chemical Vapor Deposition Growth. Scientific Reports, 2014, 4, 6541.	1.6	21
43	Effect of defects and defect distribution on Li-diffusion and elastic properties of anti-perovskite Li3OCl solid electrolyte. Energy Storage Materials, 2021, 41, 614-622.	9.5	16
44	Prenylated benzoylphloroglucinols and biphenyl derivatives from the leaves of Garcinia multiflora Champ. RSC Advances, 2015, 5, 78259-78267.	1.7	15
45	Doping Effects on the Performance of Paired Metal Catalysts for the Hydrogen Evolution Reaction. Journal of Chemical Information and Modeling, 2019, 59, 2242-2247.	2.5	15
46	Catalyst-Free Growth of Two-Dimensional BC_xN Materials on Dielectrics by Temperature-Dependent Plasma-Enhanced Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2020, 12, 33113-33120.	4.0	15
47	An analysis of F-doping in Li-rich cathodes. Rare Metals, 2022, 41, 1771-1796.	3.6	15
48	Graphene Oxide-BiOCl Nanoparticle Composites as Catalysts for Oxidation of Volatile Organic Compounds in Nonthermal Plasmas. ACS Applied Nano Materials, 2020, 3, 9363-9374.	2.4	13
49	Effect of Metal Impurities on the Tensile Strength of Carbon Nanotubes: A Theoretical Study. Journal of Physical Chemistry C, 2013, 117, 5470-5474.	1.5	12
50	Sodium-Ion Storage Mechanism in Triquinoxalinylene and a Strategy for Improving Electrode Stability. Energy & Fuels, 2020, 34, 5099-5105.	2.5	12
51	A barrier for the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si11.gif" display="inline" overflow="scroll"><mml:mrow><mml:msubsup><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mrow><mml:mn>13</m reaction and its implication for the chemisorption of <mml:math xmlns:mml="h. Chemical Physics Letters, 2010, 489, 16-19.	1.2	11
52	Thermodynamics and Kinetics of Graphene Growth on Ni(111) and the Origin of Triangular Shaped Graphene Islands. Journal of Physical Chemistry C, 2018, 122, 3334-3340.	1.5	10
53	Effect of Surface [Cu₄O] Moieties on the Activity of Cu-Based Catalysts. ACS Catalysis, 2022, 12, 5162-5173.	5.5	10
54	A new experimental method to distinguish two different mechanisms for a category of oscillators involving mass transfer. Electrochemistry Communications, 2001, 3, 654-658.	2.3	9

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55	Vacancy-Assisted Growth Mechanism of Multilayer Hexagonal Boron Nitride on a Fe₂B Substrate. Journal of Physical Chemistry Letters, 2020, 11, 8511-8517.	2.1	9
56	Suitable Surface Oxygen Concentration on Copper Contributes to the Growth of Large Graphene Single Crystals. Journal of Physical Chemistry Letters, 2019, 10, 4868-4874.	2.1	8
57	Stabilities of Isomers of Phosphorus on Transition Metal Substrates. Chemistry of Materials, 2021, 33, 9447-9453.	3.2	7
58	Defect-Engineered Graphene Films as Ozonation Catalysts for the Devastation of Sulfamethoxazole: Insights into the Active Sites and Oxidation Mechanism. ACS Applied Materials & Interfaces, 2021, 13, 52706-52716.	4.0	6
59	Dynamic factors in the reactions between the magic cluster Alâ¯13 and HCl/HI. Physical Chemistry Chemical Physics, 2011, 13, 9871.	1.3	5
60	Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie, 2019, 131, 14588-14593.	1.6	5
61	Strain-induced bandgap engineering in C3N nanotubes. Chemical Physics Letters, 2021, 768, 138390.	1.2	4
62	Computational Study of the C₂P₄ Monolayer as a Stable Two-Dimensional Material with High Carrier Mobility: Implications for Nanoelectronic Devices. ACS Applied Nano Materials, 2022, 5, 6972-6979.	2.4	4
63	Breaking the Linear Relation in the Dissociation of Nitrogen on Iron Surfaces. ChemPhysChem, 2022, 23, .	1.0	4
64	Computational Screening of Atomically Thin Two-Dimensional Nanomaterial-Coated Cs₃Sb Heterostructures for High-Performance Photocathodes. Journal of Physical Chemistry C, 2020, 124, 26396-26403.	1.5	3
65	The role of Cu crystallographic orientations towards growing superclean graphene on meter-sized scale. Nano Research, 2022, 15, 3775-3780.	5.8	3
66	Theoretical investigation of an intermediate in the STM tip-induced atomic process on H/Si(100) surfaces. Physical Review B, 2010, 81, .	1.1	2
67	The isomeric effect on the adjacent Si dimer didechlorination of trans and iso-dichloroethylene on Si(100)-2Ã—1. Physical Chemistry Chemical Physics, 2011, 13, 7121.	1.3	2
68	Frontispiece: Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, .	7.2	2
69	Stacking driven Raman spectra change of carbon based 2D semiconductor C3N. Chinese Chemical Letters, 2022, 33, 2600-2604.	4.8	2
70	Stabilization of Black Phosphorene by Edge-Selective Adsorption of C₆₀ Molecules. Journal of Physical Chemistry C, 2022, 126, 6874-6879.	1.5	2
71	Reply to the â€˜Comment on â€œDynamic factors in the reactions between the magic cluster Al13â¯ and HCl/HIâ€: A wavefunction instability problem.â€™ by Young-Kyu Han, Phys. Chem. Chem. Phys. 2012, DOI: 10.1039/C2CP23908F. Physical Chemistry Chemical Physics, 2012, 14, 6641.	1.3	1
72	The collapse of an elastic tube induced by encapsulated liquid droplets. Soft Matter, 2013, 9, 9774.	1.2	1

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73	Production of spin-semiconducting zigzag graphene nanoribbons by constructing asymmetric notch on graphene edges. Materials Research Express, 2015, 2, 125006.	0.8	1
74	Optimizing the U value for DFT+U calculation of paramagnetic solid-state NMR shifts by double Fermi-contact-shift verification. Chemical Physics Letters, 2019, 736, 136779.	1.2	1
75	Tuning the electronic properties of hydrogen passivated C3N nanoribbons through van der Waals stacking. Frontiers of Physics, 2020, 15, 1.	2.4	1
76	Structure of Lennardâ€"Jones nanowires encapsulated by carbon nanotubes. Chinese Physics B, 2014, 23, 016104.	0.7	0
77	RÃ¼cktitelbild: How a Zigzag Carbon Nanotube Grows (Angew. Chem. 20/2015). Angewandte Chemie, 2015, 127, 6166-6166.	1.6	0
78	Graphene: Synthesis of Layer-Tunable Graphene: A Combined Kinetic Implantation and Thermal Ejection Approach (Adv. Funct. Mater. 24/2015). Advanced Functional Materials, 2015, 25, 3796-3796.	7.8	0
79	Frontispiz: Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie, 2019, 131, .	1.6	0