Farzad Mahfouzi

List of Publications by Year
in descending order

39 papers	1,086 citations	361413 20 h-index	395702 33 g-index
39 all docs	39 docs citations	39 times ranked	1312 citing authors

#	Article	IF	Citations
1	Elastodynamically Induced Spin and Charge Pumping in Bulk Heavy Metals. Physical Review Letters, 2022, 128, .	7.8	3
2	Inducing Dzyaloshinskiiâ€“Moriya interaction in symmetrical multilayers using post annealing. Scientific Reports, 2022, 12, .	3.3	4
3	Spin transfer torque in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Mn</mml:mi><mml:mn>3</mml:mn></m -based ferrimagnetic tunnel junctions from first principles. Physical Review B, 2021, 103, .	3.2	6
4	First-principles calculation of the Dzyaloshinskii-Moriya interaction: A Green's function approach. Physical Review B, 2021, 103, .	3.2	14
5	Novel Spinâ€“Orbit Torque Generation at Room Temperature in an Allâ€Oxide Epitaxial La_{0.7}Sr_{0.3}MnO₃/SrIrO₃ System. Advanced Materials, 2021, 33, e2008269.	21.0	32
6	Magnetoelastic and magnetostrictive properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Co</mml:mi><mml:mn>2</mml:mn><mml:msub><mml:r Heusler compounds. Physical Review B, 2020, 102, .	3.2	11
7	Microscopic origin of spin-orbit torque in ferromagnetic heterostructures: A first-principles approach. Physical Review B, 2020, 101, .	3.2	19
8	Ferroelectric-driven tunable magnetism in ultrathin platinum films. Physical Review Materials, 2020, 4, .	2.4	4
9	Voltage-Controlled Magnetic Anisotropy in Heterostructures with Atomically Thin Heavy Metals. Physical Review Applied, 2019, 12, .	3.8	22
10	Colossal electric field control of magnetic anisotropy at ferromagnetic interfaces induced by iridium overlayer. Physical Review B, 2019, 99, .	3.2	24
11	Electric-field control of spin accumulation direction for spin-orbit torques. Nature Communications, 2019, 10, 248.	12.8	61
12	Damping and antidamping phenomena in metallic antiferromagnets: An ab initio study. Physical Review B, 2018, 98, .	3.2	13
13	First-principles study of the angular dependence of the spin-orbit torque in Pt/Co and Pd/Co bilayers. Physical Review B, 2018, 97, .	3.2	38
14	Spin-orbit torque-driven magnetization switching in 2D-topological insulator heterostructure. Europhysics Letters, 2017, 117, 37001.	2.0	4
15	Current-induced damping of nanosized quantum moments in the presence of spin-orbit interaction. Physical Review B, 2017, 95, .	3.2	6
16	Structural defects influence on the conductance of strained zigzag graphene nanoribbon. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 93, 216-223.	2.7	2
17	Intrinsic damping phenomena from quantum to classical magnets: An ab initio study of Gilbert damping in a Pt/Co bilayer. Physical Review B, 2017, 96, .	3.2	15
18	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, .	3.2	43

#	Article	IF	Citations
19	Ferromagnetic Damping/Anti-damping in a Periodic 2D Helical Surface; A Nonequilibrium Keldysh Green Function Approach. Spin, 2016, 06, 1640009.	1.3	1
20	Giant Spin Pumping and Inverse Spin Hall Effect in the Presence of Surface and Bulk Spinâ^'Orbit Coupling of Topological Insulator Bi₂Se₃. Nano Letters, 2015, 15, 7126-7132.	9.1	257
21	Spin-to-charge conversion in lateral and vertical topological-insulator/ferromagnet heterostructures with microwave-driven precessing magnetization. Physical Review B, 2014, 90, .	3.2	30
22	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, .	3.2	35
23	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, .	3.2	25
24	HOW TO CONSTRUCT THE PROPER GAUGE-INVARIANT DENSITY MATRIX IN STEADY-STATE NONEQUILIBRIUM: APPLICATIONS TO SPIN-TRANSFER AND SPIN-ORBIT TORQUES. Spin, 2013, 03, 1330002.	1.3	20
25	Spin-charge conversion in a multiterminal Aharonov-Casher ring coupled to precessing ferromagnets: A charge-conserving Floquet nonequilibrium Green function approach. Physical Review B, 2013, 87, .	3.2	11
26	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, .	3.2	29
27	Spin-Orbit Coupling Induced Spin-Transfer Torque and Current Polarization in Topological-Insulator/Ferromagnet Vertical Heterostructures. Physical Review Letters, 2012, 109, 166602.	7.8	68
28	Microwave-driven ferromagnetâ€"topological-insulator heterostructures: The prospect for giant spin battery effect and quantized charge pump devices. Physical Review B, 2010, 82, .	3.2	51
29	New features in collective dynamics of intrinsic Josephson junctions. Journal of Physics and Chemistry of Solids, 2008, 69, 3205-3207.	4.0	1
30	Structure of the breakpoint region on current-voltage characteristics of intrinsic Josephson junctions. Physical Review B, 2008, 78, .	3.2	30
31	Breakpoint region in the IV-characteristics of intrinsic Josephson junctions. Journal of Physics: Conference Series, 2008, 97, 012124.	0.4	0
32	Branching in currentâ€"voltage characteristics of intrinsic Josephson junctions. Superconductor Science and Technology, 2007, 20, S38-S42.	3.5	25
33	Influence of Coupling between Junctions on Breakpoint Current in Intrinsic Josephson Junctions. Physical Review Letters, 2007, 98, 157001.	7.8	58
34	Investigation of the breakpoint region in stacks with a finite number of intrinsic Josephson junctions. Physical Review B, 2007, 75, .	3.2	51
35	Branch structure of IV-characteristics in the capacitively coupled Josephson junctions model with the diffusion current. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1301-1302.	1.2	5
36	Currentâ€"voltage characteristics of intrinsic Josephson junctions with charge-imbalance effect. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1303-1304.	1.2	1

#	Article	IF	Citations
37	Equidistance of branch structure in capacitively coupled Josephson junctions model with diffusion current. Physica C: Superconductivity and Its Applications, 2006, 449, 62-66.	1.2	43
38	Influence of coupling parameter on currentâ€"voltage characteristics of intrinsic Josephson junctions in high-Tc superconductors. Physica C: Superconductivity and Its Applications, 2006, 434, 6-12.	1.2	21
39	Collective Dynamics of Intrinsic Josephson Junctions in HTSC. Journal of Physics: Conference Series, 2006, 43, 1143-1146.	0.4	3