

Seyed Majid Mohseni

List of Publications by Year in descending order

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120
papers

2,321
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257450

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#	ARTICLE	IF	CITATIONS
1	Interface-induced negative differential resistance and memristive behavior in Gr/MoSe ₂ heterostructure. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 6403-6410.	2.2	2
2	Ferromagnetic properties of iron-porphyrin-like structurally deformed graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2022, 139, 115165.	2.7	1
3	Freezing and thawing magnetic droplet solitons. <i>Nature Communications</i> , 2022, 13, 2462.	12.8	6
4	Magnetoimpedance of a ferromagnetic thin film in the presence of isotropic self-affine surface roughness cross correlations. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, .	2.3	2
5	A Domain Dynamic Model Study of Magneto-impedance Sensor in the Presence of Inhomogeneous Magnetic Fields. <i>Journal of Superconductivity and Novel Magnetism</i> , 2021, 34, 571-580.	1.8	3
6	Symmetry enhanced spin-Nernst effect in honeycomb antiferromagnetic transition metal trichalcogenide monolayers. <i>Physical Review B</i> , 2021, 103, .	3.2	12
7	Nonlinear Optical Properties of Vertically-Aligned MoS ₂ Nanosheets. <i>Journal of Electronic Materials</i> , 2021, 50, 3645-3651.	2.2	7
8	Oscillation in the electrical conductivity of a thick graphene oxide membrane. <i>Journal of Applied Physics</i> , 2021, 129, 235105.	2.5	1
9	Sulfur reduction in MoSO composite towards fabrication of porous structures: physical and nonlinear optical effects. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 23624-23630.	2.2	0
10	High-Voltage, High-Current Electrical Switching Discharge Synthesis of ZnO Nanorods: A New Method toward Rapid and Highly Tunable Synthesis of Oxide Semiconductors in Open Air and Water for Optoelectronic Applications. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46951-46966.	8.0	11
11	High-performance porphyrin-like graphene quantum dots for immuno-sensing of Salmonella typhi. <i>Biosensors and Bioelectronics</i> , 2021, 188, 113334.	10.1	22
12	Tuning the dynamics of magnetic droplet solitons using dipolar interactions. <i>Physical Review B</i> , 2021, 103, .	3.2	3
13	Low defect and high electrical conductivity of graphene through plasma graphene healing treatment monitored with in situ optical emission spectroscopy. <i>Scientific Reports</i> , 2021, 11, 20334.	3.3	9
14	Magnetoelastic coupling enabled tunability of magnon spin current generation in two-dimensional antiferromagnets. <i>Physical Review B</i> , 2021, 104, .	3.2	13
15	ZnO thin layer/Fe-based ribbon/ZnO thin layer sandwich structure: Introduction of a new GMI optimization method. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 493, 165697.	2.3	20
16	Metal/metal-oxide thin layer heterostructure by laser treatment for memristor application. <i>Materials Letters</i> , 2020, 261, 127094.	2.6	7
17	High-sensitive optoelectronic SPR biosensor based on Fano resonance in the integrated MIM junction and optical layers. <i>Optics Communications</i> , 2020, 477, 126323.	2.1	9
18	Two-dimensional graphene-plasmonic crystals for all-optical switch applications. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	5

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19	Exchange bias training effect in IrMn-layer/ferromagnetic-ribbon heterostructures probed with magnetoimpedance. <i>Superlattices and Microstructures</i> , 2020, 147, 106710.	3.1	4
20	Morphological magnetostatic coupling in spin valves due to anisotropic self-affine interface roughness. <i>Journal of Applied Physics</i> , 2020, 127, 095301.	2.5	4
21	Optimization of Pt composition with magnetic thin films for magnetic field sensor application. <i>Materials Letters</i> , 2020, 276, 128184.	2.6	4
22	Propagating Magnetic Droplet Solitons as Moveable Nanoscale Spin-Wave Sources with Tunable Direction of Emission. <i>Physical Review Applied</i> , 2020, 13, .	3.8	7
23	Chiral excitations of magnetic droplet solitons driven by their own inertia. <i>Physical Review B</i> , 2020, 101, .	3.2	9
24	Electrical and magneto-optical characterization of Py/MoS2 bilayer: A facile growth of magnetic-metal/semiconductor heterostructure. <i>Materials Letters</i> , 2020, 265, 127454.	2.6	8
25	Promising memristive behavior in MoS2@MoO2@MoO3 scalable composite thin films. <i>Journal of Alloys and Compounds</i> , 2020, 835, 155291.	5.5	14
26	Observation of the Dzyaloshinskii-Moriya interaction via asymmetry in magnetization reversal. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 465001.	2.8	3
27	Tuning exchange-dominated spin-waves using lateral current spread in nanocontact spin-torque nano-oscillators. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 492, 165503.	2.3	3
28	Sulfurization of planar MoO3 optical crystals: Enhanced Raman response and surface porosity. <i>Materials Research Bulletin</i> , 2019, 118, 110527.	5.2	15
29	Facile synthesis of water-stable iron intercalated multi layered graphene nanocomposite with large magnetic moments as superior water pollutant remediators. <i>Synthetic Metals</i> , 2019, 255, 116105.	3.9	9
30	Plasmonic improvement photoresponse of vertical-MoS2 nanostructure photodetector by Au nanoparticles. <i>Applied Surface Science</i> , 2019, 490, 165-171.	6.1	79
31	Effect of YIG nanoparticle size and clustering in proximity-induced magnetism in graphene/YIG composite probed with magnetoimpedance sensors: Towards improved functionality, sensitivity and proximity detection. <i>Composites Part B: Engineering</i> , 2019, 173, 106992.	12.0	9
32	Theory of the spin Hall effect in metal oxide structures. <i>Physical Review B</i> , 2019, 99, .	3.2	5
33	Three-dimensional graphene foam as a conductive scaffold for cardiac tissue engineering. <i>Journal of Biomaterials Applications</i> , 2019, 34, 74-85.	2.4	41
34	Structural and magnetic study of metallo-organic YIG powder using 2-ethylhexanoate carboxylate-based precursors. <i>Modern Physics Letters B</i> , 2019, 33, 1950100.	1.9	6
35	Growth behavior of Cu, Ni and Cu/Ni electrodeposited microwires within porous Si. <i>Surface and Coatings Technology</i> , 2019, 364, 16-21.	4.8	6
36	Controlling Magnetization of Gr/Ni Composite for Application in High-Performance Magnetic Sensors. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2502-2513.	4.3	9

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37	Miniaturized Optoelectronic SPR Sensor Based on Integrated Planar Waveguide and MIM Hot-Electron Photodetector. IEEE Transactions on Electron Devices, 2019, 66, 5215-5220.	3.0	10
38	High saturation magnetization, low coercivity and fine YIG nanoparticles prepared by modifying co-precipitation method. Journal of Magnetism and Magnetic Materials, 2019, 476, 355-360.	2.3	26
39	Facilitate Measurement of Electrochemical Reactions in Redox-Based Memristors by Simply Thickening the Electrolyte Layer. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800046.	2.4	3
40	Designing magnetic droplet soliton nucleation employing spin polarizer. Nanotechnology, 2018, 29, 155402.	2.6	8
41	Magnetic droplet soliton nucleation in oblique fields. Physical Review B, 2018, 97, .	3.2	17
42	Demonstration of tunable complex refractive index of graphene covered one dimensional photonic crystals. Optical and Quantum Electronics, 2018, 50, 1.	3.3	2
43	Electrophoretic deposition of graphene oxide on magnetic ribbon: Toward high sensitive and selectable magnetoimpedance response. Applied Surface Science, 2018, 447, 423-429.	6.1	13
44	Spin Hall effect originated from fractal surface. Journal of Physics Condensed Matter, 2018, 30, 195804.	1.8	3
45	Current induced multi-mode propagating spin waves in a spin transfer torque nano-contact with strong perpendicular magnetic anisotropy. Journal of Magnetism and Magnetic Materials, 2018, 450, 40-45.	2.3	4
46	Magnetic graphene/Ni-nano-crystal hybrid for small field magnetoresistive effect synthesized via electrochemical exfoliation/deposition technique. Journal of Materials Science: Materials in Electronics, 2018, 29, 4171-4178.	2.2	15
47	Simple One-Step Fabrication of Semiconductive Lateral Heterostructures Using Bipolar Electrodeposition. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800418.	2.4	13
48	Investigation of magnetic droplet solitons using x-ray holography with extended references. Scientific Reports, 2018, 8, 11533.	3.3	3
49	Facile, Scalable and Transfer Free Vertical MoS ₂ nanostructures grown on Au/SiO ₂ /Si	6.1	37
50	Order of magnitude improvement of nano-contact spin torque nano-oscillator performance. Nanoscale, 2017, 9, 1896-1900.	5.6	17
51	Temperature-induced coupled-to-decoupled transition in perpendicular pseudo spin valves. Journal Physics D: Applied Physics, 2017, 50, 115003.	2.8	1
52	Parametric autoexcitation of magnetic droplet soliton perimeter modes. Physical Review B, 2017, 95, .	3.2	32
53	Tunable bandgap and spin-orbit coupling by composition control of MoS ₂ and MoO _x (x = 2 and 3) thin film compounds. Materials and Design, 2017, 122, 220-225.	7.0	32
54	Fine-tunable plasma nano-machining for fabrication of 3D hollow nanostructures: SERS application. Nanotechnology, 2017, 28, 315301.	2.6	7

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55	Imaging magnetisation dynamics in nano-contact spin-torque vortex oscillators exhibiting gyrotropic mode splitting. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 164003.	2.8	11
56	Magnetoimpedance exchange coupling in different magnetic strength thin layers electrodeposited on Co-based magnetic ribbons. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 155001.	2.8	20
57	Current-driven second-harmonic domain wall resonance in ferromagnetic metal/nonmagnetic metal bilayers: A field-free method for spin Hall angle measurements. <i>Physical Review B</i> , 2017, 96, .	3.2	2
58	Thermoanalytical study of siloxane-polyurethane thermosets: Kinetic deconvolution of overlapping heterogeneous curing reactions. <i>Progress in Organic Coatings</i> , 2017, 112, 234-243.	3.9	8
59	Fabrication and thermo-physical properties characterization of ethylene glycol-MoS ₂ heat exchange fluids. <i>International Communications in Heat and Mass Transfer</i> , 2017, 89, 185-189.	5.6	3
60	Spin-orbit-torque driven magnetoimpedance in Pt-layer/magnetic-ribbon heterostructures. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	10
61	Reduction and control of permalloy thin film damping factor under microwave irradiation. <i>Journal of Alloys and Compounds</i> , 2017, 723, 960-966.	5.5	3
62	Voltage-driven magneto-optical Kerr effect in a glass/Au/NiFe/dielectric/WS ₂ magneto-plasmonic structure. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 2436.	2.1	8
63	Au/NiFe/M(Au, MoS ₂ , graphene) trilayer magnetoplasmonics DNA-hybridized sensors with high record of sensitivity. <i>Journal of Biomedical Optics</i> , 2017, 22, 1.	2.6	13
64	Magnetic droplet nucleation boundary in orthogonal spin-torque nano-oscillators. <i>Nature Communications</i> , 2016, 7, 11209.	12.8	46
65	Low-current, narrow-linewidth microwave signal generation in NiMnSb based single-layer nanocontact spin-torque oscillators. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	3
66	Asymmetric magnetoimpedance effect in CoFeSiB amorphous ribbons by combination of field and current annealing for sensor applications. <i>Superlattices and Microstructures</i> , 2016, 96, 191-197.	3.1	22
67	Superharmonic injection locking of nanocontact spin-torque vortex oscillators. <i>Physical Review B</i> , 2016, 94, .	3.2	12
68	Direct observation of magnetization dynamics generated by nanocontact spin-torque vortex oscillators. <i>Physical Review B</i> , 2016, 94, .	3.2	18
69	Holographonics. <i>Materials Today</i> , 2016, 19, 368-369.	14.2	2
70	Magnetostatically driven domain replication in Ni/Co based perpendicular pseudo-spin-valves. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 415004.	2.8	3
71	Magneto-optical response of Cu/NiFe/Cu nanostructure under surface plasmon resonance. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 420, 258-262.	2.3	11
72	Merging droplets in double nanocontact spin torque oscillators. <i>Physical Review B</i> , 2016, 93, .	3.2	24

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73	Extraordinary magneto-optical Kerr effect via MoS ₂ monolayer in Au/Py/MoS ₂ plasmonic cavity. RSC Advances, 2016, 6, 106591-106599.	3.6	17
74	Dynamics of magnetic nano-flake vortices in Newtonian fluids. Journal of Magnetism and Magnetic Materials, 2016, 419, 547-552.	2.3	1
75	Optimization of Magneto-Optical Kerr Effect in Cu/Fe/Cu Nano-structure. Journal of Superconductivity and Novel Magnetism, 2016, 29, 1517-1523.	1.8	11
76	Magnetic droplet solitons in orthogonal spin valves. Low Temperature Physics, 2015, 41, 833-837.	0.6	21
77	Au/NiFe magnetoplasmonics: Large enhancement of magneto-optical kerr effect for magnetic field sensors and memories. Electronic Materials Letters, 2015, 11, 440-446.	2.2	25
78	Magnetic structure and anisotropy of $\text{Co}_2\text{Fe}_2\text{O}_7$. Physical Review B, 2015, 91, .	1.0	21
79	Structural Characterization and Magnetoimpedance Effect of Current Annealed Co-Based Amorphous Ribbons at Different Ambient. Journal of Superconductivity and Novel Magnetism, 2015, 28, 265-269.	1.8	13
80	Magnetoimpedance and Field Sensitivity of CoFeSiB Amorphous Ribbons under Applied Tensile Stress. Journal of Superconductivity and Novel Magnetism, 2015, 28, 2059-2062.	1.8	9
81	Role of boron diffusion in CoFeB/MgO magnetic tunnel junctions. Physical Review B, 2015, 91, .	3.2	40
82	Thick Double-Biased IrMn/NiFe/IrMn Planar Hall Effect Bridge Sensors. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	11
83	XRD cation distribution and magnetic properties of mesoporous Zn-substituted CuFe ₂ O ₄ . Ceramics International, 2014, 40, 3619-3625.	4.8	102
84	Effect of nanoconfinement on the formation, structural transition and magnetic behavior of mesoporous copper ferrite. Journal of Alloys and Compounds, 2014, 598, 191-197.	5.5	18
85	Spin transfer torque generated magnetic droplet solitons (invited). Journal of Applied Physics, 2014, 115, .	2.5	47
86	Magnetic properties of crystalline mesoporous Zn-substituted copper ferrite synthesized under nanoconfinement in silica matrix. Microporous and Mesoporous Materials, 2014, 190, 346-355.	4.4	27
87	Magnetic droplet solitons in orthogonal nano-contact spin torque oscillators. Physica B: Condensed Matter, 2014, 435, 84-87.	2.7	35
88	Confined Dissipative Droplet Solitons in Spin-Valve Nanowires with Perpendicular Magnetic Anisotropy. Physical Review Letters, 2014, 112, 047201.	7.8	53
89	Depth-Dependent Magnetization Profiles of Hybrid Exchange Springs. Physical Review Applied, 2014, 2, .	3.8	22
90	Dependence of the colored frequency noise in spin torque oscillators on current and magnetic field. Applied Physics Letters, 2014, 104, 092405.	3.3	28

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91	Investigation of the Tunability of the Spin Configuration Inside Exchange Coupled Springs of Hard/Soft Magnets. IEEE Transactions on Magnetics, 2014, 50, 1-6.	2.1	4
92	Recent Advances in Nanocontact Spin-Torque Oscillators. IEEE Transactions on Magnetics, 2014, 50, 1-7.	2.1	21
93	The effect of mechanical polishing on current annealed $\text{Co}_{67}\text{Fe}_5\text{Si}_{15}\text{B}_{13}$ amorphous ribbons: magnetoimpedance response. EPJ Applied Physics, 2014, 65, 10601.	0.7	9
94	Reversal mode instability and magnetoresistance in perpendicular (Co/Pd)/Cu/(Co/Ni) pseudo-spin-valves. Applied Physics Letters, 2013, 103, .	3.3	21
95	Microwave Signal Generation in Single-Layer Nano-Contact Spin Torque Oscillators. IEEE Transactions on Magnetics, 2013, 49, 4331-4334.	2.1	15
96	Mutually synchronized bottom-up multi-nanocontact spin-torque oscillators. Nature Communications, 2013, 4, 2731.	12.8	98
97	Triple mode-jumping in a spin torque oscillator. , 2013, , .		3
98	A Nonvolatile Spintronic Memory Element with a Continuum of Resistance States. Advanced Functional Materials, 2013, 23, 1919-1922.	14.9	12
99	Spin Torque-Generated Magnetic Droplet Solitons. Science, 2013, 339, 1295-1298.	12.6	237
100	Spin-Wave-Mode Coexistence on the Nanoscale: A Consequence of the Oersted-Field-Induced Asymmetric Energy Landscape. Physical Review Letters, 2013, 110, 257202.	7.8	98
101	Tunable spin configuration in [Co/Ni]-NiFe spring magnets. Journal Physics D: Applied Physics, 2013, 46, 125004.	2.8	31
102	Spin-Torque Oscillator in an Electromagnet Package. IEEE Transactions on Magnetics, 2012, 48, 4378-4381.	2.1	9
103	[Co/Pd] CoPd -NiFe spring magnets with highly tunable and uniform magnetization tilt angles. Journal of Magnetism and Magnetic Materials, 2012, 324, 3929-3932.	2.3	23
104	Current induced vortices in multi-nanocontact spin-torque devices. Journal of Applied Physics, 2011, 109, .	2.5	22
105	High frequency operation of a spin-torque oscillator at low field. Physica Status Solidi - Rapid Research Letters, 2011, 5, 432-434.	2.4	75
106	Effect of Microwave Annealing on the Structure and Magnetic Properties of Co-based Amorphous Ribbons. Journal of Superconductivity and Novel Magnetism, 2011, 24, 1263-1265.	1.8	5
107	Temperature-dependent interlayer coupling in Ni/Co perpendicular pseudo-spin-valve structures. Physical Review B, 2011, 84, .	3.2	20
108	[Co/Pd]-NiFe exchange springs with tunable magnetization tilt angle. Applied Physics Letters, 2011, 98, 172502.	3.3	82

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109	Nanostructured MnGa films on Si/SiO ₂ with 20.5 kOe room temperature coercivity. Journal of Applied Physics, 2011, 110, .	2.5	40
110	Pseudo Spin Valves Using a (111)-Textured D ₀₂ Mn _{2.3-2.4} Ga Fixed Layer. IEEE Magnetics Letters, 2010, 1, 2500104-2500104.	1.1	14
111	Study of magnetoimpedance effect of Co-based amorphous ribbons after current annealing at various kinds of ambient pressure. Journal of Non-Crystalline Solids, 2009, 355, 2653-2656.	3.1	16
112	Magnetic behaviors of amorphous Fe ₇₈ Si ₉ B ₁₃ thin films prepared by pulsed laser deposition. Journal of Non-Crystalline Solids, 2008, 354, 5178-5180.	3.1	7
113	Design of a double core linear magnetometer based on asymmetric magnetoimpedance effect in nanostructured Finemet ribbons. Journal of Non-Crystalline Solids, 2008, 354, 5175-5177.	3.1	7
114	The influence of laser annealing in the presence of longitudinal weak magnetic field on asymmetrical magnetoimpedance response of CoFeSiB amorphous ribbons. Journal of Non-Crystalline Solids, 2008, 354, 5150-5152.	3.1	8
115	Magnetoimpedance effect in surface pinned nanostructured Fe-based alloys. Journal of Non-Crystalline Solids, 2007, 353, 896-898.	3.1	11
116	Effect of magnetic field current annealing on the magnetoimpedance of Co-based ribbons. Journal of Non-Crystalline Solids, 2007, 353, 899-901.	3.1	19
117	Structural characterization and magnetoimpedance effect in amorphous and nanocrystalline AlGe-substituted FeSiBNbCu ribbons. Journal of Magnetism and Magnetic Materials, 2007, 312, 35-42.	2.3	24
118	Magnetoimpedance effect in current annealed Co-based amorphous wires. Journal of Magnetism and Magnetic Materials, 2006, 304, e706-e708.	2.3	19
119	Magnetoimpedance effect in laser annealed amorphous ribbons. Journal of Magnetism and Magnetic Materials, 2006, 304, e633-e635.	2.3	12
120	Temperature dependence of magnetoimpedance in annealed Co-based ribbons. Journal of Non-Crystalline Solids, 2005, 351, 2983-2986.	3.1	25