# Akito Kuramata

List of Publications by Year
in descending order



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|---|---|---|---|
| 37 papers | 6,064 citations | 257450 24 h-index | 330143 37 g-index |
| 37 all docs | 37 docs citations | 37 times ranked | 2412 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Gallium oxide (Ga2O3) metal-semiconductor field-effect transistors on single-crystal Î²-Ga2O3 (010) substrates. Applied Physics Letters, 2012, 100, . | 3.3 | 1,337 |
| 2 | Recent progress in Ga<sub>2</sub>O<sub>3</sub>power devices. Semiconductor Science and Technology, 2016, 31, 034001. | 2.0 | 783 |
| 3 | High-quality Î²-Ga<sub>2</sub>O<sub>3</sub> single crystals grown by edge-defined film-fed growth. Japanese Journal of Applied Physics, 2016, 55, 1202A2. | 1.5 | 719 |
| 4 | Device-Quality $eta$-Ga$_{2}$O$_{3}$ Epitaxial Films Fabricated by Ozone Molecular Beam Epitaxy. Applied Physics Express, 2012, 5, 035502. | 2.4 | 474 |
| 5 | Field-Plated Ga<sub>2</sub>O<sub>3</sub>MOSFETs With a Breakdown Voltage of Over 750 V. IEEE Electron Device Letters, 2016, 37, 212-215. | 3.9 | 431 |
| 6 | 1-kV vertical Ga2O3 field-plated Schottky barrier diodes. Applied Physics Letters, 2017, 110, . | 3.3 | 421 |
| 7 | Homoepitaxial growth of Î²-Ga<sub>2</sub>O<sub>3</sub>layers by halide vapor phase epitaxy. Applied Physics Express, 2015, 8, 015503. | 2.4 | 288 |
| 8 | Temperature-dependent capacitanceâ€“voltage and currentâ€“voltage characteristics of Pt/Ga2O3 (001) Schottky barrier diodes fabricated on <i>n</i>â€“â€“Ga2O3 drift layers grown by halide vapor phase epitaxy. Applied Physics Letters, 2016, 108, . | 3.3 | 268 |
| 9 | Current status of Ga<sub>2</sub>O<sub>3</sub> power devices. Japanese Journal of Applied Physics, 2016, 55, 1202A1. | 1.5 | 188 |
| 10 | Î²-Gallium oxide power electronics. APL Materials, 2022, 10, . | 5.1 | 184 |
| 11 | Halide vapor phase epitaxy of Si doped Î²-Ga2O3 and its electrical properties. Thin Solid Films, 2018, 666, 182-184. | 1.8 | 146 |
| 12 | 1230â€‰V Î²-Ga2O3 trench Schottky barrier diodes with an ultra-low leakage current of <1 <i>Î¼</i>A/cm2. Applied Physics Letters, 2018, 113, . | 3.3 | 94 |
| 13 | Structural evaluation of defects in Î²-Ga<sub>2</sub>O<sub>3</sub> single crystals grown by edge-defined film-fed growth process. Japanese Journal of Applied Physics, 2016, 55, 1202BD. | 1.5 | 90 |
| 14 | Electrical properties of Schottky barrier diodes fabricated on (001) Î²-Ga<sub>2</sub>O<sub>3</sub>substrates with crystal defects. Japanese Journal of Applied Physics, 2017, 56, 086501. | 1.5 | 74 |
| 15 | Relationship between crystal defects and leakage current in Î²-Ga<sub>2</sub>O<sub>3</sub> Schottky barrier diodes. Japanese Journal of Applied Physics, 2016, 55, 1202BB. | 1.5 | 70 |
| 16 | Crystal defects observed by the etch-pit method and their effects on Schottky-barrier-diode characteristics on $(ar{2}01)$ Î²-Ga<sub>2</sub>O<sub>3</sub>. Japanese Journal of Applied Physics, 2017, 56, 091101. | 1.5 | 63 |
| 17 | Origins of etch pits in Î²-Ga<sub>2</sub>O<sub>3</sub>(010) single crystals. Japanese Journal of Applied Physics, 2016, 55, 1202BG. | 1.5 | 58 |
| 18 | Observation of nanometer-sized crystalline grooves in as-grown Î²-Ga2O3single crystals. Japanese Journal of Applied Physics, 2016, 55, 030303. | 1.5 | 56 |

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|---|---|---|---|
| 19 | Slip system analysis and X-ray topographic study on Î²-Ga2O3. Superlattices and Microstructures, 2016, 99, 99-103. | 3.1 | 50 |
| 20 | Characterization of crystalline defects in <i>Î²</i>-Ga<sub>2</sub>O<sub>3</sub> 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. | 1.5 | 40 |
| 21 | Origin of reverse leakage current path in edge-defined film-fed growth (001) <b> <i>Î²</i> </b>-Ga2O3 Schottky barrier diodes observed by high-sensitive emission microscopy. Applied Physics Letters, 2020, 117, . | 3.3 | 34 |
| 22 | Stacking faults in Î²-Ga<sub>2</sub>O<sub>3</sub> crystals observed by X-ray topography. Journal of Applied Crystallography, 2018, 51, 1372-1377. | 4.5 | 30 |
| 23 | Stacking faults: Origin of leakage current in halide vapor phase epitaxial (001) <b> <i>Î²</i> </b>-Ga2O3 Schottky barrier diodes. Applied Physics Letters, 2021, 118, . | 3.3 | 29 |
| 24 | Preparation of 2-in.-diameter (001) Î²-Ga2O3homoepitaxial wafers by halide vapor phase epitaxy. Japanese Journal of Applied Physics, 2017, 56, 110310. | 1.5 | 26 |
| 25 | Polycrystalline defectsâ€”origin of leakage currentâ€”in halide vapor phase epitaxial (001) Î²-Ga<sub>2</sub>O<sub>3</sub> Schottky barrier diodes identified via ultrahigh sensitive emission microscopy and synchrotron X-ray topography. Applied Physics Express, 2021, 14, 036502. | 2.4 | 21 |
| 26 | High-resolution dislocation imaging and micro-structural analysis of HVPE-Î²Ga2O3 films using monochromatic synchrotron topography. APL Materials, 2019, 7, . | 5.1 | 19 |
| 27 | Effect of substrate orientation on homoepitaxial growth of <b> <i>Î²</i> </b>-Ga2O3 by halide vapor phase epitaxy. Applied Physics Letters, 2022, 120, . | 3.3 | 13 |
| 28 | Probe-induced surface defects: Origin of leakage current in halide vapor-phase epitaxial (001) Î²-Ga2O3 Schottky barrier diodes. Applied Physics Letters, 2022, 120, . | 3.3 | 10 |
| 29 | Mechanical properties and dislocation dynamics in Î²-Ga<sub>2</sub>O<sub>3</sub>. Japanese Journal of Applied Physics, 2022, 61, 045506. | 1.5 | 10 |
| 30 | Line-shaped defects: Origin of leakage current in halide vapor-phase epitaxial (001) <b><i>Î²</i></b>-Ga<sub>2</sub>O<sub>3</sub> Schottky barrier diodes. Applied Physics Letters, 2022, 120, 122107. | 3.3 | 8 |
| 31 | Observation of dislocations in thick <b>Î²</b>-Ga2O3 single-crystal substrates using Borrmann effect synchrotron x-ray topography. APL Materials, 2022, 10, . | 5.1 | 8 |
| 32 | Etch pit formation on Î²-Ga2O3 by molten KOH+NaOH and hot H3PO4 and their correlation with dislocations. Journal of Alloys and Compounds, 2022, 910, 164788. | 5.5 | 5 |
| 33 | Large-area total-thickness imaging and Burgers vector analysis of dislocations in <b> <i>Î²</i> </b>-Ga2O3 using bright-field x-ray topography based on anomalous transmission. Applied Physics Letters, 2022, 121, . | 3.3 | 5 |
| 34 | Visualization of the curving of crystal planes in Î²-Ga2O3 by X-ray topography. Journal of Crystal Growth, 2021, 576, 126376. | 1.5 | 4 |
| 35 | Subsurface-damaged layer in (010)-oriented Î²-Ga2O3 substrates. Japanese Journal of Applied Physics, 2020, 59, 125503. | 1.5 | 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. | 1.5 | 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. | 1.5 | 2 |