Guangfu Luo

List of Publications by Year
in descending order

70 papers	2,754 citations	218592 26 h-index	175177 52 g-index
71 all docs	71 docs citations	71 times ranked	4289 citing authors

#	Article	IF	Citations
1	Monolayer, Bilayer, and Bulk BSi as Potential Anode Materials of Liâ€Ion Batteries. ChemPhysChem, 2022, 23, .	1.0	4
2	Substitutional oxygen activated photoluminescence enhancement in monolayer transition metal dichalcogenides. Science China Materials, 2022, 65, 1034-1041.	3.5	6
3	A direct measurement method of quantum relaxation time. National Science Review, 2021, 8, nwaa242.	4.6	4
4	Single copper sites dispersed on defective TiO2â^'x as a synergistic oxygen reduction reaction catalyst. Journal of Chemical Physics, 2021, 154, 034705.	1.2	7
5	Lithium Storage in Bowl-like Carbon: The Effect of Surface Curvature and Space Geometry on Li Metal Deposition. ACS Energy Letters, 2021, 6, 2145-2152.	8.8	41
6	Tale of Three Phosphate Additives for Stabilizing NCM811/Graphite Pouch Cells: Significance of Molecular Structureâ€"Reactivity in Dictating Interphases and Cell Performance. ACS Applied Materials & Interfaces, 2021, 13, 29676-29690.	4.0	13
7	Atomistic Mechanism and Long-Term Stability of Using Chlorinated Graphdiyne Film to Reduce Lithium Dendrites in Rechargeable Lithium Metal Batteries. Nano Letters, 2021, 21, 7284-7290.	4.5	12
8	Mechanistic Probing of Encapsulation and Confined Growth of Lithium Crystals in Carbonaceous Nanotubes. Advanced Materials, 2021, 33, e2105228.	11.1	14
9	Cathode-anode reaction products interplay enabling high performance of LiNi0.8Co0.1Mn0.1O2/artificial graphite pouch batteries at elevated temperature. Journal of Power Sources, 2021, 514, 230583.	4.0	8
10	Shaping and Edge Engineering of Few-Layered Freestanding Graphene Sheets in a Transmission Electron Microscope. Nano Letters, 2020, 20, 2279-2287.	4.5	5
11	Thermodynamic stability analysis of Bi-containing III-V quaternary alloys and the effect of epitaxial strain. Journal of Physics and Chemistry of Solids, 2020, 138, 109245.	1.9	6
12	Mechanism Study of Unsaturated Tripropargyl Phosphate as an Efficient Electrolyte Additive Forming Multifunctional Interphases in Lithium Ion and Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2020, 12, 10443-10451.	4.0	47
13	Diameter, strength and resistance tuning of double-walled carbon nanotubes in a transmission electron microscope. Carbon, 2020, 160, 98-106.	5.4	5
14	Ignition Threshold of Perovskite-Based Oxides for Solid Fuel Oxidation from First-Principles Calculations. Journal of Physical Chemistry C, 2019, 123, 17644-17649.	1.5	2
15	Defect-Induced Electronic Structure Changes in Cesium Lead Halide Nanocrystals. Microscopy and Microanalysis, 2019, 25, 660-661.	0.2	0
16	Materials Discovery of Stable and Nontoxic Halide Perovskite Materials for Highâ€Efficiency Solar Cells. Advanced Functional Materials, 2019, 29, 1804354.	7.8	61
17	Atomic Structure and Electrical Activity of Grain Boundaries and Ruddlesdenâ€"Popper Faults in Cesium Lead Bromide Perovskite. Advanced Materials, 2019, 31, e1805047.	11.1	72
18	Significantly Enhanced Emission Stability of CsPbBr₃ Nanocrystals via Chemically Induced Fusion Growth for Optoelectronic Devices. ACS Applied Nano Materials, 2018, 1, 6091-6098.	2.4	42

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19	Transition state redox during dynamical processes in semiconductors and insulators. NPG Asia Materials, 2018, 10, 45-51.	3.8	3
20	Atomic-Scale Identification of Planar Defects in Cesium Lead Bromide Perovskite Nanocrystals. Microscopy and Microanalysis, 2018, 24, 100-101.	0.2	2
21	Understanding and reducing deleterious defects in the metastable alloy GaAsBi. NPG Asia Materials, 2017, 9, e345-e345.	3.8	24
22	Ab Initio Modeling of Electrolyte Molecule Ethylene Carbonate Decomposition Reaction on Li(Ni,Mn,Co)O₂ Cathode Surface. ACS Applied Materials & Interfaces, 2017, 9, 20545-20553.	4.0	65
23	Polarity-driven oxygen vacancy formation in ultrathin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaNiO</mml:mi><mml:mn>3</mml:mn></mml:msub><m films on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub><m Physical Review Materials, 2017, 1, .	0.9	25
24	First-principles predictions of electronic properties of GaAs1-x-yPyBix and GaAs1-x-yPyBix-based heterojunctions. Applied Physics Letters, 2016, 109, .	1.5	7
25	Nanometre-thick single-crystalline nanosheets grown at the waterâ€“air interface. Nature Communications, 2016, 7, 10444.	5.8	133
26	First-principles studies on molecular beam epitaxy growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>GaA</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:mrow></mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:mrow></mml:math>. Physical Review B, 2015, 92, .	1.1	11
27	Strain-compensated GaAs_{1â^’y}P_y/GaAs_{1â^’z}Bi_z/GaAs_{1â^’y} wells for laser applications. Semiconductor Science and Technology, 2015, 30, 094011.	1.5	8
28	GaAs1â^’yâ^’zPyBiz, an alternative reduced band gap alloy system lattice-matched to GaAs. Applied Physics Letters, 2014, 105, .	1.5	23
29	Dynamic layer rearrangement during growth of layered oxide films by molecular beam epitaxy. Nature Materials, 2014, 13, 879-883.	13.3	133
30	Structural, Electronic, and Optical Properties of Bulk Graphdiyne. Journal of Physical Chemistry C, 2013, 117, 13072-13079.	1.5	101
31	Enhanced manyâ€body effects in oneâ€dimensional linear atomic chains. Physica Status Solidi (B): Basic Research, 2013, 250, 1636-1643.	0.7	7
32	Electronic structures and properties of lanthanide hexaboride nanowires. Journal of Applied Physics, 2013, 114, 143709.	1.1	5
33	Electron transport through single endohedral Ce@C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>82</mml:mn></mml:msub></mml:math>metallofullerenes. Physical Review B, 2012, 86, .	1.1	35
34	Tunable Charge-Transport Properties of I_h-C₈₀ Endohedral Metallofullerenes: Investigation of La₂@C₈₀, Sc₃N@C₈₀, and Sc₃C₂@C₈₀. Journal of the American Chemical Society, 2012, 134, 11681-11686.	6.6	33
35	Tunable and sizable band gap of single-layer graphene sandwiched between hexagonal boron nitride. NPG Asia Materials, 2012, 4, e6-e6.	3.8	158
36	Structural and electronic properties of bilayer and trilayer graphdiyne. Nanoscale, 2012, 4, 3990.	2.8	156

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37	Giant magnetoresistance in silicene nanoribbons. Nanoscale, 2012, 4, 3111.	2.8	216
38	A Coâ€Crystal Composed of the Paramagnetic Endohedral Metallofullerene La@C₈₂ and a Nickel Porphyrin with High Electron Mobility. Angewandte Chemie - International Edition, 2012, 51, 1589-1591.	7.2	75
39	Phase stabilization in nitrogen-implanted nanocrystalline cubic zirconia. Physical Chemistry Chemical Physics, 2011, 13, 19517.	1.3	15
40	Semi-metallic Single-Component Crystal of Soluble La@C₈₂ Derivative with High Electron Mobility. Journal of the American Chemical Society, 2011, 133, 2766-2771.	6.6	53
41	Polarized Nonresonant Raman Spectra of Graphene Nanoribbons. Journal of Physical Chemistry C, 2011, 115, 24463-24468.	1.5	11
42	Functionalized Graphene for High-Performance Two-Dimensional Spintronics Devices. ACS Nano, 2011, 5, 2601-2610.	7.3	116
43	Optical properties of antiferroelectric Cs2Nb4O11: Absorption spectra and first-principles calculations. Journal of Applied Physics, 2011, 110, .	1.1	3
44	Family-Dependent Rectification Characteristics in Ultra-Short Graphene Nanoribbon pâ€“n Junctions. Journal of Physical Chemistry C, 2011, 115, 8547-8554.	1.5	28
45	Negative differential resistance in parallel single-walled carbon nanotube contacts. Physical Review B, 2011, 83, .	1.1	31
46	Sign-changeable spin-filter efficiency and giant magnetoresistance in seamless graphene nanoribbon junctions. Computational Materials Science, 2011, 50, 2886-2890.	1.4	6
47	Quasiparticle energies and excitonic effects of the two-dimensional carbon allotrope graphdiyne: Theory and experiment. Physical Review B, 2011, 84, .	1.1	305
48	Negative rectification and negative differential resistance in nanoscale single-walled carbon nanotube p-n junctions. Theoretical Chemistry Accounts, 2011, 130, 353-359.	0.5	10
49	The Local Structure and I-V Characteristics of Chromium Doped Semiconducting Boron Carbide. Materials Research Society Symposia Proceedings, 2011, 1307, 1.	0.1	1
50	Insights into the local electronic structure of semiconducting boron carbides in the vicinity of transition metal dopants. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 175, 1-8.	1.7	11
51	Selection of single-walled carbon nanotubes according to both their diameter and chirality via nanotweezers. Nano Research, 2010, 3, 296-306.	5.8	13
52	First-principles study of the formation mechanisms of nitrogen molecule in annealed ZnO. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3546-3550.	0.9	19
53	Room-temperature giant magnetoresistance over one billion percent in a bare graphene nanoribbon device. Physical Review B, 2010, 81, .	1.1	44
54	Polarized Vibrational Infrared Absorption of Graphene Nanoribbons. Journal of Physical Chemistry C, 2010, 114, 6959-6965.	1.5	10

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55	The local structure of transition metal doped semiconducting boron carbides. Journal Physics D: Applied Physics, 2010, 43, 085403.	1.3	15
56	Structural, Electronic, and Transport Properties of Gd/Eu Atomic Chains Encapsulated in Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2010, 114, 15347-15353.	1.5	19
57	Functionalized Metallic Single-Walled Carbon Nanotubes as a High-Performance Single-Molecule Organic Field Effect Transistor: An ab Initio Study. Journal of Physical Chemistry C, 2010, 114, 15816-15822.	1.5	13
58	Electronicâ€Typeâ€•and Diameterâ€Dependent Reduction of Singleâ€Walled Carbon Nanotubes Induced by Adsorption of Electronâ€Donor Molecules. Small, 2009, 5, 244-255.	5.2	14
59	A Facile, Lowâ€Cost, and Scalable Method of Selective Etching of Semiconducting Singleâ€Walled Carbon Nanotubes by a Gas Reaction. Advanced Materials, 2009, 21, 813-816.	11.1	44
60	Magnetism in carbon nanoscrolls: Quasi-half-metals and half-metals in pristine hydrocarbons. Nano Research, 2009, 2, 844-850.	5.8	11
61	Optical Absorption Spectra of Charge-Doped Single-Walled Carbon Nanotubes from First-Principles Calculations. Journal of Physical Chemistry C, 2009, 113, 7058-7064.	1.5	2
62	Magnetic Properties of Fully Bare and Half-Bare Boron Nitride Nanoribbons. Journal of Physical Chemistry C, 2009, 113, 2273-2276.	1.5	102
63	Origin of p-Type Doping in Zinc Oxide Nanowires Induced by Phosphorus Doping: A First Principles Study. Journal of Physical Chemistry C, 2009, 113, 9541-9545.	1.5	26
64	Study on the Dispersion of Charged Single-Wall Carbon Nanotube Bundles by First Principles Calculation. Journal of Nanoscience and Nanotechnology, 2009, 9, 5170-5172.	0.9	2
65	Novel One-Dimensional Organometallic Half Metals: Vanadium-Cyclopentadienyl, Vanadium-Cyclopentadienyl-Benzene, and Vanadium-Anthracene Wires. Nano Letters, 2008, 8, 3640-3644.	4.5	131
66	Selective adsorption of cations on single-walled carbon nanotubes: A density functional theory study. Computational Materials Science, 2008, 43, 886-891.	1.4	8
67	First-Principles Calculation of ¹³C NMR Chemical Shifts of Infinite Single-Walled Carbon Nanotubes: New Data for Large-Diameter and Four-Helical Nanotubes. Journal of Physical Chemistry C, 2008, 112, 16417-16421.	1.5	18
68	First-principles study of hydrogen-passivated single-crystalline silicon nanotubes: electronic and optical properties. Nanotechnology, 2007, 18, 505707.	1.3	17
69	Optical Absorption Spectra and Polarizabilities of Silicon Carbide Nanotubes:â€‰ A First Principles Study. Journal of Physical Chemistry C, 2007, 111, 18864-18870.	1.5	11
70	Why Semiconducting Singleâ€Walled Carbon Nanotubes are Separated from their Metallic Counterparts. Small, 2007, 3, 1566-1576.	5.2	68