Rui Qin

List of Publications by Year in Descending Order

39 papers	2,579 citations	19 h-index	41 g-index
41 ext. papers	2,810 ext. citations	5.6 avg, IF	4.63 L-index

#	Paper	IF	Citations
39	High harmonic studies of structural phase transitions in silicon. *Computational Materials Science*, **2021**, 197, 110621	3.2	1
38	Probing structural chirality of crystals using high-order harmonic generation in solids. *Physical Review A*, **2020**, 101,	2.6	3
37	High harmonic generation in graphene–boron nitride heterostructures. *Journal of Materials Chemistry C*, **2020**, 8, 12085-12091	7.1	6
36	Strong-field nonlinear optical properties of monolayer black phosphorus. *Nanoscale*, **2019**, 11, 16377-16383	7.7	9
35	Circularly polarized extreme ultraviolet high harmonic generation in graphene. *Optics Express*, **2019**, 27, 3761-3770	3.3	26
34	Strain-controlled high harmonic generation with Dirac fermions in silicene. *Nanoscale*, **2018**, 10, 22593-22600	7.7	12
33	Sign-tunable Poisson's ratio in semi-fluorinated graphene. *Nanoscale*, **2017**, 9, 128-133	7.7	23
32	Uniaxial strain-induced mechanical and electronic property modulation of silicene. *Nanoscale Research Letters*, **2014**, 9, 521	5	59
31	First-principles calculations of mechanical and electronic properties of silicene under strain. *AIP Advances*, **2012**, 2, 022159	1.5	124
30	Tunable bandgap in silicene and germanene. *Nano Letters*, **2012**, 12, 113-8	11.5	1043
29	Tunable and sizable band gap of single-layer graphene sandwiched between hexagonal boron nitride. *NPG Asia Materials*, **2012**, 4, e6-e6	10.3	140
28	Polarized Nonresonant Raman Spectra of Graphene Nanoribbons. *Journal of Physical Chemistry C*, **2011**, 115, 24463-24468	3.8	9
27	Functionalized graphene for high-performance two-dimensional spintronics devices. *ACS Nano*, **2011**, 5, 2601-10	16.7	101
26	Structure and Electronic and Transport Properties of Transition Metal Intercalated Graphene and Graphene-Hexagonal-Boron-Nitride Bilayer. *Journal of Physical Chemistry C*, **2011**, 115, 25273-25280	3.8	21
25	Electric-Field-Induced Energy Gap in Few-Layer Graphene. *Journal of Physical Chemistry C*, **2011**, 115, 9458-9464	3.8	66
24	Family-Dependent Rectification Characteristics in Ultra-Short Graphene Nanoribbonpn Junctions. *Journal of Physical Chemistry C*, **2011**, 115, 8547-8554	3.8	27
23	Negative differential resistance in parallel single-walled carbon nanotube contacts. *Physical Review B*, **2011**, 83,	3.3	30

22	Quasiparticle energies and excitonic effects of the two-dimensional carbon allotrope graphdiyne: Theory and experiment. *Physical Review B*, **2011**, 84,	3.3	246
21	All-Metallic High-Performance Field Effect Transistor Based on Telescoping Carbon Nanotubes: An ab Initio Study. *Journal of Physical Chemistry C*, **2011**, 115, 6933-6938	3.8	20
20	Negative rectification and negative differential resistance in nanoscale single-walled carbon nanotube p-n junctions. *Theoretical Chemistry Accounts*, **2011**, 130, 353-359	1.9	9
19	Tuning graphene nanoribbon field effect transistors via controlling doping level. *Theoretical Chemistry Accounts*, **2011**, 130, 483-489	1.9	4
18	Room-temperature giant magnetoresistance over one billion percent in a bare graphene nanoribbon device. *Physical Review B*, **2010**, 81,	3.3	43
17	Electronic Structure and Stability of Ultranarrow Single-Layer SnS2 Nanoribbons: A First-Principles Study. *Journal of Computational and Theoretical Nanoscience*, **2010**, 7, 2100-2103	0.3	10
16	Polarized Vibrational Infrared Absorption of Graphene Nanoribbons. *Journal of Physical Chemistry C* , **2010**, 114, 6959-6965	3.8	10
15	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	3.8	15
14	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	3.8	12
13	Selection of single-walled carbon nanotubes according to both their diameter and chirality via nanotweezers. *Nano Research*, **2010**, 3, 296-306	10	12
12	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	2.3	19
11	Electron localization and emission mechanism in wurtzite (Al, In, Ga)N alloys. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 109-114	1.3	14
10	Electronic and Mechanical Coupling in Bent ZnO Nanowires. *Advanced Materials*, **2009**, 21, 4937-4941	24	128
9	Magnetism in carbon nanoscrolls: Quasi-half-metals and half-metals in pristine hydrocarbons. *Nano Research*, **2009**, 2, 844-850	10	10
8	Optical Absorption Spectra of Charge-Doped Single-Walled Carbon Nanotubes from First-Principles Calculations. *Journal of Physical Chemistry C*, **2009**, 113, 7058-7064	3.8	2
7	Magnetic Properties of Fully Bare and Half-Bare Boron Nitride Nanoribbons. *Journal of Physical Chemistry C*, **2009**, 113, 2273-2276	3.8	96
6	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	3.8	26
5	Study on the dispersion of charged single-wall carbon nanotube bundles by first principles calculation. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 5170-2	1.3	2

4	Electronic-type- and diameter-dependent reduction of single-walled carbon nanotubes induced by adsorption of electron-donor molecules. *Small*, **2009**, 5, 244-55	11	10
3	Novel one-dimensional organometallic half metals: vanadium-cyclopentadienyl, vanadium-cyclopentadienyl-benzene, and vanadium-anthracene wires. *Nano Letters*, **2008**, 8, 3640-4	11.5	116
2	Optical Absorption Spectra and Polarizabilities of Silicon Carbide Nanotubes: A First Principles Study. *Journal of Physical Chemistry C*, **2007**, 111, 18864-18870	3.8	11
1	Why semiconducting single-walled carbon nanotubes are separated from their metallic counterparts. *Small*, **2007**, 3, 1566-76	11	62