

# Akihiro Ohtake

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

90  
papers

1,529  
citations

20  
h-index

34  
g-index

93  
ext. papers

1,620  
ext. citations

3.5  
avg, IF

4.66  
L-index

#	Paper	IF	Citations
90	Surface reconstructions on GaAs(001). <i>Surface Science Reports</i> , <b>2008</b> , 63, 295-327	12.9	135
89	New structure model for the GaAs(001)-c(4x4) surface. <i>Physical Review Letters</i> , <b>2002</b> , 89, 206102	7.4	106
88	Self-Assembly of Symmetric GaAs Quantum Dots on (111)A Substrates: Suppression of Fine-Structure Splitting. <i>Applied Physics Express</i> , <b>2010</b> , 3, 065203	2.4	73
87	Kinetics in surface reconstructions on GaAs(001). <i>Physical Review Letters</i> , <b>2004</b> , 92, 236105	7.4	71
86	Surface structures of GaAs{111}A,B( $\sqrt{3}\times\sqrt{3}$ ). <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	69
85	Surface phase transition and interface interaction in the alpha-Sn/InSb{111} system. <i>Physical Review B</i> , <b>1994</b> , 50, 7567-7572	3.3	55
84	Atomic structure of the GaAs(001)( $\sqrt{3}\times\sqrt{3}$ ) surface under As flux. <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	53
83	Ga-rich limit of surface reconstructions on GaAs(001): atomic structure of the (4 x 6) phase. <i>Physical Review Letters</i> , <b>2004</b> , 93, 266101	7.4	51
82	Two types of structures for the GaAs(001)-c(4x4) surface. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 5193-5195	3.4	50
81	Strain relaxation in InAs/GaAs(111)A heteroepitaxy. <i>Physical Review Letters</i> , <b>2000</b> , 84, 4665-8	7.4	41
80	Structure and composition of the ZnSe(001) surface during atomic-layer epitaxy. <i>Physical Review B</i> , <b>1999</b> , 60, 8326-8332	3.3	34
79	Size-dependent line broadening in the emission spectra of single GaAs quantum dots: Impact of surface charge on spectral diffusion. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	29
78	Nature and origins of stacking faults from a ZnSe/GaAs interface. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1997</b> , 15, 1241		29
77	In situ observation of surface processes in InAs/GaAs(001) heteroepitaxy: The role of As on the growth mode. <i>Applied Physics Letters</i> , <b>2001</b> , 78, 431-433	3.4	29
76	Overcoming metal-induced fluorescence quenching on plasmo-photonic metasurfaces coated by a self-assembled monolayer. <i>Chemical Communications</i> , <b>2015</b> , 51, 11470-3	5.8	28
75	Structure analysis of the Ga-stabilized GaAs(001)( $\sqrt{3}\times\sqrt{3}$ ) surface at high temperatures. <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	27
74	Characterization and control of III-V/III-V heterovalent interfaces. <i>Journal of Crystal Growth</i> , <b>1998</b> , 184-185, 163-172	1.6	26

73	Gallium-rich reconstructions on GaAs(001). <i>Physica Status Solidi (B): Basic Research</i> , <b>2003</b> , 240, 91-98	1.3	25
72	The role of zinc pre-exposure in low-defect ZnSe growth on As-stabilized GaAs (001). <i>Applied Physics Letters</i> , <b>1998</b> , 73, 939-941	3.4	22
71	Structural features of Ga-rich GaAs(001) surfaces: Scanning tunneling microscopy study. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	21
70	Electrical characteristics and thermal stability of HfO <sub>2</sub> metal-oxide-semiconductor capacitors fabricated on clean reconstructed GaSb surfaces. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 232104	3.4	19
69	Ga-rich GaAs(001) surface from ab initio calculations: Atomic structure of the (4 $\times$ 4) and (6 $\times$ 6) reconstructions. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	18
68	Atomic structure of the Ga nanoclusters on Si(111)( $\sqrt{7}\times\sqrt{7}$ ). <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	18
67	Real-time analysis of adsorption processes of Zn on the GaAs(001)( $\sqrt{3}\times\sqrt{3}$ ) surface. <i>Physical Review B</i> , <b>1999</b> , 60, 8713-8718	3.3	17
66	Reflection high-energy electron diffraction analysis of the InSb{111}A,B-(2 $\times$ 2) surfaces. <i>Surface Science</i> , <b>1998</b> , 396, 394-399	1.8	16
65	Ga-rich GaAs(0 0 1) surfaces observed by STM during high-temperature annealing in MBE. <i>Journal of Crystal Growth</i> , <b>2003</b> , 251, 46-50	1.6	16
64	Structure of Se-adsorbed GaAs(111)A-( $\sqrt{3}\times\sqrt{3}$ )-R30 $^\circ$ surface. <i>Physical Review B</i> , <b>1999</b> , 59, 8032-8036	3.3	16
63	Strain relaxation in InAs heteroepitaxy on lattice-mismatched substrates. <i>Scientific Reports</i> , <b>2020</b> , 10, 4606	4.9	15
62	Polarity controlled InAs{111} films grown on Si(111). <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , <b>2011</b> , 29, 031804	1.3	15
61	Influence of initial surface reconstruction on the interface structure of HfO <sub>2</sub> /GaAs. <i>Applied Surface Science</i> , <b>2008</b> , 254, 7565-7568	6.7	15
60	Non-Contact and Non-Destructive Measurement of Carrier Concentration of Nitrogen-Doped ZnSe by Reflectance Difference Spectroscopy. <i>Japanese Journal of Applied Physics</i> , <b>1997</b> , 36, 6638-6644	1.4	14
59	Structures of the As-deficient phase on GaAs(001)( $\sqrt{3}\times\sqrt{3}$ ). <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	14
58	Structure and composition of Ga-rich (6 $\times$ 6) reconstructions on GaAs(001). <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	14
57	Extremely High- and Low-Density of Ga Droplets on GaAs{111}A,B: Surface-Polarity Dependence. <i>Crystal Growth and Design</i> , <b>2015</b> , 15, 485-488	3.5	13
56	In situ determination of in-plane strain anisotropy in ZnSe(001)/GaAs layers using reflectance difference spectroscopy. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1998</b> , 16, 2342		13

55	Growth of Metamorphic InGaAs on GaAs (111)A: Counteracting Lattice Mismatch by Inserting a Thin InAs Interlayer. <i>Crystal Growth and Design</i> , <b>2016</b> , 16, 5412-5417	3.5	11
54	Controlled incorporation of Mn in GaAs: Role of surface reconstructions. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	11
53	Surface processes during heteroepitaxy of ZnSe on GaAs(111)A as observed by reflection high-energy electron diffraction. <i>Physical Review B</i> , <b>1997</b> , 56, 14909-14912	3.3	11
52	ZnSe epitaxy on a GaAs(110) surface. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 1192-1194	3.4	10
51	Dependence of defect generation and structure on interface chemistry in ZnSe/GaAs. <i>Applied Surface Science</i> , <b>1997</b> , 117-118, 495-502	6.7	10
50	Self-assembled growth of ordered GaAs nanostructures. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 083108	3.4	10
49	GaAs dimer structure for the GaAs(001)-c(4×4) surface. <i>Surface Science</i> , <b>2004</b> , 566-568, 58-62	1.8	10
48	Wurtzite-zinc-blende polytypism in ZnSe on GaAs(111)A. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	10
47	X-ray reflectivity from ZnSe/GaAs heterostructures. <i>Journal of Applied Physics</i> , <b>1999</b> , 85, 1520-1523	2.5	10
46	Self-assembled formation of ZnCdSe quantum dots on atomically smooth ZnSe surfaces on GaAs(001) by molecular beam epitaxy. <i>Thin Solid Films</i> , <b>1999</b> , 357, 1-7	2.2	10
45	Geometry and lattice formation of surface layers of Sn growing on InSb{111}A,B. <i>Physical Review B</i> , <b>1996</b> , 54, 10358-10361	3.3	10
44	Atomic structure and passivated nature of the Se-treated GaAs(111)B surface. <i>Scientific Reports</i> , <b>2018</b> , 8, 1220	4.9	9
43	Growth mode and defect generation in ZnSe heteroepitaxy on Te-terminated GaAs(001) surfaces. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1997</b> , 15, 1254		9
42	Atomic nitrogen doping in p-ZnSe molecular beam epitaxial growth with almost 100% activation ratio. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 1077-1079	3.4	9
41	Defect generation in layer-by-layer-grown ZnSe films on Te-terminated GaAs(001) surfaces. <i>Physical Review B</i> , <b>1998</b> , 57, 1410-1413	3.3	9
40	Adsorption of Zn on the GaAs(001)-(2×2) surface. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 2975-2977	3.4	9
39	Droplet epitaxy growth of telecom InAs quantum dots on metamorphic InAlAs/GaAs(111)A. <i>Japanese Journal of Applied Physics</i> , <b>2015</b> , 54, 04DH07	1.4	8
38	Effect of Substrate Orientation on MoSe <sub>2</sub> /GaAs Heteroepitaxy. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 5196-5203	3.8	8

37	Heteroepitaxy of GaSb on Si(111) and fabrication of HfO <sub>2</sub> /GaSb metal-oxide-semiconductor capacitors. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 032101	3.4	8
36	Self-Assembled Growth of Ga Droplets on GaAs(001): Role of Surface Reconstructions. <i>Crystal Growth and Design</i> , <b>2014</b> , 14, 3110-3115	3.5	8
35	Reflectance-difference studies of interface-formation and initial-growth processes in ZnSe/GaAs(001) heteroepitaxy. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1997</b> , 15, 1212		8
34	Growth mode of In <sub>x</sub> Ga <sub>1-x</sub> As (0. <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	8
33	In situ observation of strain-induced optical anisotropy of ZnS <sub>x</sub> Se <sub>1-x</sub> /GaAs(110) during molecular-beam epitaxy. <i>Physical Review B</i> , <b>1999</b> , 60, 8909-8914	3.3	8
32	Evolution of Surface and Interface Structures in Molecular-Beam Epitaxy of MoSe <sub>2</sub> on GaAs(111)A and (111)B. <i>Crystal Growth and Design</i> , <b>2017</b> , 17, 363-367	3.5	7
31	As-rich (2×) surface reconstruction on GaAs(111)A. <i>Surface Science</i> , <b>2012</b> , 606, 1864-1870	1.8	7
30	Atomic nitrogen doping in p-ZnSe with high activation ratio using a high-power plasma source. <i>Journal of Crystal Growth</i> , <b>1998</b> , 184-185, 411-414	1.6	7
29	Anisotropic kinetics on growing Ge(001) surfaces. <i>Surface Science</i> , <b>2009</b> , 603, 826-830	1.8	6
28	Strain-induced surface segregation in In <sub>0.5</sub> Ga <sub>0.5</sub> As/GaAs heteroepitaxy. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 3931-3933	3.4	6
27	Atomic layer epitaxy processes of ZnSe on GaAs(0 0 1) as observed by beam-rocking reflection high-energy electron diffraction (RHEED) and total-reflection-angle X-ray spectroscopy (TRAXS). <i>Journal of Crystal Growth</i> , <b>1999</b> , 201-202, 490-493	1.6	6
26	Heteroepitaxy of MoSe <sub>2</sub> on Si(111) substrates: Role of surface passivation. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 053106	3.4	5
25	Atomic-scale characterization of the N incorporation on GaAs(001). <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 033506	2.5	5
24	Structure of Ga-stabilized GaAs(0 0 1) surfaces at high temperatures. <i>Applied Surface Science</i> , <b>2003</b> , 212-213, 146-150	6.7	5
23	Variable stoichiometry in Sb-induced (2×) reconstructions on GaAs(001). <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	4
22	Polar surface dependence of epitaxy processes: ZnSe on GaAs{111}A, B-(2×). <i>Applied Surface Science</i> , <b>1998</b> , 130-132, 398-402	6.7	4
21	Heterovalent ZnSe/GaAs Interfaces. <i>Physica Status Solidi (B): Basic Research</i> , <b>1997</b> , 202, 657-668	1.3	3
20	Proposal of Selective Growth Technique Using Periodic Strain Field Caused by Misfit Dislocations. <i>Japanese Journal of Applied Physics</i> , <b>2004</b> , 43, L1422-L1424	1.4	3

19	Two-Dimensional WSe <sub>2</sub> /MoSe <sub>2</sub> Heterostructures Grown by Molecular-Beam Epitaxy. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 11257-11261	3.8	3
18	Mn-Induced Surface Reconstructions on GaAs(001). <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 6050-6062	3.8	2
17	Impact of Cation Surface Termination on the Electrical Characteristics of HfO <sub>2</sub> /InGaAs(001) MetalOxideSemiconductor Capacitors. <i>Japanese Journal of Applied Physics</i> , <b>2011</b> , 50, 10PD01	1.4	2
16	Relationships between Interface Structures and Electrical Properties in the High-k/III-V System. <i>Materials Research Society Symposia Proceedings</i> , <b>2009</b> , 1194, 68		2
15	Controlling Anion Composition at MetalInsulatorSemiconductor Interfaces on III-V Channels by Plasma Processing. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 065701	1.4	2
14	Effect of Interface Oxidation on the Electrical Characteristics of HfO <sub>2</sub> /Ultrathin-Epitaxial-Ge/GaAs(100) Structures. <i>Applied Physics Express</i> , <b>2010</b> , 3, 035701	2.4	2
13	Initial growth processes of Ag on polar and non-polar semiconductor substrates. <i>Surface Science</i> , <b>1997</b> , 380, L437-L440	1.8	2
12	Ge-induced (1 $\times$ 1) surface reconstruction on GaAs(001): A precursor to As segregation. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	2
11	Large anisotropy in thermal atomic vibrations at the InSb(111)A(2 $\times$ 2) surface. <i>Physical Review B</i> , <b>2003</b> , 68,	3.3	2
10	Adsorption processes of Se on the GaAs(111)A(2 $\times$ 2) surface. <i>Applied Surface Science</i> , <b>2000</b> , 162-163, 419-424	6.7	2
9	Impact of Cation Surface Termination on the Electrical Characteristics of HfO <sub>2</sub> /InGaAs(001) MetalOxideSemiconductor Capacitors. <i>Japanese Journal of Applied Physics</i> , <b>2011</b> , 50, 10PD01	1.4	2
8	Strain Relaxation in GaSb/GaAs(111)A Heteroepitaxy Using Thin InAs Interlayers. <i>ACS Omega</i> , <b>2018</b> , 3, 15592-15597	3.9	2
7	Molecular beam epitaxial growth of P-ZnSe:N using a novel plasma source. <i>Journal of Electronic Materials</i> , <b>1997</b> , 26, 705-709	1.9	1
6	Indium supply from triisopropylindium onto a GaAs(001) surface at room temperature. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 4058-4060	3.4	1
5	Annealing-Induced Structural Evolution of InAs Quantum Dots on InP (111)A Formed by Droplet Epitaxy. <i>Crystal Growth and Design</i> , <b>2021</b> , 21, 3947-3953	3.5	1
4	Polarization Anisotropies in Strain-Free, Asymmetric, and Symmetric Quantum Dots Grown by Droplet Epitaxy. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	1
3	First-principles study of locally disordered structures of Mn-induced GaAs(001)-(2 $\times$ 2) surface. <i>Japanese Journal of Applied Physics</i> , <b>2016</b> , 55, 08NB21	1.4	
2	Cation-anion mixed-dimer structure of Al-induced (2 $\times$ 4) reconstruction on InAs(001). <i>Surface Science</i> , <b>2012</b> , 606, 1886-1891	1.8	

- 1 RHEED Studies of GaAs Surface Structure. *Hyomen Kagaku*, **2003**, 24, 136-144