

Farzad Mahfouzi

List of Publications by Year in descending order

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papers

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citations

361045

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1312
citing authors

#	ARTICLE	IF	CITATIONS
1	Giant Spin Pumping and Inverse Spin Hall Effect in the Presence of Surface and Bulk Spin-Orbit Coupling of Topological Insulator Bi ₂ Se ₃ . Nano Letters, 2015, 15, 7126-7132.	4.5	257
2	Spin-Orbit Coupling Induced Spin-Transfer Torque and Current Polarization in Topological-Insulator/Ferromagnet Vertical Heterostructures. Physical Review Letters, 2012, 109, 166602.	2.9	68
3	Electric-field control of spin accumulation direction for spin-orbit torques. Nature Communications, 2019, 10, 248.	5.8	61
4	Influence of Coupling between Junctions on Breakpoint Current in Intrinsic Josephson Junctions. Physical Review Letters, 2007, 98, 157001.	2.9	58
5	Investigation of the breakpoint region in stacks with a finite number of intrinsic Josephson junctions. Physical Review B, 2007, 75, .	1.1	51
6	Microwave-driven ferromagnet-topological-insulator heterostructures: The prospect for giant spin battery effect and quantized charge pump devices. Physical Review B, 2010, 82, .	1.1	51
7	Equidistance of branch structure in capacitively coupled Josephson junctions model with diffusion current. Physica C: Superconductivity and Its Applications, 2006, 449, 62-66.	0.6	43
8	Antidamping spin-orbit torque driven by spin-flip reflection mechanism on the surface of a topological insulator: A time-dependent nonequilibrium Green function approach. Physical Review B, 2016, 93, .	1.1	43
9	First-principles study of the angular dependence of the spin-orbit torque in Pt/Co and Pd/Co bilayers. Physical Review B, 2018, 97, .	1.1	38
10	Spin-Seebeck effect on the surface of a topological insulator due to nonequilibrium spin-polarization parallel to the direction of thermally driven electronic transport. Physical Review B, 2014, 89, .	1.1	35
11	Novel Spin-Orbit Torque Generation at Room Temperature in an All-Oxide Epitaxial La _{0.7} Sr _{0.3} MnO ₃ /SrIrO ₃ System. Advanced Materials, 2021, 33, e2008269.	11.1	32
12	Structure of the breakpoint region on current-voltage characteristics of intrinsic Josephson junctions. Physical Review B, 2008, 78, .	1.1	30
13	Spin-to-charge conversion in lateral and vertical topological-insulator/ferromagnet heterostructures with microwave-driven precessing magnetization. Physical Review B, 2014, 90, .	1.1	30
14	Charge pumping by magnetization dynamics in magnetic and semimagnetic tunnel junctions with interfacial Rashba or bulk extrinsic spin-orbit coupling. Physical Review B, 2012, 85, .	1.1	29
15	Branching in current-voltage characteristics of intrinsic Josephson junctions. Superconductor Science and Technology, 2007, 20, S38-S42.	1.8	25
16	Signatures of electron-magnon interaction in charge and spin currents through magnetic tunnel junctions: A nonequilibrium many-body perturbation theory approach. Physical Review B, 2014, 90, .	1.1	25
17	Colossal electric field control of magnetic anisotropy at ferromagnetic interfaces induced by iridium overlayer. Physical Review B, 2019, 99, .	1.1	24
18	Voltage-Controlled Magnetic Anisotropy in Heterostructures with Atomically Thin Heavy Metals. Physical Review Applied, 2019, 12, .	1.5	22

#	ARTICLE	IF	CITATIONS
19	Influence of coupling parameter on current-voltage characteristics of intrinsic Josephson junctions in high-Tc superconductors. <i>Physica C: Superconductivity and Its Applications</i> , 2006, 434, 6-12.	0.6	21
20	HOW TO CONSTRUCT THE PROPER GAUGE-INVARIANT DENSITY MATRIX IN STEADY-STATE NONEQUILIBRIUM: APPLICATIONS TO SPIN-TRANSFER AND SPIN-ORBIT TORQUES. <i>Spin</i> , 2013, 03, 1330002.	0.6	20
21	Microscopic origin of spin-orbit torque in ferromagnetic heterostructures: A first-principles approach. <i>Physical Review B</i> , 2020, 101, .	1.1	19
22	Intrinsic damping phenomena from quantum to classical magnets: An <i>ab initio</i> study of Gilbert damping in a Pt/Co bilayer. <i>Physical Review B</i> , 2017, 96, .	1.1	15
23	First-principles calculation of the Dzyaloshinskii-Moriya interaction: A Green's function approach. <i>Physical Review B</i> , 2021, 103, .	1.1	14
24	Damping and antidamping phenomena in metallic antiferromagnets: An <i>ab initio</i> study. <i>Physical Review B</i> , 2018, 98, .	1.1	13
25	Spin-charge conversion in a multiterminal Aharonov-Casher ring coupled to precessing ferromagnets: A charge-conserving Floquet nonequilibrium Green function approach. <i>Physical Review B</i> , 2013, 87, .	1.1	11
26	Magnetoelastic and magnetostrictive properties of Co_2MnSi Heusler compounds. <i>Physical Review B</i> , 2020, 102, .	1.1	10
27	Current-induced damping of nanosized quantum moments in the presence of spin-orbit interaction. <i>Physical Review B</i> , 2017, 95, .	1.1	6
28	Spin transfer torque in MnB_2 -based ferrimagnetic tunnel junctions from first principles. <i>Physical Review B</i> , 2021, 103, .	1.1	5
29	Branch structure of IV-characteristics in the capacitively coupled Josephson junctions model with the diffusion current. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 1301-1302.	0.6	5
30	Spin-orbit torque-driven magnetization switching in 2D-topological insulator heterostructure. <i>Europhysics Letters</i> , 2017, 117, 37001.	0.7	4
31	Ferroelectric-driven tunable magnetism in ultrathin platinum films. <i>Physical Review Materials</i> , 2020, 4, .	0.9	4
32	Inducing Dzyaloshinskii-Moriya interaction in symmetrical multilayers using post annealing. <i>Scientific Reports</i> , 2022, 12, .	1.6	4
33	Collective Dynamics of Intrinsic Josephson Junctions in HTSC. <i>Journal of Physics: Conference Series</i> , 2006, 43, 1143-1146.	0.3	3
34	Elastodynamically Induced Spin and Charge Pumping in Bulk Heavy Metals. <i>Physical Review Letters</i> , 2022, 128, .	2.9	3
35	Structural defects influence on the conductance of strained zigzag graphene nanoribbon. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 216-223.	1.3	2
36	Current-voltage characteristics of intrinsic Josephson junctions with charge-imbalance effect. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 1303-1304.	0.6	1

#	ARTICLE	IF	CITATIONS
37	New features in collective dynamics of intrinsic Josephson junctions. Journal of Physics and Chemistry of Solids, 2008, 69, 3205-3207.	1.9	1
38	Ferromagnetic Damping/Anti-damping in a Periodic 2D Helical Surface; A Nonequilibrium Keldysh Green Function Approach. Spin, 2016, 06, 1640009.	0.6	1
39	Breakpoint region in the IV-characteristics of intrinsic Josephson junctions. Journal of Physics: Conference Series, 2008, 97, 012124.	0.3	0