

Haruhiko Usono

List of Publications by Year in descending order

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papers

1,191
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430874

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30
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99
all docs

99
docs citations

99
times ranked

866
citing authors

#	ARTICLE	IF	CITATIONS
1	Melt growth and characterization of Mg ₂ Si bulk crystals. Thin Solid Films, 2007, 515, 8272-8276.	1.8	74
2	Indirect optical absorption of single crystalline $\hat{\Gamma}^2$ -FeSi ₂ . Applied Physics Letters, 2004, 85, 1937-1939.	3.3	60
3	$\hat{\Gamma}^2$ -FeSi ₂ Single Crystals Grown from Solution. Japanese Journal of Applied Physics, 2001, 40, 1367-1369.	1.5	52
4	Crystal growth and characterization of Mg ₂ Si for IR-detectors and thermoelectric applications. Japanese Journal of Applied Physics, 2015, 54, 07JB06.	1.5	51
5	Optical properties of $\hat{\Gamma}^2$ -FeSi ₂ single crystals grown from solutions. Thin Solid Films, 2004, 461, 182-187.	1.8	50
6	Infrared photoresponse from pn-junction Mg ₂ Si diodes fabricated by thermal diffusion. Journal of Physics and Chemistry of Solids, 2013, 74, 311-314.	4.0	49
7	Tailoring thermoelectric properties of nanostructured crystal silicon fabricated by infrared femtosecond laser direct writing. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 715-721.	1.8	45
8	Thermal expansion of semiconducting silicides $\hat{\Gamma}^2$ -FeSi ₂ and Mg ₂ Si. Intermetallics, 2015, 67, 75-80.	3.9	38
9	Solution Growth of Single-Phase $\hat{\Gamma}^2$ -FeSi ₂ Bulk Crystals. Japanese Journal of Applied Physics, 2000, 39, L225-L226.	1.5	36
10	Solution Growth and Optical Characterization of $\hat{\Gamma}^2$ -FeSi ₂ Bulk Crystals. Japanese Journal of Applied Physics, 2002, 41, L583-L585.	1.5	34
11	Surface aspects of discolouration in Bisphenol A Polycarbonate (BPA-PC), used as lens in LED-based products. Optical Materials, 2014, 37, 155-159.	3.6	29
12	Convenient Melt-Growth Method for Thermoelectric Mg ₂ Si. Journal of Electronic Materials, 2014, 43, 2212-2217.	2.2	26
13	Thin film of guest-free type-II silicon clathrate on Si(111) wafer. Thin Solid Films, 2016, 609, 30-34.	1.8	25
14	Semiconducting behavior of type-I Si clathrate K ₈ Ga ₈ Si ₃₈ . Dalton Transactions, 2011, 40, 4045.	3.3	24
15	Electrical properties of Ca ₂ Si sintered compact synthesized by spark plasma sintering. Physics Procedia, 2011, 11, 106-109.	1.2	23
16	Raman spectra for $\hat{\Gamma}^2$ -FeSi ₂ bulk crystals. Thin Solid Films, 2004, 461, 165-170.	1.8	22
17	Solution Growth and Thermoelectric Properties of Single-Phase MnSi _{1.75} $\hat{\Gamma}^2$. Journal of Electronic Materials, 2011, 40, 1165-1170.	2.2	20
18	Interface driven energy-filtering and phonon scattering of polyaniline incorporated ultrathin layered molybdenum disulphide nanosheets for promising thermoelectric performance. Journal of Colloid and Interface Science, 2021, 584, 295-309.	9.4	20

#	ARTICLE	IF	CITATIONS
19	Observation of Etch Pits of $\hat{\Gamma}^2$ -FeSi ₂ Single Crystals. Japanese Journal of Applied Physics, 2001, 40, 4164-4165.	1.5	19
20	Crystal growth of ZnO bulk by CVT method using PVA. Journal of Crystal Growth, 2008, 310, 1827-1831.	1.5	19
21	Thermoelectric Properties of p-Type Mg ₂ Si _{0.25} Sn _{0.75} Doped with Sodium Acetate and Metallic Sodium. Journal of Electronic Materials, 2014, 43, 1580-1584.	2.2	19
22	Preparation of Schottky contacts on $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"} \rangle \langle \text{mml:mi} \rangle n \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -type Mg ₂ Si single crystalline substrate. Physics Procedia, 2011, 11, 171-173.	1.2	18
23	Electrical properties of p-type $\hat{\Gamma}^2$ -FeSi ₂ single crystals grown from Ga and Zn solvents. Thin Solid Films, 2004, 461, 188-192.	1.8	17
24	Effects of varying indium composition on the thermoelectric properties of In _x Ga _{1-x} Sb ternary alloys. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	17
25	Crystal growth of $\hat{\Gamma}^2$ -FeSi ₂ by temperature gradient solution growth method using Zn solvent. Journal of Crystal Growth, 2002, 237-239, 1971-1975.	1.5	16
26	Single crystalline $\hat{\Gamma}^2$ -FeSi ₂ grown using high-purity FeSi ₂ source. Thin Solid Films, 2007, 515, 8263-8267.	1.8	16
27	Structural study of FeSi ₂ under pressure. Journal of Applied Physics, 2004, 96, 4903-4908.	2.5	15
28	Novel photosensitive materials for hydrogen generation through photovoltaic electricity. International Journal of Hydrogen Energy, 2007, 32, 2726-2729.	7.1	15
29	Non-destructive depth analysis of the surface oxide layer on Mg ₂ Si with XPS and XAS. Surface and Interface Analysis, 2016, 48, 432-435.	1.8	15
30	Enhanced thermoelectric properties of InSb: Studies on In/Ga doped GaSb/InSb crystals. Intermetallics, 2019, 105, 21-28.	3.9	15
31	Spectral characterization of Mg ₂ Si pn-junction diode depending on RTA periods. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1812-1814.	0.8	13
32	Conversion from GaAs to GaAsP by Annealing a GaAs Layer on GaP in Ga-As-P Solution. Japanese Journal of Applied Physics, 1993, 32, L1164-L1166.	1.5	12
33	A numerical analysis for the conversion phenomenon of GaAs to GaAsP on a GaP substrate in an LPE system. Journal of Crystal Growth, 1996, 169, 697-703.	1.5	12
34	Solution growth of n-type - single crystals using Sn solvent. Journal of Crystal Growth, 2005, 275, e1967-e1974.	1.5	12
35	Preparation of $\hat{\Gamma}^2$ -FeSi ₂ substrates by molten salt method. Thin Solid Films, 2007, 515, 8268-8271.	1.8	12
36	Polarized optical reflection study on single crystalline $\hat{\Gamma}^2$ -FeSi ₂ . Journal of Materials Science: Materials in Electronics, 2007, 18, 65-69.	2.2	12

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37	Silicon meets group-II metals in energy and electronic applications—How to handle reactive sources for high-quality films and bulk crystals. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	12
38	Bandgap modifications by lattice deformations in $\hat{\text{I}}^2\text{-FeSi}_2$ epitaxial films. <i>Thin Solid Films</i> , 2011, 519, 8468-8472.	1.8	11
39	Suppression of twins in GaAs layers grown on a GaP(111)B substrate by liquid phase epitaxy. <i>Journal of Crystal Growth</i> , 1996, 169, 181-184.	1.5	10
40	Effect of thermal annealing on the photoluminescence of $\hat{\text{I}}^2\text{-FeSi}_2$ films on Si substrate. <i>Thin Solid Films</i> , 2006, 508, 367-370.	1.8	10
41	Crystal growth of Mg ₂ Si for IR-detector. <i>Journal of Crystal Growth</i> , 2017, 468, 761-765.	1.5	10
42	Growth and characterization of Br-doped ZnSe single crystals grown by a vertical sublimation method. <i>Journal of Crystal Growth</i> , 2001, 229, 79-86.	1.5	9
43	Etch pits observation and etching properties of $\hat{\text{I}}^2\text{-FeSi}_2$. <i>Materials Science in Semiconductor Processing</i> , 2003, 6, 413-416.	4.0	9
44	Spectroscopic characterization of $\hat{\text{I}}^2\text{-FeSi}_2$ single crystals and homoepitaxial $\hat{\text{I}}^2\text{-FeSi}_2$ films by XPS and XAS. <i>Applied Surface Science</i> , 2011, 257, 2950-2954.	6.1	9
45	An Approach to Optimize the Thermoelectric Properties of III–V Ternary InGaSb Crystals by Defect Engineering via Point Defects and Microscale Compositional Segregations. <i>Inorganic Chemistry</i> , 2019, 58, 11579-11588.	4.0	9
46	Structural and electrical properties of $\hat{\text{I}}^2\text{-FeSi}_2$ single crystals grown using Sb solvent. <i>Thin Solid Films</i> , 2004, 461, 110-115.	1.8	7
47	Local neutron transmutation doping using isotopically enriched silicon film. <i>Journal of Physics and Chemistry of Solids</i> , 2007, 68, 2204-2208.	4.0	7
48	Conversion of GaAs Layer Grown on GaP Substrate to GaAsP in LPE System. <i>Japanese Journal of Applied Physics</i> , 1993, 32, 735.	1.5	6
49	Lattice parameter of ZnSe crystals grown from melt under Zn partial pressure. <i>Journal of Crystal Growth</i> , 1998, 193, 39-42.	1.5	6
50	The effect of (Al, I) impurities and heat treatment on lattice parameter of single-crystal ZnSe. <i>Journal of Crystal Growth</i> , 2000, 214-215, 889-893.	1.5	6
51	Solution growth of n-type $\hat{\text{I}}^2\text{-FeSi}_2$ single crystals using Ni-doped Zn solvent. <i>Journal of Crystal Growth</i> , 2006, 292, 290-293.	1.5	6
52	Photoemission study on the valence band of a $\hat{\text{I}}^2\text{-FeSi}_2$ thin film using synchrotron radiation. <i>Dalton Transactions</i> , 2011, 40, 6023.	3.3	6
53	Magnetisation of bulk Mn ₁₁ Si ₁₉ and Mn ₄ Si ₇ . <i>Thin Solid Films</i> , 2011, 519, 8516-8519.	1.8	6
54	Single crystal growth of small-angle-grain-boundary-free Mg ₂ Si via vertical Bridgman method. <i>Journal of Crystal Growth</i> , 2021, 571, 126258.	1.5	6

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55	Thermal expansion of $\hat{\Gamma}^2$ -FeSi ₂ at low temperatures. <i>Thin Solid Films</i> , 2004, 461, 106-109.	1.8	5
56	Growth of $\hat{\Gamma}^2$ -FeSi ₂ thin films on $\hat{\Gamma}^2$ -FeSi ₂ (110) substrates by molecular beam epitaxy. <i>Thin Solid Films</i> , 2007, 515, 8197-8200.	1.8	5
57	Surface preparation and characterization of single crystalline $\hat{\Gamma}^2$ -FeSi ₂ . <i>Surface Science</i> , 2008, 602, 3006-3009.	1.9	5
58	Copper centers in copper-diffused n-type silicon measured by photoluminescence and deep-level transient spectroscopy. <i>Applied Physics Letters</i> , 2012, 101, 042113.	3.3	5
59	Transformation reactions of copper centers in the space-charge region of a copper-diffused silicon crystal measured by deep-level transient spectroscopy. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	5
60	Band structure characterization of K ₈ Ga ₈ Si ₃₈ clathrates by optical measurement. , 0, , .		5
61	Rapid diffusion of V elements during the conversion of GaAs to GaAsP on a GaP substrate. <i>Applied Surface Science</i> , 1997, 113-114, 567-572.	6.1	4
62	Growth condition dependence of direct bandgap in $\hat{\Gamma}^2$ -FeSi ₂ epitaxial films grown by molecular beam epitaxy. <i>Physics Procedia</i> , 2012, 23, 5-8.	1.2	4
63	Preparation and thermoelectric properties of Mg ₂ Si _{0.9-x} Sn _x Ge _{0.1} . <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1704-1707.	0.8	4
64	Solid-phase growth of Mg ₂ Si by annealing in inert gas atmosphere. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1708-1711.	0.8	4
65	Depth profiles of the nickel donor center in p-type silicon diffused with dilute nickel measured by deep-level transient spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 091301.	1.5	4
66	Origins of the nitrogen-related deep donor center and its preceding species in nitrogen-doped silicon determined by deep-level transient spectroscopy. <i>Applied Physics Express</i> , 2019, 12, 021005.	2.4	4
67	Conversion mechanism of GaAs to GaAsP on GaP substrate. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1997, 44, 16-19.	3.5	3
68	Effect of solution thickness on ZnSe crystals grown from Se/Te mixed solutions. <i>Journal of Crystal Growth</i> , 2000, 219, 346-352.	1.5	3
69	Fluorescence EXAFS study of residual Ga in $\hat{\Gamma}^2$ -FeSi ₂ grown from Ga solvent. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012069.	0.4	3
70	Energy level(s) of the dissociation product of the 1.014 eV photoluminescence copper center in n-type silicon determined by photoluminescence and deep-level transient spectroscopy. <i>Journal of Applied Physics</i> , 2013, 114, 033508.	2.5	3
71	Solution growth and optical characterization of Mn ₁₁ Si ₁₉ . <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1808-1811.	0.8	3
72	Influence of Humidity, Volume Density, and MgO Impurity on Mg ₂ Si Thermoelectric-Leg. <i>Journal of Electronic Materials</i> , 2017, 46, 3103-3108.	2.2	3

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91	Solid evidence for magnetic moment enhancement in micro-particles of Mn ₁₁ Si ₁₉ . Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1735-1738.	0.8	0
92	X-ray photoelectron spectroscopy studies on single crystalline $\hat{1}^2$ -FeSi ₂ . Thin Solid Films, 2016, 606, 1-6.	1.8	0
93	Characterization of iron in silicon by low-temperature photoluminescence and deep-level transient spectroscopy. Journal of Applied Physics, 2018, 123, 105101.	2.5	0
94	Evaluation of Magnesium Tin Silicide Sintered Bodies Prepared by Liquid-Phase Pressure-Less Sintering. Materials Transactions, 2021, 62, 661-666.	1.2	0
95	Thermal Behavior of Cu and Ni in Silicon Measured by Photoluminescence and Deep-Level Transient Spectroscopy. Hyomen Kagaku, 2016, 37, 128-133.	0.0	0
96	First Principle Band Calculations of Mg ₂ Si Thin Films with (001) and (110) Orientations. , 0, , .		0
97	Observation of Magnesium-Induced Crystallization (Mg-MIC) of a-Si Thin Film. , 0, , .		0