Shah R Valloppilly

List of Publications by Year
in descending order

54 papers	844 citations	471509 17 h-index	526287 27 g-index
54 all docs	54 docs citations	54 times ranked	998 citing authors

#	Article	IF	Citations
1	Novel Polyethylene Fibers of Very High Thermal Conductivity Enabled by Amorphous Restructuring. ACS Omega, 2017, 2, 3931-3944.	3.5	83
2	Cluster Synthesis and Direct Ordering of Rare-Earth Transition-Metal Nanomagnets. Nano Letters, 2011, 11, 1747-1752.	9.1	62
3	Investigation of spin-gapless semiconductivity and half-metallicity in Ti2MnAl-based compounds. Applied Physics Letters, 2016, 108, .	3.3	55
4	Magnetism, electron transport and effect of disorder in CoFeCrAl. Journal Physics D: Applied Physics, 2015, 48, 245002.	2.8	45
5	Magnetism of rapidly quenched rhombohedral Zr₂Co₁₁-based nanocomposites. Journal Physics D: Applied Physics, 2013, 46, 135004.	2.8	42
6	Highâ€energyâ€product MnBi films with controllable anisotropy. Physica Status Solidi (B): Basic Research, 2015, 252, 1934-1939.	1.5	36
7	Structural disorder and magnetism in the spin-gapless semiconductor CoFeCrAl. AIP Advances, 2016, 6, .	1.3	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	Magnetic hardening of Zr2Co11:(Ti, Si) nanomaterials. Journal of Alloys and Compounds, 2014, 587, 578-581.	5.5	25
10	High-coercivity magnetism in nanostructures with strong easy-plane anisotropy. Applied Physics Letters, 2016, 108, 152406.	3.3	25
11	Magnetism and electronic structure of CoFeCrX (Xâ€‰=â€‰Si, Ge) Heusler alloys. Journal of Applied Physics, 2016, 120, .	2.5	25
12	Half-metallicity in highly L21-ordered CoFeCrAl thin films. Applied Physics Letters, 2016, 109, .	3.3	24
13	Magnetism of new metastable cobalt-nitride compounds. Nanoscale, 2018, 10, 13011-13021.	5.6	24
14	Enhancement of Curie temperature in Mn2RuSn by Co substitution. Journal of Applied Physics, 2015, 117, .	2.5	21
15	Comparative study of topological Hall effect and skyrmions in NiMnIn and NiMnGa. Applied Physics Letters, 2019, 115, 172404.	3.3	20
16	Effect of partial substitution of In with Mn on the structural, magnetic, and magnetocaloric properties of Ni₂Mn_{1+x}In_{1â^'x} Heusler alloys. Journal Physics D: Applied Physics, 2019, 52, 425305.	2.8	19
17	Wavelength-Controlled Synthesis and Degradation of Thermoplastic Elastomers Based on Intrinsically Photoresponsive Phenyl Vinyl Ketone. Macromolecules, 2020, 53, 5199-5207.	4.8	18
18	Effect of annealing on nanostructure and magnetic properties of Zr2Co11 material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 186, 64-67.	3.5	16

#	Article	IF	Citations
19	High energy product of MnBi by field annealing and Sn alloying. APL Materials, 2019, 7, 121111.	5.1	16
20	Phase composition and nanostructure of Zr2Co11-based alloys. Journal of Applied Physics, 2014, 115, 17A739.	2.5	13
21	Grain alignment due to magnetic-field annealing in MnBi:Bi nanocomposites. Journal Physics D: Applied Physics, 2016, 49, 455002.	2.8	13
22	Effect of disorder on the resistivity of CoFeCrAl films. AIP Advances, 2017, 7, 055834.	1.3	12
23	Cluster synthesis of monodisperse rutile-TiO₂nanoparticles and dielectric TiO₂â€“vinylidene fluoride oligomer nanocomposites. Nanotechnology, 2011, 22, 405605.	2.6	11
24	Exploring new phases of Fe_{3â^'x}Co_xC for rare-earth-free magnets. Journal Physics D: Applied Physics, 2017, 50, 215005.	2.8	11
25	On orientation memory in high density polyethylene â€“ carbon nanofibers composites. E-Polymers, 2017, 17, 303-310.	3.0	11
26	Magnetic and magnetocaloric properties of Co2-xFexVGa Heusler alloys. AIP Advances, 2018, 8, .	1.3	11
27	Structural, magnetic, and electron-transport properties of epitaxial Mn2PtSn films. Journal of Applied Physics, 2018, 124, 103903.	2.5	11
28	MIRAâ€”A flexible instrument for VCN. Physica B: Condensed Matter, 2007, 397, 150-152.	2.7	10
29	Magnetism of hexagonal Mn1.5X0.5Sn (X = Cr, Mn, Fe, Co) nanomaterials. Journal of Applied Physics, 2015, 117, .	2.5	10
30	Effect of size confinement on skyrmionic properties of MnSi nanomagnets. Nanoscale, 2018, 10, 9504-9508.	5.6	10
31	Synthesis and magnetism of single-phase Mn-Ga films. Journal of Applied Physics, 2015, 117, .	2.5	9
32	Mn₂CrGa-based Heusler alloys with low net moment and high spin polarization. Journal Physics D: Applied Physics, 2018, 51, 255001.	2.8	9
33	Structure and magnetism of new rare-earth-free intermetallic compounds: Fe3+xCo3â^'xTi2 (0 â‰¤ x â‰¤ 3). APL Materials, 2016, 4, .	5.1	8
34	Fabrication of diisopropylammonium bromide aligned microcrystals with in-plane uniaxial polarization. Journal Physics D: Applied Physics, 2016, 49, 505305.	2.8	7
35	Development and intrinsic properties of hexagonal ferromagnetic (Zr,Ti)Fe2. Journal of Applied Physics, 2014, 115, 17A769.	2.5	6
36	High-throughput mutation, selection, and phenotype screening of mutant methanogenic archaea. Journal of Microbiological Methods, 2016, 131, 113-121.	1.6	6

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37	Magnetic and magnetocaloric properties of Pr2-xNdxFe17 ribbons. AIP Advances, 2019, 9, 035211.	1.3	6
38	Effect of quench rate on nanostructure and magnetic properties of PrCo5. Journal of Applied Physics, 2014, 115, .	2.5	5
39	Critical-point model dielectric function analysis of WO3 thin films deposited by atomic layer deposition techniques. Journal of Applied Physics, 2018, 124, .	2.5	5
40	Crystal structure, magnetism and magnetocaloric properties of Mn2â^'xSn0.5Ga0.5 (xâ€¯=â€¯0, 0.3, 0.5, 0.8) alloys. Journal of Magnetism and Magnetic Materials, 2019, 471, 411-415.	2.3	5
41	Magnetism and topological Hall effect in antiferromagnetic Ru2MnSn-based Heusler compounds. Journal of Magnetism and Magnetic Materials, 2021, 537, 168104.	2.3	5
42	Coercivity and nanostructure of melt-spun Ti-Fe-Co-B-based alloys. AIP Advances, 2016, 6, .	1.3	4
43	Magnetic and structural properties of MnXNiSn (X = Mn, Fe, Co). AIP Advances, 2021, 11, .	1.3	4
44	Electronic band structure and magnetism of CoFeV0.5Mn0.5Si. AIP Advances, 2022, 12, .	1.3	4
45	Modifying magnetic properties of MnBi with carbon: an experimental and theoretical study. Journal Physics D: Applied Physics, 2022, 55, 265003.	2.8	4
46	Effect of Sm content on energy product of rapidly quenched and oriented SmCo5 ribbons. Applied Physics A: Materials Science and Processing, 2015, 118, 1093-1097.	2.3	3
47	Large magnetocaloric effect in rapidly quenched Mn50â^' x Co x Ni40In10 nanomaterials. Journal Physics D: Applied Physics, 2021, 54, 175003.	2.8	3
48	Texture development and coercivity enhancement in cast alnico 9 magnets. AIP Advances, 2018, 8, 056215.	1.3	2
49	Structural and magnetic properties of bulk Mn₂PtSn. Journal of Physics Condensed Matter, 2018, 30, 475801.	1.8	2
50	Room-temperature magnetic Heusler compound Fe2Ti0.5Co0.5Si with semiconducting behavior. Journal of Magnetism and Magnetic Materials, 2019, 474, 343-346.	2.3	2
51	Structural, magnetic, and magnetocaloric properties of (Nd0.7Ce0.3)YFe17. Journal of Magnetism and Magnetic Materials, 2020, 513, 166989.	2.3	1
52	Electronic, structural and magnetic properties of Mn(1+x)Pt(1-x)Sb. Journal of Magnetism and Magnetic Materials, 2021, 537, 168234.	2.3	1
53	Magnetism of Rapidly Quenched Sm$_{1 - {m x}}$Zr$_{{m x}}$Co$_{5}$ Nanocrystalline Materials. IEEE Transactions on Magnetics, 2013, 49, 3353-3355.	2.1	0
54	SAED and HREM Study of Intermetallic Phases in Ni-Mn-In Alloy System. Microscopy and Microanalysis, 2020, 26, 276-278.	0.4	0