Hisazumi Akai

List of Publications by Year
in descending order

85 papers	1,938 citations	304743 22 h-index	276875 41 g-index
85 all docs	85 docs citations	85 times ranked	1511 citing authors

#	Article	IF	Citations
1	Fast Korringa-Kohn-Rostoker coherent potential approximation and its application to FCC Ni-Fe systems. Journal of Physics Condensed Matter, 1989, 1, 8045-8064.	1.8	238
2	Monte Carlo study of the influence of antiferromagnetic exchange interactions on the phase transitions of ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Ni-Mn-</mml:mtext><mml:mi>X</mml:mi></mml:mrow></mml:math>alloys<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

#	Article	IF	Citations
19	Hyperfine field calculation for various alloy systems. Hyperfine Interactions, 1992, 68, 3-14.	0.5	27
20	First-principles study of spin-wave dispersion in Sm(Fe1â^'xCox)12. Journal of Magnetism and Magnetic Materials, 2019, 469, 296-301.	2.3	27
21	First-principles study of intersite magnetic couplings in NdFe12 and NdFe12X (Xâ€‰=â€‰B, C, N, O, F). Journal of Applied Physics, 2017, 122, .	2.5	24
22	Theory of hyperfine fields of iron. , 1999, 120/121, 3-11.		22
23	Magnetic Friedel Oscillation at the Fe(001) Surface: Direct Observation by Atomic-Layer-Resolved Synchrotron Radiation Fe57 MÃ¶ssbauer Spectroscopy. Physical Review Letters, 2020, 125, 236806.	7.8	22
24	A Possible Nuclear Spin Dewar. Hyperfine Interactions of Short-Lived Î² Emitter 8Li and 12B in TiO2. Hyperfine Interactions, 2001, 136/137, 195-199.	0.5	21
25	Electronic Structure And Magnetism of Novel Diluted Magnetic Semiconductors CdGeP 2 : Mn and ZnGeP 2 : Mn. Phase Transitions, 2003, 76, 401-411.	1.3	20
26	First-principles Study of Intersite Magnetic Couplings and Curie Temperature in RFe_{12â^'}_xCr_x (R = Y, Nd, Sm). Journal of the Physical Society of Japan, 2018, 87, 044706.	1.6	19
27	Theoretical study of magnetic and magnetoâ€optical properties of Feâ€based transitionâ€metal alloys. Journal of Applied Physics, 1990, 67, 4798-4800.	2.5	17
28	Understanding iron and its alloys from first principles. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 141-153.	0.6	17
29	Residual resistivity of Ni-Fe, Ni-Cr and other ferromagnetic alloys. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1977, 86-88, 539-540.	0.9	16
30	An Interpretation of Martensitic Transformation in L1₂-Type Fe₃Pt from Its Electronic Structure. Materials Transactions, 2010, 51, 896-898.	1.2	16
31	Maximum performance of permanent magnet materials. Scripta Materialia, 2018, 154, 300-304.	5.2	16
32	On the Disappearance of Ferromagnetism in Disordered Fe-Al Alloys. Journal of the Physical Society of Japan, 1981, 50, 70-76.	1.6	15
33	First-principles calculations of finite temperature electronic structures and transport properties of Heusler alloy Co2MnSi. Applied Physics Letters, 2020, 117, 042402.	3.3	15
34	Polarization-Resolved Extreme-Ultraviolet Second-Harmonic Generation from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LiNbO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn><mml:mi></mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2021, 127, 237402.	7.8	15
35	Knight shifts for short-lived Î² emitters in Pt. , 1999, 120/121, 719-723.		14
36	Role of N in the Permanent Magnet Material Sm2Fe17Nx. Journal of the Physical Society of Japan, 2015, 84, 084702.	1.6	14

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37	Hyperfine interaction of13O and23Mg implanted in Pt. Hyperfine Interactions, 1996, 97-98, 501-508.	0.5	13
38	Electromagnetic moments of short lived Î² emitters 21F, 23Mg, 27Si and 39Ca. , 1999, 120/121, 673-677.		13
39	Ab initio calculations of electric field gradients detected by impurities in TiO2, Al2O3 and CaCO3. , 1999, 120/121, 145-149.		13
40	Magnetic Properties of Chalcopyrite-Based Diluted Magnetic Semiconductors. Journal of Superconductivity and Novel Magnetism, 2003, 16, 95-97.	0.5	12
41	Enhancement of Magnetism of Fe by Cr and V. Journal of the Physical Society of Japan, 2011, 80, 104711.	1.6	12
42	Curie Temperature of Sm₂Fe₁₇ and Nd₂Fe₁₄B: A First-Principles Study. IEEE Transactions on Magnetics, 2019, 55, 1-5.	2.1	11
43	Atomistic theory of thermally activated magnetization processes in Nd₂Fe₁₄B permanent magnet. Science and Technology of Advanced Materials, 2021, 22, 658-682.	6.1	11
44	Ab initio simulations of diluted magnetic semiconductors: cobaltâ€doped zinc oxide. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1839-1846.	1.8	10
45	Determination of the element-specific complex permittivity using a soft x-ray phase modulator. Physical Review B, 2017, 96, .	3.2	10
46	Understanding and optimization of hard magnetic compounds from first principles. Science and Technology of Advanced Materials, 2021, 22, 543-556.	6.1	9
47	CPA Calculation of the Electronic Structure of Transition Metal Alloys with Muffin-Tin Potential Model. Journal of the Physical Society of Japan, 1982, 51, 1176-1184.	1.6	8
48	Antiferromagnetic Susceptibility of Chromium Alloys with Non-Transition Metal Elements. Journal of the Physical Society of Japan, 1985, 54, 3537-3542.	1.6	8
49	Ab initio Calculations of Electric Field Gradients for Transition Metal Impurities in TiO2. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1998, 53, 396-403.	1.5	8
50	NOVEL SPINTRONIC MATERIALS BASED ON FERROMAGNETIC SEMICONDUCTOR CHALCOPYRITES. International Journal of Nanoscience, 2004, 03, 39-50.	0.7	8
51	Effects of spin-wave excitations in half-metallic materials. Physical Review B, 2012, 85, .	3.2	8
52	Data assimilation method for experimental and first-principles data: Finite-temperature magnetization of <mml:math		

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55	Ab-initio Calculation of Electronic and Magnetic Properties ofÂMn1âˆ’x Cr x Te. Journal of Superconductivity and Novel Magnetism, 2007, 20, 473-478.	1.8	7
56	Magnetic Properties and the Electric Field Gradients of Fe4N and Fe4C. Hyperfine Interactions, 2004, 158, 19-23.	0.5	6
57	Automatic exhaustive calculations of large material space by Korringa-Kohn-Rostoker coherent potential approximation method applied to equiatomic quaternary high entropy alloys. Physical Review Materials, 2022, 6, .	2.4	6
58	Hyperfine Interactions of 8Li in Ferromagnetic Single Crystal Fe. Hyperfine Interactions, 2001, 136/137, 379-384.	0.5	5
59	Electronic and Magnetic Properties of Ferromagnet-Semiconductor Heterostructure Systems. Phase Transitions, 2002, 75, 113-123.	1.3	5
60	Electric Field Gradients of B in TiO2. Hyperfine Interactions, 2004, 158, 413-416.	0.5	5
61	Spin-wave dispersion and exchange stiffness in <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 mathvariant="normal">B</mml:mi></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>R</mml:mi><mml:msub><mml:mi>Fe</mml:mi><mml:		

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73	Electric Field Gradients of Light Impurities in TiO2 Calculated by the Full Potential KKR Green's Function Method. Hyperfine Interactions, 2004, 158, 99-103.	0.5	2
74	Design of half-metallic ferrimagnets: Doped MnX (X=Te, Se, S). Journal of Applied Physics, 2009, 106, .	2.5	2
75	Schottky Junctions Studied Using Korringaâ€“Kohnâ€“Rostoker Nonequilibrium Greenâ€™s Function Method. Journal of the Physical Society of Japan, 2016, 85, 104715.	1.6	2
76	Development of a Nuclear Spin Dewar: Hyperfine Interactions of the Short-Lived Emitter ¹²B in TiO₂. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2002, 57, 599-602.	1.5	1
77	Advanced Inter-/Multi-Disciplinary Graduate-Level Programs for Education, Research, and Training in Nanoscience and Nanotechnology Offered at Osaka University. Materials Research Society Symposia Proceedings, 2006, 931, 1.	0.1	1
78	Nuclear spin manipulation in interfaces of diluted magnetic semiconductors. Hyperfine Interactions, 2007, 176, 59-63.	0.5	1
79	Ab initio Study of High-field NMR Shift of 59Co in the Ferromagnetic Heusler Alloy Co2TiGa. Journal of the Physical Society of Japan, 2019, 88, 034712.	1.6	1
80	Direct observation of magnetic Friedel oscillation at Fe(001) surface. Hyperfine Interactions, 2021, 242, 1.	0.5	1
81	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
82	Electric Field Gradients of Fluorides Calculated by the Full Potential KKR Green's Function Method. Hyperfine Interactions, 2004, 158, 95-98.	0.5	0
83	Electromagnetic Moments of Proton-Rich [sup 28]P and Decomposition of Its Spin. , 2010, , .		0
84	Manipulation of Nuclear Spins in Interfaces of Diluted Magnetic Semiconductors. E-Journal of Surface Science and Nanotechnology, 2008, 6, 7-10.	0.4	0
85	Understanding and Optimization of Hard Magnetic Compounds from First Principles. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, S99-S108.	0.2	0