Satoshi Hirosawa

List of Publications by Year
in descending order

42	2,698	304743 22	302126 39
papers	citations	h-index	g-index

43	43	43	1091
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Foreword to the Focus Issue: science and technology of element-strategic permanent magnets. Science and Technology of Advanced Materials, 2022, 23, 64-65.	6.1	4
2	Atomistic Theory of Thermally Activated Magnetization Processes in Nd₂Fe₁₄B Permanent Magnet. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, S126-S146.	0.2	1
3	Development of a Prototype Thermodynamic Database for Nd-Fe-B Permanent Magnets. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, S52-S62.	0.2	0
4	Foreword to the Japanese Translation of Science and Technology of Element-Strategic Permanent Magnets. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, S1-S2.	0.2	0
5	Peculiar behavior of V on the Curie temperature and anisotropy field of SmFe12-xVx compounds. Acta Materialia, 2022, 232, 117928.	7.9	10
6	Temperature dependence of site-resolved Fe magnetic moments in ThMn12-type Sm(Fe1â^'Co)12 compounds studied via synchrotron MÃ¶ssbauer spectroscopy. Journal of Magnetism and Magnetic Materials, 2022, 552, 169188.	2.3	3
7	Laying out Fundamentals for Production of Ndï¼Feï¼B Permanent Magnet Materials. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, 139-148.	0.2	0
8	Intrinsic hard magnetic properties of Sm(Fe,Co)12â^'xTix compound with ThMn12 structure. Journal of Alloys and Compounds, 2021, 861, 158477.	5.5	18
9	Development of a prototype thermodynamic database for Nd-Fe-B permanent magnets. Science and Technology of Advanced Materials, 2021, 22, 557-570.	6.1	9
10	Diagram of constituent crystalline phases in a Ndâ€“Feâ€“Bâ€“Cu sintered magnet by in-situ high-temperature synchrotron X-ray diffraction and its thermodynamic interpretation. Journal of Alloys and Compounds, 2021, 892, 162188.	5.5	2
11	Atomistic theory of thermally activated magnetization processes in Nd₂Fe₁₄B permanent magnet. Science and Technology of Advanced Materials, 2021, 22, 658-682.	6.1	11
12	Thermal decomposition of ThMn12-type phase and its optimum stabilizing elements in SmFe12-based alloys. Journal of Alloys and Compounds, 2020, 813, 152224.	5.5	48
13	Achievement of high coercivity in Sm(Fe0.8Co0.2)12 anisotropic magnetic thin film by boron doping. Acta Materialia, 2020, 194, 337-342.	7.9	57
14	Magnetic Microscopy Using a Circularly Polarized Hard-X-ray Nanoprobe at SPring-8. Synchrotron Radiation News, 2020, 33, 4-11.	0.8	8
15	Effects of texture on lattice constants of Nd2Fe14B and their relationship with internal stress in Nd-Fe-B permanent magnets. Physical Review Materials, 2020, 4, .	2.4	2
16	The effect of Zr substitution on saturation magnetization in (Sm1-xZrx)(Fe0.8Co0.2)12 compound with the ThMn12 structure. Acta Materialia, 2019, 178, 114-121.	7.9	40
17	Quantitative identification of constituent phases in a Nd-Fe-B-Cu sintered magnet and temperature dependent change of electron density of Nd2Fe14B studied by synchrotron X-ray diffraction. Acta Materialia, 2019, 181, 530-536.	7.9	13
18	Emergence of coercivity in Sm(Fe0.8Co0.2)12 thin films via eutectic alloy grain boundary infiltration. Scripta Materialia, 2019, 164, 140-144.	5.2	43

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19	Influence of magnetostriction on the lattice constants of the secondary phases in Nd-Fe-B sintered magnets studied by synchrotron X-ray diffraction. AIP Advances, 2019, 9, .	1.3	4
20	Permanent Magnets Beyond Nd-Dy-Fe-B. IEEE Transactions on Magnetics, 2019, 55, 1-6.	2.1	21
21	Perspectives of stochastic micromagnetism of Nd2Fe14B and computation of thermally activated reversal process. Scripta Materialia, 2018, 154, 259-265.	5.2	27
22	Intrinsic magnetic properties of Sm(Fe1-Co)11Ti and Zr-substituted Sm1-yZr (Fe0.8Co0.2)11.5Ti0.5 compounds with ThMn12 structure toward the development of permanent magnets. Acta Materialia, 2018, 153, 354-363.	7.9	92
23	Advances in Nd-Fe-B Based Permanent Magnets. Handbook of Magnetic Materials, 2018, 27, 269-372.	0.6	45
24	Temperature dependence of the crystal structures and phase fractions of secondary phases in a Nd-Fe-B sintered magnet. Acta Materialia, 2018, 154, 25-32.	7.9	33
25	Time domain magnetization dynamics study to estimate interlayer exchange coupling constant in Nd-Fe-B/Ni80Fe20 films. Journal of Magnetism and Magnetic Materials, 2018, 468, 273-278.	2.3	10
26	Unmasking the interior magnetic domain structure and evolution in Nd-Fe-B sintered magnets through high-field magnetic imaging of the fractured surface. Physical Review Materials, 2018, 2, .	2.4	23
27	Realization of a scanning soft X-ray microscope for magnetic imaging under high magnetic fields. Journal of Synchrotron Radiation, 2018, 25, 1444-1449.	2.4	35
28	Perspectives for high-performance permanent magnets: applications, coercivity, and new materials. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2017, 8, 013002.	1.5	102
29	Atomistic-model study of temperature-dependent domain walls in the neodymium permanent magnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mn>2</mml:mn></mml:mrow><mml:mi mathvariant="normal">B</mml:mi></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	3.2	33
30	Intrinsic hard magnetic properties of Sm(Fe 1âˆ'x Co x) 12 compound with the ThMn 12 structure. Scripta Materialia, 2017, 138, 62-65.	5.2	157
31	Micromagnetic simulation of the orientation dependence of grain boundary properties on the coercivity of Nd-Fe-B sintered magnets. AIP Advances, 2016, 6, 056028.	1.3	25
32	ThMn₁₂-type Interstitially Nitrogenated Hard Magnetic Compounds and Recent Progresses Toward their Utilization as Permanent Magnets. IEEJ Transactions on Fundamentals and Materials, 2016, 136, 466-471.	0.2	0
33	Approach of Elements Strategy Initiative Center for Magnetic Materials toward Development of Critical-Element-Free High-Performance Permanent Magnets. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2015, 62, 61-66.	0.2	2
34	Current Status of Research and Development toward Permanent Magnets Free from Critical Elements. Journal of the Magnetics Society of Japan, 2015, 39, 85-95.	0.9	55
35	Permanent Magnets Beyond Nd-Dy-Fe-B. Jom, 2015, 67, 1304-1305.	1.9	6
36	NdFe12N hard-magnetic compound with high magnetization and anisotropy field. Scripta Materialia, 2015, 95, 70-72.	5.2	113

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37	Micromagnetic Simulations of Magnetization Reversal in Misaligned Multigrain Magnets With Various Grain Boundary Properties Using Large-Scale Parallel Computing. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	39
38	Coercivity enhancement of hydrogenationâ€“disproportionationâ€“desorptionâ€“recombination processed Ndâ€“Feâ€“B powders by the diffusion of Ndâ€“Cu eutectic alloys. Scripta Materialia, 2010, 63, 1124-1127.	5.2	219
39	Coercivity generation of surface Nd2Fe14B grains and mechanism of fcc-phase formation at the Nd/Nd2Fe14B interface in Nd-sputtered Ndâ€“Feâ€“B sintered magnets. Journal of Applied Physics, 2008, 104, .	2.5	64
40	Ndâ€“Feâ€“B Permanent Magnet Materials. Japanese Journal of Applied Physics, 1987, 26, 785-800.	1.5	395
41	MÃ¶ssbauer study of the intermetallic compound Nd2Fe14B. II. Temperature dependence and spin reorientation. Journal of Magnetism and Magnetic Materials, 1987, 68, 15-27.	2.3	70
42	Magnetization and magnetic anisotropy of R2Fe14B measured on single crystals. Journal of Applied Physics, 1986, 59, 873-879.	2.5	854