

# 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	TCE Dechlorination Rates, Pathways, and Efficiency of Nanoscale Iron Particles with Different Properties. <i>Environmental Science &amp; Technology</i> , 2005, 39, 1338-1345.	10.0	708
2	The 2014 Magnetism Roadmap. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 333001.	2.8	329
3	Preparation and Characterization of Monodisperse Fe Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2003, 107, 11022-11030.	2.6	264
4	Synthesis and Utilization of Monodisperse Superparamagnetic Colloidal Particles for Magnetically Controllable Photonic Crystals. <i>Chemistry of Materials</i> , 2002, 14, 1249-1256.	6.7	259
5	Superparamagnetism in carbon-coated Co particles produced by the Kratschmer carbon arc process. <i>Physical Review B</i> , 1994, 49, 11358-11363.	3.2	257
6	Superparamagnetic Photonic Crystals. <i>Advanced Materials</i> , 2001, 13, 1681-1684.	21.0	236
7	Magnetization Directions of Individual Nanoparticles. <i>Science</i> , 1999, 284, 470-473.	12.6	220
8	Gold-coated iron nanoparticles for biomedical applications. <i>Journal of Applied Physics</i> , 2003, 93, 7551-7553.	2.5	219
9	Morphology, structure, and growth of nanoparticles produced in a carbon arc. <i>Physical Review B</i> , 1995, 52, 12564-12571.	3.2	185
10	Magnetostatic interactions in magnetic nanoparticle assemblies: energy, time and length scales. <i>Journal Physics D: Applied Physics</i> , 2006, 39, R407-R422.	2.8	163
11	Preparation and properties of carbon-coated magnetic nanocrystallites. <i>Physical Review B</i> , 1993, 48, 16845-16848.	3.2	153
12	Photomagnetism and structure in cobalt ferrite nanoparticles. <i>Applied Physics Letters</i> , 2002, 80, 2341-2343.	3.3	153
13	Mesoscopic Monodisperse Ferromagnetic Colloids Enable Magnetically Controlled Photonic Crystals. <i>Journal of the American Chemical Society</i> , 2002, 124, 13864-13868.	13.7	142
14	Core-Shell Magnetic Morphology of Structurally Uniform Magnetite Nanoparticles. <i>Physical Review Letters</i> , 2010, 104, 207203.	7.8	130
15	Magnetophoresis of Nanoparticles. <i>ACS Nano</i> , 2011, 5, 217-226.	14.6	125
16	Stabilization of Superparamagnetic Iron Oxide Core-Gold Shell Nanoparticles in High Ionic Strength Media. <i>Langmuir</i> , 2009, 25, 13384-13393.	3.5	120
17	Origin of reduced magnetization and domain formation in small magnetite nanoparticles. <i>Scientific Reports</i> , 2017, 7, 45997.	3.3	113
18	Ultra-Large-Area Self-Assembled Monolayers of Nanoparticles. <i>ACS Nano</i> , 2011, 5, 8868-8876.	14.6	111

#	ARTICLE	IF	CITATIONS
19	Synthesis and Single-Particle Optical Detection of Low-Polydispersity Plasmonic-Superparamagnetic Nanoparticles. <i>Advanced Materials</i> , 2008, 20, 1721-1726.	21.0	98
20	Composite magnetic-plasmonic nanoparticles for biomedicine: Manipulation and imaging. <i>Nano Today</i> , 2013, 8, 98-113.	11.9	93
21	Spin canting across core/shell Fe <sub>3</sub> O <sub>4</sub> /Mn <sub>x</sub> Fe <sub>3-<i>x</i></sub> O <sub>4</sub> nanoparticles. <i>Scientific Reports</i> , 2018, 8, 3425.	3.3	90
22	Size and Concentration Effects on High Frequency Hysteresis of Iron Oxide Nanoparticles. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 2451-2453.	2.1	87
23	Magnetic Interactions of Iron Nanoparticles in Arrays and Dilute Dispersions. <i>Journal of Physical Chemistry B</i> , 2005, 109, 13409-13419.	2.6	84
24	Functional Magnetic Nanoparticle Assemblies: Formation, Collective Behavior, and Future Directions. <i>ACS Nano</i> , 2011, 5, 6081-6084.	14.6	83
25	Magnetic properties and ordering in C-coated Fe <sub>x</sub> Co <sub>1-<i>x</i></sub> alloy nanocrystals. <i>Journal of Applied Physics</i> , 1998, 83, 6468-6470.	2.5	80
26	Magnetic properties of carbon-coated, ferromagnetic nanoparticles produced by a carbon arc method. <i>Journal of Applied Physics</i> , 1994, 75, 5882-5884.	2.5	77
27	Advances in nanomagnetism via X-ray techniques. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 307, 1-31.	2.3	76
28	Synthesis and Characterization of Paramagnetic Microparticles through Emulsion-Templated Free Radical Polymerization. <i>Langmuir</i> , 2006, 22, 2516-2522.	3.5	75
29	Surface structure of cadmium selenide nanocrystallites. <i>Physical Review B</i> , 1997, 55, 13822-13828.	3.2	70
30	Effect of light on the magnetic properties of cobalt ferrite nanoparticles. <i>IEEE Transactions on Magnetics</i> , 2000, 36, 3029-3031.	2.1	61
31	<sup>1</sup> H NMR Characterization of the CdSe Nanocrystallite Surface. <i>The Journal of Physical Chemistry</i> , 1994, 98, 13705-13710.	2.9	59
32	Magnetic evidence for structural-phase transformations in Fe-Co alloy nanocrystals produced by a carbon arc. <i>Journal of Applied Physics</i> , 1997, 81, 4039-4041.	2.5	59
33	Origin of Surface Canting within $Fe_3O_4$ Nanoparticles. <i>Physical Review Letters</i> , 2014, 113, 147203.	7.8	57
34	Magnetic nanoparticles and magnetocrystalline anisotropy. <i>Scripta Materialia</i> , 1997, 9, 291-300.	0.5	56
35	Direct visualization of dipolar ferromagnetic domain structures in Co nanoparticle monolayers by electron holography. <i>Applied Physics Letters</i> , 2008, 93, 082502.	3.3	55
36	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

#	ARTICLE	IF	CITATIONS
37	Application of Image Processing to Characterize Patterning Noise in Self-Assembled Nano-Masks for Bit-Patterned Media. IEEE Transactions on Magnetics, 2009, 45, 3523-3526.	2.1	54
38	Characterization of single-core magnetite nanoparticles for magnetic imaging by SQUID relaxometry. Physics in Medicine and Biology, 2010, 55, 5985-6003.	3.0	53
39	Magnetic nanoparticles. MRS Bulletin, 2013, 38, 899-903.	3.5	49
40	Magnetic properties of single domain samarium cobalt nanoparticles. IEEE Transactions on Magnetics, 1996, 32, 4502-4504.	2.1	45
41	Design and synthesis of plasmonic magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2007, 311, 78-83.	2.3	43
42	Phase transformation and magnetic moment in FePt nanoparticles. Journal of Applied Physics, 2003, 93, 7411-7413.	2.5	42
43	Sintering prevention and phase transformation of FePt nanoparticles. Journal of Magnetism and Magnetic Materials, 2004, 284, 336-341.	2.3	42
44	Superparamagnetic perpendicular magnetic tunnel junctions for true random number generators. AIP Advances, 2018, 8, .	1.3	42
45	Colloidal Stability and Magnetophoresis of Gold-Coated Iron Oxide Nanorods in Biological Media. Journal of Physical Chemistry C, 2012, 116, 22561-22569.	3.1	41
46	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
47	Size dependence, nucleation, and phase transformation of FePt nanoparticles. Applied Physics Letters, 2005, 87, 022508.	3.3	35
48	Structural ordering effects in Fe nanoparticle two- and three-dimensional arrays. Journal of Applied Physics, 2004, 95, 6636-6638.	2.5	33
49	Resolving 3D magnetism in nanoparticles using polarization analyzed SANS. Physica B: Condensed Matter, 2009, 404, 2561-2564.	2.7	33
50	Optical imaging and magnetophoresis of nanorods. Journal of Magnetism and Magnetic Materials, 2009, 321, 1557-1562.	2.3	33
51	Polarization-analyzed small-angle neutron scattering. II. Mathematical angular analysis. Journal of Applied Crystallography, 2012, 45, 554-565.	4.5	31
52	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
53	Microstructure and magnetic behavior of carbon-coated Co nanoparticles studied by nuclear magnetic resonance. Applied Physics Letters, 2000, 76, 94-96.	3.3	30
54	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

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55	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
56	Neutron powder diffraction of carbon-coated FeCo alloy nanoparticles. Journal of Applied Physics, 1999, 85, 4409-4411.	2.5	28
57	Magnetic relaxation of iron nanoparticles. Journal of Applied Physics, 2002, 91, 6961.	2.5	28
58	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
59	Ten-Nanometer Dense Hole Arrays Generated by Nanoparticle Lithography. Nano Letters, 2012, 12, 5873-5878.	9.1	28
60	Detection of spin coupling in iron nanoparticles with small angle neutron scattering. Applied Physics Letters, 2005, 86, 243102.	3.3	27
61	Patterning self-assembled FePt nanoparticles. Journal of Magnetism and Magnetic Materials, 2003, 266, 8-11.	2.3	26
62	Synthesis and magnetic behavior of SmCo <sub>5</sub> (1- $\hat{x}$ )Fe <sub>x</sub> nanocomposite magnets. Journal of Applied Physics, 2003, 93, 8146-8148.	2.5	26
63	Synthesis, structure, and magnetic properties of Fe-Co alloy nanocrystals. IEEE Transactions on Magnetics, 1996, 32, 4842-4844.	2.1	25
64	Current control of time-averaged magnetization in superparamagnetic tunnel junctions. Applied Physics Letters, 2017, 111, .	3.3	24
65	Time dependent properties of iron nanoparticles. IEEE Transactions on Magnetics, 2001, 37, 2194-2196.	2.1	23
66	Magnetic stray fields in nanoscale magnetic tunnel junctions. Journal Physics D: Applied Physics, 2020, 53, 044001.	2.8	23
67	Magnetic Fluctuations in Individual Superparamagnetic Particles. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	22
68	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
69	Energy pooling and associative ionization following laser excitation of mercury vapor. Journal of Applied Physics, 1989, 66, 475-481.	2.5	20
70	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
71	Dipolar interactions and structural coherence in iron nanoparticle arrays. Journal of Magnetism and Magnetic Materials, 2004, 282, 1-5.	2.3	19
72	Size and voltage dependence of effective anisotropy in sub-100-nm perpendicular magnetic tunnel junctions. Physical Review B, 2016, 94, .	3.2	19

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73	Magnetic properties of monodomain Nd-Fe-B-C nanoparticles. Journal of Applied Physics, 1996, 79, 5293.	2.5	16
74	Investigating Pattern Transfer in the Small-Gap Regime Using Electron-Beam Stabilized Nanoparticle Array Etch Masks. IEEE Transactions on Magnetics, 2010, 46, 2307-2310.	2.1	16
75	The magnetocaloric effect in thermally cycled polycrystalline Ni-Mn-Ga. Journal of Applied Physics, 2012, 111, .	2.5	16
76	Electrophoretic Deposition of Iron Oxide Nanoparticles on Templates. Journal of Physical Chemistry C, 2013, 117, 18709-18718.	3.1	16
77	Field evolution of magnetic correlation lengths in $\mu$ -Co nanoparticle assemblies. Applied Physics Letters, 2008, 92, .	3.3	15
78	Spin transfer torque switching of magnetic tunnel junctions using a conductive atomic force microscope. Applied Physics Letters, 2009, 95, 132510.	3.3	15
79	Bipolar Electric-Field Switching of Perpendicular Magnetic Tunnel Junctions through Voltage-Controlled Exchange Coupling. Nano Letters, 2022, 22, 622-629.	9.1	15
80	Annealing effects on the coercivity of SmCo <sub>5</sub> nanoparticles. Journal of Applied Physics, 1999, 85, 4331-4333.	2.5	14
81	Magnetostatic effects on switching in small magnetic tunnel junctions. Applied Physics Letters, 2016, 108, .	3.3	14
82	Magnetization reversal in SmCo <sub>5</sub> nanoparticles. IEEE Transactions on Magnetics, 1997, 33, 3721-3723.	2.1	13
83	AC magnetic properties of FeCo nanocomposites. IEEE Transactions on Magnetics, 2000, 36, 3026-3028.	2.1	13
84	Error analysis for small angle neutron scattering datasets using Bayesian inference. Bayesian Analysis, 2010, 5, .	3.0	13
85	Carbon Coated Nanoparticle Composites Synthesized in an RF Plasma Torch. Materials Research Society Symposia Proceedings, 1996, 457, 219.	0.1	11
86	Optical and electron microscopy studies of Schiller layer formation and structure. Journal of Colloid and Interface Science, 2009, 331, 394-400.	9.4	11
87	Magneto-resistance Dynamics in Superparamagnetic $\text{Co}^{\text{II}}\text{Fe}^{\text{III}}$ Nanodots. Physical Review Applied, 2020, 13, .		
88	Nuclear magnetic resonance and magnetization study of surfactant-coated $\epsilon$ -Co nanoparticles. Physica Status Solidi (B): Basic Research, 2011, 248, 741-747.	1.5	10
89	Magnetic vortices in nanocaps induced by curvature. AIP Advances, 2018, 8, 056321.	1.3	10
90	Spin-Orbit-Torque Switching in 20-nm Perpendicular Magnetic Tunnel Junctions. Physical Review Applied, 2018, 10, .	3.8	10

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91	Novel coordination complexes of tetrathiafulvalene derivatives. <i>Synthetic Metals</i> , 1993, 56, 1989-1994.	3.9	9
92	Thermal Plasma Synthesis of Fe-Co Alloy Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 1997, 501, 121.	0.1	9
93	Size and interaction effects in the magnetization reversal in SmCo/sub 5/ nanoparticles. <i>IEEE Transactions on Magnetism</i> , 1998, 34, 985-987.	2.1	9
94	Tuning the dynamics in Fe <sub>3</sub> O <sub>4</sub> nanoparticles for hyperthermia optimization. <i>Applied Physics Letters</i> , 2020, 117, 073702.	3.3	9
95	Absolute rate coefficients for energy pooling of Hg(6P13). <i>Physical Review A</i> , 1990, 41, 6085-6089.	2.5	8
96	Magnetic Nanoparticles and Their Applications. , 2007, , 439-485.		8
97	Associative ionization and dissociative recombination in mercury vapor. <i>Journal of Applied Physics</i> , 1991, 69, 563-568.	2.5	7
98	Preferential crystallographic alignment in polycrystalline MnP. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 2571-2574.	2.3	7
99	Patterning of sub-50 nm perpendicular CoFeB/MgO-based magnetic tunnel junctions. <i>Nanotechnology</i> , 2016, 27, 185302.	2.6	7
100	Magnetic properties of cube-shaped Fe <sub>3</sub> O <sub>4</sub> nanoparticles in dilute, 2D, and 3D assemblies. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 325003.	2.8	7
101	Tunnel magnetoresistance detection of skyrmions. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 541, 168552.	2.3	7
102	Magnetoresistive 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
103	Conductive Atomic Force Microscopy of Small Magnetic Tunnel Junctions With Interface Anisotropy. <i>IEEE Transactions on Magnetism</i> , 2015, 51, 1-4.	2.1	6
104	Spin waves across three-dimensional, close-packed nanoparticles. <i>New Journal of Physics</i> , 2018, 20, 123020.	2.9	6
105	Hard Magnetic Nanoparticles and Nanocomposites. <i>Materials Research Society Symposia Proceedings</i> , 1999, 577, 197.	0.1	4
106	Saturation of Nuclei Concentration in the Phase Transformation of FePt Nanoparticles. <i>IEEE Transactions on Magnetism</i> , 2007, 43, 3100-3102.	2.1	3
107	Pattern transfer with stabilized nanoparticle etch masks. <i>Nanotechnology</i> , 2013, 24, 085303.	2.6	3
108	Langmuir Layers of Magnetic Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2005, 877, 1.	0.1	2

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109	Plasmonic magnetic nanoparticles for biomedicine. , 2009, 2009, 4477-8.		2
110	Characterization of Conducting Atomic Force Microscopy for Use With Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2010, 46, 1741-1744.	2.1	2
111	KryckaetÅal.Reply:. Physical Review Letters, 2015, 114, 149702.	7.8	2
112	Connected Cadmium Selenide Nanocrystallite Networks. Materials Research Society Symposia Proceedings, 1992, 286, 87.	0.1	1
113	Determination of the Number of Molecules Bonded to a CdSe Nanocrystallite Surface. Materials Research Society Symposia Proceedings, 1994, 332, 321.	0.1	1
114	Energy-Filtered Tem of Ag-Co Thin Films. Materials Research Society Symposia Proceedings, 1995, 403, 731.	0.1	1
115	Transmission Electron Microscopic Observations on Technegas and Pertechnegas. Aerosol Science and Technology, 1998, 28, 523-530.	3.1	1
116	Formation of FePt nanodots by wetting of nanohole substrates. AIP Advances, 2016, 6, .	1.3	1
117	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
118	Dispersion and Lorentz Microscopy of Samarium Cobalt Nanoparticles in a Polymer Matrix. Materials Research Society Symposia Proceedings, 1997, 501, 103.	0.1	0
119	Size Effect Study of the L10 Phase Transformation in FePt Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 877, 1.	0.1	0
120	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
121	Intermag Europe 2008 Publication Chairs' Preface. IEEE Transactions on Magnetics, 2008, 44, 2461-2461.	2.1	0
122	Magnetic Nanoparticles. , 2021, , 1-36.		0
123	Magnetic Nanoparticles. , 2021, , 1011-1046.		0
124	Magnetostatic coupling effects on reversal dynamics. Journal Physics D: Applied Physics, 2022, 55, 265002.	2.8	0
125	Angle-dependent switching in a magnetic tunnel junction containing a synthetic antiferromagnet. Applied Physics Letters, 2022, 120, .	3.3	0