Hirotoshi Fukunaga

List of Publications by Year
in descending order

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110	728	687363	713466
papers	citations	13 h-index	21 g-index

111	111	111	392
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fabrication of Nb-Fe-B thick-film magnets by high-speed PLD method. IEEE Transactions on Magnetics, 2003, 39, 2863-2865.	2.1	40
2	Maximum energy product of isotropic Nd-Fe-B-based nanocomposite magnets. Journal of Applied Physics, 1998, 83, 6623-6625.	2.5	37
3	Review of Fabrication and Characterization of Ndâ€“Feâ€“B Thick Films for Magnetic Micromachines. IEEE Transactions on Magnetics, 2007, 43, 2672-2676.	2.1	35
4	Nanostructured soft magnetic material with low loss and low permeability. Journal of Applied Physics, 2000, 87, 7103-7105.	2.5	31
5	Improvement in coercivity by high-speed crystallization for PrFeB-Based nanocomposite magnets. IEEE Transactions on Magnetics, 2002, 38, 2970-2972.	2.1	30
6	Soft Magnetic Properties of Electrodeposited Fe-Ni Films Prepared in Citric Acid Based Bath. IEEE Transactions on Magnetics, 2012, 48, 2907-2909.	2.1	28
7	Effect of dimension on characteristics of Rosen-type piezoelectric transformer. , 0, , .		22
8	Preparation of Coâ€“Pt alloy film magnets by electrodeposition. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1895-E1897.	2.3	22
9	Nanostructured metallic cores with extremely low loss and controlled permeability. IEEE Transactions on Magnetics, 2002, 38, 3138-3140.	2.1	19
10	Uniaxial Magnetization Performance of Textured Fe Nanowire Arrays Electrodeposited by a Pulsed Potential Deposition Technique. Nanoscale Research Letters, 2017, 12, 598.	5.7	19
11	Effect of laser beam parameters on magnetic properties of Ndâ€“Feâ€“B thick-film magnets fabricated by pulsed laser deposition. Journal of Applied Physics, 2011, 109, 07A758.	2.5	18
12	Electrochemical fabrication of nanocomposite films containing magnetic metal nanoparticles. Japanese Journal of Applied Physics, 2015, 54, 075201.	1.5	17
13	Electroplated Fe-Co-Ni films prepared from deep-eutectic-solvent-based plating baths. AIP Advances, 2016, 6, .	1.3	17
14	Flux loss in nanocomposite magnets. IEEE Transactions on Magnetics, 1999, 35, 3292-3294.	2.1	14
15	Prediction method of flux loss in anisotropic NdFeB/SmFeN hybrid magnets. Journal of Applied Physics, 2010, 107, 09A736.	2.5	13
16	Electroplated Fe films prepared from a deep eutectic solvent. Journal of Applied Physics, 2014, 115, 17A344.	2.5	13
17	Ndâ€“Feâ€“B Film Magnets With Thickness Above 100 ${mu }ext{m}$ Deposited on Si Substrates. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	13
18	Fe-Pt thick-film magnets prepared by electroplating method. Journal of Applied Physics, 2015, 117, .	2.5	13

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19	Magnetic properties of pulsed laser deposition-fabricated isotropic Feâ€“Pt film magnets. Journal of Applied Physics, 2011, 109, 07A723.	2.5	12
20	Temperature Characteristics of a Fluxgate Current Sensor With Feâ€“Niâ€“Co Ring Core. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	12
21	Investigation on Magnetic Torque of Multi-Polarly Micro Rotor Using Shape-Magnetic-Anisotropy. IEEE Transactions on Magnetics, 2010, 46, 2012-2015.	2.1	11
22	Magnetic properties of pulsed laser deposition-fabricated isotropic Pr-Fe-B thick-films magnets for magnetic micro-machines. Journal of Applied Physics, 2014, 115, 17A741.	2.5	11
23	New soft magnetic material with constant and adjustable permeability. IEEE Transactions on Magnetics, 1997, 33, 3787-3789.	2.1	10
24	New preparation method of anisotropic and isotropic Nd-Fe-B-bonded magnet for small DC motors. IEEE Transactions on Magnetics, 2003, 39, 2896-2898.	2.1	10
25	Effect of current density on magnetic properties of electrodeposited Fe-Ni films prepared in a citric-acid-based-bath. Journal of Applied Physics, 2014, 115, 17A325.	2.5	10
26	Electroplated Feâ€“Ni Films Prepared From Deep Eutectic Solvents. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	10
27	Effect of Magnetic Inhomogeneity on Magnetization Reversal in Sintered Nd-Fe-B Magnet â€“Numerical Approachâ€. Japanese Journal of Applied Physics, 1990, 29, 1711-1716.	1.5	9
28	Reduction of iron loss in thin grain-oriented silicon steel sheets. IEEE Transactions on Magnetics, 1997, 33, 3754-3756.	2.1	9
29	Magnetic Properties of Fe-Based Ribbons and Toroidal Cores Prepared by Continuous Joule Heating Under Tensile Stress. IEEE Transactions on Magnetics, 2006, 42, 2781-2783.	2.1	9
30	Magnetic properties of isotropic and anisotropic SmCo5/Î±-Fe nanocomposite magnets with a layered structure simulated by micromagnetic theory. Journal of Applied Physics, 2014, 115, .	2.5	9
31	Computer simulation of coercivity improvement due to microstructural refinement. Journal of Applied Physics, 2015, 117, 17A729.	2.5	9
32	Highly dense anisotropic Sm-Fe-N-based bonded magnets including unsaturated polyester prepared by powder compacting press. IEEE Transactions on Magnetics, 2003, 39, 2980-2982.	2.1	8
33	Radially Anisotropic Ring/Arc-Shaped Rare-Earth Bonded Magnets Using a Self-Organization Technique. IEEE Transactions on Magnetics, 2004, 40, 2059-2061.	2.1	8
34	Electrodeposited Fe-Co films prepared from a citric-acid-based plating bath. Journal of the Korean Physical Society, 2013, 62, 1966-1968.	0.7	8
35	Electroplated Fe-Co films prepared in citric-acid-based plating baths with saccharin and sodium lauryl sulfate. AIP Advances, 2020, 10, .	1.3	8
36	Fe-Pt Thick Film Magnets Prepared by High-Speed PLD Method. IEEE Transactions on Magnetics, 2008, 44, 4229-4231.	2.1	7

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37	Coercivity enhancement of Dy-coated Nd-Fe-B flakes by crystallization. Journal of Applied Physics, 2011, 109, 07A701.	2.5	7
38	New production method of 100-Î¼m-thick grain-oriented 3% silicon steel sheets. Journal of Applied Physics, 1997, 81, 4098-4100.	2.5	6
39	High Temperature Magnetic Properties of Feâ€“Cuâ€“Nbâ€“Siâ€“B Cores With Creep-Induced Anisotropy. IEEE Transactions on Magnetics, 2004, 40, 2721-2723.	2.1	6
40	Ndâ€“Feâ€“B thick film magnets with Nb additive prepared by vacuum arc deposition method. Journal of Applied Physics, 2011, 109, 07A755.	2.5	6
41	Anisotropic thin composite bonded magnets prepared by compaction using the slip-flow phenomenon. IEEE Transactions on Magnetics, 2005, 41, 3775-3777.	2.1	5
42	A Method for Predicting Flux Loss of Multipole Magnet and Its Evaluation. IEEE Transactions on Magnetics, 2011, 47, 4108-4111.	2.1	5
43	Magnetic properties of Dy-diffused Nd-Fe-B powder prepared by crystallization from amorphous state. Journal of Applied Physics, 2012, 111, 07A733.	2.5	5
44	Electrodeposited Fe-Ni films prepared from a tartaric-acid-based bath. Journal of the Korean Physical Society, 2013, 62, 1963-1965.	0.7	5
45	Nanocomposite Thick-Film Magnets with ${{hbox{Nd}}hbox{-}{hbox{Fe}}hbox{-}{hbox{B}}+alphahbox{-}{hbox{Fe}}}$ Phases Prepared under High Laser Energy Density. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	5
46	Electroplated Fe-Pt thick films prepared in plating baths with various pH values. AIP Advances, 2016, 6, .	1.3	5
47	Effect of primary amines on magnetic properties of Fe-Ni films electroplated in a DES-based plating bath. AIP Advances, 2018, 8, 056106.	1.3	5
48	Electroplated Fe-Co-Ni films prepared in ammonium-chloride-based plating baths. AIP Advances, 2018, 8, .	1.3	5
49	Investigation of coercivity for electroplated Fe-Ni thick films. AIP Advances, 2018, 8, 056123.	1.3	5
50	Preparation and Deposition of Prâ€“Feâ€“B Permanent-Magnet Powder Using Pulsed Laser. IEEE Transactions on Magnetics, 2020, 56, 1-3.	2.1	5
51	Direct joule heating of Nd-Fe-B based melt-spun powder and zinc binder. IEEE Transactions on Magnetics, 1999, 35, 3304-3306.	2.1	4
52	Microstructure and magnetic properties of Fe/sub 86-x/Co/sub x/Zr/sub 6/B/sub 8/ alloys. IEEE Transactions on Magnetics, 2001, 37, 2271-2274.	2.1	4
53	Magnetic properties of Fe-based ribbons with controlled permeability prepared by continuous pulse annealing under tensile stress. Journal of Applied Physics, 2009, 105, 07A331.	2.5	4
54	Enhancement in coercivity of Pulsed Laser Deposition-fabricated Fe-Pt thick film magnets by reducing droplets. Journal of Applied Physics, 2012, 111, 07A737.	2.5	4

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55	Effect of Magnetostatic Interaction on Magnetization Reversal Process in Nd-Fe-B Magnets â€"Computer Simulationâ€". Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2012, 76, 43-47.	0.4	4
56	Reduction in Flux Loss of an Nd-Fe-B Bonded Ring Magnet for an SPM Motor. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	4
57	Magnetic properties and microstructure of Sm-Co/Î±-Fe nanocomposite thick film-magnets composed of multi-layers over 700 layers. Journal of Applied Physics, 2014, 115, 17A748.	2.5	4
58	Uniaxial magnetization performance of Co-Al2O3 nano-composite films electrochemically synthesized from acidic aqueous solution. Journal of Solid State Electrochemistry, 2016, 20, 1665-1672.	2.5	4
59	PLD-fabricated Pr-Fe-B thick film magnets applied to small motors. AIP Advances, 2020, 10, .	1.3	4
60	Magnetic Properties of PLD-made Nd-Fe-B Film Magnets and their Applications to Milli-size Motors. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 892-896.	0.2	4
61	Phase formation and magnetic properties of SmFe7Nx+Î±Fe composite thin films. Journal of Applied Physics, 2000, 87, 6585-6587.	2.5	3
62	Change in the direction of anisotropy in PLD-fabricated Sm-Co thick film magnets. Journal of Applied Physics, 2009, 105, 07A729.	2.5	3
63	PLD-Fabricated Isotropic Prâ€"Feâ€"B Film Magnets Deposited on Glass Substrates. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	3
64	Improvement in surface conditions of electroplated Fe-Pt thick-film magnets. AIP Advances, 2018, 8, 056437.	1.3	3
65	Magnetic and mechanical properties in crystallized amorphous Fe-Co-Ni-Al based ribbons. IEEE Transactions on Magnetics, 1984, 20, 1622-1624.	2.1	2
66	Effect of strength of intergrain exchange interaction on magnetic properties of nanocomposite magnets. , 1999, , .		2
67	Nanocomposite Nd-Fe-B/<inline-formula> <tex-math notation="TeX">(oldsymbol {alpha }) </tex-math></inline-formula>-Fe Thick-Film Magnets Prepared by Vacuum Arc Deposition. IEEE Transactions on Magnetics, 2014, 50, 1-3.	2.1	2
68	Ndâ€"Feâ€"B Thick-Film Magnets Prepared by High Laser Energy Density. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	2
69	Effect of an annealing on magnetic properties of Fe-Ni films electroplated in citric-acid-based plating baths. AIP Advances, 2018, 8, 047706.	1.3	2
70	Magnetic Properties of Exchange-Coupled Fe-Ni/Fe₂₂Ni₇₈ Double-Layered Thick Films. IEEE Transactions on Magnetics, 2018, 54, 1-3.	2.1	2
71	Effect of Na and Cl Ions on Coercivity of Electroplated Fe-Pt Film-Magnets. Journal of Electronic Materials, 2019, 48, 1412-1415.	2.2	2
72	High-temperature properties of Fe-Pt film-magnets prepared by electroplating method. AIP Advances, 2020, 10, .	1.3	2

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73	Preannealing effect and soft magnetic properties of the nanocrystalline Fe74CulNb3Si12B10 alloy. Journal of the Magnetics Society of Japan, 1999, 23, 225-227.	0.4	2
74	Crystallization and magnetic behaviour of (Fe1-xCox)85.4 Zr5.8Nb1B6.8Cu1 (x = 0, 0.1, 0.3, 0.5) alloys. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3463-3467.	0.8	1
75	Composite Bonded Magnets With Self-Recoverability for Miniaturized Anisotropic Magnet Rotor. IEEE Transactions on Magnetics, 2010, 46, 1978-1981.	2.1	1
76	Numerical Study of Enhanced Coercivity of a Magnetically Hard Grain With Thin Surface Layers Due to Antiferromagnetic Coupling. IEEE Transactions on Magnetics, 2012, 48, 3162-3165.	2.1	1
77	Magnetic Design for an Electrodeless Discharged Lamp. IEEE Transactions on Magnetics, 2012, 48, 1505-1507.	2.1	1
78	Anisotropic Sm-Co/Î±-Fe Thick-Film Magnets Prepared by Two-Step Annealing. IEEE Magnetics Letters, 2017, 8, 1-4.	1.1	1
79	Zero-emission Process for Nd-Fe-B Melt-Spun Powder Used in Epoxy Resin Bonded Magnets.. Journal of the Magnetics Society of Japan, 2001, 25, 687-690.	0.4	1
80	MÃ–ssbauer Studies and Soft Magnetic Properties of Fe85.4-xCoxZr5.8Nb1B6.8Cu1 (x = 0 or 42.7) Alloys. Transactions of the Magnetics Society of Japan, 2002, 2, 82-85.	0.5	1
81	Recent Trend of Permanent Magnets and their Applications. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 847-850.	0.2	1
82	Radially-Anisotropic Rare-Earth Bonded-Magnets Prepared by Molecular Chain Alignment of Self-Organized Binder. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 857-862.	0.2	1
83	Magnetic and Mechanical Properties of TM-ME Based Semi-Amorphous Ribbons. IEEE Translation Journal on Magnetics in Japan, 1985, 1, 217-219.	0.1	0
84	Longâ€term aging effect on led circuit with feâ€based amorphous current transformer. Electronics and Communications in Japan, 1993, 76, 68-76.	0.2	0
85	Reduction Of Iron Loss In Thin Grain-oriented Stltcon Steel Sheets. , 0, , .		0
86	Flux loss in nanocomposite magnets. , 1999, , .		0
87	Effect of film thickness and substrates on magnetic properties in SmFeN films prepared by laser ablation technique. , 1999, , .		0
88	Direct Joule heating of melt-spun powder and zinc binder. , 1999, , .		0
89	Improvement in magnetic properties of Sm-Fe-N flakes by annealing under Zn vapor. IEEE Transactions on Magnetics, 1999, 35, 3298-3300.	2.1	0
90	Thermal stability of magnetic properties of amorphous and nanocrystalline Fe/sub 85.4-x/Co/sub x/Zr/sub 5.8/Nb/sub 1/B/sub 6.8/Cu/sub 1/ (x=0 or 42.7) alloys. , 0, , .		0

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91	Nanocrystallization and soft magnetic properties of Fe/sub 85.4/Zr/sub 6.8-x/Nb/sub x/B/sub 6.8/Cu/sub 1/ (x=0, 1) alloys. , 0, , .		0
92	Anisotropic thin bonded magnets prepared by compaction using slip-flow phenomenon. , 2005, , .		0
93	Magnetic Properties of Fe-Based Ribbons and Toroidal Cores Prepared by Continuous Stress-Annealing by Joule Heating. , 2006, , .		0
94	Rare Earth Thick Film Magnets Deposited on Glass Substrates for MEMS Application. , 2016, , .		0
95	PLD-Made Nd-Fe-B Thick Film Magnets Deposited on Si Substrates and Their Micromachining. , 2016, , .		0
96	Various Properties of Fe-Co Magnetic Films Prepared by PLD Method. , 2016, , .		0
97	Anisotropic Sm-Co/Î±-Fe Thick Film-Magnets Prepared by Two-Step Annealing. , 2016, , .		0
98	Optimization of Target Composition in Nd-Fe-B Film Magnets Prepared by High Laser Energy Density. , 2016, , .		0
99	Prediction of Flux Loss in a Ndâ€“Feâ€“B-Bonded Magnet Under an External Magnetic Field. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	0
100	Preparation of Nd-Fe-B/Î±-Fe nano-composite thick-film magnets on various substrates using PLD with high laser energy density above 10 J/cm2. AIP Advances, 2018, 8, 056223.	1.3	0
101	Increase in Nucleation Field of Nanocrystalline Nd(Fe,Co)B Magnets Due to Strengthening of Exchange Interactionâ€”Computer Simulation. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	0
102	Preparation of Nd-Fe-B Thick-film Magnets Deposited on Si Substrates with Each Glass Buffer Layer and their Properties. IEEJ Transactions on Fundamentals and Materials, 2021, 141, 128-132.	0.2	0
103	Microstructure and magnetic properties of amorphous and nanocrystalline Fe83-xCoxNb3B13Cu1 (x=0) Tj ETQq1 1 0.784314 rgBT /Ov	0.5	0
104	Electrodeposited Co-Pt Thin Films with High Coercivity. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 897-901.	0.2	0
105	Reduction in eddy current loss for a power coupler in an electrodeless discharged lamp. Journal of the Magnetics Society of Japan, 2013, 37, 151-154.	0.9	0
106	Effect of Non-Sinusoidal Local Flux Changes on Eddy Current Loss in Fe-Based Amorphous Ribbons. IEEJ Transactions on Fundamentals and Materials, 1988, 108, 465-465.	0.2	0
107	Magnetic Relaxations in Amorphous and Nanocrystalline Fe-based Alloys. Journal of the Magnetics Society of Japan, 1999, 23, 222-224.	0.4	0
108	Improvement in Magnetic Properties of Fe-Pt Thick-film Magnets by Reducing Droplets. IEEJ Transactions on Fundamentals and Materials, 2016, 136, 499-502.	0.2	0

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109	Microstructures of Ta-Inserted SmCo₅/Fe Nanocomposite Thick Film Magnets. Materials Transactions, 2017, 58, 1351-1355.	1.2	0
110	Preparation of Thick-Film Magnets and Their Applications. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2018, 69, 485-489.	0.2	0