Takayoshi Oshima

List of Publications by Year
in descending order

52	3,165	185998 28	182168 51
papers	citations	h-index	g-index

52	52	52	3073
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ga₂O₃ Thin Film Growth on c-Plane Sapphire Substrates by Molecular Beam Epitaxy for Deep-Ultraviolet Photodetectors. Japanese Journal of Applied Physics, 2007, 46, 7217.	0.8	480
2	Carrier concentration dependence of band gap shift in n-type ZnO:Al films. Journal of Applied Physics, 2007, 101, 083705.	1.1	380
3	Vertical Solar-Blind Deep-Ultraviolet Schottky Photodetectors Based on Î²-Ga₂O₃Substrates. Applied Physics Express, 2008, 1, 011202.	1.1	342
4	Zno-based thin films synthesized by atmospheric pressure mist chemical vapor deposition. Journal of Crystal Growth, 2007, 299, 1-10.	0.7	160
5	Flame Detection by a Î²-Ga₂O₃-Based Sensor. Japanese Journal of Applied Physics, 2009, 48, 011605.	0.8	142
6	Surface morphology of homoepitaxial Î²-Ga2O3 thin films grown by molecular beam epitaxy. Thin Solid Films, 2008, 516, 5768-5771.	0.8	128
7	Î²-Al_{2x}Ga_{2-2x}O₃ Thin Film Growth by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2009, 48, 070202.	0.8	110
8	Carrier confinement observed at modulation-doped Î²-(Al _x Ga_{1â^'}) Tj ETQq0 0 0 rgBT /Overlock 10 interface. Applied Physics Express, 2017, 10, 035701.	1.1	105
9	Epitaxial growth of Î³-Ga2O3 films by mist chemical vapor deposition. Journal of Crystal Growth, 2012, 359, 60-63.	0.7	98
10	Properties of Ga₂O₃â€based (In_x) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (Ga<sub> epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3113-3115.	0.8	75
11	Electrical properties of Schottky barrier diodes fabricated on (001) Î²-Ga₂O₃substrates with crystal defects. Japanese Journal of Applied Physics, 2017, 56, 086501.	0.8	74
12	Relationship between crystal defects and leakage current in Î²-Ga₂O₃ Schottky barrier diodes. Japanese Journal of Applied Physics, 2016, 55, 1202BB.	0.8	70
13	Crystal defects observed by the etch-pit method and their effects on Schottky-barrier-diode characteristics on $(ar{2}01)$ Î²-Ga₂O₃. Japanese Journal of Applied Physics, 2017, 56, 091101.	0.8	63
14	Band-gap narrowing in Î±-(CrxFe1-x)2O3 solid-solution films. Applied Physics Letters, 2011, 99, .	1.5	59
15	Wet Etching of Î²-Ga₂O₃ Substrates. Japanese Journal of Applied Physics, 2009, 48, 040208.	0.8	53
16	Conducting Si-doped Î³-Ga2O3 epitaxial films grown by pulsed-laser deposition. Journal of Crystal Growth, 2015, 421, 23-26.	0.7	48
17	Î²-Ga₂O₃ Single Crystal as a Photoelectrode for Water Splitting. Japanese Journal of Applied Physics, 2013, 52, 111102.	0.8	47
18	Growth of SnO₂ crystalline thin films by mist chemical vapour deposition method. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 540-542.	0.8	46

#	Article	IF	Citations
19	Oxygen-radical-assisted pulsed-laser deposition of Î²-Ga2O3 and Î²-(Al Ga1â^')2O3 films. Journal of Crystal Growth, 2015, 424, 77-79.	0.7	45
20	Formation of Semi-Insulating Layers on Semiconducting Î²-Ga₂O₃ Single Crystals by Thermal Oxidation. Japanese Journal of Applied Physics, 2013, 52, 051101.	0.8	39
21	Synthesis and magnetic properties of double-perovskite oxide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>La</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> films. Physical Review B, 2015, 91, .	1.2	39
22	UV-B Sensor Based on a SnO2Thin Film. Japanese Journal of Applied Physics, 2009, 48, 120207.	0.8	36
23	Formation of indiumâ€“tin oxide ohmic contacts for Î²-Ga₂O₃. Japanese Journal of Applied Physics, 2016, 55, 1202B7.	0.8	36
24	Microwave Effects on Coâ€“Pi Cocatalysts Deposited on Î±-Fe₂O₃ for Application to Photocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 10349-10354.	4.0	36
25	Epitaxial growth and electric properties of Î³-Al₂O₃(110) films on Î²-Ga₂O₃(010) substrates. Japanese Journal of Applied Physics, 2016, 55, 1202B6.	0.8	33
26	Atomically controlled surfaces with step and terrace of Î²-Ga2O3 single crystal substrates for thin film growth. Applied Surface Science, 2008, 254, 7838-7842.	3.1	32
27	Spontaneous atomic ordering and magnetism in epitaxially stabilized double perovskites. Journal of Materials Research, 2013, 28, 689-695.	1.2	30
28	Epitaxial growth of wide-band-gap ZnGa2O4 films by mist chemical vapor deposition. Journal of Crystal Growth, 2014, 386, 190-193.	0.7	30
29	Epitaxial growth of Î³-(Al_xGa_{1â^'}_x)O₃alloy films for band-gap engineering. Applied Physics Express, 2017, 10, 051104.	1.1	29
30	Demonstration of lateral field-effect transistors using Sn-doped Î²-(AlGa)₂O₃ (010). Japanese Journal of Applied Physics, 2019, 58, SBBD12.	0.8	29
31	In-plane orientation control of (001) Î²-Ga2O3 by epitaxial lateral overgrowth through a geometrical natural selection mechanism. Japanese Journal of Applied Physics, 2020, 59, 115501.	0.8	26
32	Î±-Al₂O₃/Ga₂O₃superlattices coherently grown onr-plane sapphire. Applied Physics Express, 2018, 11, 065501.	1.1	21
33	Fabrication and Characterization of Semiconductor Photoelectrodes with Orientation-Controlled Î±-Fe₂O₃ Thin Films. Journal of Physical Chemistry C, 2016, 120, 2747-2752.	1.5	20
34	Formation of stacking fault and dislocation behavior during the high-temperature annealing of single-crystal HPHT diamond. Diamond and Related Materials, 2017, 75, 155-160.	1.8	20
35	(111)-Oriented Zn3N2Growth ona-Plane Sapphire Substrates by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2006, 45, 8653-8655.	0.8	19
36	Rapid growth of Î±-Ga₂O₃ by HCl-boosted halide vapor phase epitaxy and effect of precursor supply conditions on crystal properties. Semiconductor Science and Technology, 2020, 35, 055022.	1.0	19

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37	Reversible superconductor-insulator transition in LiTi2O4 induced by Li-ion electrochemical reaction. Scientific Reports, 2015, 5, 16325.	1.6	17
38	Characterization of pseudomorphic Î³-Ga₂O₃ and Î³-Al₂O₃ films on MgAl₂O₄ substrates and the band-alignment at the coherent Î³-Ga₂O₃/Al₂O₃ heterojunction interface. Japanese Journal of Applied Physics, 2019, 58, 060910.	0.8	15
39	Measurements of the band alignment at coherent Î±-Ga₂O₃/Al₂O₃ heterojunctions. Japanese Journal of Applied Physics, 2018, 57, 080308.	0.8	14
40	Pulsed-laser deposition of superconducting LiTi2O4 ultrathin films. Journal of Crystal Growth, 2015, 419, 153-157.	0.7	11
41	Fabrication of coherent Î³-Al₂O₃/Ga₂O₃ superlattices on MgAl₂O₄ substrates. Applied Physics Express, 2019, 12, 065503.	1.1	11
42	Selective area growth of Î²-Ga₂O₃ by HCl-based halide vapor phase epitaxy. Applied Physics Express, 2022, 15, 075503.	1.1	11
43	Phase-controlled epitaxial lateral overgrowth of Î±-Ga₂O₃ by halide vapor phase epitaxy. Japanese Journal of Applied Physics, 2020, 59, 025512.	0.8	10
44	Î²-Ga₂O₃-based metalâ€“oxideâ€“semiconductor photodiodes with HfO₂ as oxide. Applied Physics Express, 2018, 11, 112202.	1.1	9
45	Epitaxial Structures of Band-Gap-Engineered Î±-(Cr_xFe_{1-x})₂O₃ (0 â‰¤xâ‰¤1) Films Grown on C-Plane Sapphire. Japanese Journal of Applied Physics, 2012, 51, 11PG11.	0.8	8
46	Epitaxial Synthesis and Electronic Properties of Double-Perovskite Sr₂TiRuO₆Films. Applied Physics Express, 2013, 6, 105502.	1.1	8
47	Direct growth of metallic TiH₂thin films by pulsed laser deposition. Applied Physics Express, 2015, 8, 035801.	1.1	8
48	Microwave Power Rectification Using eta -Ga₂O₃Schottky Barrier Diodes. IEEE Electron Device Letters, 2019, 40, 1393-1395.	2.2	7
49	In-plane anisotropy in the direction of the dislocation bending in Î±-Ga₂O₃ grown by epitaxial lateral overgrowth. Applied Physics Express, 2020, 13, 115502.	1.1	7
50	Strain-induced metal-insulator transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>t</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mi system of perovskite titanate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">m</mml:mi><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub><mml:mi	1.1	6
51	Hetero-epitaxial growth control of single-crystalline anatase TiO₂ nanosheets predominantly exposing the {001} facet on oriented crystalline substrates. CrystEngComm, 2017, 19, 4734-4741.	1.3	4
52	Photodetectors. Springer Series in Materials Science, 2020, , 703-725.	0.4	0