

# Takahisa Shiraishi

## List of Publications by Year in descending order

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84  
papers

1,334  
citations

394421

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all docs

84  
docs citations

84  
times ranked

1195  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lower-temperature processing of potassium niobate films by microwave-assisted hydrothermal deposition technique. Journal of the Ceramic Society of Japan, 2022, 130, 123-130.	1.1	1
2	No <sup>+</sup> Heating Deposition of 1 <sup>+</sup> Thick Y <sup>+</sup> Doped HfO <sub>2</sub> Ferroelectric Films with Good Ferroelectric and Piezoelectric Properties by Radio Frequency Magnetron Sputtering Method. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	2
3	Polar-axis-oriented epitaxial tetragonal (Bi,K)TiO <sub>3</sub> films with large remanent polarization deposited below Curie temperature by a hydrothermal method. Applied Physics Letters, 2022, 120, 022903.	3.3	6
4	Evaluation of bulk and surface acoustic waves propagation properties of (K,Na)NbO <sub>3</sub> films deposited by hydrothermal synthesis or RF magnetron sputtering methods. Japanese Journal of Applied Physics, 2022, 61, SG1077.	1.5	1
5	Film thickness dependence of ferroelectric properties in polar-axis-oriented epitaxial tetragonal (Bi,K)TiO <sub>3</sub> films prepared by hydrothermal method. AIP Advances, 2022, 12, 035241.	1.3	2
6	Ferroelectric and piezoelectric properties of 100 <sup>+</sup> nm-thick CeO <sub>2</sub> -HfO <sub>2</sub> epitaxial films. Applied Physics Letters, 2022, 120, .	3.3	7
7	Structural evolution of epitaxial CeO <sub>2</sub> -HfO <sub>2</sub> thin films using atomic-scale observation: Formation of ferroelectric phase and domain structure. Acta Materialia, 2022, 235, 118091.	7.9	7
8	Composition dependence of ferroelectric properties in (111)-oriented epitaxial HfO <sub>2</sub> -CeO <sub>2</sub> solid solution films. Japanese Journal of Applied Physics, 2022, 61, SN1019.	1.5	8
9	Effect of film thickness on piezoelectric vibrator using hydrothermally synthesized epitaxial (K <sub>0.88</sub> Na <sub>0.12</sub> )NbO <sub>3</sub> film. Japanese Journal of Applied Physics, 2022, 61, SN1016.	1.5	5
10	Enhancement of crystal anisotropy and ferroelectricity by decreasing thickness in (Al,Sc)N films. Journal of the Ceramic Society of Japan, 2022, 130, 436-441.	1.1	11
11	Electric <sup>+</sup> Field <sup>+</sup> Induced Ferroelectricity in 5% <sup>+</sup> Doped Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> : Transformation from the Paraelectric Tetragonal Phase to the Ferroelectric Orthorhombic Phase. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000589.	2.4	23
12	Electric <sup>+</sup> Field <sup>+</sup> Induced Ferroelectricity in 5% <sup>+</sup> Doped Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> : Transformation from the Paraelectric Tetragonal Phase to the Ferroelectric Orthorhombic Phase. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2170023.	2.4	1
13	Thermal stability of self-polarization in a (K,Na)NbO <sub>3</sub> film prepared by the hydrothermal method. Japanese Journal of Applied Physics, 2021, 60, SFFB03.	1.5	10
14	Effect of Ta substitution on the synthesis of (K,Na)(Nb,Ta)O <sub>3</sub> powders by hydrothermal reaction: Insight into the combination of alkaline solution and raw powder. Journal of the Ceramic Society of Japan, 2021, 129, 365-371.	1.1	1
15	Influence of cooling rate on ferroelastic domain structure for epitaxial (100)/(001)-oriented Pb(Zr, Tj ETQq1 1 0.784314 rgBT <sub>g</sub> /Overlook	1.5	6
16	Thickness scaling of (Al <sub>0.8</sub> Sc <sub>0.2</sub> )N films with remanent polarization beyond 10 <sup>+</sup> Å around 10 <sup>+</sup> nm in thickness. Applied Physics Express, 2021, 14, 105501.	2.4	30
17	Demonstration of ferroelectricity in ScGaN thin film using sputtering method. Applied Physics Letters, 2021, 119, .	3.3	15
18	Good piezoelectricity of self-polarized thick epitaxial (K,Na)NbO <sub>3</sub> films grown below the Curie temperature (240 <sup>+</sup> °C) using a hydrothermal method. Applied Physics Letters, 2020, 117, .	3.3	8

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19	Growth mechanism and domain structure study on epitaxial BiFeO <sub>3</sub> film grown on (La <sub>0.3</sub> Sr <sub>0.7</sub> )(Al <sub>0.65</sub> Ta <sub>0.35</sub> )O <sub>3</sub> . Journal of Applied Physics, 2020, 127, .	2.5	5
20	Energy storage properties of epitaxially grown CaZrO <sub>3</sub> (1-x)NaNbO <sub>3</sub> thin films prepared with chemical solution deposition method. Journal of Applied Physics, 2020, 128, .	2.5	5
21	Structural and electrical characterization of hydrothermally deposited piezoelectric (K,Na)(Nb,Ta)O <sub>3</sub> thick films. Journal of Materials Science, 2020, 55, 8829-8842.	3.7	8
22	Redox-Based Multilevel Resistive Switching in AlFeO <sub>3</sub> Thin-Film Heterostructures. ACS Applied Electronic Materials, 2020, 2, 1065-1073.	4.3	4
23	Switchable third ScFeO <sub>3</sub> polar ferromagnet with YMnO <sub>3</sub> -type structure. Journal of Materials Chemistry C, 2020, 8, 4447-4452.	5.5	13
24	High yield preparation of (100)-oriented (K,Na)NbO <sub>3</sub> thick films by hydrothermal method using amorphous niobium source. Journal of the Ceramic Society of Japan, 2020, 128, 512-517.	1.1	9
25	Epitaxial growth mechanism of Pb(Zr,Ti)O <sub>3</sub> thin films on SrTiO <sub>3</sub> by chemical solution deposition via self-organized seed layer. Journal of the Ceramic Society of Japan, 2020, 128, 501-511.	1.1	4
26	Interface reaction between PbTiO <sub>3</sub> ; epitaxial thin films and La-doped SrTiO <sub>3</sub> ; (001) substrates through edge dislocations induced by 90° domain formation. Journal of the Ceramic Society of Japan, 2020, 128, 492-500.	1.1	2
27	Rapid deposition of (K,Na)NbO <sub>3</sub> thick films using microwave-assisted hydrothermal technique. Japanese Journal of Applied Physics, 2020, 59, SPPB02.	1.5	7
28	Interface structure of Pb(Zr,Ti)O <sub>3</sub> /MgO(001) epitaxial thin film in early stage of Stranski-Krastanov growth mode. Japanese Journal of Applied Physics, 2019, 58, SLLA08.	1.5	4
29	Effect of Ta-substitution on the deposition of (K,Na)(Nb,Ta)O <sub>3</sub> films by hydrothermal method. Japanese Journal of Applied Physics, 2019, 58, SLLB12.	1.5	8
30	Growth of epitaxial (K, Na)NbO <sub>3</sub> films with various orientations by hydrothermal method and their properties. Japanese Journal of Applied Physics, 2019, 58, SLLB14.	1.5	11
31	ferroelastic domain motion by pulsed electric field in rhombohedral epitaxial Pb	3.2	3
32	Effects of starting materials on the deposition behavior of hydrothermally synthesized {111}-oriented epitaxial (K,Na)NbO <sub>3</sub> thick films and their ferroelectric and piezoelectric properties. Journal of Crystal Growth, 2019, 511, 1-7.	1.5	18
33	Short range biaxial strain relief mechanism within epitaxially grown BiFeO <sub>3</sub> . Scientific Reports, 2019, 9, 6715.	3.3	6
34	Formation of the orthorhombic phase in CeO <sub>2</sub> -HfO <sub>2</sub> solid solution epitaxial thin films and their ferroelectric properties. Applied Physics Letters, 2019, 114, .	3.3	30
35	Evaluation of spatial and temporal resolution on in situ annealing aberration-corrected transmission electron microscopy with proportional-integral-differential controller. Microscopy (Oxford), Tj ETQq1 1 0.7843.14 rgBT /Overlock		
36	Deposition of orientation-controlled thick (K,Na)NbO <sub>3</sub> films on metal substrates by repeated hydrothermal deposition technique. Journal of the Ceramic Society of Japan, 2019, 127, 478-484.	1.1	7

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37	Low-temperature deposition of Li substituted (K,Na)NbO <sub>3</sub> films by a hydrothermal method and their structural and ferroelectric properties. Journal of the Ceramic Society of Japan, 2019, 127, 388-393.	1.1	8
38	Misfit Strain Induced Interface Structure in PMN-PT Epitaxial Thin Films. Materia Japan, 2019, 58, 97-97.	0.1	0
39	Ferroelectric and Magnetic Properties in Room-Temperature Multiferroic Ga <sub>x</sub> Fe <sub>2</sub> O <sub>3</sub> Epitaxial Thin Films. Advanced Functional Materials, 2018, 28, 1704789.	14.9	44
40	Ferroelectricity mediated by ferroelastic domain switching in HfO <sub>2</sub> -based epitaxial thin films. Applied Physics Letters, 2018, 113, .	3.3	69
41	Formation of polar phase in Fe-doped ZrO <sub>2</sub> epitaxial thin films. Applied Physics Letters, 2018, 113, .	3.3	8
42	Domain orientation relationship of orthorhombic and coexisting monoclinic phases of YO <sub>1.5</sub> -doped HfO <sub>2</sub> epitaxial thin films. Japanese Journal of Applied Physics, 2018, 57, 11UF16.	1.5	16
43	Fabrication of ferroelectric Fe doped HfO <sub>2</sub> epitaxial thin films by ion-beam sputtering method and their characterization. Japanese Journal of Applied Physics, 2018, 57, 11UF02.	1.5	23
44	Preparation of {001}-oriented epitaxial (K, Na)NbO <sub>3</sub> thick films by repeated hydrothermal deposition technique. Journal of the Ceramic Society of Japan, 2018, 126, 281-285.	1.1	10
45	Hydrothermal Deposition of KNbO <sub>3</sub> Films on Metal Substrates having Three-Dimensional Structure. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 673-677.	0.2	0
46	The microstructural evolution in high sodium epitaxial sodium potassium niobate films deposited by low-temperature hydro-thermal method. Journal of Materials Science, 2017, 52, 6950-6961.	3.7	2
47	Crystal structure and dielectric/ferroelectric properties of CSD-derived HfO <sub>2</sub> -ZrO <sub>2</sub> solid solution films. Ceramics International, 2017, 43, S501-S505.	4.8	24
48	Effect of the film thickness on the crystal structure and ferroelectric properties of (Hf <sub>0.5</sub> Zr <sub>0.5</sub> )O <sub>2</sub> thin films deposited on various substrates. Materials Science in Semiconductor Processing, 2017, 70, 239-245.	4.0	41
49	In-situ observation of ultrafast 90° domain switching under application of an electric field in (100)/(001)-oriented tetragonal epitaxial Pb(Zr <sub>0.4</sub> Ti <sub>0.6</sub> )O <sub>3</sub> thin films. Scientific Reports, 2017, 7, 9641.	3.3	23
50	Crystal structure and magnetism in $\alpha$ -Al <sub>2</sub> O <sub>3</sub> -type Al <sub>x</sub> Fe <sub>2-x</sub> O <sub>3</sub> films on SrTiO <sub>3</sub> (111). Journal of Applied Physics, 2017, 122, 015301.	2.5	14
51	Strain-induced nanostructure of Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> on SrTiO <sub>3</sub> epitaxial thin films with low PbTiO <sub>3</sub> concentration. Japanese Journal of Applied Physics, 2017, 56, 10PB12.	1.5	8
52	Characterization of (111)-oriented epitaxial (K <sub>0.5</sub> Na <sub>0.5</sub> )NbO <sub>3</sub> thick films deposited by hydrothermal method. Japanese Journal of Applied Physics, 2017, 56, 10PF04.	1.5	10
53	Polarization switching behavior of one-axis-oriented lead zirconate titanate films fabricated on metal oxide nanosheet layer. Japanese Journal of Applied Physics, 2017, 56, 10PF10.	1.5	2
54	Thermally stable dielectric responses in uniaxially (001)-oriented CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> nanofilms grown on a Ca <sub>2</sub> Nb <sub>3</sub> O <sub>10</sub> nanosheet seed layer. Scientific Reports, 2016, 6, 20713.	3.3	8

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55	Impact of mechanical stress on ferroelectricity in (Hf <sub>0.5</sub> Zr <sub>0.5</sub> )O <sub>2</sub> thin films. Applied Physics Letters, 2016, 108, .	3.3	187
56	Crystal structure and compositional analysis of epitaxial (K <sub>0.56</sub> Na <sub>0.44</sub> )NbO <sub>3</sub> films prepared by hydrothermal method. Journal of Materials Research, 2016, 31, 693-701.	2.6	7
57	Growth of (111)-oriented epitaxial and textured ferroelectric Y-doped HfO <sub>2</sub> films for downscaled devices. Applied Physics Letters, 2016, 109, .	3.3	62
58	Orientation control and domain structure analysis of {100}-oriented epitaxial ferroelectric orthorhombic HfO <sub>2</sub> -based thin films. Journal of Applied Physics, 2016, 119, .	2.5	57
59	Large irreversible non-180° domain switching after poling treatment in Pb(Zr, Ti)O <sub>3</sub> films. Applied Physics Letters, 2016, 108, .	3.3	10
60	Solid state epitaxy of (Hf,Zr)O <sub>2</sub> ; thin films with orthorhombic phase. Journal of the Ceramic Society of Japan, 2016, 124, 689-693.	1.1	34
61	Texture Observation for $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> Doped HfO <sub>2</sub> Ultrathin Films. Materia Japan, 2016, 55, 599-599.	0.1	0
62	Domain structure of tetragonal Pb(Zr,Ti)O <sub>3</sub> nanorods and its size dependence. Japanese Journal of Applied Physics, 2015, 54, 10NA07.	1.5	8
63	Negligible substrate clamping effect on piezoelectric response in (111)-epitaxial tetragonal Pb(Zr, Ti)O <sub>3</sub> films. Journal of Applied Physics, 2015, 118, .	2.5	21
64	Effect of incubation time on preparation of continuous and flat Ru films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	7
65	Fabrication of tetragonal Pb(Zr,Ti)O <sub>3</sub> nanorods by focused ion beam and characterization of the domain structure. , 2015, , .		2
66	Vibration-energy-harvesting properties of hydrothermally synthesized (K,Na)NbO <sub>3</sub> films deposited on flexible metal foil substrates. Japanese Journal of Applied Physics, 2015, 54, 10ND06.	1.5	18
67	Contribution of oxygen vacancies to the ferroelectric behavior of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> thin films. Applied Physics Letters, 2015, 106, .	3.3	65
68	Epitaxial PbZr <sub>x</sub> Ti <sub>1-x</sub> O <sub>3</sub> Ferroelectric Bilayers with Giant Electromechanical Properties. Advanced Materials Interfaces, 2015, 2, 1500075.	3.7	13
69	Effects of heat treatment on electrical and electromechanical properties of hydrothermally synthesized epitaxial (K <sub>0.51</sub> Na <sub>0.49</sub> )NbO <sub>3</sub> films. Japanese Journal of Applied Physics, 2014, 53, 05FE02.	1.5	7
70	Ferroelectric and piezoelectric properties of KNbO <sub>3</sub> films deposited on flexible organic substrate by hydrothermal method. Japanese Journal of Applied Physics, 2014, 53, 09PA10.	1.5	14
71	Study on the effect of heat treatment conditions on metalorganic-chemical-vapor-deposited ferroelectric Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> thin film on Ir electrode. Japanese Journal of Applied Physics, 2014, 53, 09PA04.	1.5	59
72	Low Temperature Preparation of KNbO <sub>3</sub> Films by Hydrothermal Method and Their Characterization. Materials Research Society Symposia Proceedings, 2014, 1659, 49-54.	0.1	3

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73	Strain induced martensite formation characteristics of austenite stainless steel during various loading conditions. <i>Materials Science and Technology</i> , 2014, 30, 301-308.	1.6	5
74	Ferroelectric and piezoelectric properties of (K,Na)NbO <sub>3</sub> thick films prepared on metal substrates by hydrothermal method. <i>Journal of the Korean Physical Society</i> , 2013, 62, 1055-1059.	0.7	19
75	Mechanical properties of AC4CH alloys produced by heated mould continuous casting process. <i>International Journal of Cast Metals Research</i> , 2013, 26, 160-167.	1.0	5
76	Corrosion and mechanical properties of cast aluminium alloys. <i>International Journal of Cast Metals Research</i> , 2013, 26, 319-329.	1.0	20
77	Crystallisation characteristics of primary silicon particles in cast hypereutectic Al-Si alloy. <i>International Journal of Cast Metals Research</i> , 2013, 26, 105-113.	1.0	14
78	Growth of 130 nm Thick Epitaxial KNbO <sub>3</sub> Film by Hydrothermal Method. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1494, 291-296.	0.1	13
79	Crystal Structure Analysis of Hydrothermally Synthesized Epitaxial (K <sub>1-x</sub> Na <sub>x</sub> )NbO <sub>3</sub> Films. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 09KA11.	1.5	22
80	Composition dependency of crystal structure, electrical and piezoelectric properties for hydrothermally-synthesized 3 μm-thickness (K <sub>1-x</sub> Na <sub>x</sub> )NbO <sub>3</sub> films. <i>Journal of the Ceramic Society of Japan</i> , 2013, 121, 627-631.	1.1	21
81	Effect of domain wall characteristics on material properties of lead zirconate titanate piezoelectric ceramics. <i>Advances in Applied Ceramics</i> , 2012, 111, 187-195.	1.1	3
82	Study of resonance fatigue properties of piezoelectric ceramics using new fatigue testing system. <i>Advances in Applied Ceramics</i> , 2012, 111, 181-186.	1.1	0
83	Growth of Epitaxial 100-Oriented KNbO <sub>3</sub> -NaNbO <sub>3</sub> Solid Solution Films on (100)cSrRuO <sub>3</sub> ∥(100)SrTiO <sub>3</sub> by Hydrothermal Method and Their Characterization. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 09ND11.	1.5	26
84	Growth of Epitaxial 100-Oriented KNbO <sub>3</sub> -NaNbO <sub>3</sub> Solid Solution Films on (100)cSrRuO <sub>3</sub> ∥(100)SrTiO <sub>3</sub> by Hydrothermal Method and Their Characterization. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 09ND11.	1.5	10