

# Hui Zeng

## List of Publications by Year in descending order

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65  
papers

917  
citations

471061

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h-index

500791

28  
g-index

65  
all docs

65  
docs citations

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times ranked

1159  
citing authors

#	ARTICLE	IF	CITATIONS
1	Monolayered Silicon and Germanium Monopnictide Semiconductors: Excellent Stability, High Absorbance, and Strain Engineering of Electronic Properties. ACS Applied Materials & Interfaces, 2018, 10, 5133-5139.	4.0	89
2	Tuning electronic and optical properties of arsenene/C <sub>3</sub> N van der Waals heterostructure by vertical strain and external electric field. Nanotechnology, 2018, 29, 075201.	1.3	89
3	The electronic properties of graphene nanoribbons with boron/nitrogen codoping. Applied Physics Letters, 2010, 96, 243110.	1.5	47
4	Effect of N doping and Stone-Wales defects on the electronic properties of graphene nanoribbons. European Physical Journal B, 2011, 79, 335-340.	0.6	42
5	Tunable Electronic Properties and Potential Applications of 2D GeP/Graphene van der Waals Heterostructure. Advanced Electronic Materials, 2020, 6, 1901024.	2.6	42
6	Electronic and optical properties of vacancy-doped WS <sub>2</sub> monolayers. AIP Advances, 2012, 2, .	0.6	41
7	Effects of nitrogen substitutional doping on the electronic transport of carbon nanotube. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 462-466.	1.3	40
8	X <sub>3</sub> N (X=C and Si) monolayers and their van der Waals Heterostructures with graphene and h-BN: Emerging tunable electronic structures by strain engineering. Carbon, 2019, 145, 1-9.	5.4	36
9	Defect symmetry influence on electronic transport of zigzag nanoribbons. Nanoscale Research Letters, 2011, 6, 254.	3.1	31
10	Transient Analysis for Electrothermal Properties in Nanoscale Transistors. IEEE Transactions on Electron Devices, 2018, 65, 3930-3935.	1.6	26
11	Chirality Effects in Atomic Vacancy-Limited Transport in Metallic Carbon Nanotubes. ACS Nano, 2010, 4, 292-296.	7.3	25
12	Spin-valley coupling and valley splitting in the MoSi <sub>2</sub> N <sub>4</sub> /CrCl <sub>3</sub> van der Waals heterostructure. Applied Physics Letters, 2021, 119, .	1.5	24
13	Atomistic simulations of divacancy defects in armchair graphene nanoribbons: Stability, electronic structure, and electron transport properties. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 416-420.	0.9	23
14	Effects of nitrogen in Stone-Wales defect on the electronic transport of carbon nanotube. Applied Physics Letters, 2007, 91, .	1.5	20
15	Chemically functionalized germanene for spintronic devices: a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 9809-9815.	1.3	20
16	Liquid-phase growth and optoelectronic properties of two-dimensional hybrid perovskites CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = Cl, Br, I). Nanoscale, 2020, 12, 1100-1108.	2.8	20
17	Computational design of a polymorph for 2D III-V orthorhombic monolayers by first principles calculations: excellent anisotropic, electronic and optical properties. Physical Chemistry Chemical Physics, 2021, 23, 3771-3778.	1.3	20
18	Two-dimensional germanene and germanene ribbons: density functional calculation of structural, electronic, optical and transport properties and the role of defects. RSC Advances, 2016, 6, 28298-28307.	1.7	18

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19	Effects of Stone-Wales Defect Symmetry on the Electronic Structure and Transport Properties of Narrow Armchair Graphene Nanoribbon. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 77, 8-13.	1.9	17
20	Chemical Functionalization of Pentagermanene Leads to Stabilization and Tunable Electronic Properties by External Tensile Strain. <i>ACS Omega</i> , 2017, 2, 171-180.	1.6	15
21	Atomic vacancy defects in the electronic properties of semi-metallic carbon nanotubes. <i>Journal of Applied Physics</i> , 2011, 109, 083716.	1.1	14
22	Curvature effects on electronic properties of small radius nanotube. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	13
23	First principles calculation of metal (Ni and Cu) contact on the electronic transport properties of 2D GeP semiconductor. <i>Applied Surface Science</i> , 2021, 542, 148596.	3.1	12
24	Modulation of electric behavior by position-dependent substitutional impurity in zigzag-edged graphene nanoribbon. <i>Computational Materials Science</i> , 2012, 60, 234-238.	1.4	11
25	Simulation of Quantum Radar Cross Section for Electrically Large Targets With GPU. <i>IEEE Access</i> , 2019, 7, 154260-154267.	2.6	11
26	A Numerical Simulation of C3N Nanoribbon-Based Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1087-1091.	1.6	11
27	Electron transport properties of 2D IV-V semiconductors and their improvement by graphene contact. <i>Applied Surface Science</i> , 2020, 519, 146203.	3.1	11
28	Type-II AsP/As van der Waals Heterostructures: Tunable Anisotropic Electronic Structures and Optical Properties. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001555.	1.9	11
29	Electronic transport properties of graphene nanoribbons with anomalous edges. <i>EPJ Applied Physics</i> , 2011, 53, 20602.	0.3	10
30	Controllable tuning of the electronic transport in pre-designed graphene nanoribbon. <i>Current Applied Physics</i> , 2012, 12, 1611-1614.	1.1	10
31	Vacancy cluster-limited electronic transport in metallic carbon nanotube. <i>Solid State Communications</i> , 2011, 151, 9-12.	0.9	9
32	Influence of boron distribution on the transport of single-walled carbon nanotube. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 89, 789-792.	1.1	8
33	Bond dissociation energies for removal of the hydroxyl group in some alcohols from quantum chemical calculations. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 665-671.	1.0	8
34	Effect of nitrogen-vacancy complex defects on the electronic transport of carbon nanotube. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	7
35	Atomic and electronic structures of divacancy in graphene nanoribbons. <i>Physica B: Condensed Matter</i> , 2012, 407, 204-208.	1.3	7
36	Edge reconstruction limited electron transport of zigzag graphene nanoribbon. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	7

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37	Quantum chemical calculations of bond dissociation energies for COOH scission and electronic structure in some acids. Chinese Physics B, 2013, 22, 023301.	0.7	7
38	TRANSPORT PROPERTIES OF SINGLE-WALLED CARBON NANOTUBE WITH INTRAMOLECULAR JUNCTIONS. Modern Physics Letters B, 2010, 24, 2445-2455.	1.0	6
39	Soliton control in inhomogeneous nonlocal media. Optics Communications, 2011, 284, 1370-1378.	1.0	6
40	Theoretical study of the structure and analytic potential energy function for the ground state of the PO <sub>2</sub> molecule. Chinese Physics B, 2012, 21, 078202.	0.7	5
41	Quantum transport properties of carbon nanotube with topologic defects. EPJ Applied Physics, 2008, 43, 19-22.	0.3	4
42	Electronic and optical properties of the H <sub>2</sub> O adsorbed the B-N-C nanotubes. European Physical Journal B, 2011, 81, 133-136.	0.6	4
43	A theoretical study of the accurate analytic potential energy curve and spectroscopic properties for AlF (X <sup>1</sup> Σ <sup>+</sup> ). Computational and Theoretical Chemistry, 2011, 963, 130-134.	1.1	4
44	Role of nitrogen distribution in asymmetric Stone-Wales defects on electronic transport of graphene nanoribbons. Physica Status Solidi (B): Basic Research, 2012, 249, 128-133.	0.7	4
45	Tailoring atomic structure to control the electronic transport in zigzag graphene nanoribbon. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3277-3280.	0.9	3
46	Critical behavior of nonlocal fundamental defect mode. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 319.	0.9	3
47	First Principles Study of Electronic and Magnetic Properties of Co-Doped Armchair Graphene Nanoribbons. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	3
48	Bulk Synthesis of Fe <sub>3</sub> Al Intermetallic Compound Nanoparticles by Flow-Levitation Method. Nano, 2015, 10, 1550002.	0.5	3
49	Influence of edge reconstruction on the electron transport in zigzag graphene nanoribbon. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 117102.	0.2	3
50	THE EFFECTS OF CO-DOPING OF B AND N ON THE ELECTRONIC TRANSPORT OF SINGLE-WALLED CARBON NANOTUBES. Modern Physics Letters B, 2011, 25, 1211-1218.	1.0	2
51	First-principles investigation of H <sub>2</sub> O adsorption on a BN co-doped nanotube. Physica Status Solidi (B): Basic Research, 2012, 249, 69-73.	0.7	2
52	Bond Dissociation Energies and Electronic Structures in a Series of Peroxy Radicals: A Theoretical Study. Journal of the Chinese Chemical Society, 2014, 61, 556-562.	0.8	2
53	Computational Modeling of Physical and Chemical Properties of Nanomaterials. Journal of Nanomaterials, 2015, 2015, 1-2.	1.5	2
54	Full-Quantum Numerical Scheme of Finite Difference Time Domain Method for High-Order Harmonic Generation. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2018, 3, 74-79.	1.4	2

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55	dâ€™Alembertâ€™Schrödinger hybrid simulation for laser-induced multi-quantum state transitions in a three-dimensional artificial atom. <i>Optics Letters</i> , 2019, 44, 4399.	1.7	2
56	Adsorption of H <sub>2</sub> O on the Inside Surface of B-N Co-Doped Carbon Nanotube. <i>Key Engineering Materials</i> , 0, 480-481, 132-136.	0.4	1
57	Vacancy-Induced Intramolecular Junctions and Quantum Transport in Metallic Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22984-22990.	1.5	1
58	Quantum chemical study on the structure and the analytic potential energy function of PS <sub>2</sub> (X2A1). <i>Russian Journal of Physical Chemistry A</i> , 2015, 89, 668-673.	0.1	1
59	Coupled-cluster single-double theory study on the analytic potential energy function of the SeN <sub>2</sub> radicals. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2014, 63, 063101.	0.2	1
60	Simulation of Radio Communication Blackout Mitigation with DGT Method. , 2021, , .		1
61	Theoretical studies on a series of nitroaliphatic energetic compounds. <i>Chinese Physics B</i> , 2014, 23, 063103.	0.7	0
62	Atomic and electronic structures of carbon nanotube covalent connecting with graphene by oxygen molecular. <i>EPL Applied Physics</i> , 2016, 73, 20401.	0.3	0
63	Time-dependent QM/EM Simulation Method Applied to Carbon Nanotube. , 2018, , .		0
64	Transport Properties of C <sub>3</sub> N Nanoribbon-Based Nanoscale Transistors. , 2018, , .		0
65	Structural Defects on the Electronic Transport Properties of Carbon-Based Nanostructures. <i>Carbon Materials</i> , 2013, , 77-103.	0.2	0