Ranjit Pati

List of Publications by Year
in descending order

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Version: 2024-02-01

51 papers	1,337 citations	394421 19 h-index	345221 36 g-index
53 all docs	53 docs citations	53 times ranked	1743 citing authors

#	Article	IF	Citations
1	Effect of H2O adsorption on electron transport in a carbon nanotube. Applied Physics Letters, 2002, 81, 2638-2640.	3.3	147
2	First-principles calculations of spin-polarized electron transport in a molecular wire: Molecular spin valve. Physical Review B, 2003, 68, .	3.2	103
3	Current switching by conformational change in a Ï€-Ïƒ-Ï€ molecular wire. Physical Review B, 2004, 69, .	3.2	101
4	Origin of Negative Differential Resistance in a Strongly Coupled Single Molecule-Metal Junction Device. Physical Review Letters, 2008, 100, 246801.	7.8	82
5	Massively parallel computing on an organic molecular layer. Nature Physics, 2010, 6, 369-375.	16.7	79
6	BODIPY-Based Fluorescent Probes for Sensing Protein Surface-Hydrophobicity. Scientific Reports, 2015, 5, 18337.	3.3	73
7	First-principles study of the stability and electronic properties of sheets and nanotubes of elemental boron. Chemical Physics Letters, 2006, 418, 549-554.	2.6	65
8	Near-Infrared Fluorescent Probes with Large Stokes Shifts for Sensing Zn(II) Ions in Living Cells. ACS Sensors, 2016, 1, 1408-1415.	7.8	56
9	What Determines the Sign Reversal of Magnetoresistance in a Molecular Tunnel Junction?. ACS Nano, 2012, 6, 3580-3588.	14.6	54
10	Boron Nitride Nanotubes for Spintronics. Sensors, 2014, 14, 17655-17685.	3.8	47
11	Theoretical study of electron transport in boron nanotubes. Applied Physics Letters, 2006, 88, 212111.	3.3	41
12	Room-Temperature Ferromagnetism in Doped Face-Centered Cubic Fe Nanoparticles. Small, 2006, 2, 804-809.	10.0	41
13	Spin-polarized electron transport of a self-assembled organic monolayer on a Ni(111) substrate: An organic spin switch. Physical Review B, 2006, 73, .	3.2	35
14	New Near-Infrared Fluorescent Probes with Single-Photon Anti-Stokes-Shift Fluorescence for Sensitive Determination of pH Variances in Lysosomes with a Double-Checked Capability. ACS Applied Bio Materials, 2018, 1, 549-560.	4.6	35
15	Self-consistent calculations of strain-induced band gap changes in semiconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mi>n</mml:mi><mml:mo>,</mml:mo><mml:m nanotubes. Physical Review B, 2008, 78, .	3.2	32
16	Ab initioHartreeâ€“Fock study of electron transfer in organic molecules. Journal of Chemical Physics, 2001, 115, 1703-1715.	3.0	30
17	A theoretical study of electronic and vibrational properties of neutral, cationic, and anionic B24 clusters. International Journal of Quantum Chemistry, 2005, 103, 866-874.	2.0	28
18	Switching of Conductance in a Molecular Wire: Role of Junction Geometry, Interfacial Distance, and Conformational Change. Journal of Physical Chemistry C, 2012, 116, 17268-17273.	3.1	27

#	Article	IF	Citations
19	Fluorinated Boron Nitride Nanotube Quantum Dots: A Spin Filter. Journal of the American Chemical Society, 2014, 136, 11494-11498.	13.7	26
20	Length-dependence of intramolecular electron transfer in Ïƒ-bonded rigid molecular rods: an ab initio molecular orbital study. Chemical Physics Letters, 2002, 351, 302-310.	2.6	18
21	Tuning the ferromagnetism of one-dimensionalFeâˆ•Ptâˆ•Femultilayer barcode nanowires via the barcode layer effect. Physical Review B, 2007, 76, .	3.2	18
22	Ab initio quantum chemical study of electron transfer in carboranes. Chemical Physics Letters, 2005, 406, 483-488.	2.6	16
23	Giant amplification of tunnel magnetoresistance in a molecular junction: Molecular spin-valve transistor. Applied Physics Letters, 2014, 104, 162404.	3.3	16
24	Theoretical study of electrical transport in a fullerene-doped semiconducting carbon nanotubes. Journal of Applied Physics, 2004, 95, 694-697.	2.5	15
25	Magnetic properties of one-dimensional Ni/Cu and Ni/Al multilayered nanowires: Role of nonmagnetic spacers. Physical Review B, 2008, 77, .	3.2	14
26	Unlocking the Origin of Superior Performance of a Siâ€“Ge Coreâ€“Shell Nanowire Quantum Dot Field Effect Transistor. Nano Letters, 2016, 16, 3995-4000.	9.1	14
27	Electronic Structure Investigation and Nuclear Quadrupole Interactions in Î²-HMX. Journal of Physical Chemistry A, 1997, 101, 8302-8308.	2.5	10
28	Electrical tuning of spin current in a boron nitride nanotube quantum dot. Physical Chemistry Chemical Physics, 2014, 16, 7996-8002.	2.8	9
29	Catching the electron in action in real space inside a Geâ€“Si coreâ€“shell nanowire transistor. Nanoscale, 2017, 9, 13425-13431.	5.6	9
30	Charge Transport in Strongly Coupled Molecular Junctions: â€œIn-Phaseâ€•and â€œOut-of-Phaseâ€• Contribution to Electron Tunneling. Journal of Physical Chemistry C, 2011, 115, 17564-17573.	3.1	8
31	Mechanism behind the switching of current induced by a gate field in a semiconducting nanowire junction. Physical Review B, 2011, 84, .	3.2	8
32	Quantum confinement and phase transition in PbS nanowire: A first principles study. Chemical Physics Letters, 2009, 479, 244-247.	2.6	7
33	First-principles study of the variation of electron transport in a single molecular junction with the length of the molecular wire. Physical Review B, 2010, 82, .	3.2	7
34	Codoping in a single molecular junction from first principles. Physical Review B, 2011, 83, .	3.2	7
35	On Cellular Automata rules of molecular arrays. Natural Computing, 2012, 11, 311-321.	3.0	6
36	Origin of Magnetism in Î³-FeSi2/Si(111) Nanostructures. Nanomaterials, 2021, 11, 849.	4.1	6

#	Article	IF	Citations
37	Molecular Implementations of Cellular Automata. Lecture Notes in Computer Science, 2010, , 650-659.	1.3	5
38	PbTe(core)/PbS(shell) Nanowire: Electronic Structure, Thermodynamic Stability, and Mechanical and Optical Properties. Journal of Physical Chemistry C, 2021, 125, 22660-22667.	3.1	5
39	Theoretical Investigation of Electronic Structure and Nuclear Quadrupole Interactions in Cocaine Free Base. Journal of Physical Chemistry A, 1997, 101, 6101-6106.	2.5	4
40	Time-varying response of molecular electron devices: A fundamental requirement for organic nanoelectronics. Applied Physics Letters, 2002, 81, 1872-1874.	3.3	4
41	Gate field induced electronic current modulation in a single wall boron nitride nanotube: Molecular scale field effect transistor. Chemical Physics Letters, 2009, 482, 312-315.	2.6	4
42	Spin filtering with Mn-doped Ge-core/Si-shell nanowires. Nanoscale Advances, 2020, 2, 1843-1849.	4.6	4
43	Cr-Doped Ge-Core/Si-Shell Nanowire: An Antiferromagnetic Semiconductor. Nano Letters, 2021, 21, 1856-1862.	9.1	4
44	Emergence of Ferromagnetism Due to Spontaneous Symmetry Breaking in a Twisted Bilayer Graphene Nanoflex. Nano Letters, 2021, 21, 7548-7554.	9.1	4
45	Theory of Electronic Structure and Nuclear Quadrupole Interactions in Heroin. Journal of Physical Chemistry A, 1998, 102, 3209-3214.	2.5	3
46	Oscillatory Tunnel Magnetoresistance in a Carbon Nanotube Based Three-Terminal Magnetic Tunnel Junction. Journal of Physical Chemistry C, 2018, 122, 29062-29068.	3.1	3
47	Controlling interlayer exchange coupling in one-dimensional Fe/Pt multilayered nanowire. Physical Review B, 2009, 79, .	3.2	2
48	Nuclear Quadrupole Interactions in Nuclear Quadrupole Resonance Detection of Energetic and Controlled Materials: Theoretical Study. Applied Magnetic Resonance, 2012, 43, 591-617.	1.2	2
49	Electric field control of magnetism at the Î³-FeSi2/Si(001) interface. Journal of Materials Science, 2021, 56, 3804-3813.	3.7	2
50	An Advanced Architecture of a Massive Parallel Processing Nano Brain Operating 100 Billion Molecular Neurons Simultaneously. , 0, , 43-73.		1
51	An Advanced Architecture of a Massive Parallel Processing Nano Brain Operating 100 Billion Molecular Neurons Simultaneously. , 0, , 1588-1620.		0