Reza R Zamani

List of Publications by Year
in descending order

55 papers	2,587 citations	236925 25 h-index	182427 51 g-index
59 all docs	59 docs citations	59 times ranked	4364 citing authors

#	Article	IF	Citations
1	CuTe Nanocrystals: Shape and Size Control, Plasmonic Properties, and Use as SERS Probes and Photothermal Agents. Journal of the American Chemical Society, 2013, 135, 7098-7101.	13.7	403
2	Cu₂ZnGeSe₄ Nanocrystals: Synthesis and Thermoelectric Properties. Journal of the American Chemical Society, 2012, 134, 4060-4063.	13.7	199
3	Composition Control and Thermoelectric Properties of Quaternary Chalcogenide Nanocrystals: The Case of Stannite Cu₂CdSnSe₄. Chemistry of Materials, 2012, 24, 562-570.	6.7	153
4	Heterostructured p-CuO (nanoparticle)/n-SnO2 (nanowire) devices for selective H2S detection. Sensors and Actuators B: Chemical, 2013, 181, 130-135.	7.8	148
5	Coreâ€“Shell Nanoparticles As Building Blocks for the Bottom-Up Production of Functional Nanocomposites: PbTeâ€“PbS Thermoelectric Properties. ACS Nano, 2013, 7, 2573-2586.	14.6	137
6	Active nano-CuPt3 electrocatalyst supported on graphene for enhancing reactions at the cathode in all-vanadium redox flow batteries. Carbon, 2012, 50, 2372-2374.	10.3	124
7	Metal Ions To Control the Morphology of Semiconductor Nanoparticles: Copper Selenide Nanocubes. Journal of the American Chemical Society, 2013, 135, 4664-4667.	13.7	112
8	p-GaN/n-ZnO Heterojunction Nanowires: Optoelectronic Properties and the Role of Interface Polarity. ACS Nano, 2014, 8, 4376-4384.	14.6	99
9	Silica-copper catalyst interfaces enable carbon-carbon coupling towards ethylene electrosynthesis. Nature Communications, 2021, 12, 2808.	12.8	91
10	Colloidal synthesis and thermoelectric properties of Cu₂SnSe₃nanocrystals. Journal of Materials Chemistry A, 2013, 1, 1421-1426.	10.3	86
11	Crystallographic Control at the Nanoscale To Enhance Functionality: Polytypic Cu₂GeSe₃ Nanoparticles as Thermoelectric Materials. Chemistry of Materials, 2012, 24, 4615-4622.	6.7	79
12	Self-Assembled GaN Nanowires on Diamond. Nano Letters, 2012, 12, 2199-2204.	9.1	73
13	Extending the Nanocrystal Synthesis Control to Quaternary Compositions. Crystal Growth and Design, 2012, 12, 1085-1090.	3.0	67
14	Preparation of copper oxide nanowire-based conductometric chemical sensors. Sensors and Actuators B: Chemical, 2013, 182, 7-15.	7.8	58
15	Control of the doping concentration, morphology and optoelectronic properties of vertically aligned chlorine-doped ZnO nanowires. Acta Materialia, 2011, 59, 6790-6800.	7.9	57
16	Tailored graphene materials by chemical reduction of graphene oxides of different atomic structure. RSC Advances, 2012, 2, 9643.	3.6	51
17	Polarity-Driven Polytypic Branching in Cu-Based Quaternary Chalcogenide Nanostructures. ACS Nano, 2014, 8, 2290-2301.	14.6	47
18	Colloidal Counterpart of the TiO₂-Supported V₂O₅ System: A Case Study of Oxide-on-Oxide Deposition by Wet Chemical Techniques. Synthesis, Vanadium Speciation, and Gas-Sensing Enhancement. Journal of Physical Chemistry C, 2013, 117, 20697-20705.	3.1	34

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19	Imaging Stray Magnetic Field of Individual Ferromagnetic Nanotubes. Nano Letters, 2018, 18, 964-970.	9.1	32
20	The Role of Polarity in Nonplanar Semiconductor Nanostructures. Nano Letters, 2019, 19, 3396-3408.	9.1	31
21	Anisotropic magnetoresistance of individual CoFeB and Ni nanotubes with values of up to 1.4% at room temperature. APL Materials, 2014, 2, .	5.1	29
22	Catalytic hydrocracking of synthetic polymers into grid-compatible gas streams. Cell Reports Physical Science, 2021, 2, 100332.	5.6	28
23	Solution-growth and optoelectronic performance of ZnOâ€‰:â€‰Cl/TiO₂ and ZnOâ€‰:â€‰Cl/Zn_xTiO_y/TiO₂ coreâ€“shell nanowires with tunable shell thickness. Journal Physics D: Applied Physics, 2012, 45, 415301.	2.8	27
24	Pt doping triggers growth of TiO2 nanorods: nanocomposite synthesis and gas-sensing properties. CrystEngComm, 2012, 14, 3882.	2.6	26
25	Cu2HgSnSe4 nanoparticles: synthesis and thermoelectric properties. CrystEngComm, 2013, 15, 8966.	2.6	25
26	Solution-growth and optoelectronic properties of ZnO:Cl@ZnS coreâ€“shell nanowires with tunable shell thickness. Journal of Alloys and Compounds, 2013, 555, 213-218.	5.5	25
27	Catalyst size limitation in vaporâ€“liquidâ€“solid ZnO nanowire growth using pulsed laser deposition. Thin Solid Films, 2012, 520, 4626-4631.	1.8	24
28	Enhanced Photovoltaic Performance of Nanowire Dye-Sensitized Solar Cells Based on Coaxial TiO₂@TiO Heterostructures with a Cobalt(II/III) Redox Electrolyte. ACS Applied Materials & Interfaces, 2013, 5, 9872-9877.	8.0	24
29	Polarity and growth directions in Sn-seeded GaSb nanowires. Nanoscale, 2017, 9, 3159-3168.	5.6	24
30	Copper oxide nanowires prepared by thermal oxidation for chemical sensing. Procedia Engineering, 2011, 25, 753-756.	1.2	23
31	Direct nucleation, morphology and compositional tuning of InAs_{1â^’x}Sb_xnanowires on InAs (111) B substrates. Nanotechnology, 2017, 28, 165601.	2.6	23
32	Atomic-Resolution Spectrum Imaging of Semiconductor Nanowires. Nano Letters, 2018, 18, 1557-1563.	9.1	21
33	Cubic versus hexagonal â€“ phase, size and morphology effects on the photoluminescence quantum yield of NaGdF₄:Er³⁺/Yb³⁺ upconverting nanoparticles. Nanoscale, 2022, 14, 1492-1504.	5.6	21
34	Understanding semiconductor nanostructures via advanced electron microscopy and spectroscopy. Nanotechnology, 2019, 30, 262001.	2.6	15
35	Multiple morphologies and functionality of nanowires made from earth-abundant zinc phosphide. Nanoscale Horizons, 2020, 5, 274-282.	8.0	15
36	Realization of Wurtzite GaSb Using InAs Nanowire Templates. Advanced Functional Materials, 2018, 28, 1800512.	14.9	13

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37	Towards defect-free thin films of the earth-abundant absorber zinc phosphide by nanopatterning. Nanoscale Advances, 2021, 3, 326-332.	4.6	13
38	Direct Growth of Hexagonal Boron Nitride on Photonic Chips for High-Throughput Characterization. ACS Photonics, 2021, 8, 2033-2040.	6.6	13
39	Demonstration of Sn-seeded GaSb homo- and GaAsâ€“GaSb heterostructural nanowires. Nanotechnology, 2016, 27, 175602.	2.6	11
40	Soft chemistry routes to transparent metal oxide thin films. The case of solâ€“gel synthesis and structural characterization of Ta2O5 thin films from tantalum chloromethoxide. Thin Solid Films, 2014, 555, 39-41.	1.8	10
41	Characterization of individual stacking faults in aÂwurtzite GaAs nanowire by nanobeam X-ray diffraction. Journal of Synchrotron Radiation, 2017, 24, 981-990.	2.4	9
42	Spatially controlled growth of highly crystalline ZnO nanowires by an inkjet-printing catalyst-free method. Materials Research Express, 2016, 3, 025010.	1.6	8
43	The path towards 1 Âµm monocrystalline Zn₃P₂ films on InP: substrate preparation, growth conditions and luminescence properties. JPhys Energy, 2021, 3, 034011.	5.3	8
44	Oxideâ€“oxide nanojunctions in coaxial SnO2/TiO2, SnO2/V2O3 and SnO2/(Ti0.5V0.5)2O3 nanowire heterostructures. CrystEngComm, 2013, 15, 4532.	2.6	7
45	Colloidal synthesis and functional properties of quaternary Cu-based semiconductors: Cu2HgGeSe4. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	7
46	Hybrid ZnO/GaN distributed Bragg reflectors grown by plasma-assisted molecular beam epitaxy. APL Materials, 2016, 4, 086106.	5.1	7
47	Polarity dependent strongly inhomogeneous In-incorporation in GaN nanocolumns. Nanotechnology, 2016, 27, 355703.	2.6	7
48	Spin injection in epitaxial MnGa(111)/GaN(0001) heterostructures. Journal of Applied Physics, 2018, 123, .	2.5	7
49	Heterotwin Zn₃P₂superlattice nanowires: the role of indium insertion in the superlattice formation mechanism and their optical properties. Nanoscale, 2020, 12, 22534-22540.	5.6	7
50	Kinetic Engineering of Wurtzite and Zinc-Blende AlSb Shells on InAs Nanowires. Nano Letters, 2018, 18, 5775-5781.	9.1	6
51	Unraveling electronic band structure of narrow-bandgap pâ€“n nanojunctions in heterostructured nanowires. Physical Chemistry Chemical Physics, 2021, 23, 25019-25023.	2.8	6
52	High repetition rate laser ablation for vaporâ€“liquidâ€“solid nanowire growth. Current Applied Physics, 2014, 14, 614-620.	2.4	5
53	Sb Incorporation in Wurtzite and Zinc Blende InAs_{1â^'}_xSb_x Branches on InAs Template Nanowires. Small, 2018, 14, e1703785.	10.0	5
54	Understanding GaAs Nanowire Growth in the Agâ€“Au Seed Materials System. Crystal Growth and Design, 2018, 18, 6702-6712.	3.0	5

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55	Glancing angle deposition in a pulsed laser ablation/vaporâ€“liquidâ€“solid grow system. Applied Surface Science, 2015, 327, 262-267.	6.1	2