Rui-Qin Zhang

List of Publications by Citations

372 papers	9,494 citations	48 h-index	80 g-index
385 ext. papers	10,359 ext. citations	4.4 avg, IF	6.32 L-index

#	Paper	IF	Citations
372	A Strategy of Enhancing the Photoactivity of g-C3N4 via Doping of Nonmetal Elements: A First-Principles Study. *Journal of Physical Chemistry C*, **2012**, 116, 23485-23493	3.8	471
371	Preparation of Large-Area Uniform Silicon Nanowires Arrays through Metal-Assisted Chemical Etching. *Journal of Physical Chemistry C*, **2008**, 112, 4444-4450	3.8	448
370	Motility of Metal Nanoparticles in Silicon and Induced Anisotropic Silicon Etching. *Advanced Functional Materials*, **2008**, 18, 3026-3035	15.6	387
369	Ordered silicon nanowire arrays via nanosphere lithography and metal-induced etching. *Applied Physics Letters*, **2007**, 90, 163123	3.4	251
368	Strain energy and electronic structures of silicon carbide nanotubes: Density functional calculations. *Physical Review B*, **2005**, 71,	3.3	224
367	Al doped graphene: A promising material for hydrogen storage at room temperature. *Journal of Applied Physics*, **2009**, 105, 074307	2.5	183
366	The mechanism of diamond nucleation from energetic species. *Science*, **2002**, 297, 1531-3	33.3	179
365	Photo and pH stable, highly-luminescent silicon nanospheres and their bioconjugates for immunofluorescent cell imaging. *Journal of the American Chemical Society*, **2009**, 131, 4434-8	16.4	176
364	Thermal vapor condensation of uniform graphitic carbon nitride films with remarkable photocurrent density for photoelectrochemical applications. *Nano Energy*, **2015**, 15, 353-361	17.1	158
363	Carbon dot loading and TiO₂ nanorod length dependence of photoelectrochemical properties in carbon dot/TiO₂ nanorod array nanocomposites. *ACS Applied Materials & Interfaces*, **2014**, 6, 4883-90	9.5	151
362	Tris(trimethylsilyl)borate as an electrolyte additive for improving interfacial stability of high voltage layered lithium-rich oxide cathode/carbonate-based electrolyte. *Journal of Power Sources*, **2015**, 285, 360-366	8.9	107
361	Contact formation of LiF/Al cathodes in Alq-based organic light-emitting diodes. *Journal Physics D: Applied Physics*, **2002**, 35, 103-107	3	102
360	Structures and energetics of hydrogen-terminated silicon nanowire surfaces. *Journal of Chemical Physics*, **2005**, 123, 144703	3.9	98
359	Efficiency Enhancement of Carbon Nitride Photoelectrochemical Cells via Tailored Monomers Design. *Advanced Energy Materials*, **2016**, 6, 1600263	21.8	96
358	Geometric and Electronic Structures of Silicon Oxide Clusters. *Journal of Physical Chemistry B*, **2001**, 105, 1705-1709	3.4	90
357	Simulation of water cluster assembly on a graphite surface. *Journal of Physical Chemistry B*, **2005**, 109, 14183-8	3.4	89
356	First-principles calculations for nitrogen-containing single-walled carbon nanotubes. *Journal of Applied Physics*, **2003**, 94, 2398-2402	2.5	88

355	Vacancy-defect induced diminution of thermal conductivity in silicene. *Europhysics Letters*, **2012**, 99, 36001	1.6	85
354	Electronic and geometric structure of thin stable short silicon nanowires. *Physical Review B*, **2002**, 65,	3.3	85
353	A novel electrolyte additive for improving the interfacial stability of high voltage lithium nickel manganese oxide cathode. *Journal of Power Sources*, **2015**, 293, 71-77	8.9	75
352	Molecule-substrate interaction channels of metal-phthalocyanines on graphene on Ni(111) surface. *Journal of Chemical Physics*, **2011**, 134, 094705	3.9	71
351	Stable calcium adsorbates on carbon nanostructures: Applications for high-capacity hydrogen storage. *Physical Review B*, **2009**, 79,	3.3	71
350	Geometric and Electronic Structures of Carbon Nanotubes Adsorbed with Flavin Adenine Dinucleotide: A Theoretical Study. *Journal of Physical Chemistry C*, **2007**, 111, 4069-4073	3.8	69
349	Structural and electronic properties of ZnO nanotubes from density functional calculations. *Nanotechnology*, **2007**, 18, 485713	3.4	68
348	Manipulating the electronic structures of silicon carbide nanotubes by selected hydrogenation. *Journal of Chemical Physics*, **2005**, 122, 214707	3.9	68
347	Chemical reaction dynamics of barium atom with alkyl bromides. *Chemical Physics Letters*, **1991**, 181, 474-478	2.5	67
346	Two-dimensional topological insulators with binary honeycomb lattices: SiC3 siligraphene and its analogs. *Physical Review B*, **2014**, 89,	3.3	65
345	Tunable electrical properties of silicon nanowires via surface-ambient chemistry. *ACS Nano*, **2010**, 4, 3045-52	13.7	65
344	Graphitic Carbon Nitride Film: An Emerging Star for Catalytic and Optoelectronic Applications. *ChemSusChem*, **2016**, 9, 2723-2735	8.3	62
343	Single-Crystal 9,10-Diphenylanthracene Nanoribbons and Nanorods. *Chemistry of Materials*, **2008**, 20, 6945-6950	9.6	62
342	Stress-induced band gap tuning in <112> silicon nanowires. *Applied Physics Letters*, **2007**, 91, 263107	3.4	62
341	Efficient emission facilitated by multiple energy level transitions in uniform graphitic carbon nitride films deposited by thermal vapor condensation. *ChemPhysChem*, **2015**, 16, 954-9	3.2	61
340	A surface-enhanced Raman spectroscopy substrate for highly sensitive label-free immunoassay. *Applied Physics Letters*, **2008**, 92, 043116	3.4	61
339	Investigation of possible structures of silicon nanotubes via density-functional tight-binding molecular dynamics simulations and ab initio calculations. *Journal of Physical Chemistry B*, **2005**, 109, 8605-12	3.4	60
338	Unusual size dependence of the optical emission gap in small hydrogenated silicon nanoparticles. *Applied Physics Letters*, **2007**, 90, 123116	3.4	59

337	Theoretical study of the chemical gap tuning in silicon nanowires. *Physical Review B*, **2007**, 76,	3.3	58
336	Smallest diameter carbon nanotubes. *Applied Physics Letters*, **2000**, 77, 2831-2833	3.4	58
335	Low-dimensional Mo:BiVO4 photoanodes for enhanced photoelectrochemical activity. *Journal of Materials Chemistry A*, **2018**, 6, 3602-3609	13	56
334	Covalent-adsorption induced magnetism in graphene. *Journal of Materials Chemistry*, **2009**, 19, 9274		56
333	First-principles calculations of reconstructed [0001] ZnO nanowires. *Physical Review B*, **2007**, 76,	3.3	56
332	Improved performance and stability of organic light-emitting devices with silicon oxy-nitride buffer layer. *Applied Physics Letters*, **2003**, 83, 1038-1040	3.4	56
331	Energetics of segregation in ╫C2BN. *Applied Physics Letters*, **1999**, 75, 2259-2261	3.4	56
330	Surface passivation and transfer doping of silicon nanowires. *Angewandte Chemie - International Edition*, **2009**, 48, 9896-900	16.4	55
329	Optimal surface functionalization of silicon quantum dots. *Journal of Chemical Physics*, **2008**, 128, 244714	3.9	53
328	Structural transition in nanosized silicon clusters. *Physical Review B*, **2002**, 65,	3.3	51
327	Silicon monoxide clusters: the favorable precursors for forming silicon nanostructures. *Physical Review Letters*, **2004**, 93, 095503	7.4	51
326	Spin-orbit torque in a completely compensated synthetic antiferromagnet. *Physical Review B*, **2018**, 97,	3.3	48
325	Structural, Electronic, Dynamical, and Superconducting Properties in Dense GeH4(H2)2. *Journal of Physical Chemistry C*, **2012**, 116, 5225-5234	3.8	48
324	Ab Initio Calculations of Hydrogen-Bonded Carboxylic Acid Cluster Systems: Dimer Evaporations. *The Journal of Physical Chemistry*, **1996**, 100, 960-966		48
323	High reactivity of silicon suboxide clusters. *Physical Review B*, **2001**, 64,	3.3	48
322	Time-dependent quantum wave packet studies of the F+HCl and F+DCl reactions. *Journal of Chemical Physics*, **2000**, 113, 10105-10113	3.9	48
321	DFT calculations on structural and electronic properties of Bi2MO6 (M = Cr, Mo, W). *Rare Metals*, **2011**, 30, 166-172	5.5	46
320	Hydrogen and oxygen adsorption on ZnO nanowires: A first-principles study. *Physical Review B*, **2009**, 79,	3.3	46

319	Engineering of Facets, Band Structure, and Gas-Sensing Properties of Hierarchical Sn2+-Doped SnO2 Nanostructures. *Advanced Functional Materials*, **2013**, 23, n/a-n/a	15.6	45
318	Strain Induced Band Dispersion Engineering in Si Nanosheets. *Journal of Physical Chemistry C*, **2011**, 115, 23682-23687	3.8	45
317	Recent developments in carbon nitride based films for photoelectrochemical water splitting. *Sustainable Energy and Fuels*, **2020**, 4, 485-503	5.8	44
316	Hydrogen-Location-Sensitive Modulation of the Redox Reactivity for Oxygen-Deficient TiO. *Journal of the American Chemical Society*, **2019**, 141, 8407-8411	16.4	43
315	Tuning the optical properties of graphene quantum dots by selective oxidation: a theoretical perspective. *Journal of Materials Chemistry C*, **2018**, 6, 6875-6883	7.1	43
314	Dynamic Crystallography Reveals Early Signalling Events in Ultraviolet Photoreceptor UVR8. *Nature Plants*, **2015**, 1,	11.5	42
313	Stacking of polycyclic aromatic hydrocarbons as prototype for graphene multilayers, studied using density functional theory augmented with a dispersion term. *Journal of Chemical Physics*, **2009**, 131, 194702	3.9	41
312	Adsorption and properties of aromatic amino acids on single-walled carbon nanotubes. *Nanoscale*, **2012**, 4, 1146-53	7.7	40
311	Density-functional theory calculations of bare and passivated triangular-shaped ZnO nanowires. *Applied Physics Letters*, **2007**, 91, 031914	3.4	40
310	Survey of structural and electronic properties of C60 on close-packed metal surfaces. *Journal of Materials Science*, **2012**, 47, 7341-7355	4.3	39
309	Two-dimensional metal-organic coordination networks of Mn-7,7,8,8-tetracyanoquinodimethane assembled on Cu(100): Structural, electronic, and magnetic properties. *Physical Review B*, **2009**, 80,	3.3	39
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298	Theoretical Exploration of the Structural, Electronic, and Magnetic Properties of ZnO Nanotubes with Vacancies, Antisites, and Nitrogen Substitutional Defects. *Journal of Physical Chemistry C*, **2010**, 114, 5760-5766	3.8	33
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295	A new insight into □stacking involving remarkable orbital interactions. *Physical Chemistry Chemical Physics*, **2016**, 18, 25452-25457	3.6	32
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