

Shigeru Tsukamoto

List of Publications by Year in descending order

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49
papers

746
citations

840776

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642732

23
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51
all docs

51
docs citations

51
times ranked

826
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemical Wiring and Soldering toward All-Molecule Electronic Circuitry. <i>Journal of the American Chemical Society</i> , 2011, 133, 8227-8233.	13.7	93
2	Electron-transport properties of Na nanowires under applied bias voltages. <i>Physical Review B</i> , 2002, 66, .	3.2	65
3	Molecular Scale Control of Unbound and Bound C ₆₀ for Topochemical Ultradense Data Storage in an Ultrathin C ₆₀ Film. <i>Advanced Materials</i> , 2010, 22, 1622-1625.	21.0	61
4	Real-space electronic structure calculations with full-potential all-electron precision for transition metals. <i>Physical Review B</i> , 2010, 82, .	3.2	44
5	Boron-Doped Graphene Nanoribbons: Electronic Structure and Raman Fingerprint. <i>ACS Nano</i> , 2018, 12, 7571-7582.	14.6	38
6	Atomic force microscopy and theoretical investigation of the lifted-up conformation of polydiacetylene on a graphite substrate. <i>Soft Matter</i> , 2008, 4, 1041.	2.7	36
7	Images of Scanning Tunneling Microscopy on the Si(001)-p(2×2) Reconstructed Surface. <i>Materials Transactions</i> , 2001, 42, 2247-2252.	1.2	26
8	One-Dimensional Surface Reconstruction as an Atomic-Scale Template for the Growth of Periodically Striped Ag Films. <i>Physical Review Letters</i> , 2006, 96, 136104.	7.8	22
9	First-Principles Calculation Methods for Obtaining Scattering Waves to Investigate Transport Properties of Nanostructures. <i>Quantum Matter</i> , 2012, 1, 4-19.	0.2	22
10	Geometry and Conduction of an Infinite Single-Row Gold Wire. <i>Materials Transactions</i> , 2001, 42, 2257-2260.	1.2	14
11	Mechanisms of electron transport through bellows-shaped fullerene tubes. <i>Journal of Chemical Physics</i> , 2005, 122, 074702.	3.0	11
12	Stable molecular orientations of a C ₆₀ dimer in a photoinduced dimer row. <i>Carbon</i> , 2007, 45, 1261-1266.	10.3	10
13	Initial stage of adsorption of octithiophene molecules on Cu(111). <i>Surface Science</i> , 2011, 605, 1021-1026.	1.9	10
14	Real-space finite-difference calculation method of generalized Bloch wave functions and complex band structures with reduced computational cost. <i>Physical Review E</i> , 2014, 90, 013306.	2.1	10
15	Real-space method for first-principles electron transport calculations: Self-energy terms of electrodes for large systems. <i>Physical Review B</i> , 2016, 93, .	3.2	10
16	Tuning the electron transport of molecular junctions by chemically functionalizing anchoring groups: First-principles study. <i>Physical Review B</i> , 2012, 85, .	3.2	8
17	Electronic Structures of Quaterthiophene and Septithiophene on Cu(111): Spatial Distribution of Adsorption-Induced States Studied by STM and DFT Calculation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6681-6688.	3.1	8
18	Improvement of accuracy in the wave-function-matching method for transport calculations. <i>Physical Review B</i> , 2018, 97, .	3.2	8

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19	First-Principles Study on Electron Conduction Property of Monatomic Sodium Nanowire. <i>Materials Transactions</i> , 2004, 45, 1433-1436.	1.2	7
20	Real-space calculations for electron transport properties of nanostructures. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 394203.	1.8	7
21	Single-crystal graphene on Ir(110). <i>Physical Review B</i> , 2022, 105, .	3.2	7
22	First-Principles Calculations of Conductance for Na Quantum Wire. <i>Materials Transactions</i> , 2001, 42, 2253-2256.	1.2	6
23	Magnetic orderings in Al nanowires suspended between electrodes. <i>Applied Physics Letters</i> , 2003, 82, 4570-4572.	3.3	6
24	Imaging Individual Molecular-Like Orbitals of a Non-Planar Naphthalene Diimide on Pt(111): A Combined STM and DFT Study. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26916-26924.	3.1	6
25	First-principles electronic structure calculations for peanut-shaped C ₁₂₀ molecules. <i>Science and Technology of Advanced Materials</i> , 2004, 5, 617-620.	6.1	5
26	First-principles study on electronic responses of a C ₆₀ molecule to external electric fields. <i>Chemical Physics</i> , 2007, 342, 135-140.	1.9	5
27	Stabilized scattering wave-function calculations using the Lippmann-Schwinger equation for long conductor systems. <i>Physical Review B</i> , 2011, 84, .	3.2	5
28	Self-energy matrices for electron transport calculations within the real-space finite-difference formalism. <i>Physical Review E</i> , 2017, 95, 033309.	2.1	5
29	Sudden Suppression of Electron-Transmission Peaks in Finite-Biased Nanowires. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 7491-7495.	1.5	4
30	Tuning electron transport through molecular junctions by chemical modification of the molecular core: First-principles study. <i>Physical Review B</i> , 2013, 88, .	3.2	4
31	First-principles calculation method for electron transport based on the grid Lippmann-Schwinger equation. <i>Physical Review E</i> , 2015, 92, 033301.	2.1	4
32	Complex band structure calculations based on the overbridging boundary matching method without using Green's functions. <i>Physical Review B</i> , 2018, 98, .	3.2	4
33	Local dimerization and dedimerization of C ₆₀ molecules under a tip of scanning tunneling microscope: A first-principles study. <i>Carbon</i> , 2020, 159, 638-647.	10.3	4
34	Calculation of the Green's function in the scattering region for first-principles electron-transport simulations. <i>Physical Review Research</i> , 2021, 3, .	3.6	4
35	Uniaxially Aligned 1D Sandwich-Molecular Wires: Electronic Structure and Magnetism. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3140-3150.	3.1	4
36	Tailoring magnetic anisotropy by graphene-induced selective skyhook effect on 4f-metals. <i>Nanoscale</i> , 2022, 14, 7682-7691.	5.6	4

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37	Ballistic Electron Transport Through Atomic Nanowires. Journal of Computational and Theoretical Nanoscience, 2009, 6, 2521-2544.	0.4	2
38	Octithiophene on Cu(111) and Au(111): Formation and Electronic Structure of Molecular Chains and Films. Journal of Nanoscience and Nanotechnology, 2012, 12, 4007-4011.	0.9	2
39	Spin-polarized electron transmission through B-doped graphene nanoribbons with Fe functionalization: a first-principles study. New Journal of Physics, 2020, 22, 063022.	2.9	2
40	Selecting the Reaction Path in On-Surface Synthesis through the Electron Chemical Potential in Graphene. Journal of the American Chemical Society, 2022, 144, 11003-11009.	13.7	2
41	First-principles study on atomic configuration of electron-beam irradiated C60film. Physical Review B, 2011, 84, .	3.2	1
42	Systematic chemical functionalization of hybrid moleculeâ€“surface interfaces. Physica Status Solidi (B): Basic Research, 2013, 250, 2267-2276.	1.5	1
43	Contour integral method for obtaining the self-energy matrices of electrodes in electron transport calculations. Physical Review B, 2018, 97, .	3.2	1
44	Efficient calculation of self-energy matrices for electron-transport simulations. Physical Review B, 2019, 100, .	3.2	1
45	Ballistic Electron Transport Through Nanostructure Junctions from a Real-Space Finite-Difference Approach. Quantum Matter, 2015, 4, 403-415.	0.2	1
46	First-Principles Calculation Method and Its Applications for Two-Dimensional Materials. Quantum Matter, 2017, 6, 4-17.	0.2	1
47	First-Principles Study on Electric and Electronic Properties of P-Introduced Si Monatomic Chains. Journal of Computational and Theoretical Nanoscience, 2009, 6, 2635-2639.	0.4	0
48	Connecting single conductive polymers to a single functional molecule. , 2010, , .		0
49	Analytical PAW Projector Functions for Reduced Bandwidth Requirements. , 2019, , .		0