

# Sara A Majetich

## List of Publications by Year in descending order

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125  
papers

6,707  
citations

66343

42  
h-index

62596

80  
g-index

126  
all docs

126  
docs citations

126  
times ranked

7984  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tunnel magnetoresistance detection of skyrmions. Journal of Magnetism and Magnetic Materials, 2022, 541, 168552.	2.3	7
2	Bipolar Electric-Field Switching of Perpendicular Magnetic Tunnel Junctions through Voltage-Controlled Exchange Coupling. Nano Letters, 2022, 22, 622-629.	9.1	15
3	Magnetostatic coupling effects on reversal dynamics. Journal Physics D: Applied Physics, 2022, 55, 265002.	2.8	0
4	Angle-dependent switching in a magnetic tunnel junction containing a synthetic antiferromagnet. Applied Physics Letters, 2022, 120, .	3.3	0
5	Magnetic Nanoparticles. , 2021, , 1-36.		0
6	Magnetic Nanoparticles. , 2021, , 1011-1046.		0
7	Magnetic stray fields in nanoscale magnetic tunnel junctions. Journal Physics D: Applied Physics, 2020, 53, 044001.	2.8	23
8	Tuning the dynamics in Fe <sub>3</sub> O <sub>4</sub> nanoparticles for hyperthermia optimization. Applied Physics Letters, 2020, 117, 073702.	3.3	9
9	The role of faceting and elongation on the magnetic anisotropy of magnetite Fe <sub>3</sub> O <sub>4</sub> nanocrystals. Scientific Reports, 2020, 10, 2722.	3.3	36
10	Magnetoresistance Dynamics in Superparamagnetic $\text{Co/Fe}^{\sim}$ Nanodots. Physical Review Applied, 2020, 13, .	3.3	11
11	Effect of Mo capping in sub-100Ånm CoFeB-MgO tunnel junctions with perpendicular magnetic anisotropy. Journal of Magnetism and Magnetic Materials, 2019, 483, 34-41.	2.3	1
12	Spin canting across core/shell Fe <sub>3</sub> O <sub>4</sub> /MnxFe <sub>3</sub> xO <sub>4</sub> nanoparticles. Scientific Reports, 2018, 8, 3425.	3.3	90
13	Magnetic vortices in nanocaps induced by curvature. AIP Advances, 2018, 8, 056321.	1.3	10
14	Spin waves across three-dimensional, close-packed nanoparticles. New Journal of Physics, 2018, 20, 123020.	2.9	6
15	Superparamagnetic perpendicular magnetic tunnel junctions for true random number generators. AIP Advances, 2018, 8, .	1.3	42
16	Spin-Orbit-Torque Switching in 20-nm Perpendicular Magnetic Tunnel Junctions. Physical Review Applied, 2018, 10, .	3.8	10
17	Origin of reduced magnetization and domain formation in small magnetite nanoparticles. Scientific Reports, 2017, 7, 45997.	3.3	113
18	Magnetic properties of cube-shaped Fe <sub>3</sub> O <sub>4</sub> nanoparticles in dilute, 2D, and 3D assemblies. Journal Physics D: Applied Physics, 2017, 50, 325003.	2.8	7

#	ARTICLE	IF	CITATIONS
19	Current control of time-averaged magnetization in superparamagnetic tunnel junctions. Applied Physics Letters, 2017, 111, .	3.3	24
20	Formation of FePt nanodots by wetting of nanohole substrates. AIP Advances, 2016, 6, .	1.3	1
21	Magnetostatic effects on switching in small magnetic tunnel junctions. Applied Physics Letters, 2016, 108, .	3.3	14
22	Patterning of sub-50 nm perpendicular CoFeB/MgO-based magnetic tunnel junctions. Nanotechnology, 2016, 27, 185302.	2.6	7
23	Tracking the Verwey Transition in Single Magnetite Nanocrystals by Variable-Temperature Scanning Tunneling Microscopy. Journal of Physical Chemistry Letters, 2016, 7, 1661-1666.	4.6	20
24	Size and voltage dependence of effective anisotropy in sub-100-nm perpendicular magnetic tunnel junctions. Physical Review B, 2016, 94, .	3.2	19
25	Krycka et al. Reply: Physical Review Letters, 2015, 114, 149702.	7.8	2
26	Conductive Atomic Force Microscopy of Small Magnetic Tunnel Junctions With Interface Anisotropy. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	6
27	Magnetic Fluctuations in Individual Superparamagnetic Particles. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	22
28	Frequency-dependent magnetic permeability of Fe <sub>10</sub> Co <sub>90</sub> nanocomposites. Journal Physics D: Applied Physics, 2014, 47, 175001.	2.8	21
29	The 2014 Magnetism Roadmap. Journal Physics D: Applied Physics, 2014, 47, 333001.	2.8	329
30	Origin of Surface Canting within $\text{Fe}_3\text{O}_4$ Nanoparticles. Physical Review Letters, 2014, 113, 147203.	7.8	57
31	Electrophoretic Deposition of Iron Oxide Nanoparticles on Templates. Journal of Physical Chemistry C, 2013, 117, 18709-18718.	3.1	16
32	Composite magnetic-plasmonic nanoparticles for biomedicine: Manipulation and imaging. Nano Today, 2013, 8, 98-113.	11.9	93
33	Magnetic nanoparticles. MRS Bulletin, 2013, 38, 899-903.	3.5	49
34	Pattern transfer with stabilized nanoparticle etch masks. Nanotechnology, 2013, 24, 085303.	2.6	3
35	The magnetocaloric effect in thermally cycled polycrystalline Ni-Mn-Ga. Journal of Applied Physics, 2012, 111, .	2.5	16
36	Ten-Nanometer Dense Hole Arrays Generated by Nanoparticle Lithography. Nano Letters, 2012, 12, 5873-5878.	9.1	28

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37	Colloidal Stability and Magnetophoresis of Gold-Coated Iron Oxide Nanorods in Biological Media. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22561-22569.	3.1	41
38	Polarization-analyzed small-angle neutron scattering. II. Mathematical angular analysis. <i>Journal of Applied Crystallography</i> , 2012, 45, 554-565.	4.5	31
39	Ultra-Large-Area Self-Assembled Monolayers of Nanoparticles. <i>ACS Nano</i> , 2011, 5, 8868-8876.	14.6	111
40	Magnetophoresis of Nanoparticles. <i>ACS Nano</i> , 2011, 5, 217-226.	14.6	125
41	Functional Magnetic Nanoparticle Assemblies: Formation, Collective Behavior, and Future Directions. <i>ACS Nano</i> , 2011, 5, 6081-6084.	14.6	83
42	Nuclear magnetic resonance and magnetization study of surfactant-coated epsilon-Co nanoparticles. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 741-747.	1.5	10
43	Dipolar ferromagnetic phase transition in Fe <sub>3</sub> O <sub>4</sub> nanoparticle arrays observed by Lorentz microscopy and electron holography. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	55
44	Error analysis for small angle neutron scattering datasets using Bayesian inference. <i>Bayesian Analysis</i> , 2010, 5, .	3.0	13
45	Characterization of single-core magnetite nanoparticles for magnetic imaging by SQUID relaxometry. <i>Physics in Medicine and Biology</i> , 2010, 55, 5985-6003.	3.0	53
46	Core-Shell Magnetic Morphology of Structurally Uniform Magnetite Nanoparticles. <i>Physical Review Letters</i> , 2010, 104, 207203.	7.8	130
47	Investigating Pattern Transfer in the Small-Gap Regime Using Electron-Beam Stabilized Nanoparticle Array Etch Masks. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 2307-2310.	2.1	16
48	Characterization of Conducting Atomic Force Microscopy for Use With Magnetic Tunnel Junctions. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 1741-1744.	2.1	2
49	Preferential crystallographic alignment in polycrystalline MnP. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 2571-2574.	2.3	7
50	Magneto-resistive telegraph noise in Langmuir-Blodgett films of colloidal magnetite nanocrystals as seen via scanning tunneling microscopy. <i>Physical Review B</i> , 2009, 80, .	3.2	6
51	Spin transfer torque switching of magnetic tunnel junctions using a conductive atomic force microscope. <i>Applied Physics Letters</i> , 2009, 95, 132510.	3.3	15
52	Plasmonic magnetic nanoparticles for biomedicine. , 2009, 2009, 4477-8.		2
53	Application of Image Processing to Characterize Patterning Noise in Self-Assembled Nano-Masks for Bit-Patterned Media. <i>IEEE Transactions on Magnetics</i> , 2009, 45, 3523-3526.	2.1	54
54	Resolving 3D magnetism in nanoparticles using polarization analyzed SANS. <i>Physica B: Condensed Matter</i> , 2009, 404, 2561-2564.	2.7	33

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55	Optical and electron microscopy studies of Schiller layer formation and structure. Journal of Colloid and Interface Science, 2009, 331, 394-400.	9.4	11
56	Optical imaging and magnetophoresis of nanorods. Journal of Magnetism and Magnetic Materials, 2009, 321, 1557-1562.	2.3	33
57	Stabilization of Superparamagnetic Iron Oxide Core-Gold Shell Nanoparticles in High Ionic Strength Media. Langmuir, 2009, 25, 13384-13393.	3.5	120
58	Synthesis and Single-Particle Optical Detection of Low-Polydispersity Plasmonic-Superparamagnetic Nanoparticles. Advanced Materials, 2008, 20, 1721-1726.	21.0	98
59	Scanning Tunneling Spectroscopy Study of Temperature-Dependent Magnetization Switching Dynamics in Magnetic Nanoparticle Arrays. Israel Journal of Chemistry, 2008, 48, 81-86.	2.3	0
60	Field evolution of magnetic correlation lengths in $\mu$ -Co nanoparticle assemblies. Applied Physics Letters, 2008, 92, .	3.3	15
61	Intermag Europe 2008 Publication Chairs' Preface. IEEE Transactions on Magnetics, 2008, 44, 2461-2461.	2.1	0
62	Direct visualization of dipolar ferromagnetic domain structures in Co nanoparticle monolayers by electron holography. Applied Physics Letters, 2008, 93, 082502.	3.3	55
63	Magnetic Nanoparticles and Their Applications. , 2007, , 439-485.		8
64	Design and synthesis of plasmonic magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2007, 311, 78-83.	2.3	43
65	Saturation of Nuclei Concentration in the Phase Transformation of FePt Nanoparticles. IEEE Transactions on Magnetics, 2007, 43, 3100-3102.	2.1	3
66	Size and Concentration Effects on High Frequency Hysteresis of Iron Oxide Nanoparticles. IEEE Transactions on Magnetics, 2007, 43, 2451-2453.	2.1	87
67	Magnetostatic interactions in magnetic nanoparticle assemblies: energy, time and length scales. Journal Physics D: Applied Physics, 2006, 39, R407-R422.	2.8	163
68	Synthesis and Characterization of Paramagnetic Microparticles through Emulsion-Templated Free Radical Polymerization. Langmuir, 2006, 22, 2516-2522.	3.5	75
69	Advances in nanomagnetism via X-ray techniques. Journal of Magnetism and Magnetic Materials, 2006, 307, 1-31.	2.3	76
70	Small angle neutron scattering study of disordered and crystalline iron nanoparticle assemblies. Journal of Magnetism and Magnetic Materials, 2006, 303, 318-322.	2.3	28
71	Magnetic Interactions of Iron Nanoparticles in Arrays and Dilute Dispersions. Journal of Physical Chemistry B, 2005, 109, 13409-13419.	2.6	84
72	Detection of spin coupling in iron nanoparticles with small angle neutron scattering. Applied Physics Letters, 2005, 86, 243102.	3.3	27

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73	Size dependence, nucleation, and phase transformation of FePt nanoparticles. Applied Physics Letters, 2005, 87, 022508.	3.3	35
74	Size Effect Study of the L10 Phase Transformation in FePt Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 877, 1.	0.1	0
75	Langmuir Layers of Magnetic Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 877, 1.	0.1	2
76	TCE Dechlorination Rates, Pathways, and Efficiency of Nanoscale Iron Particles with Different Properties. Environmental Science & Technology, 2005, 39, 1338-1345.	10.0	708
77	Sintering prevention and phase transformation of FePt nanoparticles. Journal of Magnetism and Magnetic Materials, 2004, 284, 336-341.	2.3	42
78	Dipolar interactions and structural coherence in iron nanoparticle arrays. Journal of Magnetism and Magnetic Materials, 2004, 282, 1-5.	2.3	19
79	Structural ordering effects in Fe nanoparticle two- and three-dimensional arrays. Journal of Applied Physics, 2004, 95, 6636-6638.	2.5	33
80	Preparation and Characterization of Monodisperse Fe Nanoparticles. Journal of Physical Chemistry B, 2003, 107, 11022-11030.	2.6	264
81	Patterning self-assembled FePt nanoparticles. Journal of Magnetism and Magnetic Materials, 2003, 266, 8-11.	2.3	26
82	Gold-coated iron nanoparticles for biomedical applications. Journal of Applied Physics, 2003, 93, 7551-7553.	2.5	219
83	Phase transformation and magnetic moment in FePt nanoparticles. Journal of Applied Physics, 2003, 93, 7411-7413.	2.5	42
84	Synthesis and magnetic behavior of SmCo <sub>5</sub> (1-x)Fe <sub>x</sub> nanocomposite magnets. Journal of Applied Physics, 2003, 93, 8146-8148.	2.5	26
85	Magnetic relaxation of iron nanoparticles. Journal of Applied Physics, 2002, 91, 6961.	2.5	28
86	Mesoscopic Monodisperse Ferromagnetic Colloids Enable Magnetically Controlled Photonic Crystals. Journal of the American Chemical Society, 2002, 124, 13864-13868.	13.7	142
87	Synthesis and Utilization of Monodisperse Superparamagnetic Colloidal Particles for Magnetically Controllable Photonic Crystals. Chemistry of Materials, 2002, 14, 1249-1256.	6.7	259
88	Photomagnetism and structure in cobalt ferrite nanoparticles. Applied Physics Letters, 2002, 80, 2341-2343.	3.3	153
89	Time dependent properties of iron nanoparticles. IEEE Transactions on Magnetics, 2001, 37, 2194-2196.	2.1	23
90	Superparamagnetic Photonic Crystals. Advanced Materials, 2001, 13, 1681-1684.	21.0	236

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91	Effect of light on the magnetic properties of cobalt ferrite nanoparticles. IEEE Transactions on Magnetics, 2000, 36, 3029-3031.	2.1	61
92	AC magnetic properties of FeCo nanocomposites. IEEE Transactions on Magnetics, 2000, 36, 3026-3028.	2.1	13
93	Microstructure and magnetic behavior of carbon-coated Co nanoparticles studied by nuclear magnetic resonance. Applied Physics Letters, 2000, 76, 94-96.	3.3	30
94	Hard Magnetic Nanoparticles and Nanocomposites. Materials Research Society Symposia Proceedings, 1999, 577, 197.	0.1	4
95	Annealing effects on the coercivity of SmCo <sub>5</sub> nanoparticles. Journal of Applied Physics, 1999, 85, 4331-4333.	2.5	14
96	Neutron powder diffraction of carbon-coated FeCo alloy nanoparticles. Journal of Applied Physics, 1999, 85, 4409-4411.	2.5	28
97	Magnetization Directions of Individual Nanoparticles. Science, 1999, 284, 470-473.	12.6	220
98	Size and interaction effects in the magnetization reversal in SmCo <sub>5</sub> nanoparticles. IEEE Transactions on Magnetics, 1998, 34, 985-987.	2.1	9
99	Transmission Electron Microscopic Observations on Technegas and Pertechnegas. Aerosol Science and Technology, 1998, 28, 523-530.	3.1	1
100	Magnetic properties and ordering in C-coated Fe <sub>x</sub> Co <sub>1-x</sub> alloy nanocrystals. Journal of Applied Physics, 1998, 83, 6468-6470.	2.5	80
101	Magnetic evidence for structural-phase transformations in Fe-Co alloy nanocrystals produced by a carbon arc. Journal of Applied Physics, 1997, 81, 4039-4041.	2.5	59
102	Thermal Plasma Synthesis of Fe-Co Alloy Nanoparticles. Materials Research Society Symposia Proceedings, 1997, 501, 121.	0.1	9
103	Dispersion and Lorentz Microscopy of Samarium Cobalt Nanoparticles in a Polymer Matrix. Materials Research Society Symposia Proceedings, 1997, 501, 103.	0.1	0
104	Magnetization reversal in SmCo <sub>5</sub> nanoparticles. IEEE Transactions on Magnetics, 1997, 33, 3721-3723.	2.1	13
105	Electroreduction of Oxygen in Polymer Electrolyte Fuel Cells by Activated Carbon Coated Cobalt Nanocrystallites Produced by Electric Arc Discharge. Chemistry of Materials, 1997, 9, 784-790.	6.7	29
106	Surface structure of cadmium selenide nanocrystallites. Physical Review B, 1997, 55, 13822-13828.	3.2	70
107	Magnetic nanoparticles and magnetocrystalline anisotropy. Scripta Materialia, 1997, 9, 291-300.	0.5	56
108	Carbon Coated Nanoparticle Composites Synthesized in an RF Plasma Torch. Materials Research Society Symposia Proceedings, 1996, 457, 219.	0.1	11

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109	Magnetic properties of single domain samarium cobalt nanoparticles. IEEE Transactions on Magnetics, 1996, 32, 4502-4504.	2.1	45
110	Magnetic properties of monodomain Nd-Fe-B-C nanoparticles. Journal of Applied Physics, 1996, 79, 5293.	2.5	16
111	Synthesis, structure, and magnetic properties of Fe-Co alloy nanocrystals. IEEE Transactions on Magnetics, 1996, 32, 4842-4844.	2.1	25
112	Energy-Filtered TEM of Ag-Co Thin Films. Materials Research Society Symposia Proceedings, 1995, 403, 731.	0.1	1
113	Synthesis, structure, properties and magnetic applications of carbon-coated nanocrystals produced by a carbon arc. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 204, 19-24.	5.6	30
114	Morphology, structure, and growth of nanoparticles produced in a carbon arc. Physical Review B, 1995, 52, 12564-12571.	3.2	185
115	Magnetic properties of carbon-coated rare-earth carbide nanocrystallites produced by a carbon arc method. Journal of Applied Physics, 1994, 75, 5879-5881.	2.5	29
116	<sup>1</sup> H NMR Characterization of the CdSe Nanocrystallite Surface. The Journal of Physical Chemistry, 1994, 98, 13705-13710.	2.9	59
117	Superparamagnetism in carbon-coated Co particles produced by the Kratschmer carbon arc process. Physical Review B, 1994, 49, 11358-11363.	3.2	257
118	Magnetic properties of carbon-coated, ferromagnetic nanoparticles produced by a carbon-arc method. Journal of Applied Physics, 1994, 75, 5882-5884.	2.5	77
119	Determination of the Number of Molecules Bonded to a CdSe Nanocrystallite Surface. Materials Research Society Symposia Proceedings, 1994, 332, 321.	0.1	1
120	Novel coordination complexes of tetrathiafulvalene derivatives. Synthetic Metals, 1993, 56, 1989-1994.	3.9	9
121	Preparation and properties of carbon-coated magnetic nanocrystallites. Physical Review B, 1993, 48, 16845-16848.	3.2	153
122	Connected Cadmium Selenide Nanocrystallite Networks. Materials Research Society Symposia Proceedings, 1992, 286, 87.	0.1	1
123	Associative ionization and dissociative recombination in mercury vapor. Journal of Applied Physics, 1991, 69, 563-568.	2.5	7
124	Absolute rate coefficients for energy pooling of Hg(6P <sub>13</sub> ). Physical Review A, 1990, 41, 6085-6089.	2.5	8
125	Energy pooling and associative ionization following laser excitation of mercury vapor. Journal of Applied Physics, 1989, 66, 475-481.	2.5	20