

Igor Å¹/₂utiÄ

List of Publications by Year in descending order

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66234

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108
docs citations

108
times ranked

11475
citing authors

#	ARTICLE	IF	CITATIONS
1	Spintronics: Fundamentals and applications. <i>Reviews of Modern Physics</i> , 2004, 76, 323-410.	16.4	9,479
2	Semiconductor spintronics. <i>Acta Physica Slovaca</i> , 2007, 57, .	1.4	642
3	Midgap edge states and pairing symmetry of quasi-one-dimensional organic superconductors. <i>Physical Review B</i> , 2001, 63, .	1.1	262
4	New moves of the spintronics tango. <i>Nature Materials</i> , 2012, 11, 368-371.	13.3	249
5	Spin-Polarized Transport in Inhomogeneous Magnetic Semiconductors: Theory of Magnetic/Nonmagnetic p-n Junctions. <i>Physical Review Letters</i> , 2002, 88, 066603.	2.9	207
6	Proximitized materials. <i>Materials Today</i> , 2019, 22, 85-107.	8.3	206
7	Roadmap for Emerging Materials for Spintronic Device Applications. <i>IEEE Transactions on Magnetics</i> , 2015, 51, 1-11.	1.2	179
8	Tunneling spectroscopy for ferromagnet/superconductor junctions. <i>Physical Review B</i> , 2000, 61, 1555-1566.	1.1	161
9	Nanospintronics Based on Magnetologic Gates. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 259-262.	1.6	141
10	Ultrafast spin-lasers. <i>Nature</i> , 2019, 568, 212-215.	13.7	134
11	Spin Injection and Detection in Silicon. <i>Physical Review Letters</i> , 2006, 97, 026602.	2.9	131
12	Magnetic bipolar transistor. <i>Applied Physics Letters</i> , 2004, 84, 85-87.	1.5	121
13	Temperature-Dependent Asymmetry of the Nonlocal Spin-Injection Resistance: Evidence for Spin Nonconserving Interface Scattering. <i>Physical Review Letters</i> , 2005, 94, 176601.	2.9	118
14	Magnetic Proximity Effects in Transition-Metal Dichalcogenides: Converting Excitons. <i>Physical Review Letters</i> , 2017, 119, 127403.	2.9	111
15	Spin injection through the depletion layer: A theory of spin-polarized p-n junctions and solar cells. <i>Physical Review B</i> , 2001, 64, .	1.1	101
16	Effective gating and tunable magnetic proximity effects in two-dimensional heterostructures. <i>Physical Review B</i> , 2016, 93, .	1.1	85
17	Determination of Interface Atomic Structure and Its Impact on Spin Transport Using Z-Contrast Microscopy and Density-Functional Theory. <i>Physical Review Letters</i> , 2006, 96, 196101.	2.9	78
18	Proposal for a spin-polarized solar battery. <i>Applied Physics Letters</i> , 2001, 79, 1558-1560.	1.5	76

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19	Spin-polarized transport and Andreev reflection in semiconductor/superconductor hybrid structures. <i>Physical Review B</i> , 1999, 60, R16322-R16325.	1.1	71
20	Taming spin currents. <i>Nature Materials</i> , 2011, 10, 647-648.	13.3	68
21	Spin modulation in semiconductor lasers. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	67
22	Phase-Sensitive Tests of the Pairing State Symmetry in Sr ₂ RuO ₄ . <i>Physical Review Letters</i> , 2005, 95, 217004.	2.9	65
23	Spin inversion in graphene spin valves by gate-tunable magnetic proximity effect at one-dimensional contacts. <i>Nature Communications</i> , 2018, 9, 2869.	5.8	65
24	Phase Signature of Topological Transition in Josephson Junctions. <i>Physical Review Letters</i> , 2021, 126, 036802.	2.9	65
25	Analytical model of spin-polarized semiconductor lasers. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	63
26	Tailoring Magnetism in Quantum Dots. <i>Physical Review Letters</i> , 2007, 98, 207203.	2.9	62
27	Large Tunneling Magnetoresistance in van der Waals Ferromagnet/Semiconductor Heterojunctions. <i>Advanced Materials</i> , 2021, 33, e2104658.	11.1	61
28	Wireless Majorana Bound States: From Magnetic Tunability to Braiding. <i>Physical Review Letters</i> , 2016, 117, 077002.	2.9	59
29	Experimental Demonstration of xor Operation in Graphene Magnetologic Gates at Room Temperature. <i>Physical Review Applied</i> , 2016, 5, .	1.5	58
30	Angular Dependence of the Nonlinear Transverse Magnetic Moment of YBa ₂ Cu ₃ O _{6.95} in the Meissner State. <i>Physical Review Letters</i> , 1999, 82, 3132-3135.	2.9	56
31	Probing many-body interactions in monolayer transition-metal dichalcogenides. <i>Physical Review B</i> , 2019, 99, .	1.1	56
32	Mapping between quantum dot and quantum well lasers: From conventional to spin lasers. <i>Physical Review B</i> , 2012, 85, .	1.1	55
33	Cubic spin-orbit coupling and anomalous Josephson effect in planar junctions. <i>Physical Review B</i> , 2021, 103, .	1.1	54
34	Spintronics: electron spin coherence, entanglement, and transport. <i>Superlattices and Microstructures</i> , 2000, 27, 289-295.	1.4	49
35	Excitonic Stark effect in MoS_2 . <i>Physical Review B</i> , 2016, 94, .	1.1	48
36	Magnetoanisotropic Andreev Reflection in Ferromagnet-Superconductor Junctions. <i>Physical Review Letters</i> , 2015, 115, 116601.	2.9	46

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37	Toward high-frequency operation of spin lasers. <i>Physical Review B</i> , 2015, 92, .	1.1	45
38	Giant spin-valley polarization and multiple Hall effect in functionalized bismuth monolayers. <i>Npj Quantum Materials</i> , 2018, 3, .	1.8	44
39	Silicon twists. <i>Nature</i> , 2007, 447, 269-270.	13.7	43
40	Magneto-optical conductivity of graphene on polar substrates. <i>Physical Review B</i> , 2013, 88, .	1.1	43
41	Graphene spintronics: Spin injection and proximity effects from first principles. <i>Physical Review B</i> , 2014, 90, .	1.1	43
42	Piezomagnetic Quantum Dots. <i>Physical Review Letters</i> , 2008, 101, 207202.	2.9	42
43	Marrying Excitons and Plasmons in Monolayer Transition-Metal Dichalcogenides. <i>Physical Review X</i> , 2017, 7, .	2.8	41
44	Tunable magnetic textures in spin valves: From spintronics to Majorana bound states. <i>Physical Review B</i> , 2019, 99, .	1.1	41
45	Dynamical screening in monolayer transition-metal dichalcogenides and its manifestations in the exciton spectrum. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 203001.	0.7	38
46	Spin-lasers: From threshold reduction to large-signal analysis. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	37
47	Tunable magnetic textures: From Majorana bound states to braiding. <i>Solid State Communications</i> , 2017, 262, 1-6.	0.9	37
48	A path to spin logic. <i>Nature Physics</i> , 2005, 1, 85-86.	6.5	35
49	Proposal for all-electrical measurement of T1 in semiconductors. <i>Applied Physics Letters</i> , 2003, 82, 221-223.	1.5	34
50	Theory of thermal spin-charge coupling in electronic systems. <i>Physical Review B</i> , 2012, 85, .	1.1	33
51	Tunneling Planar Hall Effect in Topological Insulators: Spin Valves and Amplifiers. <i>Physical Review Letters</i> , 2016, 117, 166806.	2.9	33
52	Electrical Control of Majorana Bound States Using Magnetic Stripes. <i>Physical Review Applied</i> , 2019, 12, .	1.5	32
53	Interfacial Spin-Orbit Coupling: A Platform for Superconducting Spintronics. <i>Physical Review Applied</i> , 2020, 13, .	1.5	32
54	Thermodynamics of Carrier-Mediated Magnetism in Semiconductors. <i>Physical Review Letters</i> , 2007, 99, 257202.	2.9	30

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55	Spin-lasers: spintronics beyond magnetoresistance. Solid State Communications, 2020, 316-317, 113949.	0.9	30
56	Phase Control of Majorana Bound States in a Topological X Junction. Physical Review Letters, 2020, 124, 137001.	2.9	29
57	Synthesis, Magnetic Properties, and Electronic Structure of Magnetic Topological Insulator $MnBi_2Se_4$. Nano Letters, 2021, 21, 5083-5090.	4.5	28
58	Tailoring chirp in spin-lasers. Applied Physics Letters, 2012, 100, .	1.5	27
59	Magnetism in Closed-Shell Quantum Dots: Emergence of Magnetic Bipolarons. Physical Review Letters, 2011, 106, 177201.	2.9	26
60	Localized Excitons in $NbSe_2$ - $MoSe_2$ Heterostructures. ACS Nano, 2020, 14, 8528-8538.	7.3	26
61	Quantum Spin-Valley Hall Kink States: From Concept to Materials Design. Physical Review Letters, 2021, 127, 116402.	2.9	25
62	Superconducting-gap-node spectroscopy using nonlinear electrodynamics. Physical Review B, 1997, 56, 11279-11293.	1.1	23
63	Superconducting Proximity Effect in InAsSb Surface Quantum Wells with In Situ Al Contacts. ACS Applied Electronic Materials, 2020, 2, 2351-2356.	2.0	22
64	Fusion of Majorana bound states with mini-gate control in two-dimensional systems. Nature Communications, 2022, 13, 1738.	5.8	22
65	Wurtzite spin lasers. Physical Review B, 2017, 95, .	1.1	21
66	Optically Probing Tunable Band Topology in Atomic Monolayers. Physical Review Letters, 2020, 125, 157402.	2.9	21
67	Low-frequency nonlinear magnetic response of an unconventional superconductor. Physical Review B, 1998, 58, 8738-8748.	1.1	20
68	Digital operation and eye diagrams in spin-lasers. Applied Physics Letters, 2015, 107, .	1.5	20
69	Water-Dispersible $CsPbBr_3$ Perovskite Nanocrystals with Ultra-Stability and its Application in Electrochemical CO_2 Reduction. Nano-Micro Letters, 2021, 13, 172.	14.4	20
70	Bipolar spintronics: from spin injection to spin-controlled logic. Journal of Physics Condensed Matter, 2007, 19, 165219.	0.7	18
71	Theory of quantum dot spin lasers. Physical Review B, 2010, 82, .	1.1	18
72	Probing topological transitions in $HgTe/CdTe$ quantum wells by magneto-optical measurements. Physical Review B, 2015, 91, .	1.1	18

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73	Novel Aspects of Spin-Polarized Transport and Spin Dynamics. Journal of Superconductivity and Novel Magnetism, 2002, 15, 5-12.	0.5	17
74	Enhanced spin-triplet pairing in magnetic junctions with s -wave superconductors. Physical Review B, 2020, 101, .	1.1	17
75	Spin polarization of Co(0001)/graphene junctions from first principles. Journal of Physics Condensed Matter, 2014, 26, 104204.	0.7	15
76	Evidence for anisotropic spin-triplet Andreev reflection at the 2D van der Waals ferromagnet/superconductor interface. Nature Communications, 2021, 12, 6725.	5.8	15
77	Superconducting proximity effects in metals with a repulsive pairing interaction. Physical Review B, 2010, 82, .	1.1	14
78	Magnetic anisotropies of quantum dots doped with magnetic ions. Physical Review B, 2012, 85, .	1.1	14
79	Taken for a spin. Nature Nanotechnology, 2014, 9, 750-752.	15.6	14
80	Reanalysis of the magnetic field dependence of the penetration depth: Observation of the nonlinear Meissner effect. Physical Review B, 2001, 63, .	1.1	13
81	Shedding light on nanomagnets. Nature Nanotechnology, 2009, 4, 623-625.	15.6	13
82	Tailoring magnetism in semiconductors. Science China: Physics, Mechanics and Astronomy, 2018, 61, 1.	2.0	12
83	Spin ordering in magnetic quantum dots: From core-halo to Wigner molecules. Physical Review B, 2012, 86, .	1.1	11
84	Spin-orbit coupling proximity effect in MoS ₂ /Fe ₃ GeTe ₂ heterostructures. Applied Physics Letters, 2022, 120, .	1.5	11
85	Cause a stir. Nature Physics, 2016, 12, 24-25.	6.5	9
86	Probing tunneling spin injection into graphene via bias dependence. Physical Review B, 2018, 98, .	1.1	9
87	Reentrant formation of magnetic polarons in quantum dots. Physical Review B, 2012, 86, .	1.1	8
88	Intensity equations for birefringent spin lasers. Physical Review B, 2021, 103, .	1.1	7
89	Chameleon Magnets. Science, 2011, 332, 1040-1041.	6.0	6
90	Reconfigurable nanoelectronics using graphene based spintronic logic gates. Proceedings of SPIE, 2011, , .	0.8	6

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91	Nodal ground states and orbital textures in semiconductor quantum dots. Physical Review B, 2014, 89, .	1.1	6
92	Charge density wave activated excitons in TiSe2â€“MoSe2 heterostructures. APL Materials, 2022, 10, .	2.2	6
93	Spin Twists in a Transistor. Science, 2012, 337, 307-308.	6.0	5
94	Spin-orbit coupled particle in a spin bath. Physical Review B, 2013, 87, .	1.1	5
95	Magnetic ordering in quantum dots: Open versus closed shells. Physical Review B, 2015, 92, .	1.1	5
96	Optical orientation in bipolar spintronic devices. Semiconductor Science and Technology, 2008, 23, 114005.	1.0	4
97	Resonant tunneling anisotropic magnetoresistance induced by magnetic proximity. Physical Review B, 2020, 102, .	1.1	4
98	Threshold behavior in spin lasers: Spontaneous emission and nonlinear gain. Applied Physics Letters, 2021, 119, 171104.	1.5	4
99	Angular dependence of the penetration depth in unconventional superconductors. Physical Review B, 2000, 63, .	1.1	3
100	Spins take sides. Nature Physics, 2009, 5, 630-632.	6.5	3
101	Semiconductor Spin-Lasers. , 2011, , 731-745.		3
102	Optical Control of Hole Wavefunction in Type-II Magnetic Quantum Dot Structures. Journal of Physical Chemistry C, 2019, 123, 25934-25940.	1.5	3
103	Proximity-induced magnetization in graphene: Towards efficient spin gating. Physical Review Materials, 2020, 4, .	0.9	2
104	Nanoelectronics with proximitized materials. Solid-State Electronics, 2019, 155, 93-98.	0.8	1