Kei Hayashi

List of Publications by Year
in descending order

109 papers	1,536 citations	331670 21 h-index	414414 32 g-index
110 all docs	110 docs citations	110 times ranked	1406 citing authors

#	Article	IF	Citations
1	Revisited crystal structure of chimney-ladder higher manganese silicides<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>MnSi</mml:mtext></mml:mrow><mml:mi>Î³</mml:mi></mml:msub></mml:mrow></mml:math>. Physical Review B, 2008, 78, .	3.2	135
2	Effect of Doping on Thermoelectric Properties of Delafossite-Type Oxide CuCrO₂. Japanese Journal of Applied Physics, 2008, 47, 59.	1.5	60
3	Structure and High Temperature Thermoelectric Properties of Delafossite-Type Oxide CuFe_{1-x}Ni_xO₂ (0 â‰¤x â‰¤0.05). Japanese Journal of Applied Physics, 2007, 46, 5226.	1.5	48
4	Excellent p-n control in a high temperature thermoelectric boride. Applied Physics Letters, 2012, 101, .	3.3	44
5	Enhanced Thermoelectric Performance of a Chimney-Ladder (Mn_{1-x}Cr_x)Si_{Î³} (Î³â^¼1.7) Solid Solution. Japanese Journal of Applied Physics, 2012, 51, 085801.	1.5	42
6	Quantitative analysis of interstitial Mg in Mg2Si studied by single crystal X-ray diffraction. Journal of Alloys and Compounds, 2014, 617, 389-392.	5.5	41
7	High temperature X-ray diffraction study on incommensurate composite crystal MnSi â€“ (3+1)-dimensional superspace approach. Journal of Alloys and Compounds, 2014, 616, 263-267.	5.5	39
8	Thermoelectric Properties of Delafossite-Type Oxide CuFe1-xNixO2 (0 .LEQ. x .LEQ. 0.05). Journal of Chemical Engineering of Japan, 2007, 40, 1205-1209.	0.6	35
9	Mn-Substitution Effect on Thermal Conductivity of Delafossite-Type Oxide CuFeO2. Journal of Electronic Materials, 2010, 39, 1798-1802.	2.2	35
10	Structural, magnetic, and ferroelectric properties of CuFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	33
11	Structural and Thermoelectric Properties of Ternary Full-Heusler Alloys. Journal of Electronic Materials, 2017, 46, 2710-2716.	2.2	33
12	Control of the Thermoelectric Properties of Mg2Sn Single Crystals via Point-Defect Engineering. Scientific Reports, 2020, 10, 2020.	3.3	32
13	Preparation and Thermoelectric Properties of a Chimney-Ladder (Mn_{1-x}Fe_x)Si_{Î³} (Î³â^¼1.7) Solid Solution. Japanese Journal of Applied Physics, 2011, 50, 035804.	1.5	30
14	Crystal Structure and Thermoelectric Properties of Lightly Substituted Higher Manganese Silicides. Materials, 2018, 11, 926.	2.9	29
15	Reducing Lattice Thermal Conductivity of MnTe by Se Alloying toward High Thermoelectric Performance. ACS Applied Materials & Interfaces, 2019, 11, 28221-28227.	8.0	29
16	Crystal Structure and Thermoelectric Properties of Lightly Vanadium-Substituted Higher Manganese	2.2	28
17	Preparation and Thermoelectric Properties of a Chimney-Ladder (Mn_{1-x}Fe_x)Si_{Î³}(Î³â^¼1.7) Solid Solution. Japanese Journal of Applied Physics, 2011, 50, 035804.	1.5	26
18	Energy Loss of Photoelectrons by Interaction with Image Charge. Physical Review Letters, 2004, 92, 247601.	7.8	24

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19	Ionic liquid entrapment by an electrospun polymer nanofiber matrix as a high conductivity polymer electrolyte. RSC Advances, 2015, 5, 48217-48223.	3.6	24
20	Electronic structure and thermoelectric properties of boron doped Mg2Si. Scripta Materialia, 2016, 123, 59-63.	5.2	24
21	Electronic Structure and Thermoelectric Properties of the Delafossite-Type Oxides CuFe1â€“x Ni x O2. Journal of Electronic Materials, 2009, 38, 1282-1286.	2.2	23
22	Fabrication of iodine-doped pentacene thin films for organic thermoelectric devices. Journal of Applied Physics, 2011, 109, .	2.5	23
23	Spin dynamics of triangular lattice antiferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CuFeO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:mrow> Crossover from spin-liquid to paramagnetic phase. Physical Review B, 2009, 80, .	3.2	21
24	Al insertion and additive effects on the thermoelectric properties of yttrium boride. Journal of Applied Physics, 2014, 115, 123702.	2.5	21
25	Enhancing the Thermoelectric Performance of Mg₂Sn Single Crystals via Point Defect Engineering and Sb Doping. ACS Applied Materials & Interfaces, 2020, 12, 57888-57897.	8.0	21
26	Structure and magnetism of Fe thin films grown on Rh(001) studied by photoelectron spectroscopy. Physical Review B, 2001, 64, .	3.2	20
27	Local structure and atomic dynamics in Fe2VAl Heusler-type thermoelectric material: The effect of heavy element doping. Physical Review B, 2020, 101, .	3.2	20
28	Inelastic Photoemission due to Scattering by Surface Adsorbate Vibrations. Physical Review Letters, 2005, 95, 207601.	7.8	19
29	Effect of Interstitial Mg in Mg2+x Si on Electrical Conductivity and Seebeck Coefficient. Journal of Electronic Materials, 2016, 45, 1589-1593.	2.2	19
30	Effects of Nb substitution on thermoelectric properties of CrSi2. Journal of Alloys and Compounds, 2016, 687, 37-41.	5.5	18
31	Electronic structure and magnetic anisotropy of Co/Au(111):â€ƒA spin-resolved photoelectron spectroscopy study. Physical Review B, 2001, 63, .	3.2	17
32	Structure and High-Temperature Thermoelectric Properties of the n-Type Layered Oxide Ca2â^'x Bi xâ^'Î´ MnO4â^'Î³. Journal of Electronic Materials, 2009, 38, 1159-1162.	2.2	17
33	Viscosity and drag force involved in organelle transport: Investigation of the fluctuation dissipation theorem. European Physical Journal E, 2013, 36, 136.	1.6	17
34	Preparation, thermoelectric properties, and crystal structure of boron-doped Mg2Si single crystals. AIP Advances, 2020, 10, 035115.	1.3	17
35	Crystal Structure and Thermoelectric Properties of Misfit-Layered Sulfides [Ln2S2] p NbS2 (LnÂ=ÂLanthanides). Journal of Electronic Materials, 2013, 42, 1335-1339.	2.2	16
36	Effects of Disorder on the Electronic Structure and Thermoelectric Properties of an Inverse Full-Heusler Mn₂CoAl Alloy. Chemistry of Materials, 2021, 33, 2543-2547.	6.7	16

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37	Chemical-Pressure-Induced Point Defects Enable Low Thermal Conductivity for Mg₂Sn and Mg₂Si Single Crystals. ACS Applied Energy Materials, 2021, 4, 5123-5131.	5.1	16
38	Perpendicular Magnetic Anisotropy of Co/Pd(111) Studied by Spin-Resolved Photoelectron Spectroscopy. Journal of the Physical Society of Japan, 2003, 72, 1161-1165.	1.6	15
39	Magnetic Dead Layers Induced by Strain at fct Fe/Rh(001) Interface. Journal of the Physical Society of Japan, 2004, 73, 2550-2553.	1.6	15
40	Theoretical and experimental investigation of the excellent pâ€“n control in yttrium aluminoborides. Science and Technology of Advanced Materials, 2014, 15, 035012.	6.1	14
41	Electron Conduction Mechanism of Deficient Half-Heusler VFeSb Compound Revealed by Crystal and Electronic Structure Analyses. Chemistry of Materials, 2020, 32, 5173-5181.	6.7	14
42	Effects of Cobalt Substitution on Crystal Structure and Thermoelectric Properties of Melt-Grown Higher Manganese Silicides. Journal of Electronic Materials, 2019, 48, 1902-1908.	2.2	13
43	High-Performance p-Type Magnesium Silicon Thermoelectrics. Journal of Electronic Materials, 2013, 42, 1855-1863.	2.2	12
44	Crystal structure and thermoelectric properties of the incommensurate chimneyâ€“ladder compound RhGe_{Î³}(Î³ â‰ˆ 1.293). Journal of Materials Research, 2015, 30, 2611-2617.	2.6	12
45	Outstanding thermoelectric performance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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55	Phase separation in thermoelectric delafossite CuFe1âˆ’xNixO2 observed by soft x-ray magnetic circular dichroism. Applied Physics Letters, 2011, 99, 012108.	3.3	9
56	Design and fabrication of full-Heusler compound with positive Seebeck coefficient as a potential thermoelectric material. Scripta Materialia, 2018, 150, 130-133.	5.2	9
57	Fabrication and Thermoelectric Properties of Al/Mg₂Si Composite Materials. Materials Transactions, 2018, 59, 1041-1045.	1.2	9
58	Enhanced Thermoelectric Performance of a Chimney-Ladder (Mn1-xCrx)SiÎ³(Î³â‰¼1.7) Solid Solution. Japanese Journal of Applied Physics, 2012, 51, 085801.	1.5	9
59	Magnetic dead layers in Fe films induced by a lattice mismatch at an interface. Physica B: Condensed Matter, 2004, 351, 324-327.	2.7	8
60	Preparation and thermoelectric properties of pseudogap intermetallic (Ti1-V)NiSi solid solutions. Journal of Alloys and Compounds, 2019, 771, 111-116.	5.5	8
61	Detection of the frustrated rotation mode of CO on Cu(001) by very low energy photoelectron spectroscopy. Surface Science, 2006, 600, 3536-3539.	1.9	7
62	Soft x-ray synchrotron radiation spectroscopy study of CuFe1-xNixO2 (0â‰¤xâ€²â‰¤0.03) delafossite oxides. Journal of Applied Physics, 2011, 109, .	2.5	7
63	Anisotropic Thermoelectric Properties of MnSi$_{gamma}$ Film Prepared on R-Sapphire. Applied Physics Express, 2012, 5, 055501.	2.4	7
64	Thermoelectric Properties of Mo and Ge co-substituted CrSi₂. Transactions of the Materials Research Society of Japan, 2018, 43, 85-91.	0.2	7
65	Dynamics of very low energy photoelectrons interacting with image charge ofCsâ•Cu(111)surface. Physical Review B, 2005, 72, .	3.2	6
66	Spectroscopic Evidence for Energy Loss of Photoelectrons Interacting with Image Charge. Journal of the Physical Society of Japan, 2007, 76, 044604.	1.6	6
67	Structural and Magnetic Transition Temperatures of Full Heusler Ni-Mn-Sn Alloys Determined by Van der Pauw Method. Journal of Chemical Engineering of Japan, 2007, 40, 1328-1329.	0.6	6
68	Effect of Cobalt-Substitution on the Structure and Thermoelectric Properties of Chimney-Ladder Solid Solution (Mn_{1-x}Co_x)Si_{Î³} (Î³~ 1.7). Advances in Science and Technology, 2010, 74, 22-25.	0.2	6
69	Thermoelectric properties of iodine doped pentacene thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 592-594.	0.8	6
70	Fabrication of Multilayer-Type Mn-Si Thermoelectric Device. Journal of Electronic Materials, 2014, 43, 1993-1999.	2.2	6
71	Lattice dynamics and lattice thermal conductivity of CrSi 2 calculated from first principles and the phonon Boltzmann transport equation. Journal of Applied Physics, 2019, 126, 025105.	2.5	6
72	Crystal structure, electronic structure and thermoelectric properties of Î²- and Î³-Zn₄Sb₃ thermoelectrics: a (3 + 1)-dimensional superspace group approach. Journal of Materials Chemistry C, 2020, 8, 9205-9212.	5.5	6

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73	Distinct impact of order degree on thermoelectric power factor of p-type full-Heusler Mn₂VAl compounds. Materials Research Express, 2020, 7, 055503.	1.6	6
74	Cation Distribution Dependence on Thermoelectric Properties of Doped Spinel M_{0.6}Fe_{2.4}O₄. Materials Transactions, 2012, 53, 1164-1168.	1.2	6
75	Realizing p-type Mg2Sn Thermoelectrics via Ga-Doping and Point Defect Engineering. ACS Applied Energy Materials, 0, , .	5.1	6
76	Perpendicular magnetic anisotropy and magnetoâ€optical properties of evaporated (Fe,Co)â€“rareâ€earth amorphous binary alloy films. Journal of Applied Physics, 1988, 64, 5492-5494.	2.5	5
77	Thermoelectric Potential of Polymer-Scaffolded Ionic Liquid Membranes. Journal of Electronic Materials, 2014, 43, 1585-1589.	2.2	5
78	Thermoelectric Hexagonal A-Mg-Si with AÂ=ÂSr and Ba Zintl Phases. Journal of Electronic Materials, 2016, 45, 5238-5245.	2.2	5
79	Pyroelectric Energy Harvesting Using Ferroelectric Ba_{1â^'x}Ca_xTiO₃. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1701002.	1.8	5
80	Relationships between crystallite size and thermoelectric properties of nano-structured CrSi2 prepared by the reduction-diffusion and spark plasma sintering methods. Journal of Alloys and Compounds, 2021, 861, 157967.	5.5	5
81	Derivative Spectra of Very Low Energy Photoelectrons from CO/Cu(001) Surface Obtained by a Lock-in Technique. Journal of the Physical Society of Japan, 2006, 75, 104303.	1.6	4
82	Thermoelectric Energy Conversion and Ceramic Thermoelectrics. Materials Science Forum, 0, 671, 1-20.	0.3	4
83	Polymer electrolyte liquid crystal mixtures as phase-dependent thermoelectric materials. Molecular Crystals and Liquid Crystals, 2017, 642, 9-17.	0.9	4
84	Preparation and thermoelectric properties of mixed valence compound Sn₂S₃. Japanese Journal of Applied Physics, 2017, 56, 061201.	1.5	4
85	Preparation and optical properties of higher manganese silicide, (Mn,Fe)Si , thin films. Applied Surface Science, 2018, 458, 700-704.	6.1	4
86	Design and power generation of tilted Cu/Fe2V(Al0.9Si0.1) multilayers via the transverse thermoelectric effect. Journal of Applied Physics, 2019, 126, .	2.5	4
87	Element-selective local structural analysis around B -site cations in multiferroic Pb(Fe1/2Nb1/2)O3 using x-ray fluorescence holography. Physical Review B, 2021, 104, .	3.2	4
88	Growth of Fe films on Rh(001): a photoemission study. Applied Surface Science, 2001, 169-170, 375-379.	6.1	3
89	Thermoelectric properties of olivine-type sulfides <i>Tm</i>₂<i>X</i>S₄ (<i>Tm</i> = Mn, Fe, <i>X</i> = Si, Ge). Transactions of the Materials Research Society of Japan, 2018, 43, 13-17.	0.2	3
90	Magnetic Full-Heusler Compounds for Thermoelectric Applications. , 0, , .		3

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91	Crystal structure, microstructure, and electronic transport properties of Î²-Zn4Sb3 thermoelectrics: effects of Zn intercalation and deintercalation. Materials Today Energy, 2021, 21, 100723.	4.7	3
92	Structural and thermoelectric properties of TTFâ€‹_{0.71} organic compound. Physica Status Solidi (B): Basic Research, 2017, 254, 1600513.	1.5	2
93	Electronic States of fcc Fe/Co(001) of 5-11 Monolayers Probed by Spin-Resolved Photoemission Spectroscopy. Japanese Journal of Applied Physics, 1999, 38, 415.	1.5	2
94	MAGNETIC PROPERTIES OF fcc Fe THIN FILMS. Surface Review and Letters, 2000, 07, 667-671.	1.1	1
95	Electronic structures of magnetic ultrathin films Co/Au(1 1 1) studied by spin-resolved photoelectron spectroscopy. Applied Surface Science, 2001, 169-170, 176-179.	6.1	1
96	Spin-resolved photoemission and electronic structures of magnetic thin films. Journal of Electron Spectroscopy and Related Phenomena, 2002, 124, 281-288.	1.7	1
97	High temperature thermoelectric properties of delafossite-type oxides CuFe<inf>0.98</inf>M<inf>0.02</inf>O<inf>2</inf> (M=Mg, Zn, Ni, Co,) Tj ETQq1 1 0.784314 rgBT /O		1
98	Thermoelectric and magnetic properties of Yb2MgSi2 prepared by spark plasma sintering method. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	1
99	Enhanced Thermoelectric Properties of Chimney-ladder Type Higher Manganese Silicides. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2017, 64, 461-466.	0.2	1
100	Pyroelectric Energy Harvesting Using Ferroelectric Ba_{1â^'x}Ca_xTiO₃ (Phys. Status Solidi A 11â•2018). Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1870023.	1.8	1
101	Very Low Energy Photoelectron Spectroscopy: Energy Loss of Photoelectrons. Hyomen Kagaku, 2005, 26, 741-745.	0.0	1
102	Electronic structure and magnetic anisotropy of Co/Au(111): a spin-resolved photoelectron spectroscopy study. AIP Conference Proceedings, 2001, , .	0.4	0
103	Structure and magnetism of Fe thin films grown on Rh(001) studied by spin-resolved photoelectron spectroscopy. AIP Conference Proceedings, 2001, , .	0.4	0
104	ELECTRONIC STRUCTURES AND REORIENTATION OF PERPENDICULAR MAGNETIC ANISOTROPY OF Co/Au(111) and Co/Pd(111). Surface Review and Letters, 2002, 09, 865-869.	1.1	0
105	Fabrication and in-plane electrical resistivity of Ge/SiGe quantum dot superlattices. , 2007, , .		0
106	Vibrationally Induced Inelastic Structures in Laser Photoemission Spectra. Hyomen Kagaku, 2007, 28, 378-384.	0.0	0
107	Crystal Structure and Thermoelectric Properties of Magnesium Silicide. Materia Japan, 2017, 56, 546-553.	0.1	0
108	7PM1-C-2 Thermoelectric Properties of Higher Manganese Silicides with Complicated Modulated Structure. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2013, 2013.5, 279-280.	0.0	0

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109	Magnetic Properties of fcc Fe Thin Films. Surface Review and Letters, 2000, 7, 667-671.	1.1	0