

# Shigehiko Sasa

## List of Publications by Year in descending order

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59  
papers

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394421

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docs citations

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times ranked

1117  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Improved electrical performance of solution-processed zinc oxide-based thin-film transistors with bilayer structures. Journal of Information Display, 2022, 23, 105-113.	4.0	5
3	Development of terahertz optical sources for an excitation wavelength of 1.56 $\mu\text{m}$ . , 2020, , .		0
4	Disorder and Weak Localization near Charge Neutral Point in $\mu\text{C}$ -cleaned Single-Layer Graphene. Physica Status Solidi (B): Basic Research, 2019, 256, 1800541.	1.5	1
5	The thermal stability of $\epsilon\text{-Ga}_2\text{O}_3$ thin films grown on (111) 3C-SiC template substrates. , 2019, , .		0
6	Bending Durability of Zinc Oxide Thin-films Transistors Formed on Flexible Substrates. Vacuum and Surface Science, 2018, 61, 274-279.	0.1	1
7	Effects of He plasma treatment on zinc oxide thin film transistors. , 2017, , .		1
8	Protonation-induced change on optical, electrical, and structural properties of epitaxial $\text{WO}_3$ films. , 2017, , .		1
9	Glucose Sensing by an Enzyme-modified ZnO-based FET. Procedia Engineering, 2016, 168, 84-88.	1.2	15
10	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
11	Reflection Layer Mediated Enhancement of Terahertz Radiation Utilizing Heavily-Doped InAs Thin Films. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 423-429.	2.2	6
12	A potentiometric glucose sensing by an enzyme-modified $\text{Ta}_2\text{O}_5/\text{ZnO}/\text{Mg}_0.4\text{O}$ solution-gate field-effect transistor. , 2015, , .		0
13	Postgrowth annealing effects on structural, optical, and electrical properties of $\text{MoO}_3$ - $\text{MoO}_3$ films grown by molecular beam epitaxy. , 2014, , .		0
14	A potentiometric immunosensor based on a ZnO field-effect transistor. Japanese Journal of Applied Physics, 2014, 53, 05FF04.	1.5	6
15	Characteristics of $\text{MoO}_3$ films grown by molecular beam epitaxy. Japanese Journal of Applied Physics, 2014, 53, 05FJ02.	1.5	38
16	Zinc oxide ion-sensitive field-effect transistors and biosensors. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2098-2104.	1.8	25
17	Characteristics of P-type $(\text{Zn}_{1-x}\text{Mg}_x\text{Cr}_2)$ Ceramics for Gas-sensing Applications. IEEJ Transactions on Sensors and Micromachines, 2014, 134, 308-314.	0.1	2
18	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

#	ARTICLE	IF	CITATIONS
19	Zinc oxide-based biosensors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1570-1573.	0.8	23
20	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
21	Irradiation effect of 8 MeV protons on single-crystalline zinc oxide. , 2011, , .		2
22	Intense Terahertz Radiation from InAs Thin Films. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2011, 32, 646-654.	2.2	16
23	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
24	Electric properties of aqueous grown ZnO nanorods on Au/Ti/Si substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 522-524.	0.8	1
25	Development of ZnO Transistors and Their Application to Bio-Sensors. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2011, 60, 447-456.	0.2	2
26	Irradiation Effect of 8MeV Protons on Single-Crystalline Zinc Oxide Films. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2011, 60, 988-993.	0.2	0
27	Improvement of chemical stability of aqueous solution grown ZnO nanorods by aminosilane modification. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1562-1564.	0.8	2
28	ZnO nanorods growth on sapphire substrates using aqueous solution with microwave heating and their photoluminescence properties. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1592-1594.	0.8	2
29	Thickness dependence of intense terahertz emission from InAs thin films. , 2010, , .		1
30	Polarization Analysis of Ga <sub>1-x</sub> Al <sub>x</sub> N and Zn <sub>1-x</sub> Mg <sub>x</sub> O by First-Principles Calculation. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2010, 59, 660-665.	0.2	1
31	Characteristics of Enzyme-Based ZnO/Zn <sub>0.7</sub> Mg <sub>0.3</sub> O Heterojunction Field-Effect Transistor as Glucose Sensor. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 04C081.	1.5	15
32	First-Principles Study on the Spontaneous Polarization of Wurtzite Zn <sub>1-x</sub> Mg <sub>x</sub> O Alloy Crystals. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2009, 58, 243-250.	0.2	7
33	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
34	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
35	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
36	Microwave-assisted synthesis of c-axis oriented ZnO nanorods on a glass substrate coated with ZnO film. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1035, 1.	0.1	1

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37	Improved Stability of High-Performance ZnO/ZnMgO Hetero-MISFETs. IEEE Electron Device Letters, 2007, 28, 543-545.	3.9	46
38	Polarization-induced high-quality two-dimensional electrons in a ZnO/ZnMgO heterostructure. AIP Conference Proceedings, 2007, . .	0.4	4
39	Polarization-induced two-dimensional electron gas at Zn $_{1-x}$ Mg $_x$ O/ZnO heterointerface. Journal of Crystal Growth, 2007, 301-302, 353-357.	1.5	61
40	ZnO/ZnMgO Heterojunction FETs. , 2006, , 371-414.		8
41	Characterization of [ZnO] $_m$ [ZnMgO] $_n$ multiple quantum wells grown by molecular beam epitaxy. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 191-194.	2.7	20
42	High-performance ZnO $\cdot$ ZnMgO field-effect transistors using a hetero-metal-insulator-semiconductor structure. Applied Physics Letters, 2006, 89, 053502.	3.3	96
43	Molecular beam epitaxial growth of wide bandgap ZnMgO alloy films on (111)-oriented Si substrate toward UV-detector applications. Journal of Crystal Growth, 2005, 278, 288-292.	1.5	169
44	Growth of ZnO/Zn $_{1-x}$ Mg $_x$ O films by pulsed laser ablation. Thin Solid Films, 2005, 486, 174-177.	1.8	21
45	Molecular Beam Epitaxial Growth of Al-doped ZnMgO Alloy Films for Modulation-doped ZnO/ZnMgO Heterostructures. Japanese Journal of Applied Physics, 2005, 44, 3822-3827.	1.5	35
46	Characteristics of a Zn $_{0.7}$ Mg $_{0.3}$ O $\cdot$ ZnO heterostructure field-effect transistor grown on sapphire substrate by molecular-beam epitaxy. Applied Physics Letters, 2005, 87, 112106.	3.3	88
47	Piezoelectric Carrier Confinement by Lattice Mismatch at ZnO/Zn $_{0.6}$ Mg $_{0.4}$ O Heterointerface. Japanese Journal of Applied Physics, 2004, 43, L1372-L1375.	1.5	75
48	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
49	Implant isolation of ZnO. Journal of Applied Physics, 2003, 93, 2972-2976.	2.5	66
50	Electrical isolation of ZnO by ion bombardment. Applied Physics Letters, 2002, 81, 3350-3352.	3.3	64
51	Numerical simulation of electron diffraction through a narrow constriction. Journal of Applied Physics, 1999, 86, 6249-6255.	2.5	7
52	Time $\epsilon$ evolved numerical simulation of a two $\epsilon$ dimensional electron wave packet through a quantum double slit. Journal of Applied Physics, 1993, 73, 998-1000.	2.5	6
53	Time $\epsilon$ evolved numerical simulation of a two $\epsilon$ dimensional electron wave packet through a quantum point contact. Applied Physics Letters, 1992, 61, 52-54.	3.3	8
54	Direct and indirect transitions in (GaAs) $_m$ /(AlAs) $_5$ superlattices. Surface Science, 1990, 228, 206-209.	1.9	5

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55	Electronic properties of Si atomic-planar-doped GaAs/AlAs quantum well structures grown by MBE. Surface Science, 1986, 174, 433-438.	1.9	7
56	Surface morphology of GaAs grown by gas-source MBE using trimethylgallium and arsenic. Journal of Crystal Growth, 1986, 76, 521-524.	1.5	11
57	MBE Growth of High-Quality GaAs Using Triethylgallium as a Gallium Source. Japanese Journal of Applied Physics, 1986, 25, L52-L53.	1.5	24
58	Si Atomic-Planar-Doping in GaAs Made by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1985, 24, L602-L604.	1.5	52
59	Characteristics of Polycrystalline ZnO-Based Electrolyte-Solution-Gate Field-Effect Transistors Fabricated on Glass Substrates. Applied Physics Express, 0, 2, 087001.	2.4	15