

Bethanie J H Stadler

List of Publications by Year in descending order

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86
papers

1,805
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279798

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87
all docs

87
docs citations

87
times ranked

1626
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrated Magneto-Optical Materials and Isolators: A Review. IEEE Photonics Journal, 2014, 6, 1-15.	2.0	236
2	Magnetic nanowires for acoustic sensors (invited). Journal of Applied Physics, 2006, 99, 08B310.	2.5	152
3	Electrochemical Synthesis of Magnetostrictive Fe ²⁺ /Ga/Cu Multilayered Nanowire Arrays with Tailored Magnetic Response. Advanced Functional Materials, 2011, 21, 4677-4683.	14.9	80
4	Low-Resistivity 10 nm Diameter Magnetic Sensors. Nano Letters, 2012, 12, 4102-4109.	9.1	72
5	A Guideline for Effectively Synthesizing and Characterizing Magnetic Nanoparticles for Advancing Nanobiotechnology: A Review. Sensors, 2020, 20, 2554.	3.8	65
6	Growth Parameters of Fully Crystallized YIG, Bi:YIG, and Ce:YIG Films With High Faraday Rotations. IEEE Photonics Journal, 2014, 6, 1-8.	2.0	59
7	Magneto-optical materials and designs for integrated TE- and TM-mode planar waveguide isolators: a review [Invited]. Optical Materials Express, 2018, 8, 3307.	3.0	59
8	Integrating yttrium iron garnet onto nongarnet substrates with faster deposition rates and high reliability. Applied Physics Letters, 2005, 87, 121111.	3.3	56
9	Electrodeposited Fe and Fe ²⁺ /Au nanowires as MRI contrast agents. Chemical Communications, 2016, 52, 12634-12637.	4.1	47
10	Monolithically-Integrated TE-mode 1D Silicon-on-Insulator Isolators using Seedlayer-Free Garnet. Scientific Reports, 2017, 7, 5820.	3.3	45
11	Mapping the magnetic and crystal structure in cobalt nanowires. Journal of Applied Physics, 2015, 118, 024302.	2.5	34
12	Complex Three-Dimensional Magnetic Ordering in Segmented Nanowire Arrays. ACS Nano, 2017, 11, 8311-8319.	14.6	34
13	Magnetoresistance and spin transfer torque in electrodeposited Co/Cu multilayered nanowire arrays with small diameters. Journal of Applied Physics, 2009, 105, .	2.5	33
14	Inducing cells to disperse nickel nanowires via integrin-mediated responses. Nanotechnology, 2015, 26, 135102.	2.6	30
15	Nanowarming using Au-tipped Co ₃₅ /Fe ₆₅ ferromagnetic nanowires. Nanoscale, 2019, 11, 14607-14615.	5.6	30
16	Fabrication of Bioinspired Inorganic Nanocilia Sensors. IEEE Transactions on Magnetics, 2013, 49, 191-196.	2.1	29
17	Isolation of Cancer-Derived Exosomes Using a Variety of Magnetic Nanostructures: From Fe ₃ O ₄ Nanoparticles to Ni Nanowires. Nanomaterials, 2020, 10, 1662.	4.1	29
18	Characterization of the magnetic properties of multilayer magnetostrictive iron-gallium nanowires. Journal of Applied Physics, 2010, 107, .	2.5	28

#	ARTICLE	IF	CITATIONS
19	Magnetic Barcode Nanowires for Osteosarcoma Cell Control, Detection and Separation. IEEE Transactions on Magnetics, 2013, 49, 453-456.	2.1	28
20	Electrodeposition and characterization of magnetostrictive galferol (FeGa) thin films for use in microelectromechanical systems. Journal of Applied Physics, 2013, 113, .	2.5	28
21	Controlled Electrodeposition and Magnetic Properties of Co ₃₅ Fe ₆₅ Nanowires with High Saturation Magnetization. Journal of the Electrochemical Society, 2017, 164, D13-D22.	2.9	28
22	Polyacrylamide Ferrogels with Ni Nanowires. Materials, 2019, 12, 2582.	2.9	28
23	Fabrication and magnetic behavior of Co/Cu multilayered nanowires. Journal of Materials Research, 2006, 21, 2870-2875.	2.6	25
24	Quasi-Phase-Matched Faraday Rotation in Semiconductor Waveguides With a Magneto-optic Cladding for Monolithically Integrated Optical Isolators. IEEE Photonics Journal, 2013, 5, 6602512-6602512.	2.0	25
25	Facile decoding of quantitative signatures from magnetic nanowire arrays. Scientific Reports, 2020, 10, 15482.	3.3	22
26	Demultiplexing of Magnetic Nanowires with Overlapping Signatures for Tagged Biological Species. ACS Applied Nano Materials, 2020, 3, 3080-3087.	5.0	22
27	Large-scale ordering of porous Si using anodic aluminum oxide grown by directed self-assembly. Applied Physics Letters, 2006, 89, 093106.	3.3	19
28	Fabrication of Long-Range Ordered Aluminum Oxide and Fe/Au Multilayered Nanowires for 3-D Magnetic Memory. IEEE Transactions on Magnetics, 2020, 56, 1-6.	2.1	19
29	Magnetic ordering in 45 nm-diameter multisegmented FeGa/Cu nanowires: single nanowires and arrays. Journal of Materials Chemistry C, 2017, 5, 7546-7552.	5.5	18
30	High-Gyrotropy Seedlayer-Free Ce:TbIG for Monolithic Laser-Matched SOI Optical Isolators. ACS Photonics, 2019, 6, 2455-2461.	6.6	18
31	Development of a Biolabeling System Using Ferromagnetic Nanowires. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 134-142.	3.4	18
32	Beyond the qualitative description of complex magnetic nanoparticle arrays using FORC measurement. Nano Express, 2020, 1, 010017.	2.4	18
33	Hysteresis measurement of individual multilayered Fe-Ga/Cu nanowires using magnetic force microscopy. Journal of Applied Physics, 2013, 113, 17A331.	2.5	17
34	Projection method as a probe for multiplexing/demultiplexing of magnetically enriched biological tissues. RSC Advances, 2020, 10, 13286-13292.	3.6	17
35	Effect of magnetic field on the mechanical properties of magnetostrictive iron-gallium nanowires. Journal of Applied Physics, 2008, 103, 07D305.	2.5	16
36	Magnetic Nanowire Biolabels Using Ferromagnetic Resonance Identification. ACS Applied Nano Materials, 2021, 4, 3557-3564.	5.0	16

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37	Review of integrated magneto-optical isolators with rare-earth iron garnets for polarization diverse and magnet-free isolation in silicon photonics [Invited]. <i>Optical Materials Express</i> , 2022, 12, 697.	3.0	16
38	Magnetization reversal mechanisms in 35-nm diameter Fe _{1-x} Ga _x /Cu multilayered nanowires. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	14
39	Selective Detection of Cancer Cells Using Magnetic Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 21060-21066.	8.0	14
40	Composition and crystallinity in electrochemically deposited magnetostrictive galfenol (FeGa). <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	13
41	Magnetostrictive Fe ⁶ Ga/Cu Nanowires Array With GMR Sensor for Sensing Applied Pressure. <i>IEEE Sensors Journal</i> , 2017, 17, 2015-2020.	4.7	13
42	Controlling the angular response of magnetoresistance in Co ² Cu multilayered nanowires using Co crystallographic orientation. <i>Journal of Applied Physics</i> , 2008, 103, 07B504.	2.5	12
43	Galfenol Thin Films and Nanowires. <i>Sensors</i> , 2018, 18, 2643.	3.8	12
44	Interfacial and Bulk Magnetic Properties of Stoichiometric Cerium Doped Terbium Iron Garnet Polycrystalline Thin Films. <i>Advanced Functional Materials</i> , 2020, 30, 2000409.	14.9	12
45	Magnetic Nanowires toward Authentication. <i>Particle and Particle Systems Characterization</i> , 2021, 38, 2000227.	2.3	12
46	Epitaxial Fe(1-x)Ga _x /GaAs structures via electrochemistry for spintronics applications. <i>Journal of Applied Physics</i> , 2012, 111, 07E502.	2.5	11
47	CPP GMR Through Nanowires. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 1744-1750.	2.1	11
48	Enrichment and Quantification of Epitope-specific CD4+ T Lymphocytes using Ferromagnetic Iron-gold and Nickel Nanowires. <i>Scientific Reports</i> , 2018, 8, 15696.	3.3	11
49	Unlocking the decoding of unknown magnetic nanobarcode signatures. <i>Nanoscale Advances</i> , 2021, 3, 584-592.	4.6	11
50	Magnetic Nanowires for Nanobarcoding and Beyond. <i>Sensors</i> , 2021, 21, 4573.	3.8	11
51	Study of Galfenol direct cytotoxicity and remote microactuation in cells. <i>Biomaterials</i> , 2017, 139, 67-74.	11.4	11
52	Si-integrated ultrathin films of phase-pure Y ₃ Fe ₅ O ₁₂ (YIG) via novel two-step rapid thermal anneal. <i>Materials Research Letters</i> , 2017, 5, 379-385.	8.7	10
53	Magnetic nanowires for quantitative detection of biopolymers. <i>AIP Advances</i> , 2020, 10, .	1.3	10
54	Metallic 10 nm Diameter Magnetic Sensors and Large-Scale Ordered Arrays. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-5.	2.1	8

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55	Nonlinear Magnon Scattering Mechanism for Microwave Pumping in Magnetic Films. IEEE Access, 2020, 8, 216960-216968.	4.2	8
56	CoPt Nanowires with Low Pt Content for the Catalytic Methanol Oxidation Reaction (MOR). ACS Applied Nano Materials, 0, , .	5.0	8
57	Micromagnetic calculation of spin transfer torque in Co/Cu multilayer nanowires. Journal of Applied Physics, 2011, 109, .	2.5	6
58	Technique for measurement of magnetostriction in an individual nanowire using atomic force microscopy. Journal of Applied Physics, 2014, 115, 17A919.	2.5	6
59	Electrodeposited Fe-Ga Alloy Films for Directly Coupled Noncontact Torque Sensing. IEEE Sensors Journal, 2019, 19, 6655-6661.	4.7	6
60	Magnetic Nanowires for RF applications: Ferromagnetic Resonance and Permeability Characterization. , 2019, , .		6
61	Effect of growth temperature on the key properties of aluminum-doped zinc oxide thin films prepared by atomic layer deposition. MRS Communications, 2019, 9, 1105-1110.	1.8	6
62	Permeability and Ferromagnetic Resonance Study for Magnetic Nanowires Substrate With Copper Layer. IEEE Microwave and Wireless Components Letters, 2020, 30, 1065-1068.	3.2	6
63	Template-assisted electrodeposited magnetic nanowires and their properties for applications. , 2020, , 675-695.		6
64	Realizing the Principles for Remote and Selective Detection of Cancer Cells Using Magnetic Nanowires. Journal of Physical Chemistry B, 2021, 125, 7742-7749.	2.6	5
65	Design of self-biased coplanar circulator with ferromagnetic nanowires. , 2018, , .		4
66	Study of Nanowire-Based Integrated via Technology for CMOS Application in Millimeter-Wave Frequencies. IEEE Microwave and Wireless Components Letters, 2021, 31, 693-696.	3.2	4
67	Fabrication of Garnet Waveguides and Polarizers for Integrated Optical Isolators. , 2007, , .		3
68	Sputter-deposited seedlayer-free cerium-doped terbium iron garnets for SOI waveguide isolators. , 2016, , .		3
69	Signal Enhancement for Ferromagnetic Resonance Measurement of Magnetic Nanowire array. , 2019, , .		3
70	Exploring Effects of Magnetic Nanowire Arrangements and Imperfections on First-Order Reversal Curve Diagrams. IEEE Transactions on Magnetics, 2022, 58, 1-6.	2.1	3
71	Fabrication of Integrated Magneto-Optic Isolator. Materials Research Society Symposia Proceedings, 2004, 834, 145.	0.1	2
72	Ferromagnetic Resonance Characterization of Magnetic Nanowires for Biolabel Applications. , 2018, , .		2

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73	Methods for tuning plasmonic and photonic optical resonances in high surface area porous electrodes. Scientific Reports, 2021, 11, 7656.	3.3	2
74	Integration of Yttrium Iron Garnet Films via Reactive RF Sputtering Bethanie. Materials Research Society Symposia Proceedings, 1998, 517, 481.	0.1	1
75	Garnet Waveguides and Polarizers for Integrated Optical Isolators on Si Substrates. , 2007, , .		1
76	Integration of magneto-optic garnet waveguides and polarizers for optical isolators. , 2008, , .		1
77	Decoding of 23 Unique Magnetic Nanobarcodes. IEEE Transactions on Magnetics, 2022, 58, 1-6.	2.1	1
78	Nanowire Arrays with Specialized Geometries for Magnetoelectronics (Invited). Materials Research Society Symposia Proceedings, 2004, 853, 7.	0.1	0
79	Structure analysis of terbium aluminosilicate glass. Materials Research Society Symposia Proceedings, 2004, 817, 152.	0.1	0
80	Magnetic nanowires and Y-Junctions. Materials Research Society Symposia Proceedings, 2004, 818, 211.	0.1	0
81	The effects of oxygen on intergranular exchange and anisotropy dispersion in Co ²⁺ /Pd multilayers for perpendicular magnetic recording media. Journal of Applied Physics, 2006, 99, 08E708.	2.5	0
82	Opening of Hybrid Bandgaps in Two-Dimensional Photonic Crystals of Pb(Mg _{1/3} Nb _{1/3})O ₃ and PbTiO ₃ Having Very Low Refractive Index Contrast. IEEE Photonics Technology Letters, 2008, 20, 673-675.	2.5	0
83	Novel Magnetoresistive Structures Using Self-Assembly and Nanowires on Si. Materials Research Society Symposia Proceedings, 2009, 1160, 1.	0.1	0
84	A Ferromagnetic Resonance Measurement System for Small Volume Magnetic Nanowires. , 2019, , .		0
85	A Phase Analysis Method for Ferromagnetic Resonance Characterization of Magnetic Nanowires. , 2020, , .		0
86	Undergraduate Materials Research Initiative: Providing Active Research Experience. Materials Research Society Symposia Proceedings, 2000, 632, 1.	0.1	0