Alexander G Khitun

List of Publications by Year
in descending order

87	3,241	186265 28	149698 56
papers	citations	h-index	g-index

88	88	88	2730
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spin waves in YIG based magnonic networks: Design and technological aspects. Journal of Magnetism and Magnetic Materials, 2022, 545, 168754.	2.3	17
2	Prime factorization using coupled oscillators with positive feedback. AIP Advances, 2022, 12, 045307.	1.3	0
3	Period finding and prime factorization using classical wave superposition. Journal of Applied Physics, 2022, 131, 153901.	2.5	0
4	Micro magnet location using spin waves. Journal of Applied Physics, 2022, 132, .	2.5	2
5	Spin wave interference detection via inverse spin Hall effect. Applied Physics Letters, 2021, 118, .	3.3	4
6	The 2021 Magnonics Roadmap. Journal of Physics Condensed Matter, 2021, 33, 413001.	1.8	287
7	Quantum computing without quantum computers: Database search and data processing using classical wave superposition. Journal of Applied Physics, 2021, 130, .	2.5	9
8	An entertaining physics: On the possibility of energy storage enhancement in electrostatic capacitors using the compensational inductive electric field. Applied Physics Letters, 2020, 117, 153903.	3.3	1
9	A spin-wave magnetometer with a positive feedback. Journal of Magnetism and Magnetic Materials, 2020, 514, 167046.	2.3	5
10	Brillouin-Mandelstam spectroscopy of stress-modulated spatially confined spin waves in Ni thin films on piezoelectric substrates. Journal of Magnetism and Magnetic Materials, 2020, 501, 166440.	2.3	2
11	Spin Waves Focused Beams in YIG Films. , 2020, , .		0
12	The discrete noise of magnons. Applied Physics Letters, 2019, 114, .	3.3	15
13	Interference of Spin Waves in Arrays of Microwaveguides Based on Yttrium-Iron Garnet Films. Technical Physics, 2019, 64, 1622-1628.	0.7	3
14	Realization of spin wave switch for data processing. AIP Advances, 2018, 8, .	1.3	12
15	Reversible magnetic logic gates based on spin wave interference. Journal of Applied Physics, 2018, 123, .	2.5	32
16	Brillouin-Mandelstam spectroscopy of standing spin waves in a ferrite waveguide. AIP Advances, 2018, 8, .	1.3	5
17	Effects of the magnetic field variation on the spin wave interference in a magnetic cross junction. AIP Advances, 2018, 8, 056619.	1.3	5
18	Nonreciprocity of backward volume spin wave beams excited by the curved focusing transducer. Applied Physics Letters, 2018, 113, .	3.3	12

#	Article	IF	Citations
19	Transistor-Less Logic Circuits Implemented With 2-D Charge Density Wave Devices. IEEE Electron Device Letters, 2018, 39, 1449-1452.	3.9	36
20	Magnetoelectric Spin Wave Modulator Based On Synthetic Multiferroic Structure. Scientific Reports, 2018, 8, 10867.	3.3	37
21	Magnonic interferometric switch for multi-valued logic circuits. Journal of Applied Physics, 2017, 121, .	2.5	30
22	Two-Dimensional Oscillatory Neural Network Based on Room-Temperature Charge-Density-Wave Devices. IEEE Nanotechnology Magazine, 2017, 16, 860-867.	2.0	33
23	Spin wave interference in YIG cross junction. AIP Advances, 2017, 7, .	1.3	15
24	Magnonic holographic imaging of magnetic microstructures. Journal of Magnetism and Magnetic Materials, 2017, 428, 348-356.	2.3	9
25	Perpendicularly magnetized YIG-film resonators and waveguides with high operating power. AIP Advances, 2017, 7, .	1.3	3
26	A Magnetometer Based on a Spin Wave Interferometer. Scientific Reports, 2017, 7, 11539.	3.3	29
27	Spin wave excitation in sub-micrometer thick Y3Fe5O12films fabricated by pulsed laser deposition on garnet and silicon substrates: A comparative study. Journal of Applied Physics, 2017, 122, 123904.	2.5	19
28	Variable-temperature inelastic light scattering spectroscopy of nickel oxide: Disentangling phonons and magnons. Applied Physics Letters, 2017, 110, .	3.3	37
29	Biological cell manipulation by magnetic nanoparticles. AIP Advances, 2016, 6, .	1.3	20
30	Prime factorization using magnonic holographic devices. Journal of Applied Physics, 2016, 120, .	2.5	22
31	Parallel data processing with Magnonic Holographic Co-Processor. , 2016, , .		1
32	Parallel Read-Out and Database Search With Magnonic Holographic Memory. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	5
33	Magnonic Holographic Read-Only Memory. IEEE Magnetics Letters, 2016, 7, 1-4.	1.1	155
34	10.1063/1.4942090.1. , 2016, , .		0
35	Parallel database search and prime factorization with magnonic holographic memory devices. Journal of Applied Physics, 2015, 118, .	2.5	14
36	Magnonic Holographic Memory. IEEE Transactions on Magnetics, 2015, 51, 1-5.	2.1	50

#	Article	IF	Citations
37	Magnonic holographic co-processor: An approach to energy-efficient complementary logic circuitry. , 2015, , .		1
38	Pattern recognition with magnonic holographic memory device. Applied Physics Letters, 2015, 106, .	3.3	65
39	Magnonic Holographic Memory: From Proposal to Device. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2015, 1, 67-75.	1.5	30
40	Electric-field-induced spin wave generation using multiferroic magnetoelectric cells. Applied Physics Letters, 2014, 104, 082403.	3.3	144
41	Spin wave phase logic. , 2014, , 359-378.		2
42	Magnonic holographic devices for special type data processing. Journal of Applied Physics, 2013, 113, .	2.5	56
43	Graphene-based non-Boolean logic circuits. Journal of Applied Physics, 2013, 114, .	2.5	60
44	Multi-frequency magnonic logic circuits for parallel data processing. Journal of Applied Physics, 2012, 111, .	2.5	74
45	Biological cell positioning and spatially selective destruction via magnetic nanoparticles. Applied Physics Letters, 2012, 101, 013701.	3.3	15
46	Energy dissipation in magnonic logic circuits. , 2012, , .		0
47	Graphene nanoribbon crossbar nanomesh. , 2011, , .		1
48	Non-volatile magnonic logic circuits engineering. Journal of Applied Physics, 2011, 110, .	2.5	135
49	Magnonic logic circuits. Journal Physics D: Applied Physics, 2010, 43, 264005.	2.8	519
50	Magnetic cellular nonlinear network with spin wave bus for image processing. Superlattices and Microstructures, 2010, 47, 464-483.	3.1	25
51	Magnetic cellular nonlinear network with spin wave bus. , 2010, , .		2
52	Nonreciprocal amplification of spin-wave signals. , 2010, , .		0
53	A Three-Terminal Spin-Wave Device for Logic Applications. Journal of Nanoelectronics and Optoelectronics, 2010, 4, 394-397.	0.5	22
54	A magnetic amplifier for amplifying spin-wave signal. , 2009, , .		0

#	Article	IF	Citations
55	Magnetoelectric spin wave amplifier for spin wave logic circuits. Journal of Applied Physics, 2009, 106, .	2.5	72
56	Spin Wave Magnetic NanoFabric: A New Approach to Spin-Based Logic Circuitry. IEEE Transactions on Magnetics, 2008, 44, 2141-2152.	2.1	199
57	Coplanar waveguide radio frequency ferromagnetic parametric amplifier. Applied Physics Letters, 2008, 93, .	3.3	28
58	Coplanar waveguide radio frequency ferromagnetic parametric amplifier. , 2008, , .		0
59	Spin Wave Logic Circuit on Silicon Platform. , 2008, , .		10
60	Determining wave vector and material property from the phase-shift of spin-wave propagation. Europhysics Letters, 2008, 84, 27009.	2.0	16
61	Inductively Coupled Circuits with Spin Wave Bus for Information Processing. Journal of Nanoelectronics and Optoelectronics, 2008, 3, 24-34.	0.5	28
62	Cellular Nonlinear Network with Spin Wave Bus. , 2007, , .		0
63	Feasibility study of logic circuits with a spin wave bus. Nanotechnology, 2007, 18, 465202.	2.6	56
64	Nanoscale modules with full spin-wave interconnectivity. Journal of Experimental Nanoscience, 2007, 2, 73-86.	2.4	3
65	Efficiency of Spin-Wave Bus for Information Transmission. IEEE Transactions on Electron Devices, 2007, 54, 3418-3421.	3.0	17
66	Nano Logic Circuits with Spin Wave Bus. , 2006, , .		11
67	A Nano-Scale Crossbar with Spin Waves. , 2006, , .		2
68	Transport study of a single bismuth nanowire fabricated by the silver and silicon nanowire shadow masks. Applied Physics Letters, 2006, 89, 141503.	3.3	36
69	On Logic Circuits With Spin Wave Bus. Journal of Nanoelectronics and Optoelectronics, 2006, 1, 71-73.	0.5	4
70	Nano scale computational architectures with Spin Wave Bus. Superlattices and Microstructures, 2005, 38, 184-200.	3.1	249
71	Cellular Nonlinear Network Based on Semiconductor Tunneling Nanostructure. IEEE Transactions on Electron Devices, 2005, 52, 183-189.	3.0	14
72	Multi-functional edge driven nano-scale cellular automata based on semiconductor tunneling nano-structure with a self-assembled quantum dot layer. Superlattices and Microstructures, 2005, 37, 55-76.	3.1	10

#	Article	IF	Citations
73	Tunable normal incidence Ge quantum dot midinfrared detectors. Journal of Applied Physics, 2004, 96, 773-776.	2.5	20
74	On the modeling of lattice thermal conductivity in semiconductor quantum dot superlattices. Applied Physics Letters, 2004, 84, 1762-1764.	3.3	15
75	Optical phonons in self-assembled Ge quantum dot superlattices: Strain relaxation effects. Journal of Applied Physics, 2002, 92, 6804-6808.	2.5	39
76	In-plane Thermal and Electronic Transport in Quantum Dot Superlattice. Materials Research Society Symposia Proceedings, 2001, 677, 491.	0.1	0
77	The effect of the long-range order in a quantum dot array on the in-plane lattice thermal conductivity. Superlattices and Microstructures, 2001, 30, 1-8.	3.1	25
78	Modification of the three-phonon Umklapp process in a quantum wire. Applied Physics Letters, 2001, 79, 851-853.	3.3	21
79	Enhancement of the thermoelectric figure of merit of Si1â˜'xGex quantum wires due to spatial confinement of acoustic phonons. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 8, 13-18.	2.7	25
80	In-plane lattice thermal conductivity of a quantum-dot superlattice. Journal of Applied Physics, 2000, 88, 696-699.	2.5	94
81	Thermoelectric figure of merit enhancement in a quantum dot superlattice. Nanotechnology, 2000, 11, 327-331.	2.6	50
82	Modification of the lattice thermal conductivity in silicon quantum wires due to spatial confinement of acoustic phonons. Superlattices and Microstructures, 1999, 26, 181-193.	3.1	108
83	Optimization of the thermoelectric properties of low-dimensional structures via phonon engineering. , 0, , .		2
84	Thermoelectric figure of merit enhancement in Si and SiGe quantum wires due to spatial confinement of acoustic phonons. , 0, , .		0
85	Thermal conductivity of Si/Ge quantum dot superlattices. , 0, , .		1
86	Interconnects for nanoelectronics. , 0, , .		8
87	A Nano-Scale Crossbar with Spin Waves. , 0, , .		0