

Akito Kuramata

List of Publications by Year in descending order

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37
papers

6,064
citations

257101

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Gallium oxide (Ga ₂ O ₃) metal-semiconductor field-effect transistors on single-crystal $\hat{\Gamma}^2$ -Ga ₂ O ₃ (010) substrates. Applied Physics Letters, 2012, 100, .	1.5	1,337
2	Recent progress in Ga ₂ O ₃ power devices. Semiconductor Science and Technology, 2016, 31, 034001.	1.0	783
3	High-quality $\hat{\Gamma}^2$ -Ga ₂ O ₃ single crystals grown by edge-defined film-fed growth. Japanese Journal of Applied Physics, 2016, 55, 1202A2.	0.8	719
4	Device-Quality β -Ga ₂ O ₃ Epitaxial Films Fabricated by Ozone Molecular Beam Epitaxy. Applied Physics Express, 2012, 5, 035502.	1.1	474
5	Field-Plated Ga ₂ O ₃ MOSFETs With a Breakdown Voltage of Over 750 V. IEEE Electron Device Letters, 2016, 37, 212-215.	2.2	431
6	1-kV vertical Ga ₂ O ₃ field-plated Schottky barrier diodes. Applied Physics Letters, 2017, 110, .	1.5	421
7	Homoepitaxial growth of $\hat{\Gamma}^2$ -Ga ₂ O ₃ layers by halide vapor phase epitaxy. Applied Physics Express, 2015, 8, 015503.	1.1	288
8	Temperature-dependent capacitance-voltage and current-voltage characteristics of Pt/Ga ₂ O ₃ (001) Schottky barrier diodes fabricated on <i>n</i> -Ga ₂ O ₃ drift layers grown by halide vapor phase epitaxy. Applied Physics Letters, 2016, 108, .	1.5	268
9	Current status of Ga ₂ O ₃ power devices. Japanese Journal of Applied Physics, 2016, 55, 1202A1.	0.8	188
10	$\hat{\Gamma}^2$ -Gallium oxide power electronics. APL Materials, 2022, 10, .	2.2	184
11	Halide vapor phase epitaxy of Si doped $\hat{\Gamma}^2$ -Ga ₂ O ₃ and its electrical properties. Thin Solid Films, 2018, 666, 182-184.	0.8	146
12	1230 V $\hat{\Gamma}^2$ -Ga ₂ O ₃ trench Schottky barrier diodes with an ultra-low leakage current of $< i>1/4</i>$ A/cm ² . Applied Physics Letters, 2018, 113, .	1.5	94
13	Structural evaluation of defects in $\hat{\Gamma}^2$ -Ga ₂ O ₃ single crystals grown by edge-defined film-fed growth process. Japanese Journal of Applied Physics, 2016, 55, 1202BD.	0.8	90
14	Electrical properties of Schottky barrier diodes fabricated on (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ substrates with crystal defects. Japanese Journal of Applied Physics, 2017, 56, 086501.	0.8	74
15	Relationship between crystal defects and leakage current in $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes. Japanese Journal of Applied Physics, 2016, 55, 1202BB.	0.8	70
16	Crystal defects observed by the etch-pit method and their effects on Schottky-barrier-diode characteristics on $(\hat{\Gamma}^2)$ $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Japanese Journal of Applied Physics, 2017, 56, 091101.	0.8	63
17	Origins of etch pits in $\hat{\Gamma}^2$ -Ga ₂ O ₃ (010) single crystals. Japanese Journal of Applied Physics, 2016, 55, 1202BC.	0.8	58
18	Observation of nanometer-sized crystalline grooves in as-grown $\hat{\Gamma}^2$ -Ga ₂ O ₃ single crystals. Japanese Journal of Applied Physics, 2016, 55, 030303.	0.8	56

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19	Slip system analysis and X-ray topographic study on $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Superlattices and Microstructures, 2016, 99, 99-103.	1.4	50
20	Characterization of crystalline defects in $\hat{\Gamma}^2$ -Ga ₂ O ₃ single crystals grown by edge-defined film-fed growth and halide vapor-phase epitaxy using synchrotron X-ray topography. Japanese Journal of Applied Physics, 2019, 58, 055501.	0.8	40
21	Origin of reverse leakage current path in edge-defined film-fed growth (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes observed by high-sensitive emission microscopy. Applied Physics Letters, 2020, 117, .	1.5	34
22	Stacking faults in $\hat{\Gamma}^2$ -Ga ₂ O ₃ crystals observed by X-ray topography. Journal of Applied Crystallography, 2018, 51, 1372-1377.	1.9	30
23	Stacking faults: Origin of leakage current in halide vapor phase epitaxial (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes. Applied Physics Letters, 2021, 118, .	1.5	29
24	Preparation of 2-in.-diameter (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ homoepitaxial wafers by halide vapor phase epitaxy. Japanese Journal of Applied Physics, 2017, 56, 110310.	0.8	26
25	Polycrystalline defectsâ€™origin of leakage currentâ€™in halide vapor phase epitaxial (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes identified via ultrahigh sensitive emission microscopy and synchrotron X-ray topography. Applied Physics Express, 2021, 14, 036502.	1.1	21
26	High-resolution dislocation imaging and micro-structural analysis of HVPE- $\hat{\Gamma}^2$ Ga ₂ O ₃ films using monochromatic synchrotron topography. APL Materials, 2019, 7, .	2.2	19
27	Effect of substrate orientation on homoepitaxial growth of $\hat{\Gamma}^2$ -Ga ₂ O ₃ by halide vapor phase epitaxy. Applied Physics Letters, 2022, 120, .	1.5	13
28	Probe-induced surface defects: Origin of leakage current in halide vapor-phase epitaxial (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes. Applied Physics Letters, 2022, 120, .	1.5	10
29	Mechanical properties and dislocation dynamics in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Japanese Journal of Applied Physics, 2022, 61, 045506.	0.8	10
30	Line-shaped defects: Origin of leakage current in halide vapor-phase epitaxial (001) $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes. Applied Physics Letters, 2022, 120, 122107.	1.5	8
31	Observation of dislocations in thick $\hat{\Gamma}^2$ -Ga ₂ O ₃ single-crystal substrates using Borrmann effect synchrotron x-ray topography. APL Materials, 2022, 10, .	2.2	8
32	Etch pit formation on $\hat{\Gamma}^2$ -Ga ₂ O ₃ by molten KOH+NaOH and hot H ₃ PO ₄ and their correlation with dislocations. Journal of Alloys and Compounds, 2022, 910, 164788.	2.8	5
33	Large-area total-thickness imaging and Burgers vector analysis of dislocations in $\hat{\Gamma}^2$ -Ga ₂ O ₃ using bright-field x-ray topography based on anomalous transmission. Applied Physics Letters, 2022, 121, .	1.5	5
34	Visualization of the curving of crystal planes in $\hat{\Gamma}^2$ -Ga ₂ O ₃ by X-ray topography. Journal of Crystal Growth, 2021, 576, 126376.	0.7	4
35	Subsurface-damaged layer in (010)-oriented $\hat{\Gamma}^2$ -Ga ₂ O ₃ substrates. Japanese Journal of Applied Physics, 2020, 59, 125503.	0.8	4
36	Anisotropic radius of curvature of crystal planes in wide-bandgap semiconductor wafers measured by X-ray diffraction. Japanese Journal of Applied Physics, 2021, 60, 128004.	0.8	2

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37	Three-dimensional curving of crystal planes in wide bandgap semiconductor wafers visualized using a laboratory X-ray diffractometer. Journal of Crystal Growth, 2022, 583, 126558.	0.7	2