Seung-Hoon Jhi

List of Publications by Year
in descending order

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Version: 2024-02-01

74 papers	4,424 citations	172457 29 h-index	102487 66 g-index
74 all docs	74 docs citations	74 times ranked	6035 citing authors

#	Article	IF	Citations
1	Effects of strain on electronic properties of graphene. Physical Review B, 2010, 81, .	3.2	555
2	Electronic Properties of Oxidized Carbon Nanotubes. Physical Review Letters, 2000, 85, 1710-1713.	7.8	385
3	Vacancy Hardening and Softening in Transition Metal Carbides and Nitrides. Physical Review Letters, 2001, 86, 3348-3351.	7.8	284
4	Hydrogen adsorption on boron nitride nanotubes: A path to room-temperature hydrogen storage. Physical Review B, 2004, 69, .	3.2	243
5	Is the Intrinsic Thermoelectric Power of Carbon Nanotubes Positive?. Physical Review Letters, 2000, 85, 4361-4364.	7.8	222
6	Controlling Energy Gap of Bilayer Graphene by Strain. Nano Letters, 2010, 10, 3486-3489.	9.1	173
7	Computational Study of Hydrogen Storage Characteristics of Covalent-Bonded Graphenes. Journal of the American Chemical Society, 2007, 129, 8999-9003.	13.7	161
8	Structural forms of cubicBC2N. Physical Review B, 2001, 64, .	3.2	159
9	Carbon Monoxide-Tolerant Platinum Nanoparticle Catalysts on Defect-Engineered Graphene. ACS Nano, 2011, 5, 805-810.	14.6	127
10	Optimization of metal dispersion in doped graphitic materials for hydrogen storage. Physical Review B, 2008, 78, .	3.2	111
11	Effect of vacancy defects in graphene on metal anchoring and hydrogen adsorption. Applied Physics Letters, 2009, 94, .	3.3	111
12	Metal-dispersed porous graphene for hydrogen storage. Applied Physics Letters, 2011, 98, .	3.3	105
13	Proximity-induced giant spin-orbit interaction in epitaxial graphene on a topological insulator. Physical Review B, 2013, 87, .	3.2	94
14	Ultimately short ballistic vertical graphene Josephson junctions. Nature Communications, 2015, 6, 6181.	12.8	94
15	Crossover between multipole Coulomb and Kubas interactions in hydrogen adsorption on metal-graphene complexes. Physical Review B, 2009, 79, .	3.2	92
16	Divacancy-nitrogen-assisted transition metal dispersion and hydrogen adsorption in defective graphene: A first-principles study. Physical Review B, 2010, 81, .	3.2	90
17	Hydrogen storage by physisorption: beyond carbon. Solid State Communications, 2004, 129, 769-773.	1.9	86
18	Crossover in the adsorption properties of alkali metals on graphene. Physical Review B, 2010, 82, .	3.2	86

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19	Self-Assembled Metal Atom Chains on Graphene Nanoribbons. Physical Review Letters, 2008, 101, 266105.	7.8	78
20	Edge and interfacial states in a two-dimensional topological insulator: Bi(111) bilayer on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:m Physical Review B, 2014, 89, .	3.2	78
21	Prediction of topological insulating behavior in crystalline Ge-Sb-Te. Physical Review B, 2010, 82, .	3.2	75
22	Quantum anomalous Hall and quantum spin-Hall phases in flattened Bi and Sb bilayers. Scientific Reports, 2015, 5, 8426.	3.3	66
23	Electronic topological transition in sliding bilayer graphene. Physical Review B, 2011, 84, .	3.2	62
24	Activated boron nitride nanotubes: A potential material for room-temperature hydrogen storage. Physical Review B, 2006, 74, .	3.2	59
25	Valley-symmetry-preserved transport in ballistic graphene with gate-defined carrierÂguiding. Nature Physics, 2016, 12, 1022-1026.	16.7	56
26	Topological phase transition and quantum spin Hall edge states of antimony few layers. Scientific Reports, 2016, 6, 33193.	3.3	38
27	Proximity Effect Induced Electronic Properties of Graphene on Bi₂Te₂Se. ACS Nano, 2015, 9, 10861-10866.	14.6	36
28	Probing nanoscale conductance of monolayer graphene under pressure. Applied Physics Letters, 2011, 99, 013110.	3.3	35
29	Ab initiostudies of structural and electronic properties of the crystalline<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ge</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:m Physical Review B, 2008, 77, .	3.2	30
30	Band structure engineering of topological insulator heterojunctions. Physical Review B, 2016, 93, .	3.2	30
31	Topological Phase Transition in the Interaction of Surface Dirac Fermions in Heterostructures. Physical Review Letters, 2012, 109, 146601.	7.8	29
32	A first-principles study of alkali-metal-decorated graphyne as oxygen-tolerant hydrogen storage media. Carbon, 2015, 81, 418-425.	10.3	29
33	Color of TiN and ZrN from first-principles calculations. Journal of Applied Physics, 2011, 110, .	2.5	28
34	Ab initiocalculations of pressure-induced structural phase transitions of GeTe. Physical Review B, 2010, 82, .	3.2	27
35	Topological fate of edge states of single Bi bilayer on Bi(111). Physical Review B, 2016, 93, .	3.2	26
36	Ordering mechanism and quantum anomalous Hall effect of magnetically doped topological insulators. Physical Review B, 2017, 96, .	3.2	26

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37	Stability of graphene band structures against an external periodic perturbation: Na on graphene. Physical Review B, 2009, 79, .	3.2	25
38	Magnetic phase transition in Fe-doped topological insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">B</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physi	3.2	25
39	Quantum Oscillation Signatures of Pressure-induced Topological Phase Transition in BiTeI. Scientific Reports, 2015, 5, 15973.	3.3	25
40	Quantum Electronic Transport of Topological Surface States in Î²-Ag₂Se Nanowire. ACS Nano, 2016, 10, 3936-3943.	14.6	24
41	Controlling the self-doping of epitaxial graphene on SiC via Ar ion treatment. Physical Review B, 2011, 84, .	3.2	23
42	Electronic property of Na-doped epitaxial graphenes on SiC. Applied Physics Letters, 2009, 94, .	3.3	19
43	Topological phase transitions in group IV-VI semiconductors by phonons. Physical Review B, 2015, 92, .	3.2	18
44	First-principles study of lithium-ion diffusion in Î² -Li 3 PS 4 for solid-state electrolytes. Current Applied Physics, 2018, 18, 541-545.	2.4	18
45	Effect of atomic impurities on the helical surface states of the topological insulator Bi₂Te₃. Journal of Physics Condensed Matter, 2012, 24, 175001.	1.8	17
46	Origin of robust out-of-plane ferroelectricity in d1T-MoS₂ monolayer. Journal of Physics Condensed Matter, 2020, 32, 045702.	1.8	17
47	Weyl node assisted conductivity switch in interfacial phase-change memory with van der Waals interfaces. Physical Review B, 2017, 96, .	3.2	16
48	Developing high-capacity hydrogen storage materials via quantum simulations. MRS Bulletin, 2011, 36, 198-204.	3.5	15
49	Reentrant Semiconducting Behavior of Zigzag Carbon Nanotubes at Substitutional Doping by Oxygen Dimers. Physical Review Letters, 2005, 95, 226403.	7.8	13
50	A theoretical study of nanoporous organic molecules for hydrogen storage. Microporous and Mesoporous Materials, 2006, 89, 138-142.	4.4	13
51	Spin rectification by orbital polarization in Bi-bilayer nanoribbons. Physical Chemistry Chemical Physics, 2016, 18, 8637-8642.	2.8	13
52	A theoretical study of activated nanostructured materials for hydrogen storage. Catalysis Today, 2007, 120, 383-388.	4.4	12
53	Spin-polarized energy-gap opening in asymmetric bilayer graphene nanoribbons. Applied Physics Letters, 2010, 97, .	3.3	12
54	Anomalous Optical Phonon Splittings in Sliding Bilayer Graphene. ACS Nano, 2013, 7, 7151-7156.	14.6	12

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55	Glassy materials as a hydrogen storage medium: Density functional calculations. Physical Review B, 2005, 71, .	3.2	11
56	Emerging topological insulating phase in Geï£¿Sbï£¿Te compounds. Physica Status Solidi (B): Basic Research, 2012, 249, 1874-1879.	1.5	11
57	Engineering Topological Surface States of Cr-Doped Bi₂Se₃ Films by Spin Reorientation and Electric Field. Nano Letters, 2016, 16, 6656-6660.	9.1	10
58	Origin of distorted 1T-phase ReS2: first-principles study. Journal of Physics Condensed Matter, 2018, 30, 105403.	1.8	10
59	Transforming a surface state of a topological insulator by a Bi capping layer. Physical Review B, 2014, 90, .	3.2	9
60	Ab initio study of lattice dynamics of group IV semiconductors using pseudohybrid functionals for extended Hubbard interactions. Physical Review B, 2021, 104, .	3.2	9
61	Pair potential modeling of atomic rearrangement in GeTe-Sb2Te3 superlattice via first-principles calculations. Journal of Applied Physics, 2017, 121, .	2.5	8
62	Disorder-induced structural transitions in topological insulating Ge-Sb-Te compounds. Journal of Applied Physics, 2015, 117, 195701.	2.5	7
63	Stabilization of 1Tâ€² phase WTe2 by scalar relativistic effect. Applied Physics Letters, 2017, 110, 263104.	3.3	7
64	A first-principles study of CO dissociative adsorption on iron nanoparticles supported on doped graphene. Solid State Communications, 2015, 223, 50-53.	1.9	6
65	Nanostructured topological state in bismuth nanotube arrays: inverting bondingâ€“antibonding levels of molecular orbitals. Nanoscale, 2017, 9, 16638-16644.	5.6	6
66	Phonon Instability and Broken Long-Ranged <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math> Bond in Ge-Sb-Te Phase-Change Materials from First Principles. Physical Review Applied, 2018, 9, .	3.8	6
67	An ab initio study of the electronic properties of carbon nanotubes activated by hydrogen-passivated vacancies. Carbon, 2007, 45, 2031-2036.	10.3	5
68	Band modification of graphene by using slow Cs⁺ ions. RSC Advances, 2016, 6, 9106-9111.	3.6	5
69	Efficient Training of Machine Learning Potentials by a Randomized Atomic-System Generator. Journal of Physical Chemistry B, 2020, 124, 8704-8710.	2.6	4
70	Coexistence of spontaneous polarization and superconductivity in hole-doped oxyhydrides ATiO2H () Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.4	2
71	Kohn anomalies in topological insulator thin films: first-principles study. Journal of Physics Condensed Matter, 2022, , .	1.8	2
72	Lattice dynamical properties of antiferromagnetic oxides calculated using self-consistent extended Hubbard functional method. Journal of Physics Condensed Matter, 2022, , .	1.8	2

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73	Effect of vacancy disorder in phase-change materials. Journal of Physics Condensed Matter, 2020, 32, 175401.	1.8	1
74	Dispersion of transition metal atoms in fragmented graphitic shells and hydrogen adsorption therein. Journal of Physics and Chemistry of Solids, 2008, 69, 1185-1187.	4.0	0