Sam Azadi

List of Publications by Year
in descending order

35 papers	827 citations	430442 18 h-index	476904 29 g-index
35 all docs	35 docs citations	35 times ranked	822 citing authors

#	Article	IF	Citations
1	Dissociation of High-Pressure Solid Molecular Hydrogen: A Quantum MonteÂCarlo and Anharmonic Vibrational Study. Physical Review Letters, 2014, 112, 165501.	2.9	102
2	Resonating valence bond wave function with molecular orbitals: Application to first-row molecules. Journal of Chemical Physics, 2009, 131, 154116.	1.2	81
3	Fate of density functional theory in the study of high-pressure solid hydrogen. Physical Review B, 2013, 88, .	1.1	62
4	Quantum Monte Carlo study of high pressure solid molecular hydrogen. New Journal of Physics, 2013, 15, 113005.	1.2	45
5	When double-wall carbon nanotubes can become metallic or semiconducting. Journal of Physics Condensed Matter, 2007, 19, 176209.	0.7	38
6	Structure and electronic properties of native and defected gallium nitride nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6935-6939.	0.9	36
7	Nature of the metallization transition in solid hydrogen. Physical Review B, 2017, 95, .	1.1	34
8	Boron and nitrogen-doped single-walled carbon nanotube. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 35, 157-160.	1.3	30
9	Quantum plasmonic nanoantennas. Physical Review B, 2017, 95, .	1.1	30
10	Fate of the Resonating Valence Bond in Graphene. Physical Review Letters, 2011, 107, 086807.	2.9	29
11	The effect of Stone-Wales defect orientations on the electronic properties of single-walled carbon nanotubes. Computational Materials Science, 2010, 49, 699-703.	1.4	27
12	Systematic study of finite-size effects in quantum Monte Carlo calculations of real metallic systems. Journal of Chemical Physics, 2015, 143, 102807.	1.2	26
13	A consistent description of the iron dimer spectrum with a correlated single-determinant wave function. Chemical Physics Letters, 2009, 477, 255-258.	1.2	24
14	Systematically convergent method for accurate total energy calculations with localized atomic orbitals. Physical Review B, 2010, 82, .	1.1	24
15	The role of van der Waals and exchange interactions in high-pressure solid hydrogen. Physical Chemistry Chemical Physics, 2017, 19, 21829-21839.	1.3	23
16	Absence of metallization in solid molecular hydrogen. JETP Letters, 2012, 95, 449-453.	0.4	19
17	Chemical accuracy from quantum Monte Carlo for the benzene dimer. Journal of Chemical Physics, 2015, 143, 104301.	1.2	19
18	Magnetism in defected single-walled boron nitride nanotubes. Europhysics Letters, 2008, 83, 17007.	0.7	18

#	Article	IF	Citations
19	Nuclear quantum effects induce metallization of dense solid molecular hydrogen. Journal of Computational Chemistry, 2018, 39, 262-268.	1.5	16
20	Efficient method for grand-canonical twist averaging in quantum Monte Carlo calculations. Physical Review B, 2019, 100, .	1.1	16
21	Anharmonicity and finite-temperature effects on the structure, stability, and vibrational spectrum of phase III of solid molecular hydrogen. Physical Review B, 2014, 90, .	1.1	15
22	High-pressure hydrogen sulfide by diffusion quantum Monte Carlo. Journal of Chemical Physics, 2017, 146, 084503.	1.2	14
23	Low-density phase diagram of the three-dimensional electron gas. Physical Review B, 2022, 105, .	1.1	13
24	Ab initio density functional theory investigation of electronic properties of semiconducting single-walled carbon nanotube bundles. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 3055-3059.	1.3	12
25	First principle study of unzipped boron nitride nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 605-609.	0.9	12
26	Quasiparticle Effective Mass of the Three-Dimensional Fermi Liquid by Quantum MonteÂCarlo. Physical Review Letters, 2021, 127, 086401.	2.9	12
27	Low-pressure phase diagram of crystalline benzene from quantum Monte Carlo. Journal of Chemical Physics, 2016, 145, .	1.2	11
28	Unconventional phase III of high-pressure solid hydrogen. Physical Review B, 2019, 100, .	1.1	10
29	On the Possibility of Helium Adsorption in Nitrogen Doped Graphitic Materials. Scientific Reports, 2020, 10, 5832.	1.6	9
30	Resonating valence bond quantum Monte Carlo: Application to the ozone molecule. International Journal of Quantum Chemistry, 2015, 115, 1673-1677.	1.0	7
31	Quantum Monte Carlo calculations of van der Waals interactions between aromatic benzene rings. Physical Review B, 2018, 97, .	1.1	6
32	Equation of state of atomic solid hydrogen by stochastic many-body wave function methods. Journal of Chemical Physics, 2020, 153, 204107.	1.2	5
33	ON THE FLUCTUATIONS OF WATER WAVES GOVERNED BY THE CAMASSAâ€“HOLM AND KdV EQUATIONS IN (1+1)-DIMENSION. International Journal of Modern Physics B, 2009, 23, 149-158.	1.0	1
34	Publisher's Note: Fate of density functional theory in the study of high-pressure solid hydrogen [Phys. Rev. B88, 014115 (2013)]. Physical Review B, 2013, 88, .	1.1	1
35	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math> space-time method: Energy band gap of solid hydrogen. Physical Review B, 2022, 105, .	1.1	0