# Akihiro Ohtake

List of Publications by Year
in descending order



| 91 | 1,725 | 331670 21 | 330143 37 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 93 | 93 | 93 | 1304 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Surface reconstructions on GaAs(001). Surface Science Reports, 2008, 63, 295-327. | 7.2 | 157 |
| 2 | New Structure Model for theGaAs(001)â˜c(4Ã—4)Surface. Physical Review Letters, 2002, 89, 206102. | 7.8 | 110 |
| 3 | Surface structures ofGaAs{111}A,Bâ˜(2Ã—2). Physical Review B, 2001, 64, . | 3.2 | 81 |
| 4 | Self-Assembly of Symmetric GaAs Quantum Dots on (111)A Substrates: Suppression of Fine-Structure Splitting. Applied Physics Express, 2010, 3, 065203. | 2.4 | 77 |
| 5 | Kinetics in Surface Reconstructions on GaAs(001). Physical Review Letters, 2004, 92, 236105. | 7.8 | 75 |
| 6 | Surface phase transition and interface interaction in the Î±-Sn/InSb{111} system. Physical Review B, 1994, 50, 7567-7572. | 3.2 | 60 |
| 7 | Atomic structure of theGaAs(001)â˜(2Ã—4)surface under As flux. Physical Review B, 2002, 65, . | 3.2 | 60 |
| 8 | Ga-Rich Limit of Surface Reconstructions on GaAs(001): Atomic Structure of the(4Ã—6)Phase. Physical Review Letters, 2004, 93, 266101. | 7.8 | 57 |
| 9 | Two types of structures for the GaAs(001)-c(4Ã—4) surface. Applied Physics Letters, 2003, 83, 5193-5195. | 3.3 | 52 |
| 10 | Strain Relaxation inInAs/GaAs(111)AHeteroepitaxy. Physical Review Letters, 2000, 84, 4665-4668. | 7.8 | 48 |
| 11 | Structure and composition of the ZnSe(001) surface during atomic-layer epitaxy. Physical Review B, 1999, 60, 8326-8332. | 3.2 | 35 |
| 12 | Overcoming metal-induced fluorescence quenching on plasmo-photonic metasurfaces coated by a self-assembled monolayer. Chemical Communications, 2015, 51, 11470-11473. | 4.1 | 35 |
| 13 | In situ observation of surface processes in InAs/GaAs(001) heteroepitaxy: The role of As on the growth mode. Applied Physics Letters, 2001, 78, 431-433. | 3.3 | 34 |
| 14 | Size-dependent line broadening in the emission spectra of single GaAs quantum dots: Impact of surface charge on spectral diffusion. Physical Review B, 2015, 92, . | 3.2 | 33 |
| 15 | Nature and origins of stacking faults from a ZnSe/GaAs interface. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1241. | 1.6 | 30 |
| 16 | Structure analysis of the Ga-stabilizedGaAs(001)â˜c(8Ã—2)surface at high temperatures. Physical Review B, 2002, 65, . | 3.2 | 28 |
| 17 | Gallium-rich reconstructions on GaAs(001). Physica Status Solidi (B): Basic Research, 2003, 240, 91-98. | 1.5 | 27 |
| 18 | Strain relaxation in InAs heteroepitaxy on lattice-mismatched substrates. Scientific Reports, 2020, 10, 4606. | 3.3 | 27 |

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|---|---|---|---|
| 19 | Characterization and control of IIâ€“VI/IIIâ€“V heterovalent interfaces. Journal of Crystal Growth, 1998, 184-185, 163-172. | 1.5 | 26 |
| 20 | The role of zinc pre-exposure in low-defect ZnSe growth on As-stabilized GaAs (001). Applied Physics Letters, 1998, 73, 939-941. | 3.3 | 25 |
| 21 | Structural features of Ga-rich GaAs(001) surfaces:â€ƒScanning tunneling microscopy study. Physical Review B, 2004, 70, . | 3.2 | 22 |
| 22 | Polarity controlled InAs{111} films grown on Si(111). Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, . | 1.2 | 20 |
| 23 | Electrical characteristics and thermal stability of HfO2 metal-oxide-semiconductor capacitors fabricated on clean reconstructed GaSb surfaces. Applied Physics Letters, 2014, 104, . | 3.3 | 20 |
| 24 | Ga-richGaAs(001)surface fromab initiocalculations: Atomic structure of the(4Ã—6)and(6Ã—6)reconstructions. Physical Review B, 2006, 73, . | 3.2 | 19 |
| 25 | Real-time analysis of adsorption processes of Zn on theGaAs(001)â^'(2Ã—4)surface. Physical Review B, 1999, 60, 8713-8718. | 3.2 | 18 |
| 26 | Atomic structure of the Ga nanoclusters onSi(111)â^'(7Ã—7). Physical Review B, 2006, 73, . | 3.2 | 18 |
| 27 | Extremely High- and Low-Density of Ga Droplets on GaAs{111}A,B: Surface-Polarity Dependence. Crystal Growth and Design, 2015, 15, 485-488. | 3.0 | 18 |
| 28 | Reflection high-energy electron diffraction analysis of the InSb{111}A,B-(2 Ã— 2) surfaces. Surface Science, 1998, 396, 394-399. | 1.9 | 17 |
| 29 | Structure of Se-adsorbed GaAs(111)A-(23Ã—23)-R30Â° surface. Physical Review B, 1999, 59, 8032-8036. | 3.2 | 17 |
| 30 | Ga-rich GaAs(001) surfaces observed by STM during high-temperature annealing in MBE. Journal of Crystal Growth, 2003, 251, 46-50. | 1.5 | 17 |
| 31 | Influence of initial surface reconstruction on the interface structure of HfO2/GaAs. Applied Surface Science, 2008, 254, 7565-7568. | 6.1 | 16 |
| 32 | Structure and composition of Ga-rich(6Ã—6)reconstructions on GaAs(001). Physical Review B, 2007, 75, . | 3.2 | 15 |
| 33 | Growth of Metamorphic InGaAs on GaAs (111)A: Counteracting Lattice Mismatch by Inserting a Thin InAs Interlayer. Crystal Growth and Design, 2016, 16, 5412-5417. | 3.0 | 15 |
| 34 | Two-Dimensional WSe<sub>2</sub>/MoSe<sub>2</sub> Heterostructures Grown by Molecular-Beam Epitaxy. Journal of Physical Chemistry C, 2021, 125, 11257-11261. | 3.1 | 15 |
| 35 | Non-Contact and Non-Destructive Measurement of Carrier Concentration of Nitrogen-Doped ZnSe by Reflectance Difference Spectroscopy. Japanese Journal of Applied Physics, 1997, 36, 6638-6644. | 1.5 | 14 |
| 36 | In situ determination of in-plane strain anisotropy in ZnSe(001)/GaAs layers using reflectance difference spectroscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2342. | 1.6 | 14 |

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|---|---|---|---|
| 37 | Structures of the As-deficient phase onGaAs(001)â^'(2Ã—4). Physical Review B, 2006, 74, . | 3.2 | 14 |
| 38 | Atomic structure and passivated nature of the Se-treated GaAs(111)B surface. Scientific Reports, 2018, 8, 1220. | 3.3 | 14 |
| 39 | Controlled incorporation of Mn in GaAs: Role of surface reconstructions. Physical Review B, 2013, 87, . | 3.2 | 13 |
| 40 | Droplet epitaxy growth of telecom InAs quantum dots on metamorphic InAlAs/GaAs(111)A. Japanese Journal of Applied Physics, 2015, 54, 04DH07. | 1.5 | 13 |
| 41 | Wurtziteâ€“zinc-blende polytypism in ZnSe onGaAs(111)A. Physical Review B, 2001, 63, . | 3.2 | 12 |
| 42 | Effect of Substrate Orientation on MoSe<sub>2</sub>/GaAs Heteroepitaxy. Journal of Physical Chemistry C, 2020, 124, 5196-5203. | 3.1 | 12 |
| 43 | Surface processes during heteroepitaxy of ZnSe onGaAs(111)Aas observed by reflection high-energy electron diffraction. Physical Review B, 1997, 56, 14909-14912. | 3.2 | 11 |
| 44 | Dependence of defect generation and structure on interface chemistry in ZnSe/GaAs. Applied Surface Science, 1997, 117-118, 495-502. | 6.1 | 11 |
| 45 | Self-assembled formation of ZnCdSe quantum dots on atomically smooth ZnSe surfaces on GaAs(001) by molecular beam epitaxy. Thin Solid Films, 1999, 357, 1-7. | 1.8 | 11 |
| 46 | Heteroepitaxy of GaSb on Si(111) and fabrication of HfO2/GaSb metal-oxide-semiconductor capacitors. Applied Physics Letters, 2014, 104, . | 3.3 | 11 |
| 47 | Geometry and lattice formation of surface layers of Sn growing on InSb{111}A,B. Physical Review B, 1996, 54, 10358-10361. | 3.2 | 10 |
| 48 | ZnSe epitaxy on a GaAs(110) surface. Applied Physics Letters, 1997, 71, 1192-1194. | 3.3 | 10 |
| 49 | X-ray reflectivity from ZnSe/GaAs heterostructures. Journal of Applied Physics, 1999, 85, 1520-1523. | 2.5 | 10 |
| 50 | Adsorption of Zn on the GaAs(001)-(2Ã—4) surface. Applied Physics Letters, 1999, 74, 2975-2977. | 3.3 | 10 |
| 51 | Gaâ€“As dimer structure for the GaAs(001)-c(4Ã—4) surface. Surface Science, 2004, 566-568, 58-62. | 1.9 | 10 |
| 52 | Self-assembled growth of ordered GaAs nanostructures. Applied Physics Letters, 2006, 89, 083108. | 3.3 | 10 |
| 53 | As-rich (2Ã—2) surface reconstruction on GaAs(111)A. Surface Science, 2012, 606, 1864-1870. | 1.9 | 10 |
| 54 | Self-Assembled Growth of Ga Droplets on GaAs(001): Role of Surface Reconstructions. Crystal Growth and Design, 2014, 14, 3110-3115. | 3.0 | 10 |

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| 55 | Evolution of Surface and Interface Structures in Molecular-Beam Epitaxy of MoSe2 on GaAs(111)A and (111)B. Crystal Growth and Design, 2017, 17, 363-367. | 3.0 | 10 |
| 56 | Growth mode and defect generation in ZnSe heteroepitaxy on Te-terminated GaAs(001) surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1254. | 1.6 | 9 |
| 57 | Atomic nitrogen doping in p-ZnSe molecular beam epitaxial growth with almost 100% activation ratio. Applied Physics Letters, 1997, 71, 1077-1079. | 3.3 | 9 |
| 58 | Defect generation in layer-by-layer-grown ZnSe films on Te-terminated GaAs(001) surfaces. Physical Review B, 1998, 57, 1410-1413. | 3.2 | 9 |
| 59 | Growth mode ofInxGa1â^'xAs(0<~x<~0.5)on GaAs(001) under As-deficient conditions. Physical Review B, 2002, 65, . | 3.2 | 9 |
| 60 | Reflectance-difference studies of interface-formation and initial-growth processes in ZnSe/GaAs(001) heteroepitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1212. | 1.6 | 8 |
| 61 | Atomic nitrogen doping in p-ZnSe with high activation ratio using a high-power plasma source. Journal of Crystal Growth, 1998, 184-185, 411-414. | 1.5 | 8 |
| 62 | In situobservation of strain-induced optical anisotropy ofZnSxSe1â^'x/GaAs(110)during molecular-beam epitaxy. Physical Review B, 1999, 60, 8909-8914. | 3.2 | 8 |
| 63 | Atomic layer epitaxy processes of ZnSe on GaAs(001) as observed by beam-rocking reflection high-energy electron diffraction (RHEED) and total-reflection-angle X-ray spectroscopy (TRAXS). Journal of Crystal Growth, 1999, 201-202, 490-493. | 1.5 | 7 |
| 64 | Strain-induced surface segregation in In0.5Ga0.5As/GaAs heteroepitaxy. Applied Physics Letters, 2002, 80, 3931-3933. | 3.3 | 7 |
| 65 | Anisotropic kinetics on growing Ge(0 0 1) surfaces. Surface Science, 2009, 603, 826-830. | 1.9 | 6 |
| 66 | Heteroepitaxy of MoSe2 on Si(111) substrates: Role of surface passivation. Applied Physics Letters, 2019, 114, . | 3.3 | 6 |
| 67 | Polar surface dependence of epitaxy processes: ZnSe on GaAs{111}A, B-(2Ã—2). Applied Surface Science, 1998, 130-132, 398-402. | 6.1 | 5 |
| 68 | Structure of Ga-stabilized GaAs(0 0 1) surfaces at high temperatures. Applied Surface Science, 2003, 212-213, 146-150. | 6.1 | 5 |
| 69 | Atomic-scale characterization of the N incorporation on GaAs(001). Journal of Applied Physics, 2011, 110, 033506. | 2.5 | 5 |
| 70 | Polarization Anisotropies in Strain-Free, Asymmetric, and Symmetric Quantum Dots Grown by Droplet Epitaxy. Nanomaterials, 2021, 11, 443. | 4.1 | 5 |
| 71 | Variable stoichiometry in Sb-induced(2Ã—4)reconstructions on GaAs(001). Physical Review B, 2009, 80, . | 3.2 | 4 |
| 72 | Strain Relaxation in GaSb/GaAs(111)A Heteroepitaxy Using Thin InAs Interlayers. ACS Omega, 2018, 3, 15592-15597. | 3.5 | 4 |

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|---|---|---|---|
| 73 | Structure and morphology of 2H-MoTe2 monolayer on GaAs(111)B grown by molecular-beam epitaxy. Npj 2D Materials and Applications, 2022, 6, . | 7.9 | 4 |
| 74 | Heterovalent ZnSe/GaAs Interfaces. Physica Status Solidi (B): Basic Research, 1997, 202, 657-668. | 1.5 | 3 |
| 75 | Proposal of Selective Growth Technique Using Periodic Strain Field Caused by Misfit Dislocations. Japanese Journal of Applied Physics, 2004, 43, L1422-L1424. | 1.5 | 3 |
| 76 | Mn-Induced Surface Reconstructions on GaAs(001). Journal of Physical Chemistry C, 2016, 120, 6050-6062. | 3.1 | 3 |
| 77 | Annealing-Induced Structural Evolution of InAs Quantum Dots on InP (111)A Formed by Droplet Epitaxy. Crystal Growth and Design, 2021, 21, 3947-3953. | 3.0 | 3 |
| 78 | Initial growth processes of Ag on polar and non-polar semiconductor substrates. Surface Science, 1997, 380, L437-L440. | 1.9 | 2 |
| 79 | Adsorption processes of Se on the GaAs(111)Aâ€“(2x2) surface. Applied Surface Science, 2000, 162-163, 419-424. | 6.1 | 2 |
| 80 | Large anisotropy in thermal atomic vibrations at theInSb(111)Aâ˜(2Ã—2)surface. Physical Review B, 2003, 68, . | 3.2 | 2 |
| 81 | Ge-induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo>(</mml:mo><mml:mn>1</mml:mn><mml:mo>Ã—</mml:mo><mml:mn>2</mml:mn><mml:mo reconstruction on GaAs(001): A precursor to As segregation. Physical Review B, 2008, 77, . | 3.2 | 2 |
| 82 | Relationships between Interface Structures and Electrical Properties in the High-k/IIIâ€“V System. Materials Research Society Symposia Proceedings, 2009, 1194, 68. | 0.1 | 2 |
| 83 | Effect of Interface Oxidation on the Electrical Characteristics of HfO<sub>2</sub>/Ultrathin-Epitaxial-Ge/GaAs(100) Structures. Applied Physics Express, 2010, 3, 035701. | 2.4 | 2 |
| 84 | Impact of Cation Surface Termination on the Electrical Characteristics of HfO$_{2}$/InGaAs(001) Metalâ€“Oxideâ€“Semiconductor Capacitors. Japanese Journal of Applied Physics, 2011, 50, 10PD01. | 1.5 | 2 |
| 85 | Controlling Anion Composition at Metalâ€“Insulatorâ€“Semiconductor Interfaces on IIIâ€“V Channels by Plasma Processing. Japanese Journal of Applied Physics, 2012, 51, 065701. | 1.5 | 2 |
| 86 | Impact of Cation Surface Termination on the Electrical Characteristics of HfO<sub>2</sub>/InGaAs(001) Metalâ€“Oxideâ€“Semiconductor Capacitors. Japanese Journal of Applied Physics, 2011, 50, 10PD01. | 1.5 | 2 |
| 87 | Molecular beam epitaxial growth of P-ZnSe:N using a novel plasma source. Journal of Electronic Materials, 1997, 26, 705-709. | 2.2 | 1 |
| 88 | Indium supply from triisopropylindium onto a GaAs(001) surface at room temperature. Applied Physics Letters, 2002, 81, 4058-4060. | 3.3 | 1 |
| 89 | RHEED Studies of GaAs Surface Structure. Hyomen Kagaku, 2003, 24, 136-144. | 0.0 | 0 |
| 90 | Cation-anion mixed-dimer structure of Al-induced (2Ã—4) reconstruction on InAs(001). Surface Science, 2012, 606, 1886-1891. | 1.9 | 0 |

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| 91 | First-principles study of locally disordered structures of Mn-induced GaAs(001)-(2 Ã— 2) surface. Japanese Journal of Applied Physics, 2016, 55, 08NB21. | 1.5 | 0 |