

# Hirofumi Matsuda

## List of Publications by Year in descending order

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citations

304743

22  
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214800

47  
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80  
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80  
docs citations

80  
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2792  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of Single Crystalline Spinel $\text{LiMn}_2\text{O}_4$ Nanowires for a Lithium Ion Battery with High Power Density. <i>Nano Letters</i> , 2009, 9, 1045-1051.	9.1	493
2	Ultrasound-Triggered Smart Drug Release from a Poly(dimethylsiloxane)-Mesoporous Silica Composite. <i>Advanced Materials</i> , 2006, 18, 3083-3088.	21.0	223
3	Approach for enhanced polarization of polycrystalline bismuth titanate films by $\text{Nd}^{3+}/\text{V}^{5+}$ cosubstitution. <i>Applied Physics Letters</i> , 2002, 81, 2229-2231.	3.3	157
4	Synthesis of Triaxial $\text{LiFePO}_4$ Nanowire with a VGCF Core Column and a Carbon Shell through the Electrospinning Method. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 212-218.	8.0	121
5	Synthesis of a Perpendicular $\text{TiO}_2$ Nanosheet Film with the Superhydrophilic Property without UV Irradiation. <i>Langmuir</i> , 2007, 23, 7447-7450.	3.5	118
6	Dependence of electrical properties of epitaxial $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ thick films on crystal orientation and $\text{Zr}^{4+}/(\text{Zr}+\text{Ti})$ ratio. <i>Journal of Applied Physics</i> , 2005, 98, 094106.	2.5	114
7	Synthesis of single crystalline electro-conductive $\text{Na}_0.44\text{MnO}_2$ nanowires with high aspect ratio for the fast charge/discharge Li ion battery. <i>Journal of Power Sources</i> , 2008, 182, 349-352.	7.8	78
8	Structural and electronic properties of Li- and Cu-doped $\hat{\rho}$ -rhombohedral boron constructed from icosahedral and truncated icosahedral clusters. <i>Physical Review B</i> , 1995, 52, 6102-6110.	3.2	71
9	Fabrication of $\text{M}^{3+}$ -Substituted and $\text{M}^{3+}/\text{V}^{5+}$ -Cosubstituted Bismuth Titanate Thin Films [M=lanthanoid] by Chemical Solution Deposition Technique. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 6820-6824.	1.5	61
10	Shift of the Curie Point of Barium Titanate Ceramics with Sintering Temperature. <i>Journal of the American Ceramic Society</i> , 1997, 80, 2590-2596.	3.8	58
11	Helical nanotubes of hexagonal boron nitride. <i>Journal of Electron Microscopy</i> , 1997, 46, 75-78.	0.9	50
12	A Unified Picture for Icosahedral Cluster Solids in Boron-Based and Aluminum-Based Compounds. <i>Journal of Solid State Chemistry</i> , 1997, 133, 302-309.	2.9	47
13	Room-temperature synthesis of crystalline barium titanate thin films by high-concentration sol-gel method. <i>Journal of Non-Crystalline Solids</i> , 2000, 271, 162-166.	3.1	45
14	Rietveld analysis of $\text{LiB}_{13}$ with $\hat{\rho}$ -rhombohedral boron structure. <i>Journal of Alloys and Compounds</i> , 1995, 221, 120-124.	5.5	42
15	Design and ferroelectric properties of polar-axis-oriented polycrystalline $\text{Bi}_{4-x}\text{Pr}_x\text{Ti}_3\text{O}_{12}$ thick films on Ir/Si substrates. <i>Applied Physics Letters</i> , 2003, 83, 5023-5025.	3.3	40
16	Large piezoelectric response in (111)-oriented epitaxial $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ films consisting of mixed phases with rhombohedral and tetragonal symmetry. <i>Applied Physics Letters</i> , 2003, 83, 2408-2410.	3.3	39
17	Orientation Behavior and Ferro- and Piezoelectric Properties of $\text{Bi}_{4-x}\text{Pr}_x\text{Ti}_3\text{O}_{12}$ Polycrystalline Films. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 5977-5980.	1.5	36
18	Structural- and electronic-property investigations on metal-doped $\hat{\rho}$ -rhombohedral boron. <i>Journal of Physics and Chemistry of Solids</i> , 1996, 57, 1167-1174.	4.0	34

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19	Evaluation of Longitudinal Displacement for Lead Zirconate Titanate Films. Japanese Journal of Applied Physics, 2002, 41, 6735-6738.	1.5	34
20	Operando soft x-ray emission spectroscopy of LiMn <sub>2</sub> O <sub>4</sub> thin film involving Li <sup>+</sup> ion extraction/insertion reaction. Electrochemistry Communications, 2015, 50, 93-96.	4.7	29
21	High-Rate Lithium Ion Batteries with Flat Plateau Based on Self-Nanoporous Structure of Tin Electrode. Journal of the Electrochemical Society, 2007, 154, A146.	2.9	27
22	Optical Absorption in Sol-Gel-Derived Crystalline Barium Titanium Fine Particles. Journal of the American Ceramic Society, 1998, 81, 3010-3012.	3.8	25
23	Uniform field-induced strain in a <sup>a</sup> -b-axes-oriented Bi <sub>3.9</sub> Pr <sub>0.1</sub> Ti <sub>3</sub> O <sub>12</sub> thick films on IrO <sub>2</sub> /Si substrates for lead-free piezoelectric microdevice applications. Applied Physics Letters, 2004, 85, 1220-1222.	3.3	23
24	Gel-Derived Cationic Stacking Films of Carbon Nanotube-Graphene Complexes as Oxygen Cathodes. ChemSusChem, 2014, 7, 2845-2852.	6.8	22
25	Sr and Zr transport in PLD-grown Gd-doped ceria interlayers. Solid State Ionics, 2018, 314, 165-171.	2.7	22
26	Compositional Dependence of Electrical Properties of Highly (100)-/(001)-Oriented Pb(Zr,Ti)O <sub>3</sub> Thick Films Prepared on Si Substrates by Metalorganic Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2003, 42, 5922-5926.	1.5	20
27	Synthesis of single crystalline Li <sub>0.44</sub> MnO <sub>2</sub> nanowires with large specific capacity and good high current density property for a positive electrode of Li ion battery. Journal of Power Sources, 2010, 195, 7098-7101.	7.8	19
28	Mössbauer Spectroscopy and Electrical Conductivity of Fe-Doped <sup>2</sup> -Rhombohedral Boron. Journal of Solid State Chemistry, 1997, 133, 342-346.	2.9	17
29	Low-Temperature Preparation of (Ba,Sr)TiO <sub>3</sub> Perovskite Phase by Sol-Gel Method. Journal of Sol-Gel Science and Technology, 1999, 16, 129-134.	2.4	17
30	Charge-Compensative Ion Substitution of La <sup>3+</sup> -Substituted Bismuth Titanate Thin Films for Enhancement of Remanent Polarization. Japanese Journal of Applied Physics, 2004, 43, 2636-2639.	1.5	17
31	Broadband surface plasmon resonance spectroscopy for determination of refractive-index dispersion of dielectric thin films. Applied Physics Letters, 2007, 90, 1811-12.	3.3	16
32	Electrical Properties of (Ca,Sr)Bi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> Thin Films Fabricated Using a Chemical Solution Deposition Method. Japanese Journal of Applied Physics, 2003, 42, 5990-5993.	1.5	15
33	Varistor characteristics in PTCR-type (Ba,Sr)TiO <sub>3</sub> ceramics prepared by single-step firing in air. Journal of Materials Science, 1999, 34, 2635-2639.	3.7	14
34	Large Charge Transfer Energy in LiFePO <sub>4</sub> Revealed by Full Multiplet Calculation for the Fe <i>L</i> <sub>2,3</sub> Edge Soft X-ray Emission Spectra. ChemPhysChem, 2018, 19, 988-992.	2.1	13
35	Fabrication of Transparent ZnO Thick Film with Unusual Orientation by the Chemical Bath Deposition. Crystal Growth and Design, 2015, 15, 3150-3156.	3.0	12
36	Fabrication of Ion-Cosubstituted Bismuth Titanate Thin Films by Chemical Solution Deposition Method. Integrated Ferroelectrics, 2003, 52, 41-54.	0.7	11

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37	Electron Energy-Loss Spectroscopy Study of the Electronic Structure of Li- and V-Doped $\text{R}^2\text{-Rhombohedral Boron}$ . <i>Journal of Solid State Chemistry</i> , 1997, 133, 152-155.	2.9	10
38	Ferroelectric and Piezoelectric Properties of Disk Shape Lead Zirconate Titanate Thick Films. <i>Materials Transactions</i> , 2004, 45, 233-235.	1.2	10
39	Differential Negative Resistance and Piezoresistivity in Thin Semiconducting $\text{BaTiO}_3$ Ceramic Bars. <i>Journal of the American Ceramic Society</i> , 1997, 80, 1881-1884.	3.8	10
40	$\text{PbTiO}_3$ content dependence of crystal structure and electrical properties of (100)-/(001)-oriented epitaxial $\text{Pb}(\text{Mg}_{1-x}\text{Nb}_2\text{O}_3)\text{O}_3\text{-PbTiO}_3$ films grown by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2005, 98, 086112.	2.5	10
41	Investigation of the relationship between the cycle performance and the electronic structure in $\text{LiAl}_x\text{Mn}_{2-x}\text{O}_4$ ( $x = 0$ and $0.2$ ) using soft X-ray spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 16507-16511.	2.8	10
42	Shift of Optical Absorption Edge in Sol-Gel Derived Transparent $\text{BaTiO}_3$ Gels During Aging. <i>Journal of Sol-Gel Science and Technology</i> , 1999, 16, 165-171.	2.4	9
43	Giant Piezoresistive Effects in Single Grain Boundaries of Semiconducting Barium Titanate Ceramics*. , 1999, 4, 99-103.		7
44	Piezoelectric Properties of Polar-Axis-Oriented Ferroelectric $\text{Bi}_{4-x}\text{Pr}_x\text{Ti}_3\text{O}_{12}$ Thick Films. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 6689-6691.	1.5	6
45	Comparison Study of (001)-/(100)-Oriented Epitaxial and Fiber-Textured $\text{Pb}(\text{Zr,Ti})\text{O}_3$ Thick Films Prepared by MOCVD. <i>Integrated Ferroelectrics</i> , 2004, 64, 217-225.	0.7	6
46	Systematic characterization of spectral surface plasmon resonance sensors with absorbance measurement. <i>Applied Optics</i> , 2007, 46, 7963.	2.1	6
47	Chemical bath deposition of transparent ZnO films incorporated with erythrosine B molecules and their synergetic electro/photochromic properties. <i>CrystEngComm</i> , 2020, 22, 2447-2453.	2.6	6
48	Effect of the Charge Process on the Performance of Li-ion Cells during Charge-Discharge Cycling at $0^\circ\text{C}$ . <i>Electrochemistry</i> , 2020, 88, 230-235.	1.4	6
49	Low-Temperature Synthesis and Electrical Properties of Semiconducting $\text{BaTiO}_3$ Ceramics by the Sol-Gel Method with High Concentration Alkoxide Solutions.. <i>Journal of the Ceramic Society of Japan</i> , 1999, 107, 290-292.	1.3	5
50	Sample Geometry Effects on Electric-Field-Induced Displacements in Piezoelectric Thin Films Measured by Atomic Force Microscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003, 784, 11291.	0.1	4
51	Stress-Induced Resistivity Anomaly in Semiconducting Barium Titanate Ceramic Wire. <i>Journal of the American Ceramic Society</i> , 1998, 81, 229-232.	3.8	4
52	Structural and Electrical Properties of Polycrystalline $\text{Bi}_{4-x}\text{Nd}_x\text{Ti}_3\text{O}_{12}$ Ferroelectric Thin Films with in-Plane c-Axis Orientations. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L292-L294.	1.5	4
53	Durability Analysis of the REIMEI Satellite Li-ion Batteries after more than 14 Years of Operation in Space. <i>Electrochemistry</i> , 2020, 88, 300-304.	1.4	4
54	Microstructure-resolved degradation simulation of lithium-ion batteries in space applications. <i>Journal of Power Sources Advances</i> , 2022, 14, 100083.	5.1	4

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55	Modulated Photocurrent Measurements on Pure and V-Doped $\hat{I}^2$ -Rhombohedral Boron. Journal of Solid State Chemistry, 2000, 154, 307-311.	2.9	3
56	Synthesis and Electrical Properties of Sr- and Nb-Cosubstituted $\text{Bi}_{4-x}\text{Sr}_x\text{Ti}_3\text{-xNb}_x\text{O}_{12}$ Polycrystalline Thin Films. Japanese Journal of Applied Physics, 2003, 42, L949-L952.	1.5	3
57	Synthesis and Properties of Nd-Substituted Bismuth Titanate Polycrystalline Thin Films with Polar-Axis Orientation. Key Engineering Materials, 2004, 269, 53-56.	0.4	3
58	Effect of the Charge Process and Discharge Rate on the Lithium Stripping Process Visibility in $\text{LiFePO}_4$ -Graphite Li-ion Cells during Charge-Discharge Cycling at $0^\circ\text{C}$ . Electrochemistry, 2020, 88, 340-342.	1.4	3
59	Texture-control of lead zirconate titanate films for actuator applications. , 2003, , .		2
60	Development of Lead-Free Piezoelectric Thick Films with a/b-Axis-Oriented $\text{Bi}_{4-x}\text{Pr}_x\text{Ti}_3\text{O}_{12}$ . Key Engineering Materials, 2006, 301, 61-64.	0.4	2
61	Synthesis and Properties of Nd-Substituted Bismuth Titanate Polycrystalline Thin Films with a-/b-Axes Orientation. Key Engineering Materials, 2006, 301, 57-60.	0.4	2
62	Synthesis of core-sheath structured fibers of $\text{SnO}_2$ /carbon composites by electrospinning. Journal of the Ceramic Society of Japan, 2018, 126, 662-666.	1.1	2
63	Structures and Properties of Semiconductor Microclusters. Production and Properties of $\text{B}_{12}$ Cluster Solids.. Hyomen Kagaku, 1997, 18, 156-164.	0.0	2
64	<i>Operando</i> resonant soft X-ray emission spectroscopy of the $\text{LiMn}_2\text{O}_4$ cathode using an aqueous electrolyte solution. Physical Chemistry Chemical Physics, 2022, 24, 19177-19183.	2.8	2
65	Spectroscopic Studies of Rare-Earth-Doped $\text{BaTiO}_3$ Luminescent Gels. Key Engineering Materials, 2001, 216, 57-60.	0.4	1
66	Second-Order Nonlinear Optical Properties of Solution-Derived C-Axis Oriented $\hat{I}^2$ - $\text{BaB}_2\text{O}_4$ Thin Films. Key Engineering Materials, 2002, 216, 97-100.	0.4	1
67	Enhancement of Remanent Polarization of BIT-based Thin Films by Ti-site Substitution using Ions with Higher Charge Valences. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	1
68	Fabrication of Lead Zirconate Titanate Thick Film Disks for Micro Transducer Devices. Materials Research Society Symposia Proceedings, 2003, 785, 451.	0.1	1
69	Synthesis and Electrical Properties of Garnet-type Solid Oxide Electrolyte Thin Films from Solution Route. Materials Research Society Symposia Proceedings, 2013, 1496, 1.	0.1	1
70	Structural Effects on Optical Properties of Sol-Gel Derived Transparent Monolithic $\text{BaTiO}_3$ Gel. Key Engineering Materials, 1999, 157-158, 3-8.	0.4	0
71	Synthesis of Crystalline Barium Titanate Thin Films by Gel-Aging Process on Substrate at Room Temperature. Key Engineering Materials, 2000, 181-182, 81-84.	0.4	0
72	Piezoelectric property investigation for sol-gel derived $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ thick films. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	0

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73	Top Electrode Area Dependence on Displacement Property of Lead Zirconate Titanate Films Prepared by Chemical Solution Deposition Process. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	0
74	Ti-site Substitution Using the Higher-valent Cation for Enhancing the Ferroelectric Properties of Nd <sup>3+</sup> -substituted Bismuth Titanate Thin Films. Materials Research Society Symposia Proceedings, 2003, 784, 1181.	0.1	0
75	Ferro- and piezoelectric properties of Bi <sub>4-x</sub> Pr <sub>x</sub> Ti <sub>3</sub> O <sub>12</sub> polycrystalline thick films with Ps-vector orientation. Materials Research Society Symposia Proceedings, 2003, 784, 1011.	0.1	0
76	Giant Ferroelectric Polarization in Polar-Axis-Oriented Bi <sub>4-x</sub> Pr <sub>x</sub> Ti <sub>3</sub> O <sub>12</sub> Polycrystalline Thin Films. Key Engineering Materials, 2004, 269, 45-48.	0.4	0
77	Remote voltage generation through sono-electrochemical process on platinum surface. Electrochemistry Communications, 2006, 8, 801-806.	4.7	0
78	Development of Positive Electrode Materials for the High Rate Lithium Ion Battery by Nanostructure Control. Key Engineering Materials, 2010, 445, 109-112.	0.4	0
79	Correction to Fabrication of Transparent ZnO Thick Film with Unusual Orientation by the Chemical Bath Deposition. Crystal Growth and Design, 2016, 16, 2460-2460.	3.0	0