

# George Kirczenow

## List of Publications by Year in descending order

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48  
papers

1,029  
citations

394421

19  
h-index

414414

32  
g-index

48  
all docs

48  
docs citations

48  
times ranked

792  
citing authors

#	ARTICLE	IF	CITATIONS
1	Models of electron transport through organic molecular monolayers self-assembled on nanoscale metallic contacts. <i>Physical Review B</i> , 2001, 64, .	3.2	127
2	Linear chains of styrene and methylstyrene molecules and their heterojunctions on silicon: Theory and experiment. <i>Physical Review B</i> , 2005, 72, .	3.2	72
3	Current-driven conformational changes, charging, and negative differential resistance in molecular wires. <i>Physical Review B</i> , 2001, 64, .	3.2	63
4	Comment on "First-Principles Calculation of Transport Properties of a Molecular Device". <i>Physical Review Letters</i> , 2001, 87, 269701.	7.8	59
5	Spin-current rectification in molecular wires. <i>Physical Review B</i> , 2006, 73, .	3.2	53
6	Interface states, negative differential resistance, and rectification in molecular junctions with transition-metal contacts. <i>Physical Review B</i> , 2006, 73, .	3.2	52
7	Coherent spin-valve phenomena and electrical spin injection in ferromagnetic/semiconductor/ferromagnetic junctions. <i>Physical Review B</i> , 2002, 66, .	3.2	51
8	A New Approach to the Realization and Control of Negative Differential Resistance in Single-Molecule Nanoelectronic Devices: A Designer Transition Metal <sup>3S</sup> Thiol Interface States. <i>Nano Letters</i> , 2006, 6, 1274-1278.	9.1	50
9	Single-molecule device prototypes for protein-based nanoelectronics: Negative differential resistance and current rectification in oligopeptides. <i>Physical Review B</i> , 2008, 77, .	3.2	38
10	Modulation of electrical conduction through individual molecules on silicon by the electrostatic fields of nearby polar molecules: Theory and experiment. <i>Physical Review B</i> , 2009, 80, .	3.2	26
11	Theoretical study of spin-dependent electron transport in atomic Fe nanocontacts. <i>Physical Review B</i> , 2005, 72, .	3.2	25
12	Nonlocal Conductance Modulation by Molecules: Scanning Tunneling Microscopy of Substituted Styrene Heterostructures on H-Terminated Si(100). <i>Physical Review Letters</i> , 2008, 101, 106801.	7.8	25
13	Electrochemically Gated Oligopeptide Nanowires Bridging Gold Electrodes: Novel Bio-Nanoelectronic Switches Operating in Aqueous Electrolytic Environments. <i>Nano Letters</i> , 2010, 10, 1158-1162.	9.1	23
14	Communication: Identification of the molecule's metal bonding geometries of molecular nanowires. <i>Journal of Chemical Physics</i> , 2011, 134, 121103.	3.0	23
15	Valley currents and nonlocal resistances of graphene nanostructures with broken inversion symmetry from the perspective of scattering theory. <i>Physical Review B</i> , 2015, 92, .	3.2	23
16	Tight-binding model of Mn <sub>12</sub> single-molecule magnets: Electronic and magnetic structure and transport properties. <i>Physical Review B</i> , 2012, 85, .	3.2	22
17	Ballistic electron spectroscopy of individual buried molecules. <i>Physical Review B</i> , 2007, 75, .	3.2	21
18	Switching of a quantum dot spin valve by single molecule magnets. <i>Physical Review B</i> , 2013, 87, .	3.2	20

#	ARTICLE	IF	CITATIONS
19	Mechanism of the enhanced conductance of a molecular junction under tensile stress. <i>Physical Review B</i> , 2014, 89, .	3.2	20
20	Understanding the electroluminescence emitted by single molecules in scanning tunneling microscopy experiments. <i>Physical Review B</i> , 2008, 78, .	3.2	19
21	Scanning tunneling spectroscopy and Dirac point resonances due to a single Co adatom on gated graphene. <i>Physical Review B</i> , 2012, 85, .	3.2	19
22	Theory of Electrical Conduction Through a Molecule. <i>Annals of the New York Academy of Sciences</i> , 1998, 852, 54-67.	3.8	18
23	Principles for the design and operation of a molecular wire transistor. <i>Journal of Applied Physics</i> , 2000, 88, 5280-5282.	2.5	18
24	Ligand-based transport resonances of single-molecule-magnet spin filters: Suppression of Coulomb blockade and determination of easy-axis orientation. <i>Physical Review B</i> , 2011, 84, .	3.2	18
25	Identification of the atomic scale structures of the gold-thiol interfaces of molecular nanowires by inelastic tunneling spectroscopy. <i>Journal of Chemical Physics</i> , 2012, 136, 014703.	3.0	17
26	Two-probe theory of scanning tunneling microscopy of single molecules: Zn(II)-etioporphyrin on alumina. <i>Physical Review B</i> , 2005, 72, .	3.2	15
27	Voltage-controlled spin injection with an endohedral fullerene Co@C60 dimer. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	14
28	Controlling the thermoelectric effect by mechanical manipulation of the electron's quantum phase in atomic junctions. <i>Scientific Reports</i> , 2017, 7, 7949.	3.3	12
29	Quantum railroads and directed localization at the juncture of quantum Hall systems. <i>Physical Review B</i> , 2002, 66, .	3.2	10
30	Electrical conductance and structure of copper atomic junctions in the presence of water molecules. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 32436-32442.	2.8	10
31	Perfect and imperfect conductance quantization and transport resonances of two-dimensional topological-insulator quantum dots with normal conducting leads and contacts. <i>Physical Review B</i> , 2018, 98, .	3.2	9
32	Inelastic tunneling spectroscopy of gold-thiol and gold-thiolate interfaces in molecular junctions: The role of hydrogen. <i>Journal of Chemical Physics</i> , 2012, 137, 094703.	3.0	8
33	Gate-tunable valley currents, nonlocal resistances, and valley accumulation in bilayer graphene nanostructures. <i>Physical Review B</i> , 2017, 95, .	3.2	8
34	Lateral spin injection and detection through electrodeposited Fe/GaAs contacts. <i>Semiconductor Science and Technology</i> , 2013, 28, 035003.	2.0	7
35	Reversal of the Charge Transfer between Host and Dopant Atoms in Semiconductor Nanocrystals. <i>Nano Letters</i> , 2004, 4, 2251-2254.	9.1	6
36	Coulomb bound states and resonances due to groups of Ca dimers adsorbed on suspended graphene. <i>Physical Review B</i> , 2014, 90, .	3.2	6

#	ARTICLE	IF	CITATIONS
37	Valley polarization reversal and spin ferromagnetism and antiferromagnetism in quantum dots of the topological insulator monolayer bismuthene on SiC. <i>Physical Review B</i> , 2019, 100, .	3.2	5
38	Electrostatic mechanism for cooling semiconductor heterostructures. <i>Applied Physics Letters</i> , 1999, 75, 2262-2264.	3.3	3
39	Thermoelectric voltage switching in gold atomic wire junctions. <i>Physical Review B</i> , 2018, 98, .	3.2	3
40	Valley filters, accumulators, and switches induced in graphene quantum dots by lines of adsorbed hydrogen atoms. <i>Physical Review B</i> , 2018, 97, .	3.2	3
41	Nearly perfect spin filtering in curved two-dimensional topological insulators. <i>Physical Review B</i> , 2020, 102, .	3.2	3
42	Electronic excitations and tunneling spectra of metallic nanograins. <i>Physical Review B</i> , 2003, 68, .	3.2	2
43	Resonant and nonresonant spin filtering in bismuthene-silicon cowrie shell-like nanostructures. <i>Physical Review B</i> , 2021, 104, .	3.2	2
44	Electron Transport through Protein Fragments. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	1
45	COMPOSITE-FERMION APPROACH TO EDGE STATE TRANSPORT. , 1998, , 307-348.		0
46	Malleability at the extreme nanoscale: Slow and fast quakes of few-body systems. <i>Physical Review B</i> , 2017, 96, .	3.2	0
47	Mechanisms of jump to contact and conductance plateau formation in copper atomic junctions in vacuum and aqueous environments. <i>Physical Review Materials</i> , 2020, 4, .	2.4	0
48	Systematic study of low energy geometries of copper nano-junctions exposed to water and to species that can result from dissociation of water. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 355201.	1.8	0