Perumal Alagarsamy

List of Publications by Year
in descending order

129 papers	2,133 citations	279798 23 h-index	289244 40 g-index
135 all docs	135 docs citations	135 times ranked	2033 citing authors

#	Article	IF	Citations
1	L10-ordered high coercivity (FePt)Agâ€“C granular thin films for perpendicular recording. Journal of Magnetism and Magnetic Materials, 2010, 322, 2658-2664.	2.3	173
2	Enhanced room temperature ferromagnetism in antiferromagnetic NiO nanoparticles. AIP Advances, 2015, 5, .	1.3	88
3	Effect of oxygen vacancy and dopant concentration on the magnetic properties of high spin Co2+ doped TiO2 nanoparticles. Journal of Magnetism and Magnetic Materials, 2011, 323, 440-446.	2.3	81
4	L1₀FePtâ€“C Nanogranular Perpendicular Anisotropy Films with Narrow Size Distribution. Applied Physics Express, 0, 1, 101301.	2.4	76
5	Particulate structure of L10 ordered ultrathin FePt films for perpendicular recording. Applied Physics Letters, 2008, 92, .	3.3	75
6	Quenched Disorder and the Critical Behavior of a Partially Frustrated System. Physical Review Letters, 2003, 91, 137202.	7.8	67
7	Effect of Mn doping on magnetic and dielectric properties of YFeO 3. Ceramics International, 2017, 43, 1323-1334.	4.8	65
8	A Green Metalâ€“Organic Frameworkâ€Cyclodextrin MOF: A Novel Multifunctional Material Based Triboelectric Nanogenerator for Highly Efficient Mechanical Energy Harvesting. Advanced Functional Materials, 2021, 31, 2101829.	14.9	64
9	Lead-free flexible Bismuth Titanate-PDMS composites: A multifunctional colossal dielectric material for hybrid piezo-triboelectric nanogenerator to sustainably power portable electronics. Nano Energy, 2021, 89, 106316.	16.0	61
10	Fine control of L10 ordering and grain growth kinetics by C doping in FePt films. Applied Physics Letters, 2003, 82, 2311-2313.	3.3	52
11	Enhanced soft magnetic properties and magnetocaloric effect in B substituted amorphous Feâ€“Zr alloy ribbons. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 175, 253-260.	3.5	52
12	Structure and magnetic properties of nanocrystalline Fe75Si25 powders prepared by mechanical alloying. Journal of Magnetism and Magnetic Materials, 2008, 320, 2780-2783.	2.3	49
13	Ferromagnetism and ferroelectricity in Fe doped BaTiO3. Physica B: Condensed Matter, 2014, 448, 204-206.	2.7	49
14	Magnetic properties of carbon-doped FePt nanogranular films. Applied Physics Letters, 2003, 83, 3326-3328.	3.3	44
15	High-density perpendicular magnetic recording media of granular-type (FePt/MgO)/soft underlayer. IEEE Transactions on Magnetics, 2005, 41, 555-559.	2.1	43
16	Evolution of Magnetic Properties of ${hbox{CaO}}hbox{-}{hbox{P}}_{2}{hbox{O}}_{5}hbox{-}{hbox{Na}}_{2}{hbox{O}}hbox{-}{hbox{Fe}}_{2}{hbox{O}}_{3}hbox{-}{ Glass Upon Heat Treatment. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	41
17	Effect of Co and Cu substitution on the magnetic entropy change in Ni46Mn43Sn11 alloy. Journal of Applied Physics, 2011, 109, .	2.5	39
18	Microstructure, magnetic and transport properties of a Mn2CoAl Heusler compound. Acta Materialia, 2019, 176, 33-42.	7.9	35

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19	Enhanced densification and microwave dielectric properties of Mg2TiO4 ceramics added with CeO2 nanoparticles. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 471-476.	3.5	33
20	Finite Size Effects in Magnetic and Optical Properties of Antiferromagnetic NiO Nanoparticles. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	33
21	Effect of Cobalt Doping on the Structural, Microstructure and Microwave Dielectric Properties of MgTiO3 Ceramics Prepared by Semi Alkoxide Precursor Method. Journal of the American Ceramic Society, 2014, 97, 1054-1059.	3.8	31
22	FePt-C nanogranular films for perpendicular magnetic recording. Journal of Applied Physics, 2009, 105, .	2.5	30
23	Room temperature ferromagnetism in Co doped ZnO within an optimal doping level of 5%. Materials Research Bulletin, 2012, 47, 1417-1422.	5.2	30
24	Significant effect of synthesis methodologies of metal-organic frameworks upon the additively manufactured dual-mode triboelectric nanogenerator towards self-powered applications. Nano Energy, 2022, 98, 107253.	16.0	30
25	Effects of composition, thickness and temperature on the magnetic properties of amorphous CoFeB thin films. Journal of Alloys and Compounds, 2017, 694, 823-832.	5.5	24
26	Influence of solidification rate and heat treatment on magnetic refrigerant properties of melt spun Ni51Mn34In14Si1 ribbons. Journal of Magnetism and Magnetic Materials, 2013, 344, 152-157.	2.3	22
27	Magnetic properties of amorphousFe90â^'xMnxZr10(0<~x<~12)alloys. Physical Review B, 2002, 65, .	3.2	21
28	Critical behavior studies in La1â€“xAgxMnO3 double-exchange ferromagnet. Physica Status Solidi (B): Basic Research, 2006, 243, 1908-1913.	1.5	21
29	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CoFe</mml:mtext></mml:mrow><mml:mtext>2</mml:mtext></mml:m Nanocomposites as Photocatalyst for the Degradation of Methy. Journal of Nanotechnology, 2012, 2012, 1-6.	3.4	20
30	Effect of particle size on the magneto-caloric properties of Ni51Mn34In14Si1 alloy. Journal of Alloys and Compounds, 2013, 572, 192-198.	5.5	20
31	Triboelectrification based on NiO-Mg magnetic nanocomposite: Synthesis, device fabrication, and energy harvesting performance. Nano Energy, 2022, 91, 106662.	16.0	20
32	Structural analysis of mechanically alloyed nanocrystalline Fe75Si15Al10 powders. Materials Letters, 2007, 61, 824-826.	2.6	19
33	Thickness dependent ferromagnetism in thermally decomposed NiO thin films. Journal of Magnetism and Magnetic Materials, 2016, 418, 86-91.	2.3	19
34	Room temperature ferromagnetism in Zn-doped NiO nanoparticles: An experimental and DFT+U approach. Journal of Alloys and Compounds, 2021, 868, 159176.	5.5	19
35	Effect of annealing on the magnetic properties of ball milled NiO powders. Journal of Magnetism and Magnetic Materials, 2015, 384, 296-301.	2.3	18
36	N -oxide bridged manganese(II) coordination polymers. Journal of Coordination Chemistry, 2009, 62, 1513-1524.	2.2	17

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37	Effect of Co or Mn addition on the soft magnetic properties of amorphous Fe89â^'xZr11Bx (x=5, 10) alloy ribbons. Journal of Magnetism and Magnetic Materials, 2009, 321, 4097-4102.	2.3	17
38	FePtAgâ€“C nanogranular films fabricated on a heat resistant glass substrate for perpendicular magnetic recording. Journal of Applied Physics, 2010, 108, 083907.	2.5	17
39	Structural and magnetic properties of nanocrystalline Feâ€“Coâ€“Si alloy powders produced by mechanical alloying. Journal of Alloys and Compounds, 2015, 648, 658-666.	5.5	16
40	Influence of compositional variation on structural, electrical and magnetic characteristics of (Ba_{1â^'x}Gd) (Ti_{1â^'x}Fe_x) O₃(0.2) Tj ETQq1 0.0 0 rgBT1/Overlock	1.6	
41	Perpendicular thin films of carbon-doped FePt for ultrahigh-density magnetic recording media. IEEE Transactions on Magnetics, 2003, 39, 2320-2322.	2.1	15
42	Estimation of entropy change at the first order martensitic transition in Niâ€“Mnâ€“X based ferromagnetic shape memory alloys. Physica B: Condensed Matter, 2014, 448, 327-329.	2.7	15
43	Feâ€“Taâ€“C soft underlayer for double-layered perpendicular recording media. Journal of Applied Physics, 2009, 105, 07A304.	2.5	14
44	Thickness dependent magnetic properties of amorphous FeTaC films. Journal of Applied Physics, 2012, 111, 093915.	2.5	14
45	Correction to scaling critical exponents and amplitudes for amorphous Feâ€“Mnâ€“Zr alloys. Journal of Magnetism and Magnetic Materials, 2001, 233, 280-289.	2.3	13
46	Thickness-Dependent Thermal Oxidation of Ni into NiO Thin Films. Journal of Superconductivity and Novel Magnetism, 2018, 31, 3761-3775.	1.8	13
47	Tuning the magnetic properties of stripe domain structured CoFeB films using stack structure with spacer layer thickness dependent interlayer coupling. Journal of Magnetism and Magnetic Materials, 2018, 448, 23-30.	2.3	12
48	Double-layered perpendicular magnetic recording media of granular-type FePtâ€“MgO films. Journal of Magnetism and Magnetic Materials, 2005, 287, 224-228.	2.3	11
49	Magnetic properties of mechanically alloyed Fe100â^'xZrx(20 â©½xâ©½ 35) powder. Journal Physics D: Applied Physics, 2008, 41, 215003.	2.8	11
50	Room temperature ferromagnetism in finite sized ZnO nanoparticles. Physica B: Condensed Matter, 2014, 448, 115-119.	2.7	11
51	Critical behavior of Mn-substituted a-FeZr alloys. Physica B: Condensed Matter, 2000, 292, 164-172.	2.7	10
52	Critical behavior of weak itinerant ferromagnetFe90â^'xMnxZr10(0<~x<~16)alloys. Physical Review B, 2003, 67, .	3.2	10
53	Effect of Fe layer thickness and Fe/Co intermixing on the magnetic properties of Smâ€“Co/Fe bilayer exchange-spring magnets. Journal Physics D: Applied Physics, 2013, 46, 155002.	2.8	10
54	Critical behavior and magnetic entropy change at magnetic phase transitions in Ni 50 Mn 35 In 14 Si 1 ferromagnetic shape memory alloy. Europhysics Letters, 2014, 108, 66004.	2.0	10

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55	Mechanical activation on aluminothermic reduction and magnetic properties of NiO powders. Journal Physics D: Applied Physics, 2017, 50, 21LT01.	2.8	10
56	Thickness dependent magneto-static and magneto-dynamic properties of CoFeB thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	10
57	Experimental and first-principles study of defect-induced electronic and magnetic properties of ZnO nanocrystals. Journal of Physics and Chemistry of Solids, 2020, 146, 109580.	4.0	10
58	Enhanced soft magnetic properties in multilayer structured amorphous Fe-Ta-C films. Journal of Applied Physics, 2011, 109, 07A304.	2.5	9
59	Effect of annealing and atmosphere on the structure and optical properties of Mg₂TiO₄thin films obtained by the radio frequency magnetron sputtering method. Journal of Experimental Nanoscience, 2013, 8, 371-381.	2.4	9
60	Spacer layer and temperature driven magnetic properties in multilayer structured FeTaC thin films. Journal Physics D: Applied Physics, 2013, 46, 445005.	2.8	9
61	Spin dynamics and frequency dependence of magnetic damping study in soft ferromagnetic FeTaC film with a stripe domain structure. AIP Advances, 2015, 5, 067157.	1.3	9
62	Perpendicular Standing Spin Wave and Magnetic Anisotropic Study on Amorphous FeTaC Films. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	9
63	Enhanced magnetic properties of NiO powders by the mechanical activation of aluminothermic reduction of NiO prepared by a ball milling process. Journal of Magnetism and Magnetic Materials, 2016, 418, 253-259.	2.3	9
64	Structure Optimization of FePtâ€“C Nanogranular Films for Heat-Assisted Magnetic Recording Media. IEEE Transactions on Magnetics, 2016, 52, 1-8.	2.1	9
65	Defect induced ferromagnetism in NiO nanocrystals: Insight from experimental and DFT+U study. Physica B: Condensed Matter, 2020, 593, 412319.	2.7	9
66	Annealing effect on magnetic property and recording performance of [FePt/MgO]n perpendicular magnetic recording media. Journal of Magnetism and Magnetic Materials, 2005, 286, 306-310.	2.3	8
67	Critical behavior studies in ferromagnetic (Nd, K)â€“Mnâ€“O compounds. Journal of Magnetism and Magnetic Materials, 2010, 322, 3391-3395.	2.3	8
68	Study of Exchange Bias in Mn-Doped YFeO3 Compound. Journal of Superconductivity and Novel Magnetism, 2016, 29, 2165-2170.	1.8	8
69	Effect of annealing on structural and magnetic properties of Al substituted nanocrystalline Feâ€“Siâ€“Co alloy powders. Journal of Magnetism and Magnetic Materials, 2016, 417, 62-68.	2.3	8
70	One-Step Synthesis of Sm-Co Spherical Granules via Superhydride Reduction. Advanced Science Letters, 2010, 3, 49-52.	0.2	8
71	An ac Susceptibility Study of Mn Substituted Amorphous FeZr Alloys. Physica Status Solidi A, 2000, 178, 783-791.	1.7	7
72	Microstructures and magnetic properties of rapidly solidified Ni54Fe27â”2xGa19+2x ferromagnetic Heusler alloys. Journal of Applied Physics, 2009, 105, 07A943.	2.5	7

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73	Evolution of atomic order and soft magnetism in mechanically alloyed nanocrystalline Feâ€“Si powders subjected to heat treatment. Journal Physics D: Applied Physics, 2009, 42, 105001.	2.8	7
74	Evaluation of Niâ€“Mnâ€“Inâ€“Si Alloys for Magnetic Refrigerant Application. IEEE Transactions on Magnetics, 2011, 47, 2463-2465.	2.1	7
75	Studies of Structural, Electrical, and Magnetic Characteristics of Double Perovskite Ceramic: La₂FeMnO₆. Physica Status Solidi (B): Basic Research, 2021, 258, 2100299.	1.5	7
76	Thermomagnetic properties of nanocrystalline Feâ€“Si alloys with high Si content. Physica B: Condensed Matter, 2014, 448, 60-63.	2.7	6
77	Effect of Ta Underlayer on Thickness-Dependent Magnetic Properties of Niâ€“Fe Films. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	6
78	Interlayer coupling in symmetric and asymmetric CoFeB based trilayer films with different domain structures: Role of spacer layer and temperature. Journal of Magnetism and Magnetic Materials, 2018, 462, 29-40.	2.3	6
79	Chemical colouring of aluminium. Surface Technology, 1984, 22, 15-20.	0.4	5
80	Thin magnetic films of Smâ€“Co nanocrystallites exploiting spin coating deposition. Thin Solid Films, 2011, 519, 6290-6296.	1.8	5
81	Optical properties of ambient temperature grown nanocrystalline Mg2TiO4 thin films. Surface and Coatings Technology, 2013, 221, 196-200.	4.8	5
82	Structural, vibrational and magnetic properties of NiO-(Mg,Ti) powders: The effect of reduction reaction. Journal of Magnetism and Magnetic Materials, 2020, 494, 165784.	2.3	5
83	Size and strain induced phase formation and ferromagnetism in reduced TiO2 powders. Journal of Physics and Chemistry of Solids, 2021, 154, 110058.	4.0	5
84	Critical behavior of electrical resistivity in amorphous Fe-Zr alloys. Pramana - Journal of Physics, 2001, 56, 569-577.	1.8	4
85	Electrical transport and magnetotransport studies in WEAK ITINERANT amorphousFe90â^'xMnxZr10(0<~x<~16)alloys. Physical Review B, 2003, 68, .	3.2	4
86	Microstructure and magnetic properties of nanocrystalline Fe75Si20M5(M= Al, B, Cr) powders. Journal Physics D: Applied Physics, 2008, 41, 165002.	2.8	4
87	Hierarchical Assembly of Sm₂Co₇/Co Magnetic Nanoparticles into Highly Stable and Uniform Nanospheres. Journal of Nanoscience and Nanotechnology, 2011, 11, 3706-3710.	0.9	4
88	Magnetic properties of single-layer and multilayer structured Co40Fe40B20 thin films. Thin Solid Films, 2016, 616, 126-133.	1.8	4
89	Growth Mechanism of Columnar Grains in FePtâ€“C Granular Films for HAMR Media Processed by Compositionally Graded Sputtering. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	4
90	Effect of Process Parameters and Post Annealing Temperature on Structural and Optical Properties of MgTiO3 Thin Films Deposited by RF Magnetron Sputtering. Springer Proceedings in Physics, 2013, , 291-300.	0.2	4

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91	Evolution of epsilon-near-zero plasmon with surface roughness and demonstration of perfect absorption in randomly rough indium tin oxide thin films. Journal of Applied Physics, 2021, 130, 173102.	2.5	4
92	Spin fluctuations in reentrant a-Fe90â"cMncZr10 alloys. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 1329-1331.	2.3	3
93	Reentrant behavior of amorphous FeMnZr alloys. Journal of Magnetism and Magnetic Materials, 2003, 254-255, 100-103.	2.3	3
94	Mixing characterization of mechanically milled Fe75Si15M10 powders using MÃ¶ssbauer spectroscopy. Hyperfine Interactions, 2008, 184, 147-153.	0.5	3
95	Properties of Nanocrystalline Fe75Si15M10 (Mâ€"Cr and Al) Powders Prepared by Mechanical Alloying. Journal of Nanoscience and Nanotechnology, 2008, 8, 4314-4317.	0.9	3
96	MICROSTRUCTURAL CHANGES UPON ANNEALING AND IT'S EFFECT ON MAGNETIC AND MECHANICAL PROPERTIES OF NANOSIZED COBALTâ€"FERRITE. International Journal of Nanoscience, 2012, 11, 1250005.	0.7	3
97	High Temperature Magnetic Properties of Indirect Exchange Spring FePt/M(Cu,C)/Fe Trilayer Thin Films. Journal of Nanomaterials, 2013, 2013, 1-9.	2.7	3
98	Structural and Magnetic Properties of ${hbox{Fe}}_{100hbox{-}{m x}}{hbox{Si}}_{m x}$ ($0le x) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.1	3
99	Temperature dependent magnetic coupling between ferromagnetic FeTaC layers in multilayer thin films. Journal of Magnetism and Magnetic Materials, 2016, 418, 21-29.	2.3	3
100	Interlayer coupling dependent magnetic properties in amorphous and nanocrystalline FeTaC based multilayer thin films. Journal Physics D: Applied Physics, 2016, 49, 085001.	2.8	3
101	Effect of heat treatment and spacer layer driven interlayer coupling in laminated type FeTaC thin films. Journal of Magnetism and Magnetic Materials, 2016, 401, 1015-1026.	2.3	3
102	Tuning Magnetic Properties of Thick CoFeB Film by Interlayer Coupling in Trilayer Structured Thin Films. Journal of Material Science & Engineering, 2018, 07, .	0.2	3
103	Investigation of NiO reduction dynamics and properties of NiO-Ti powders. Journal of Alloys and Compounds, 2020, 840, 155769.	5.5	3
104	Large linear sensitivity of asymmetric structured giant magnetoresistive device with metastable bcc-Cu spacer and auxiliary biquadratic coupling through Rh spacer. Journal Physics D: Applied Physics, 2021, 54, 255004.	2.8	3
105	Systematic investigation of the effect of layer thickness on the linear sensing characteristics of asymmetric structured CoFe/Rh/CoFe/Cu/CoFe fully epitaxial CIP-GMR based magnetic sensors. Journal of Magnetism and Magnetic Materials, 2021, 538, 168321.	2.3	3
106	NiOâ€"Ti nanocomposites for contact electrification and energy harvesting: experimental and DFT+U studies. Sustainable Energy and Fuels, 2022, 6, 2439-2448.	4.9	3
107	Dynamics of magnetic susceptibility in amorphous Fe80Mn10Zr10. Journal of Alloys and Compounds, 2001, 326, 288-291.	5.5	2
108	Low field ac response in Mn substituted amorphous Feâ€"Zr alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 1004-1007.	5.6	2

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109	Anisotropic magnetoresistance in a-Fe90â^'xMnxZr10 alloys (x=0â€“12). Journal of Applied Physics, 2003, 93, 7272-7274.	2.5	2
110	High temperature magnetic properties of mechanically alloyed Feâ€“Zr powder. Materials Letters, 2008, 62, 2640-2642.	2.6	2
111	High temperature coercive field behavior of Feâ€“Zr powder. Journal of Applied Physics, 2009, 105, 07A306.	2.5	2
112	TEMPERATURE DEPENDENT COERCIVITY AND RELAXATION PHENOMENA IN AMORPHOUSFeâ€“(Mn)â€“Zrâ€“BNANOPARTICLES. International Journal of Nanoscience, 2011, 10, 605-609.	0.7	2
113	Influence of Synthesis Processes on Microstructure and Magnetic Properties in Fe[sub 70]Co[sub 30] Alloy Nanoparticles. , 2011, , .		2
114	Magnetic properties of Co doped MgTiO3 ceramics. Physica B: Condensed Matter, 2014, 448, 330-332.	2.7	2
115	Effect of Postannealing and Multilayer Structure on Soft Magnetic Properties of FeTaC Thin Film. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	2
116	Low temperature noncollinear behavior in FePt nanogranular thin film system. Thin Solid Films, 2006, 510, 280-285.	1.8	1
117	Neutron powder diffraction studies and magnetic properties in Nd1â^'xKxMnO3 (xâ€‰=â€‰0.15 and 0.20) compounds. Journal of Applied Physics, 2011, 109, 07E150.	2.5	1
118	Evidence for spin-fluctuation scattering in reentrant amorphous FeMnZr alloys. Physica B: Condensed Matter, 2003, 327, 415-418.	2.7	0
119	Structural, Kinetic And Magnetic Properties Of Mechanically Alloyed Fe-Zr Powders. AIP Conference Proceedings, 2008, , .	0.4	0
120	Enhanced Magnetocaloric Effect In Cobalt Substituted Ni-Mn-Ga Alloys. , 2011, , .		0
121	ROLE OF MICROSTRUCTURE AND DOMAIN STRUCTURE ON THE SOFT MAGNETIC PROPERTIES OF MAGNETIC FIELD ANNEALED Fe89-xZr11Bx ALLOYS. International Journal of Nanoscience, 2011, 10, 301-305.	0.7	0
122	Magnetic refrigerant properties of Ni50Mn37-xFexSn13 alloy at low magnetic fields. , 2012, , .		0
123	Enhanced soft magnetic properties in stress free amorphous FeTaC/Ta multilayer thin films. , 2013, , .		0
124	Study on the depth profile analysis of Fe/Co intermixing in [SmCo5/Fe]11 magnetic multilayers. Physica B: Condensed Matter, 2014, 448, 2-5.	2.7	0
125	Selected papers from International Conference on Magnetic Materials and Applications. Physica B: Condensed Matter, 2014, 448, iii.	2.7	0
126	Structural and magnetic properties of Ni-Mn-Sn thin films. AIP Conference Proceedings, 2015, , .	0.4	0

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127	Effect of underlayer on thickness dependent magnetic properties of Ni-Fe films. , 2015, , .		0
128	Effect of oxidation on the structural, vibrational, magnetic and electrical properties of Fe thin films. AIP Conference Proceedings, 2017, , .	0.4	0
129	Tuning magnetic anisotropy in Fe1-xNix thin films: The effects of composition and substrate temperature. AIP Conference Proceedings, 2020, , .	0.4	0