David J Sellmyer

List of Publications by Year
in descending order

51 papers	1,194 citations	516710 16 h-index	377865 34 g-index
52 all docs	52 docs citations	52 times ranked	1465 citing authors

#	Article	IF	Citations
1	Current progress and future challenges in rare-earth-free permanent magnets. Acta Materialia, 2018, 158, 118-137.	7.9	351
2	Novel Nanostructured Rareâ€Earthâ€Free Magnetic Materials with High Energy Products. Advanced Materials, 2013, 25, 6090-6093.	21.0	128
3	Synthesis of Monodisperse TiO₂â^'Paraffin Coreâ^'Shell Nanoparticles for Improved Dielectric Properties. ACS Nano, 2010, 4, 1893-1900.	14.6	107
4	Magnetic nanostructuring and overcoming Brown's paradox to realize extraordinary high-temperature energy products. Scientific Reports, 2014, 4, 6265.	3.3	56
5	Anisotropic PrCo$_{5}$ Nanoparticles by Surfactant-Assisted Ball Milling. IEEE Transactions on Magnetics, 2009, 45, 4417-4419.	2.1	39
6	Highâ€energyâ€product MnBi films with controllable anisotropy. Physica Status Solidi (B): Basic Research, 2015, 252, 1934-1939.	1.5	36
7	Mn₅Si₃ Nanoparticles: Synthesis and Size-Induced Ferromagnetism. Nano Letters, 2016, 16, 1132-1137.	9.1	33
8	Coercivity Enhancement in ${m Zr}_{2}{m Co}_{11}$-Based Nanocrystalline Materials Due to Mo Addition. IEEE Transactions on Magnetics, 2012, 48, 3603-3605.	2.1	31
9	Chiral Magnetism and High-Temperature Skyrmions in B20-Ordered Co-Si. Physical Review Letters, 2020, 124, 057201.	7.8	31
10	Mesoporous Ferromagnetic MPt@Silica/Carbon (M = Fe, Co, Ni) Composites As Advanced Bifunctional Catalysts. Chemistry of Materials, 2010, 22, 1624-1632.	6.7	27
11	High-coercivity magnetism in nanostructures with strong easy-plane anisotropy. Applied Physics Letters, 2016, 108, 152406.	3.3	25
12	Anisotropy and orbital moment in Sm-Co permanent magnets. Physical Review B, 2019, 100, .	3.2	25
13	Unusual spin correlations in a nanomagnet. Applied Physics Letters, 2015, 106, .	3.3	24
14	Magnetism of new metastable cobalt-nitride compounds. Nanoscale, 2018, 10, 13011-13021.	5.6	24
15	Enhancing the Ordering and Coercivity of L10 FePt Nanostructures with Bismuth Additives for Applications Ranging from Permanent Magnets to Catalysts. ACS Applied Nano Materials, 2019, 2, 3146-3153.	5.0	20
16	Spectroscopic investigations on polypropyleneâ€carbon nanofiber composites. I. Raman and electron spin resonance spectroscopy. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1644-1652.	2.1	16
17	Ferromagnetic resonance on Ni nanowire arrays. Journal of Materials Research, 2011, 26, 2169-2174.	2.6	16
18	High energy product of MnBi by field annealing and Sn alloying. APL Materials, 2019, 7, 121111.	5.1	16

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19	Interface-Induced Spin Polarization in Graphene on Chromia. IEEE Magnetics Letters, 2016, 7, 1-4.	1.1	14
20	Synergistic computational and experimental discovery of novel magnetic materials. Molecular Systems Design and Engineering, 2020, 5, 1098-1117.	3.4	13
21	Nanostructure and magnetic properties of L10 FePt:X films. Journal of Applied Physics, 2008, 103, 07D502.	2.5	12
22	Fourier transform infrared spectroscopy and wideâ€angle Xâ€ray scattering: Investigations on polypropyleneâ€“vaporâ€grown carbon nanofiber composites. Journal of Applied Polymer Science, 2012, 125, 353-360.	2.6	12
23	Effect of boron doping on nanostructure and magnetism of rapidly quenched Zr2Co11-based alloys. AIP Advances, 2016, 6, 056002.	1.3	12
24	Magnetic noise in a low-power picotesla magnetoresistive sensor. , 2009, , .		11
25	Adjusting magnetic nanostructures for high-performance magnetic sensors. Journal of Applied Physics, 2014, 115, .	2.5	11
26	Crystal structure and magnetic properties of new Fe₃Co₃X₂(Xâ€‰â€‰=â€‰â€‰Ti, Nb) intermetallic compounds. Journal Physics D: Applied Physics, 2016, 49, 175002.	2.8	11
27	On orientation memory in high density polyethylene â€“ carbon nanofibers composites. E-Polymers, 2017, 17, 303-310.	3.0	11
28	Discovering rare-earth-free magnetic materials through the development of a database. Physical Review Materials, 2020, 4, .	2.4	11
29	Effect of size confinement on skyrmionic properties of MnSi nanomagnets. Nanoscale, 2018, 10, 9504-9508.	5.6	10
30	Structure and magnetism of new rare-earth-free intermetallic compounds: Fe3+xCo3âˆ’xTi2 (0 â‰¤ x â‰¤ 3). APL Materials, 2016, 4, .	5.1	8
31	Continuous/Cluster-Pinned Recording Media. IEEE Transactions on Magnetics, 2007, 43, 2163-2165.	2.1	6
32	Anti-site mixing and magnetic properties of Fe₃Co₃Nb₂studied via neutron powder diffraction. Journal Physics D: Applied Physics, 2017, 50, 025002.	2.8	6
33	Magnetic and electron transport properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Co</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> nanomagnets. Physical Review Materials, 2021, 5, .	2.4	6
34	Magnetism and topological Hall effect in antiferromagnetic Ru2MnSn-based Heusler compounds. Journal of Magnetism and Magnetic Materials, 2021, 537, 168104.	2.3	5
35	Mechanically milled nanostructured (Sm,Pr)[sub 12.5]Co[sub 85.5]Zr[sub 2] magnets with TbCu[sub 7] structure. Journal of Applied Physics, 2002, 91, 8162.	2.5	4
36	Quantum phase transition and ferromagnetism in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></m Physical Review B, 2019, 99, .	3.2	4

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37	Magnetic and structural properties of MnXNiSn (X = Mn, Fe, Co). AIP Advances, 2021, 11, .	1.3	4
38	Ferromagnetic L1₀-Structured CoPt Nanoparticles for Permanent Magnets and Low Pt-Based Catalysts. ACS Applied Nano Materials, 2021, 4, 9231-9240.	5.0	4
39	Multiscale Phenomena in Bruggeman Composites. Materials Research Society Symposia Proceedings, 2004, 851, 7.	0.1	3
40	Magneto-Electric Control of Surface Anisotropy and Nucleation Modes in L1<inline-formula><tex-math> $_{0}$</tex-math></inline-formula>-CoPt Thin Films. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	2
41	Texture development and coercivity enhancement in cast alnico 9 magnets. AIP Advances, 2018, 8, 056215.	1.3	2
42	Peripheral chiral spin textures and topological Hall effect in CoSi nanomagnets. Physical Review Materials, 2021, 5, .	2.4	2
43	Nanomagnetic Structures: Fabrication and Interactions. Materials Research Society Symposia Proceedings, 2004, 853, 87.	0.1	1
44	Magnetic Materials: Novel Nanostructured Rare-Earth-Free Magnetic Materials with High Energy Products (Adv. Mater. 42/2013). Advanced Materials, 2013, 25, 6089-6089.	21.0	1
45	Magnetism of FePt Nanoclusters in Polyimide. Journal of Nanomaterials, 2015, 2015, 1-10.	2.7	1
46	Low-temperature FCC to L1 phase transformation in CoPt(Bi) nanoparticles. AIP Advances, 2016, 6, .	1.3	1
47	Structure and Magnetism of Co2Ge Nanoparticles. Nanomaterials, 2019, 9, 1371.	4.1	1
48	Effect of Iron Substitution on the High-temperature Properties of Sm(Co,Cu,Ti)z Permanent Magnets. Materials Research Society Symposia Proceedings, 2001, 674, 1.	0.1	0
49	The Magnetism-Nanostructure Interface in Advanced Magnetic Materials. Microscopy and Microanalysis, 2002, 8, 366-367.	0.4	0
50	Magnetism of Nanomaterials. , 2017, , 29-80.		0
51	Controlling the microstructure and associated magnetic properties of Ni0.2Mn3.2Ga0.6 melt-spun ribbons by annealing. AIP Advances, 2017, 7, 056230.	1.3	0