

Haruhiko Usono

List of Publications by Year in descending order

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papers

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430874

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citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Power Generation Efficiency of Thermoelectric Elements with a Trapezoidal Section. <i>Journal of Electronic Materials</i> , 2021, 50, 346-351.	2.2	2
3	Interface driven energy-filtering and phonon scattering of polyaniline incorporated ultrathin layered molybdenum disulphide nanosheets for promising thermoelectric performance. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 295-309.	9.4	20
4	Evaluation of Magnesium Tin Silicide Sintered Bodies Prepared by Liquid-Phase Pressure-Less Sintering. <i>Materials Transactions</i> , 2021, 62, 661-666.	1.2	0
5	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
6	Local structure analysis of Sb, Bi, and Ag dopant atoms in Mg ₂ Si semiconductor by x-ray absorption spectroscopy and first-principles calculation. <i>Journal of Applied Physics</i> , 2021, 130, 245105.	2.5	1
7	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
8	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
9	Enhanced thermoelectric properties of InSb: Studies on In/Ga doped GaSb/InSb crystals. <i>Intermetallics</i> , 2019, 105, 21-28.	3.9	15
10	Characterization of iron in silicon by low-temperature photoluminescence and deep-level transient spectroscopy. <i>Journal of Applied Physics</i> , 2018, 123, 105101.	2.5	0
11	Crystal growth of Mg ₂ Si for IR-detector. <i>Journal of Crystal Growth</i> , 2017, 468, 761-765.	1.5	10
12	Optical transmittance and reflectance studies and evidence of weak electron-phonon interaction in Type-I Ge clathrate Ba ₈ Ga ₁₆ Ge ₃₀ . <i>Journal of Applied Physics</i> , 2017, 121, 175105.	2.5	2
13	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
14	Transformation of the nickel donor center by annealing in silicon measured by deep-level transient spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 011302.	1.5	1
15	X-ray photoelectron spectroscopy studies on single crystalline \hat{I}^2 -FeSi ₂ . <i>Thin Solid Films</i> , 2016, 606, 1-6.	1.8	0
16	Thin film of guest-free type-II silicon clathrate on Si(111) wafer. <i>Thin Solid Films</i> , 2016, 609, 30-34.	1.8	25
17	Effects of varying indium composition on the thermoelectric properties of In _x Ga _{1-x} Sb ternary alloys. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	17
18	Non-destructive depth analysis of the surface oxide layer on Mg ₂ Si with XPS and XAS. <i>Surface and Interface Analysis</i> , 2016, 48, 432-435.	1.8	15

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19	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
20	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
21	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
22	Thermal expansion of semiconducting silicides $\hat{\Gamma}^2$ -FeSi ₂ and Mg ₂ Si. Intermetallics, 2015, 67, 75-80.	3.9	38
23	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
24	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
25	Depth profiles of the nickel donor center in p-type silicon diffused with dilute nickel measured by deep-level transient spectroscopy. Japanese Journal of Applied Physics, 2014, 53, 091301.	1.5	4
26	Convenient Melt-Growth Method for Thermoelectric Mg ₂ Si. Journal of Electronic Materials, 2014, 43, 2212-2217.	2.2	26
27	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
28	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. Journal of Applied Physics, 2013, 114, 033508.	2.5	3
29	Preparation and thermoelectric properties of Mg ₂ Si _{0.9-x} Sn _x Ge _{0.1} . Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1704-1707.	0.8	4
30	Solid-phase growth of Mg ₂ Si by annealing in inert gas atmosphere. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1708-1711.	0.8	4
31	Solution growth and optical characterization of Mn ₁₁ Si ₁₉ . Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1808-1811.	0.8	3
32	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
33	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
34	Copper centers in copper-diffused n-type silicon measured by photoluminescence and deep-level transient spectroscopy. Applied Physics Letters, 2012, 101, 042113.	3.3	5
35	Transformation reactions of copper centers in the space-charge region of a copper-diffused silicon crystal measured by deep-level transient spectroscopy. Journal of Applied Physics, 2012, 112, .	2.5	5
36	Growth condition dependence of direct bandgap in $\hat{\Gamma}^2$ -FeSi ₂ epitaxial films grown by molecular beam epitaxy. Physics Procedia, 2012, 23, 5-8.	1.2	4

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37	Semiconducting behavior of type-I Si clathrate K8Ga8Si38. Dalton Transactions, 2011, 40, 4045.	3.3	24
38	Photoemission study on the valence band of a \hat{I}^2 -FeSi2 thin film using synchrotron radiation. Dalton Transactions, 2011, 40, 6023.	3.3	6
39	Bandgap modifications by lattice deformations in \hat{I}^2 -FeSi2 epitaxial films. Thin Solid Films, 2011, 519, 8468-8472.	1.8	11
40	Magnetisation of bulk Mn11Si19 and Mn4Si7. Thin Solid Films, 2011, 519, 8516-8519.	1.8	6
41	Solution Growth and Thermoelectric Properties of Single-Phase MnSi1.75 \hat{a}^x . Journal of Electronic Materials, 2011, 40, 1165-1170.	2.2	20
42	Electrical properties of Ca2Si sintered compact synthesized by spark plasma sintering. Physics Procedia, 2011, 11, 106-109.	1.2	23
43	Surface characterization of homoepitaxial $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" \rangle$	1.2	0
44	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 Mg2Si single crystalline substrate. Physics Procedia, 2011, 11, 171-173.	1.2	18
45	Effect of temperature modulation during temperature gradient solution growth of $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" \rangle$	1.2	1
46	Effect of temperature modulation during temperature gradient solution growth of $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" \rangle$	1.2	1
47	Pr Spectroscopic characterization of \hat{I}^2 -FeSi2 single crystals and homoepitaxial \hat{I}^2 -FeSi2 films by XPS and XAS. Applied Surface Science, 2011, 257, 2950-2954.	6.1	9
48	The local structure of \hat{I}^{\pm} -FeSi2 under high pressure. Physica Status Solidi (B): Basic Research, 2009, 246, 541-543.	1.5	2
49	Fluorescence EXAFS study of residual Ga in \hat{I}^2 -FeSi2 grown from Ga solvent. Journal of Physics: Conference Series, 2009, 190, 012069.	0.4	3
50	Crystal growth of ZnO bulk by CVT method using PVA. Journal of Crystal Growth, 2008, 310, 1827-1831.	1.5	19
51	Surface preparation and characterization of single crystalline \hat{I}^2 -FeSi2. Surface Science, 2008, 602, 3006-3009.	1.9	5
52	Solution growth and low-temperature thermoelectric properties of single crystalline \hat{I}^2 -FeSi2, 2007, .		1
53	Growth of \hat{I}^2 -FeSi2 thin films on \hat{I}^2 -FeSi2 (110) substrates by molecular beam epitaxy. Thin Solid Films, 2007, 515, 8197-8200.	1.8	5
54	Melt growth and characterization of Mg2Si bulk crystals. Thin Solid Films, 2007, 515, 8272-8276.	1.8	74

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55	Single crystalline $\hat{\Gamma}^2$ -FeSi ₂ grown using high-purity FeSi ₂ source. Thin Solid Films, 2007, 515, 8263-8267.	1.8	16
56	Preparation of $\hat{\Gamma}^2$ -FeSi ₂ substrates by molten salt method. Thin Solid Films, 2007, 515, 8268-8271.	1.8	12
57	Novel photosensitive materials for hydrogen generation through photovoltaic electricity. International Journal of Hydrogen Energy, 2007, 32, 2726-2729.	7.1	15
58	Local neutron transmutation doping using isotopically enriched silicon film. Journal of Physics and Chemistry of Solids, 2007, 68, 2204-2208.	4.0	7
59	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
60	Thermoelectric Properties of Solution Grown β -FeSi ₂ Single Crystals. Materials Transactions, 2006, 47, 1428-1431.	1.2	2
61	Solution growth of n-type $\hat{\Gamma}^2$ -FeSi ₂ single crystals using Ni-doped Zn solvent. Journal of Crystal Growth, 2006, 292, 290-293.	1.5	6
62	Effect of thermal annealing on the photoluminescence of $\hat{\Gamma}^2$ -FeSi ₂ films on Si substrate. Thin Solid Films, 2006, 508, 367-370.	1.8	10
63	Solution growth of high quality P-Type $\hat{\Gamma}^2$ -FeSi ₂ single crystals using Zn-solvent. Journal of Crystal Growth, 2005, 275, e2003-e2007.	1.5	1
64	Solution growth of n-type - single crystals using Sn solvent. Journal of Crystal Growth, 2005, 275, e1967-e1974.	1.5	12
65	High Interband Transitions in $\hat{\Gamma}^2$ -FeSi ₂ under Pressure. Japanese Journal of Applied Physics, 2005, 44, 7421-7423.	1.5	0
66	Indirect optical absorption of single crystalline $\hat{\Gamma}^2$ -FeSi ₂ . Applied Physics Letters, 2004, 85, 1937-1939.	3.3	60
67	Structural study of FeSi ₂ under pressure. Journal of Applied Physics, 2004, 96, 4903-4908.	2.5	15
68	Raman spectra for $\hat{\Gamma}^2$ -FeSi ₂ bulk crystals. Thin Solid Films, 2004, 461, 165-170.	1.8	22
69	Reflection and absorption spectra of $\hat{\Gamma}^2$ -FeSi ₂ under pressure. Thin Solid Films, 2004, 461, 171-173.	1.8	2
70	Thermal expansion of $\hat{\Gamma}^2$ -FeSi ₂ at low temperatures. Thin Solid Films, 2004, 461, 106-109.	1.8	5
71	Structural and electrical properties of $\hat{\Gamma}^2$ -FeSi ₂ single crystals grown using Sb solvent. Thin Solid Films, 2004, 461, 110-115.	1.8	7
72	Optical properties of $\hat{\Gamma}^2$ -FeSi ₂ single crystals grown from solutions. Thin Solid Films, 2004, 461, 182-187.	1.8	50

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73	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
74	Control of Ga doping level in $\hat{\Gamma}^2$ -FeSi ₂ using Sn-Ga solvent. Materials Science in Semiconductor Processing, 2003, 6, 285-287.	4.0	1
75	Etch pits observation and etching properties of $\hat{\Gamma}^2$ -FeSi ₂ . Materials Science in Semiconductor Processing, 2003, 6, 413-416.	4.0	9
76	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
77	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
78	Growth and characterization of Br-doped ZnSe single crystals grown by a vertical sublimation method. Journal of Crystal Growth, 2001, 229, 79-86.	1.5	9
79	$\hat{\Gamma}^2$ -FeSi ₂ Single Crystals Grown from Solution. Japanese Journal of Applied Physics, 2001, 40, 1367-1369.	1.5	52
80	Observation of Etch Pits of $\hat{\Gamma}^2$ -FeSi ₂ Single Crystals. Japanese Journal of Applied Physics, 2001, 40, 4164-4165.	1.5	19
81	The effect of (Al, I) impurities and heat treatment on lattice parameter of single-crystal ZnSe. Journal of Crystal Growth, 2000, 214-215, 889-893.	1.5	6
82	Effect of solution thickness on ZnSe crystals grown from Se/Te mixed solutions. Journal of Crystal Growth, 2000, 219, 346-352.	1.5	3
83	Solution Growth of Single-Phase $\hat{\Gamma}^2$ -FeSi ₂ Bulk Crystals. Japanese Journal of Applied Physics, 2000, 39, L225-L226.	1.5	36
84	Dependence of lattice parameter of melt-grown ZnSe on Zn partial pressure during in situ annealing. Journal of Crystal Growth, 1999, 197, 466-470.	1.5	2
85	Lattice parameter of ZnSe crystals grown from melt under Zn partial pressure. Journal of Crystal Growth, 1998, 193, 39-42.	1.5	6
86	Rapid diffusion of V elements during the conversion of GaAs to GaAsP on a GaP substrate. Applied Surface Science, 1997, 113-114, 567-572.	6.1	4
87	Conversion mechanism of GaAs to GaAsP on GaP substrate. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 44, 16-19.	3.5	3
88	Suppression of twins in GaAs layers grown on a GaP(111)B substrate by liquid phase epitaxy. Journal of Crystal Growth, 1996, 169, 181-184.	1.5	10
89	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
90	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

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91	Conversion of GaAs Layer Grown on GaP Substrate to GaAsP in LPE System. Japanese Journal of Applied Physics, 1993, 32, 735.	1.5	6
92	Anisotropy of refractive index of \hat{I}^2 -FeSi/sub 2/. , 0, , .		0
93	Band structure characterization of $K_{8}/Ga_{8}/Si_{38}$ clathrates by optical measurement. , 0, , .		5
94	Oxidation resistance of impurity doped Mg_{2}/Si grown from the melt. , 0, , .		1
95	Fabrication of Mg_{2}/Si pn-junction photodiode with shallow mesa-structure and ring electrode. , 0, , .		1
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