

Shigehiko Sasa

List of Publications by Year in descending order

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59
papers

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docs citations

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times ranked

1117
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular beam epitaxial growth of wide bandgap ZnMgO alloy films on (111)-oriented Si substrate toward UV-detector applications. <i>Journal of Crystal Growth</i> , 2005, 278, 288-292.	1.5	169
2	High-performance ZnO δ -ZnMgO field-effect transistors using a hetero-metal-insulator-semiconductor structure. <i>Applied Physics Letters</i> , 2006, 89, 053502.	3.3	96
3	Characteristics of a Zn _{0.7} Mg _{0.3} O δ -ZnO heterostructure field-effect transistor grown on sapphire substrate by molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2005, 87, 112106.	3.3	88
4	Piezoelectric Carrier Confinement by Lattice Mismatch at ZnO/Zn _{0.6} Mg _{0.4} O Heterointerface. <i>Japanese Journal of Applied Physics</i> , 2004, 43, L1372-L1375.	1.5	75
5	Implant isolation of ZnO. <i>Journal of Applied Physics</i> , 2003, 93, 2972-2976.	2.5	66
6	Electrical isolation of ZnO by ion bombardment. <i>Applied Physics Letters</i> , 2002, 81, 3350-3352.	3.3	64
7	Polarization-induced two-dimensional electron gas at Zn _{1-x} Mg _x O/ZnO heterointerface. <i>Journal of Crystal Growth</i> , 2007, 301-302, 353-357.	1.5	61
8	Si Atomic-Planar-Doping in GaAs Made by Molecular Beam Epitaxy. <i>Japanese Journal of Applied Physics</i> , 1985, 24, L602-L604.	1.5	52
9	Improved Stability of High-Performance ZnO/ZnMgO Hetero-MISFETs. <i>IEEE Electron Device Letters</i> , 2007, 28, 543-545.	3.9	46
10	Microwave performance of ZnO/ZnMgO heterostructure field effect transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 449-452.	1.8	41
11	Characteristics of MoO ₃ films grown by molecular beam epitaxy. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FJ02.	1.5	38
12	Molecular Beam Epitaxial Growth of Al-doped ZnMgO Alloy Films for Modulation-doped ZnO/ZnMgO Heterostructures. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 3822-3827.	1.5	35
13	Ion-Sensitive Characteristics of an Electrolyte-Solution-Gate ZnO/ZnMgO Heterojunction Field-Effect Transistor as a Biosensing Transducer. <i>Japanese Journal of Applied Physics</i> , 2007, 46, L865-L867.	1.5	33
14	Radiation hardness of single-crystalline zinc oxide films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1577-1579.	0.8	33
15	Zinc oxide ion-sensitive field-effect transistors and biosensors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2098-2104.	1.8	25
16	MBE Growth of High-Quality GaAs Using Triethylgallium as a Gallium Source. <i>Japanese Journal of Applied Physics</i> , 1986, 25, L52-L53.	1.5	24
17	Zinc oxide-based biosensors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1570-1573.	0.8	23
18	Growth of ZnO/Zn _{1-x} Mg _x O films by pulsed laser ablation. <i>Thin Solid Films</i> , 2005, 486, 174-177.	1.8	21

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19	Characterization of $[\text{ZnO}]_m[\text{ZnMgO}]_n$ multiple quantum wells grown by molecular beam epitaxy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 32, 191-194.	2.7	20
20	Intense Terahertz Radiation from InAs Thin Films. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2011, 32, 646-654.	2.2	16
21	Performance and Stability of ZnO/ZnMgO Hetero-Metal-Insulator-Semiconductor Field-Effect Transistors. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 2845-2847.	1.5	15
22	Characteristics of Enzyme-Based ZnO/Zn _{0.7} Mg _{0.3} O Heterojunction Field-Effect Transistor as Glucose Sensor. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 04C081.	1.5	15
23	Characteristics of Polycrystalline ZnO-Based Electrolyte-Solution-Gate Field-Effect Transistors Fabricated on Glass Substrates. <i>Applied Physics Express</i> , 0, 2, 087001.	2.4	15
24	Glucose Sensing by an Enzyme-modified ZnO-based FET. <i>Procedia Engineering</i> , 2016, 168, 84-88.	1.2	15
25	Surface morphology of GaAs grown by gas-source MBE using trimethylgallium and arsenic. <i>Journal of Crystal Growth</i> , 1986, 76, 521-524.	1.5	11
26	Time-evolved numerical simulation of a two-dimensional electron wave packet through a quantum point contact. <i>Applied Physics Letters</i> , 1992, 61, 52-54.	3.3	8
27	ZnO/ZnMgO Heterojunction FETs. , 2006, , 371-414.		8
28	Electronic properties of Si atomic-planar-doped GaAs/AlAs quantum well structures grown by MBE. <i>Surface Science</i> , 1986, 174, 433-438.	1.9	7
29	Numerical simulation of electron diffraction through a narrow constriction. <i>Journal of Applied Physics</i> , 1999, 86, 6249-6255.	2.5	7
30	First-Principles Study on the Spontaneous Polarization of Wurtzite Zn _{1-x} Mg _x O Alloy Crystals. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2009, 58, 243-250.	0.2	7
31	Time-evolved numerical simulation of a two-dimensional electron wave packet through a quantum double slit. <i>Journal of Applied Physics</i> , 1993, 73, 998-1000.	2.5	6
32	A potentiometric immunosensor based on a ZnO field-effect transistor. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FF04.	1.5	6
33	Reflection Layer Mediated Enhancement of Terahertz Radiation Utilizing Heavily-Doped InAs Thin Films. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2015, 36, 423-429.	2.2	6
34	Direct and indirect transitions in $(\text{GaAs})_m/(\text{AlAs})_5$ superlattices. <i>Surface Science</i> , 1990, 228, 206-209.	1.9	5
35	Structural and optical properties of ZnMgO thin films grown by pulsed laser deposition using ZnO-MgO multiple targets. <i>Journal of Physics: Conference Series</i> , 2007, 59, 670-673.	0.4	5
36	Improved electrical performance of solution-processed zinc oxide-based thin-film transistors with bilayer structures. <i>Journal of Information Display</i> , 2022, 23, 105-113.	4.0	5

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37	Polarization-induced high-quality two-dimensional electrons in a ZnO/ZnMgO heterostructure. AIP Conference Proceedings, 2007, , .	0.4	4
38	Non-destructive carrier concentration determination in InAs thin films for THz radiation generating devices using fast differential reflectance spectroscopy. Optical and Quantum Electronics, 2016, 48, 1.	3.3	4
39	Terahertz radiation from InAs/Al _x Ga _{1-x} Sb (x=0.5) heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 574-577.	2.7	3
40	Improvement of chemical stability of aqueous solution grown ZnO nanorods by aminosilane modification. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1562-1564.	0.8	2
41	ZnO nanorods growth on sapphire substrates using aqueous solution with microwave heating and their photoluminescence properties. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1592-1594.	0.8	2
42	Irradiation effect of 8 MeV protons on single-crystalline zinc oxide. , 2011, , .		2
43	8 MeV Proton Irradiation Damage and Its Recovery by Annealing on Single-Crystalline Zinc Oxide Crystals. Materials Research Society Symposia Proceedings, 2012, 1432, 159.	0.1	2
44	Development of ZnO Transistors and Their Application to Bio-Sensors. Zairyo/Journal of the Society of Materials Science, Japan, 2011, 60, 447-456.	0.2	2
45	Characteristics of P-type (Zn _{1-x} Mg _x)Cr ₂ S ₈ Ceramics for Gas-sensing Applications. IEJ Transactions on Sensors and Micromachines, 2014, 134, 308-314.	0.1	2
46	Microwave-assisted synthesis of c-axis oriented ZnO nanorods on a glass substrate coated with ZnO film. Materials Research Society Symposia Proceedings, 2007, 1035, 1.	0.1	1
47	Thickness dependence of intense terahertz emission from InAs thin films. , 2010, , .		1
48	Electric properties of aqueous grown ZnO nanorods on Au/Ti/Si substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 522-524.	0.8	1
49	Effects of He plasma treatment on zinc oxide thin film transistors. , 2017, , .		1
50	Protonation-induced change on optical, electrical, and structural properties of epitaxial WO ₃ films. , 2017, , .		1
51	Disorder and Weak Localization near Charge Neutral Point in Cleaned Single-Layer Graphene. Physica Status Solidi (B): Basic Research, 2019, 256, 1800541.	1.5	1
52	Polarization Analysis of Ga _{1-x} Al _x N and Zn _{1-x} Mg _x O by First-Principles Calculation. Zairyo/Journal of the Society of Materials Science, Japan, 2010, 59, 660-665.	0.2	1
53	Bending Durability of Zinc Oxide Thin-films Transistors Formed on Flexible Substrates. Vacuum and Surface Science, 2018, 61, 274-279.	0.1	1
54	Postgrowth annealing effects on structural, optical, and electrical properties of WO ₃ films grown by molecular beam epitaxy. , 2014, , .		0

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55	A potentiometric glucose sensing by an enzyme-modified Ta ₂ O ₅ /ZnO/Zn _{0.6} Mg _{0.4} O solution-gate field-effect transistor. , 2015, , .		0
56	The thermal stability of ϵ -Ga ₂ O ₃ thin films grown on (111) 3C-SiC template substrates. , 2019, , .		0
57	Irradiation Effect of 8MeV Protons on Single-Crystalline Zinc Oxide Films. Zairyo/Journal of the Society of Materials Science, Japan, 2011, 60, 988-993.	0.2	0
58	Development of terahertz optical sources for an excitation wavelength of 1.56 μ m. , 2020, , .		0
59	Low-Temperature Formation of Indium Oxide Thin-Film using Excimer Light by Solution Process and Characterization of Thin-Film Transistor Characteristics. Vacuum and Surface Science, 2022, 65, 139-144.	0.1	0