

# Shunichi Hishita

## List of Publications by Year in descending order

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102  
papers

4,176  
citations

172386

29  
h-index

110317

64  
g-index

104  
all docs

104  
docs citations

104  
times ranked

4992  
citing authors

#	ARTICLE	IF	CITATIONS
1	Au-Decorated 1D SnO <sub>2</sub> Nanowire/2D WS <sub>2</sub> Nanosheet Composite for CO Gas Sensing at Room Temperature in Self-Heating Mode. <i>Chemosensors</i> , 2022, 10, 132.	1.8	8
2	Global snapshot of the effects of the COVID-19 pandemic on the research activities of materials scientists between Spring and Autumn 2020. <i>Science and Technology of Advanced Materials</i> , 2021, 22, 173-184.	2.8	3
3	Indium-implantation-induced enhancement of gas sensing behaviors of SnO <sub>2</sub> nanowires by the formation of homo-core-shell structure. <i>Sensors and Actuators B: Chemical</i> , 2020, 321, 128475.	4.0	29
4	High nitrogen solubility in stishovite (SiO <sub>2</sub> ) under lower mantle conditions. <i>Scientific Reports</i> , 2020, 10, 10897.	1.6	6
5	Energy dissipation in micron- and submicron-thick single crystal diamond mechanical resonators. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	26
6	Low-Temperature Remediation of NO Catalyzed by Interleaved CuO Nanoplates. <i>Advanced Materials</i> , 2014, 26, 4481-4485.	11.1	79
7	Effect of crystalline polarity on microstructure and optoelectronic properties of gallium-doped zinc oxide films deposited onto glass substrates. <i>Thin Solid Films</i> , 2014, 552, 56-61.	0.8	17
8	Surface segregation of W doped in ZnO thin films. <i>Surface Science</i> , 2014, 625, 1-6.	0.8	8
9	Electrical and optical properties of W-doped ZnO films grown on (111) sapphire substrates using pulsed laser deposition. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 908-913.	0.5	9
10	Zn and Sb interaction and oxygen defect chemistry in dense SnO <sub>2</sub> ceramics co-doped with ZnO and Sb <sub>2</sub> O <sub>5</sub> . <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 421-425.	0.5	4
11	Acceptor-Compensated Charge Transport and Surface Chemical Reactions in Au-Implanted SnO <sub>2</sub> Nanowires. <i>Scientific Reports</i> , 2014, 4, 4622.	1.6	29
12	Nanoporous Carbon Sensor with Cage-in-Fiber Structure: Highly Selective Aniline Adsorbent toward Cancer Risk Management. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 2930-2934.	4.0	62
13	Electrical properties of scandium nitride epitaxial films grown on (100) magnesium oxide substrates by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	30
14	Local environment of silicon in cubic boron nitride. <i>Journal of Applied Physics</i> , 2013, 114, 233502.	1.1	10
15	Ion implantation and diffusion of zinc in dense SnO <sub>2</sub> ceramics. <i>Journal of the Ceramic Society of Japan</i> , 2013, 121, 1004-1007.	0.5	5
16	Electron-phonon coupling and defect scatterings in Ar <sup>+</sup> /N <sup>+</sup> -ion implanted graphite. <i>Journal of the Ceramic Society of Japan</i> , 2013, 121, 291-294.	0.5	2
17	Characterization of oxygen defect and zinc segregation in the dense tin dioxide ceramics added with zinc oxide. <i>Journal of the Ceramic Society of Japan</i> , 2013, 121, 956-959.	0.5	6
18	Nanoelectromechanical switch fabricated from single crystal diamond: Experiments and modeling. <i>Diamond and Related Materials</i> , 2012, 24, 69-73.	1.8	13

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19	Oxygen Diffusion Phenomena and Hydrogen Incorporation in Reducing BaTiO <sub>3</sub> Ceramics Doped with Ho below Solubility Limit. Japanese Journal of Applied Physics, 2012, 51, 101801.	0.8	4
20	Recrystallization and Reactivation of Dopant Atoms in Ion-Implanted Silicon Nanowires. ACS Nano, 2012, 6, 3278-3283.	7.3	22
21	Fabricating transparent waveguide for wireless communication. Thin Solid Films, 2012, 520, 3835-3838.	0.8	0
22	Oxygen Diffusion Phenomena and Hydrogen Incorporation in Reducing BaTiO <sub>3</sub> Ceramics Doped with Ho below Solubility Limit. Japanese Journal of Applied Physics, 2012, 51, 101801.	0.8	2
23	Visualization of Grain Boundary as Blocking Layer for Oxygen Tracer Diffusion and a Proposed Defect Model in Non Doped BaTiO <sub>3</sub> Ceramics. Applied Physics Express, 2011, 4, 055801.	1.1	15
24	Ultrafast Dynamics of Surface-Enhanced Raman Scattering Due to Au Nanostructures. Nano Letters, 2011, 11, 2648-2654.	4.5	39
25	Simultaneous Diffusion of Oxygen Tracer and Lithium Impurity in Aluminum Doped Zinc Oxide. Japanese Journal of Applied Physics, 2011, 50, 125501.	0.8	3
26	Surface reconstruction of W <sub>2</sub> C(0001). Journal of Physics Condensed Matter, 2011, 23, 305007.	0.7	9
27	Simultaneous Diffusion of Oxygen Tracer and Lithium Impurity in Aluminum Doped Zinc Oxide. Japanese Journal of Applied Physics, 2011, 50, 125501.	0.8	5
28	Effect of post-annealing on structural and optical properties, and elemental distribution in heavy Eu-implanted ZnO thin films. Journal of the Ceramic Society of Japan, 2010, 118, 1087-1089.	0.5	3
29	Development of ZnO-based surface plasmon resonance gas sensor and analysis of UV irradiation effect on NO <sub>2</sub> desorption from ZnO thin films. Journal of the Ceramic Society of Japan, 2010, 118, 193-196.	0.5	18
30	Ion implantation and diffusion behavior of silver in zinc oxide. Journal of the Ceramic Society of Japan, 2010, 118, 217-219.	0.5	12
31	Ion beam synthesis of SiC thin films. Journal of Electroceramics, 2010, 24, 97-103.	0.8	0
32	Suspended Single-Crystal Diamond Nanowires for High-Performance Nanoelectromechanical Switches. Advanced Materials, 2010, 22, 5393-5397.	11.1	101
33	Epitaxial growth of tin oxide film on TiO <sub>2</sub> (110) using molecular beam epitaxy. Journal of Crystal Growth, 2010, 312, 3046-3049.	0.7	15
34	Synthesizing SnO <sub>2</sub> thin films and characterizing sensing performances. Sensors and Actuators B: Chemical, 2010, 150, 99-104.	4.0	39
35	Focus on innovation in ceramics research in East Asia. Science and Technology of Advanced Materials, 2010, 11, 040301.	2.8	0
36	Batch production of single-crystal diamond bridges and cantilevers for microelectromechanical systems. Journal of Micromechanics and Microengineering, 2010, 20, 085002.	1.5	36

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37	Relationship between Aluminum and Lithium and Annealing for Reducing Lithium Contamination in Aluminum-Implanted Zinc Oxide. <i>Key Engineering Materials</i> , 2010, 445, 205-208.	0.4	2
38	Dynamics of coherent phonons in disordered graphite. , 2010, , .		1
39	Formation of compensated defects in zinc magnesium oxides assignable from diffusion coefficients and hard x-ray photoemission. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	10
40	Indium-Based Perovskites: A New Class of Near-Room-Temperature Multiferroics. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6117-6120.	7.2	57
41	Epitaxial growth of SnO <sub>2</sub> film on Sn-doped TiO <sub>2</sub> (110). <i>Vacuum</i> , 2009, 84, 597-601.	1.6	6
42	The oxidized layer on ZrB <sub>2</sub> (0001). <i>Applied Surface Science</i> , 2009, 256, 1120-1123.	3.1	8
43	Structure and Electric Properties in Tin-Doped Zinc Oxide Films Synthesized by Pulsed Laser Deposition. <i>Journal of the Electrochemical Society</i> , 2009, 156, H424.	1.3	20
44	Plasma-assisted molecular-beam epitaxy of GaN on transition-metal carbide (111) surfaces. <i>Journal of Crystal Growth</i> , 2008, 310, 22-25.	0.7	4
45	Preparation and characterization of novel microporous carbon nitride with very high surface area via nanocasting technique. <i>Microporous and Mesoporous Materials</i> , 2008, 108, 340-344.	2.2	43
46	Impurity Contamination and Diffusion during Annealing in Implanted ZnO. <i>Key Engineering Materials</i> , 2008, 388, 23-26.	0.4	4
47	The Effect of Pt-Electrode Structures on the Ferroelectric Properties of Bismuth Titanate Thin Films. <i>Ferroelectrics</i> , 2007, 347, 150-156.	0.3	1
48	Photoluminescence in phosphorous-implanted ZnO films. <i>Journal of Applied Physics</i> , 2007, 102, 086107.	1.1	20
49	Novel Hexagonally Ordered Nitrogen-doped Mesoporous Carbon from SBA-15/Polyaniline Nanocomposite. <i>Chemistry Letters</i> , 2007, 36, 770-771.	0.7	26
50	Growth of KNbO <sub>3</sub> Films by Solid-State Diffusion Technique. <i>Ferroelectrics</i> , 2007, 357, 185-190.	0.3	1
51	Fabrication of ZnO Microstructures by Anisotropic Wet-Chemical Etching. <i>Journal of the Electrochemical Society</i> , 2007, 154, D82.	1.3	43
52	Dependence of photoluminescence and electrical properties with rapid thermal annealing in nitrogen-implanted ZnO films. <i>Thin Solid Films</i> , 2007, 515, 6927-6930.	0.8	13
53	Doping of As, P and N in laser deposited ZnO films. <i>Journal of Crystal Growth</i> , 2006, 287, 85-88.	0.7	44
54	Structures and properties of (Zn,Mg)O films studied from the aspect of phase equilibria. <i>Journal of Crystal Growth</i> , 2006, 287, 134-138.	0.7	49

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55	Zinc oxide film growth on zirconium boride. Superlattices and Microstructures, 2006, 39, 179-184.	1.4	3
56	Characterization of ZnO thin film deposited by electron cyclotron resonance plasma-assisted chemical vapor deposition. Thin Solid Films, 2006, 506-507, 184-187.	0.8	10
57	Defect Structure in (Zn,Mg)O Films Prepared on YSZ Substrate. Key Engineering Materials, 2006, 320, 103-106.	0.4	8
58	Interface stabilization by Al in GaN and AlN epitaxies on NbB <sub>2</sub> (0001). Applied Physics Letters, 2006, 89, 181913.	1.5	4
59	Origin of visible-light-driven photocatalysis: A comparative study on N/F-doped and Nâ€F-codoped TiO <sub>2</sub> powders by means of experimental characterizations and theoretical calculations. Journal of Solid State Chemistry, 2005, 178, 3293-3302.	1.4	327
60	Fluorine-doped TiO <sub>2</sub> powders prepared by spray pyrolysis and their improved photocatalytic activity for decomposition of gas-phase acetaldehyde. Journal of Fluorine Chemistry, 2005, 126, 69-77.	0.9	312
61	Visible-light-driven nitrogen-doped TiO <sub>2</sub> photocatalysts: effect of nitrogen precursors on their photocatalysis for decomposition of gas-phase organic pollutants. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 117, 67-75.	1.7	171
62	Self-assembly prismatic aggregates formed during the calcination of ZnO powders: In situ monitoring by ETA technique and their photocatalytic properties. Journal of Colloid and Interface Science, 2005, 289, 472-478.	5.0	9
63	Effect of ion irradiation on the evolution of Pt film morphology. Nuclear Instruments & Methods in Physics Research B, 2005, 232, 348-352.	0.6	2
64	Morphological reform of ZnO particles induced by coupling with MO <sub>x</sub> (M=V,W,Ce) and the effects on photocatalytic activity. Thin Solid Films, 2005, 486, 20-23.	0.8	28
65	Visible-light-driven photocatalysis on fluorine-doped TiO <sub>2</sub> powders by the creation of surface oxygen vacancies. Chemical Physics Letters, 2005, 401, 579-584.	1.2	482
66	Visible-light-active nitrogen-containing TiO <sub>2</sub> photocatalysts prepared by spray pyrolysis. Research on Chemical Intermediates, 2005, 31, 331-341.	1.3	14
67	Study of Optical Property in ZnO Thin Film Implanted with Eu by Combinatorial Ion Implantation Techniques. Japanese Journal of Applied Physics, 2005, 44, L1289-L1292.	0.8	21
68	Nitrogen and Fluorine Roles in Visible-Light-Driven Anion-Doped TiO <sub>2</sub> Photocatalysis. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
69	Optimization of Annealing Time and Cu Concentration for Study of Luminescence Properties of Cu-Implanted ZnO Thin Films. Japanese Journal of Applied Physics, 2005, 44, L770-L773.	0.8	8
70	Characterization of luminous-cubic boron-nitride single-crystals doped with Eu <sup>3+</sup> and Tb <sup>3+</sup> ions. Applied Physics Letters, 2005, 87, 211913.	1.5	22
71	Non-equilibrium defects in aluminum-doped zinc oxide thin films grown with a pulsed laser deposition method. Journal of Materials Research, 2005, 20, 2866-2872.	1.2	42
72	Synthesis of Mesoporous BN and BCN Exhibiting Large Surface Areas via Templating Methods. Chemistry of Materials, 2005, 17, 5887-5890.	3.2	164

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73	Surface core-level shift and electronic structure on transition-metal diboride (0001) surfaces. <i>Physical Review B</i> , 2005, 71, .	1.1	56
74	Visible-Light-Driven N <sup>3+</sup> -Codoped TiO <sub>2</sub> Photocatalysts. 1. Synthesis by Spray Pyrolysis and Surface Characterization. <i>Chemistry of Materials</i> , 2005, 17, 2588-2595.	3.2	327
75	Visible-Light-Driven N <sup>3+</sup> -Codoped TiO <sub>2</sub> Photocatalysts. 2. Optical Characterization, Photocatalysis, and Potential Application to Air Purification. <i>Chemistry of Materials</i> , 2005, 17, 2596-2602.	3.2	469
76	Diffusion and solubility of holmium ions in barium titanate ceramics. <i>Journal of Materials Research</i> , 2004, 19, 3512-3520.	1.2	20
77	Epitaxial growth of Ag <sub>2</sub> S films on MgO(001). <i>Journal of Solid State Chemistry</i> , 2004, 177, 1165-1172.	1.4	14
78	Sn film deposition on silica glass substrates. <i>Thin Solid Films</i> , 2004, 464-465, 146-149.	0.8	9
79	Synthesis of nanosized nitrogen-containing MO <sub>x</sub> -ZnO (M = W, V, Fe) composite powders by spray pyrolysis and their visible-light-driven photocatalysis in gas-phase acetaldehyde decomposition. <i>Catalysis Today</i> , 2004, 93-95, 895-901.	2.2	79
80	SIMS depth profiling of N and In in a ZnO single crystal. <i>Applied Surface Science</i> , 2003, 203-204, 359-362.	3.1	22
81	Passivation of active recombination centers in ZnO by hydrogen doping. <i>Journal of Applied Physics</i> , 2003, 93, 6386-6392.	1.1	107
82	Hydrogen-terminated defects in ion-implanted silicon probed by monoenergetic positron beams. <i>Journal of Applied Physics</i> , 2003, 93, 3228-3233.	1.1	22
83	Electrical Properties and Characterization of In <sub>2</sub> O <sub>3</sub> (ZnO) <sub>m</sub> Thin Films. <i>Key Engineering Materials</i> , 2002, 214-215, 199-202.	0.4	4
84	Crystallinity of In <sub>2</sub> O <sub>3</sub> (ZnO) <sub>5</sub> films by epitaxial growth with a self-buffer-layer. <i>Journal of Applied Physics</i> , 2002, 92, 2378-2384.	1.1	30
85	Impact of Two-Step Growth upon In <sub>2</sub> O <sub>3</sub> (ZnO) <sub>5</sub> Film Quality. <i>Key Engineering Materials</i> , 2002, 228-229, 167-172.	0.4	2
86	Effect of hydrogen doping on ultraviolet emission spectra of various types of ZnO. <i>Applied Physics Letters</i> , 2002, 80, 2869-2871.	1.5	176
87	Recrystallization of ion-beam amorphized Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>1</sub> Cu <sub>2</sub> O <sub>x</sub> thin films on SrTiO <sub>3</sub> (001). <i>Thin Solid Films</i> , 2002, 415, 224-227.	0.8	3
88	Ga, N solubility limit in co-implanted ZnO measured by secondary ion mass spectrometry. <i>Applied Surface Science</i> , 2002, 189, 349-352.	3.1	34
89	Fabrication of epitaxial In <sub>2</sub> O <sub>3</sub> (ZnO) <sub>5</sub> thin films by RF sputtering and their characterization by X-ray and electron diffraction techniques. <i>Journal of Crystal Growth</i> , 2002, 237-239, 558-563.	0.7	13
90	Ion beam induced reaction of carbon films on Si(1 0 0). <i>Applied Surface Science</i> , 2001, 169-170, 296-299.	3.1	3

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91	Diffusion and aggregation of Si implant in (100) single-crystal SrTiO <sub>3</sub> . Nuclear Instruments & Methods in Physics Research B, 2001, 173, 436-440.	0.6	5
92	Graphitization of ultrathin amorphous carbon films on Si(001) by Ar <sup>+</sup> ion irradiation at ambient temperature. Journal of Applied Physics, 2000, 88, 55-58.	1.1	13
93	Formation of SiC Thin Films by Ion Beam Irradiation. Key Engineering Materials, 1999, 169-170, 179-182.	0.4	1
94	Effects of ion beam irradiation on the crystallization of Si <sup>15</sup> C films. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 594-598.	0.6	5
95	Oxygen Diffusion in Zinc Oxide Single Crystals. Key Engineering Materials, 1998, 157-158, 221-226.	0.4	3
96	Preparation and Characterization of BaTiO <sub>3</sub> Thin Films on MgO-buffered Si(100) Substrates by RF Sputtering. Journal of Materials Research, 1997, 12, 1152-1159.	1.2	17
97	Growing BaTiO <sub>3</sub> thin films on Si(100) with MgO-buffer layers by sputtering. Thin Solid Films, 1996, 281-282, 449-452.	0.8	29
98	Structural characterization of epitaxial BaTiO <sub>3</sub> thin films grown by sputter deposition on MgO(100). Journal of Applied Physics, 1995, 78, 5604-5608.	1.1	54
99	Low-Loss Transmission Characteristics of Transparent Conductive Thin Films in GHz Range. Key Engineering Materials, 0, 485, 207-210.	0.4	1
100	Oxygen Diffusion in Rare-Earth Doped BaTiO <sub>3</sub> Ceramics. Key Engineering Materials, 0, 582, 189-193.	0.4	5
101	Oxygen Tracer Diffusion in BaTiO <sub>3</sub> Ceramics - Effect of Zr Impurity from Planetary Ball Milling. Key Engineering Materials, 0, 566, 262-265.	0.4	3
102	Oxygen Tracer Diffusion in A-Axis Oriented ZnO Thin Films Grown on (01-12) Sapphire by Pulsed Laser Deposition. Key Engineering Materials, 0, 566, 266-270.	0.4	0