Hideki Hasegawa

List of Publications by Year
in descending order

172 papers	5,136 citations	94433 37 h-index	106344 65 g-index
172 all docs	172 docs citations	172 times ranked	2445 citing authors

#	Article	IF	Citations
1	Unified disorder induced gap state model for insulatorâ€"semiconductor and metalâ€"semiconductor interfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1986, 4, 1130.	1.6	441
2	Suppression of current collapse in insulated gate AlGaN/GaN heterostructure field-effect transistors using ultrathin Al2O3 dielectric. Applied Physics Letters, 2003, 83, 2952-2954.	3.3	237
3	Surface passivation of GaN and GaN/AlGaN heterostructures by dielectric films and its application to insulated-gate heterostructure transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1828.	1.6	209
4	Mechanisms of current collapse and gate leakage currents in AlGaN/GaN heterostructure field effect transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1844.	1.6	195
5	Leakage mechanism in GaN and AlGaN Schottky interfaces. Applied Physics Letters, 2004, 84, 4884-4886.	3.3	180
6	Effects of nitrogen deficiency on electronic properties of AlGaN surfaces subjected to thermal and plasma processes. Applied Surface Science, 2004, 234, 387-394.	6.1	164
7	Mechanism of anomalous current transport in n-type GaN Schottky contacts. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1647.	1.6	154
8	Chemistry and electrical properties of surfaces of GaN and GaN/AlGaN heterostructures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1675.	1.6	144
9	New anodic native oxide of GaAs with improved dielectric and interface properties. Applied Physics Letters, 1975, 26, 567-569.	3.3	114
10	Electronic and microstructural properties of disorder-induced gap states at compound semiconductorâ€"insulator interfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1987, 5, 1097.	1.6	110
11	Atomic force microscopy study of strained InGaAs quantum disks selfâ€organizing on GaAs (n11)B substrates. Applied Physics Letters, 1994, 65, 2854-2856.	3.3	109
12	Control of compound semiconductorâ€"insulator interfaces by an ultrathin molecular-beam epitaxy Si layer. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1989, 7, 870.	1.6	103
13	Electronic Properties and Modeling of Lattice-Mismatched and Regrown GaAs Interfaces Prepared by Metalorganic Vapor Phase Epitaxy. Japanese Journal of Applied Physics, 1988, 27, 180-187.	1.5	86
14	GaAs and In0.53Ga0.47As MIS Structures Having an Ultrathin Pseudomorphic Interface Control Layer of Si Prepared by MBE. Japanese Journal of Applied Physics, 1988, 27, L2265-L2267.	1.5	81
15	Pt Schottky diode gas sensors formed on GaN and AlGaN/GaN heterostructure. Applied Surface Science, 2005, 244, 273-276.	6.1	73
16	Mechanism of current leakage through metal/n-GaN interfaces. Applied Surface Science, 2002, 190, 322-325.	6.1	72
17	Analysis and control of excess leakage currents in nitride-based Schottky diodes based on thin surface barrier model. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2179.	1.6	70
18	A selfâ€consistent computer simulation of compound semiconductor metalâ€insulatorâ€semiconductorCâ€Vcurves based on the disorderâ€induced gapâ€state model. Journal of Applied Physics, 1988, 63, 2120-2130.	2.5	69

#	Article	IF	Citations
19	Selfâ€organization of strained GaInAs microstructures on InP (311) substrates grown by metalorganic vaporâ€phase epitaxy. Applied Physics Letters, 1995, 66, 2525-2527.	3.3	68
20	Mechanism of Multiatomic Step Formation during Metalorganic Chemical Vapor deposition Growth of GaAs on (001) Vicinal Surface Studied by Atomic Force Microscopy. Japanese Journal of Applied Physics, 1994, 33, 721-726.	1.5	63
21	Hexagonal binary decision diagram quantum logic circuits using Schottky in-plane and wrap-gate control of GaAs and InGaAs nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 11, 149-154.	2.7	63
22	Fabrication and Characterization of GaAs Single Electron Devices Having Single and Multiple Dots Based on Schottky In-Plane-Gate and Wrap-Gate Control of Two-Dimensional Electron Gas. Japanese Journal of Applied Physics, 1997, 36, 1678-1685.	1.5	58
23	Liquid-phase sensors using open-gate AlGaNâˆ•GaN high electron mobility transistor structure. Journal of Vacuum Science & Technology B, 2006, 24, 1972.	1.3	55
24	Kink defects and Fermi level pinning on (2Ã—4) reconstructed molecular beam epitaxially grown surfaces of GaAs and InP studied by ultrahigh-vacuum scanning tunneling microscopy and x-ray photoelectron spectroscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1163.	1.6	52
25	Novel Formation Method of Quantum Dot Structures by Self-Limited Selective Area Metalorganic Vapor Phase Epitaxy. Japanese Journal of Applied Physics, 1995, 34, 4387-4389.	1.5	51
26	Electrochemical Formation of Uniform and Straight Nano-Pore Arrays on (001) InP Surfaces and Their Photoluminescence Characterizations. Japanese Journal of Applied Physics, 2000, 39, 4616-4620.	1.5	51
27	Surface passivation technology for IIIâ€"V semiconductor nanoelectronics. Applied Surface Science, 2008, 255, 628-632.	6.1	49
28	Hydrogenated amorphous silicon position sensitive detector. Journal of Applied Physics, 1985, 57, 4778-4782.	2.5	46
29	Control of GaAs and InGaAs Insulator-Semiconductor and Metal-Semiconductor Interfaces by Ultrathin Molecular Beam Epitaxy Si Layers. Japanese Journal of Applied Physics, 1991, 30, 3744-3749.	1.5	45
30	In-SituCharacterization of Compound Semiconductor Surfaces by Novel Photoluminescence Surface State Spectroscopy. Japanese Journal of Applied Physics, 1993, 32, 511-517.	1.5	45
31	Large reduction of leakage currents in AlGaN Schottky diodes by a surface control process and its mechanism. Journal of Vacuum Science & Technology B, 2006, 24, 2148.	1.3	45
32	Surface passivation of GaAs by ultra-thin cubic GaN layer. Applied Surface Science, 2000, 159-160, 456-461.	6.1	44
33	MBE growth and applications of silicon interface control layers. Thin Solid Films, 2000, 367, 58-67.	1.8	43
34	Electrochemical processes for formation, processing and gate control of IIIâ€"V semiconductor nanostructures. Electrochimica Acta, 2005, 50, 3015-3027.	5.2	41
35	Dynamic properties of interfaceâ€state bands in GaAs anodic MOS system. Journal of Vacuum Science and Technology, 1979, 16, 1478-1482.	1.9	39
36	Insulator-GaN interface structures formed by plasma-assisted chemical vapor deposition. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 953-957.	2.7	39

#	Article	IF	Citations
37	Effects of Phosphorus Pressure on Growth Rate and Layer Quality of InP Grown by Gas Source Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1994, 33, 742-748.	1.5	38
38	Properties of nanometer-sized metalâ€“semiconductor interfaces of GaAs and InP formed by an in situ electrochemical process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 1856.	1.6	38
39	Formation and photoluminescence characterization of quantum well wires using multiatomic steps grown by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 1994, 145, 692-697.	1.5	36
40	Evolution mechanism of nearly pinning-free platinum/n-type indium phosphide interface with a high Schottky barrier height by in situ electrochemical process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1227.	1.6	36
41	Computer Analysis of Surface Recombination Process at Si and Compound Semiconductor Surfaces and Behavior of Surface Recombination Velocity. Japanese Journal of Applied Physics, 1998, 37, 1631-1637.	1.5	36
42	In SituSurface State Spectroscopy by Photoluminescence and Surface Current Transport for Compound Semiconductors. Japanese Journal of Applied Physics, 1991, 30, 3750-3754.	1.5	35
43	Photoionization and thermal activation of compound semiconductor MOS interfaces and origin of interface states. Journal of Vacuum Science and Technology, 1982, 21, 457-462.	1.9	33
44	Novel Wire Transistor Structure with In-Plane Gate Using Direct Schottky Contacts to 2DEG. Japanese Journal of Applied Physics, 1995, 34, 1315-1319.	1.5	33
45	Correlation between Photoluminescence and Surface-State Density on GaAs Surfaces Subjected to Various Surface Treatments. Japanese Journal of Applied Physics, 1988, 27, L2177-L2179.	1.5	32
46	Novel Surface Passivation Scheme for Compound Semiconductor Using Silicon Interface Control Layer and Its Application to Near-Surface Quantum Wells. Japanese Journal of Applied Physics, 1995, 34, 1143-1148.	1.5	32
47	Molecular-Beam Epitaxy and Device Applications of III-V Semiconductor Nanowires. MRS Bulletin, 1999, 24, 25-30.	3.5	32
48	Formation of Oxide-Free Nearly Ideal Pt/GaAs Schottky Barriers by Novel In Situ Photopulseâ€“Assisted Electrochemical Process. Japanese Journal of Applied Physics, 1994, 33, 936-941.	1.5	30
49	Fabrication of GaAs-based integrated half and full adders by novel hexagonal BDD quantum circuit approach. Solid-State Electronics, 2003, 47, 199-204.	1.4	29
50	Surface passivation of GaAs with ultrathin Si3N4/Si interface control layer formed by MBE and in situ ECR plasma nitridation. Applied Surface Science, 1998, 123-124, 599-602.	6.1	27
51	Formation of Size- and Position-Controlled Nanometer Size Pt Dots on GaAs and InP Substrates by Pulsed Electrochemical Deposition. Japanese Journal of Applied Physics, 1999, 38, 2448-2452.	1.5	27
52	Effects of gap states on scanning tunneling spectra observed on (110)- and (001)-oriented clean surfaces and ultrathin Si layer covered surfaces of GaAs prepared by molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2100.	1.6	27
53	Mechanism and control of current transport in GaN and AlGaN Schottky barriers for chemical sensor applications. Applied Surface Science, 2008, 254, 3653-3666.	6.1	27
54	Schottky Contacts on n-InP with High Barrier Heights and Reduced Fermi-Level Pinning by a Novel In Situ Electrochemical Process. Japanese Journal of Applied Physics, 1995, 34, 1162-1167.	1.5	26

#	Article	IF	Citations
55	Unpinning of Fermi level in nanometer-sized Schottky contacts on GaAs and InP. Applied Surface Science, 2000, 166, 92-96.	6.1	25
56	Current transport and capacitanceâ€“voltage characteristics of GaAs and InP nanometer-sized Schottky contacts formed by in situ electrochemical process. Applied Surface Science, 2001, 175-176, 181-186.	6.1	25
57	Effects of nitrogen addition on methane-based ECR plasma etching of gallium nitride. Applied Surface Science, 2002, 190, 361-365.	6.1	25
58	Growth kinetics and modeling of selective molecular beam epitaxial growth of GaAs ridge quantum wires on pre-patterned nonplanar substrates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2266.	1.6	24
59	More than $f 10^{3}$ Times Photoluminescence Intensity Recovery by Silicon Interface-Control-Layer-Based Surface Passivation of Near-Surface Quantum Wells. Japanese Journal of Applied Physics, 1995, 34, L495-L498.	1.5	23
60	Hybrid Orbital Energy for Heterojunction Band Lineup. Japanese Journal of Applied Physics, 1986, 25, L265-L268.	1.5	22
61	Silicon interlayer based surface passivation of near-surface quantum wells. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 1794.	1.6	22
62	Surface passivation of In0.53Ga0.47As ridge quantum wires using silicon interface control layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 2888.	1.6	22
63	Quantum-Dot Logic Circuits Based on the Shared Binary-Decision Diagram. Japanese Journal of Applied Physics, 2001, 40, 4485-4488.	1.5	21
64	Pinning-free GaAs MIS structures with Si interface control layers formed on (4 Ã— 6) reconstructed (0) Tj ETQq0 0 0 rgBT /Overlock 10 T	6.1	21
65	Self-assembled formation of uniform InP nanopore arrays by electrochemical anodization in HCl based electrolyte. Applied Surface Science, 2006, 252, 5457-5461.	6.1	21
66	Large Schottky Barrier Heights on Indium Phosphide-Based Materials Realized by In-Situ Electrochemical Process. Japanese Journal of Applied Physics, 1997, 36, 1811-1817.	1.5	20
67	In-situ characterization technique of compound semiconductor heterostructure growth and device processing steps based on UHV contactless capacitance-voltage measurement. Solid-State Electronics, 1999, 43, 1561-1570.	1.4	20
68	Dynamics and control of recombination process at semiconductor surfaces, interfaces and nano-structures. Solar Energy, 2006, 80, 629-644.	6.1	20
69	Fabrication and characterization of quantum wire transistors with Schottky in-plane gates formed by an in situ electrochemical process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 1744.	1.6	19
70	In-SituScanning Tunneling Microscope Study of Formation Process of Ultrathin Si Layer by Molecular Beam Epitaxy on GaAs(001)-(2Ã—4) Surface. Japanese Journal of Applied Physics, 1998, 37, 1501-1507.	1.5	19
71	Al2O3-based surface passivation and insulated gate structure for AlGaN/GaN HFETs. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2380-2384.	0.8	19
72	Variation of deep electron traps created by Î³ irradiation of GaAs. Journal of Applied Physics, 1990, 68, 4598-4603.	2.5	18

#	Article	IF	Citations
73	Gate control characteristics in GaAs nanometer-scale Schottky wrap gate structures. Applied Surface Science, 2002, 190, 242-246.	6.1	18
74	A computer simulation of the recombination process at compound semiconductor surfaces and hetero-interfaces. Applied Surface Science, 1990, 41-42, 402-406.	6.1	17
75	Observation of Conductance Quantization in A Novel Schottky In-Plane Gate Wire Transistor Fabricated by Low-Damage In Situ Electrochemical Process. Japanese Journal of Applied Physics, 1995, 34, L635-L638.	1.5	17
76	Formation of device-oriented InGaAs coupled quantum structures by selective MBE growth on patterned InP substrates. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 864-869.	2.7	17
77	Lateral tunneling injection and peripheral dynamic charging in nanometer-scale Schottky gates on AlGaN/GaN hetrosturucture transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1799.	1.6	17
78	Effects of Initial Surface Reconstruction on Silicon Interface Control Layer Based Passivation of (001) GaAs Surfaces Studied in an Ultrahigh-Vacuum Multichamber System. Japanese Journal of Applied Physics, 1999, 38, 2538-2543.	1.5	16
79	Effects of Si deposition on the properties of Ga-rich (4Ã—6) GaAs (001) surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1945.	1.6	16
80	Formation of ultrathin SiN[sub x]â^•Si interface control double layer on (001) and (111) GaAs surfaces for ex situ deposition of high-k dielectrics. Journal of Vacuum Science & Technology B, 2007, 25, 1481.	1.3	16
81	Universal alignment of transition metal impurity levels in IIIâ€“V and IIâ€“VI compound semiconductors. Solid State Communications, 1986, 58, 157-160.	1.9	15
82	A Common Energy Reference for DX Centers and EL2 Levels in III-V Compound Semiconductors. Japanese Journal of Applied Physics, 1986, 25, L319-L322.	1.5	15
83	Midgap states in metalorganic vapor phase epitaxy grown AlxGa1â^'xAs. Journal of Applied Physics, 1990, 68, 3394-3400.	2.5	15
84	X-Ray Photoelectron Spectroscopy and Ultrahigh Vacuum Contactless Capacitance-Voltage Characterization of Novel Oxide-Free InP Passivation Process Using a Silicon Surface Quantum Well. Japanese Journal of Applied Physics, 1999, 38, 1128-1132.	1.5	15
85	Electrochemical Etching of Indium Phosphide Surfaces Studied by Voltammetry and Scanned Probe Microscopes. Japanese Journal of Applied Physics, 1999, 38, 1147-1152.	1.5	15
86	Novel InP metal-insulator-semiconductor structure having an ultrathin silicon interface control layer. Applied Surface Science, 1998, 123-124, 615-618.	6.1	14
87	Scanning tunneling microscopy and x-ray photoelectron spectroscopy studies of atomic level structure and Fermi level pinning on GaAs(110) surfaces grown by molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2387.	1.6	14
88	Origin of non-uniformity in MBE grown nanometer-sized InGaAs ridge quantum wires and its removal by atomic hydrogen-assisted cleaning. Thin Solid Films, 2000, 380, 189-191.	1.8	14
89	Effects of surface states and Si-interlayer based surface passivation on GaAs quantum wires grown by selective molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1714.	1.6	14
90	Control of surfaces and heterointerfaces of AlGaN/GaN system for sensor devices and their on-chip integration on nanostructures. Current Applied Physics, 2007, 7, 318-327.	2.4	14

#	Article	IF	Citations
91	Admittance study of GaAs high-k metal-insulator-semiconductor capacitors with Si interface control layer. Journal of Vacuum Science & Technology B, 2008, 26, 1569.	1.3	14
92	Electrical Properties of Nanometer-Sized Schottky Contacts on n-GaAs and n-InP Formed byin SituElectrochemical Process. Japanese Journal of Applied Physics, 2000, 39, 4609-4615.	1.5	13
93	A Novel Non-Destructive Characterization Method of Electronic Properties of Pre- and Post-Processing Silicon Surfaces Based on Ultrahigh-Vacuum Contactless Capacitance-Voltage Measurements. Japanese Journal of Applied Physics, 1999, 38, 2349-2354.	1.5	12
94	Growth kinetics and theoretical modeling of selective molecular beam epitaxy for growth of GaAs nanowires on nonplanar (001) and (111)B substrates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1706.	1.6	12
95	Sensing dynamics and mechanism of a Pd/AlGaN/GaN Schottky diode type hydrogen sensor. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2629-2633.	0.8	12
96	Electrical Properties of Nanometer-Sized Schottky Contacts for Gate Control of IIIâ€"V Single Electron Devices and Quantum Devices. Japanese Journal of Applied Physics, 2001, 40, 2021-2025.	1.5	11
97	Photoluminescence and capacitanceâ€"voltage characterization of GaAs surface passivated by an ultrathin GaN interface control layer. Applied Surface Science, 2002, 190, 343-347.	6.1	11
98	Computer simulation of current transport in GaN and AlGaN Schottky diodes based on thin surface barrier model. Applied Surface Science, 2004, 237, 213-218.	6.1	11
99	Device interference in GaAs quantum wire transistors and its suppression by surface passivation using Si interface control layer. Journal of Vacuum Science & Technology B, 2006, 24, 2060.	1.3	11
100	Relationship among surface state distribution, recombination velocity and photoluminescence intensity on semiconductor surfaces. Applied Surface Science, 1992, 56-58, 94-99.	6.1	10
101	Missing-Dimer Structures and Their Kink Defects on Molecular Beam Epitaxially Grown (2Ã—4) Reconstructed (001) InP and GaAs Surfaces Studied by Ultrahigh-Vacuum Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 1997, 36, 1749-1755.	1.5	10
102	GaAs and InGaAs single electron hexagonal nanowire circuits based on binary decision diagram logic architecture. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 925-929.	2.7	10
103	Graph-based quantum logic circuits and their realization by novel GaAs multiple quantum wire branch switches utilizing Schottky wrap gates. Microelectronic Engineering, 2002, 63, 287-291.	2.4	10
104	Formation of IIIâ€"V low dimensional structures and their applications to intelligent quantum chips. Microelectronics Journal, 2003, 34, 341-345.	2.0	10
105	Formation of high-density GaAs hexagonal nano-wire networks by selective MBE growth on pre-patterned substrates. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 521-526.	2.7	10
106	Surface plasma wave interactions between semiconductor and electromagnetic space harmonics from microwave to THz range. Thin Solid Films, 2004, 464-465, 464-468.	1.8	10
107	Self-organized microstructure growth. Chemical Vapor Deposition, 1995, 1, 81-88.	1.3	9
108	Self-organization phenomenon of strained InGaAs on InP (311) substrates grown by metalorganic vapor phase epitaxy. Journal of Electronic Materials, 1996, 25, 431-437.	2.2	9

#	Article	IF	Citations
109	A novel wrap-gate-controlled single electron transistor formed on an InGaAs ridge quantum wire grown by selective MBE. Solid-State Electronics, 1998, 42, 1419-1423.	1.4	9
110	Formation of high-density hexagonal networks of InGaAs ridge quantum wires by atomic hydrogen-assisted selective molecular beam epitaxy. Applied Surface Science, 2002, 190, 231-235.	6.1	9
111	Effects of surface states on control characteristics of nano-meter scale Schottky gates formed on GaAs. Solid-State Electronics, 2003, 47, 323-331.	1.4	9
112	Formation mechanism of Schottky barriers on MBE-grown GaAs surfaces subjected to various treatments. Applied Surface Science, 1992, 56-58, 317-324.	6.1	8
113	Interface profile optimization in novel surface passivation scheme for InGaAs nanostructures using Si interface control layer. Journal of Electronic Materials, 1993, 22, 289-295.	2.2	8
114	Photoluminescence characterization of air exposed AlGaAs surface and passivated ex situ by ultrathin silicon interface control layer. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 261-266.	2.7	8
115	Electrochemical Formation of Self-Assembled InP Nanopore Arrays and Their Use as Templates for Molecular Beam Epitaxy Growth of InGaAs Quantum Wires and Dots. Japanese Journal of Applied Physics, 2002, 41, 977-981.	1.5	8
116	Effects of surface processing on 2DEG current transport at AlGaN/GaN interface studied by gateless HFET structure. Applied Surface Science, 2003, 216, 519-525.	6.1	8
117	Anodic Al₂O₃/InP Interface for Application to Enhancement MISFETs. Japanese Journal of Applied Physics, 1982, 21, 397.	1.5	8
118	Analysis of photoluminescence efficiency and surface recombination velocity of MBE-grown AlGaAs layers. Thin Solid Films, 2000, 367, 180-183.	1.8	7
119	IIIâ€“V nanoelectronics and related surface/interface issues. Applied Surface Science, 2003, 212-213, 311-318.	6.1	7
120	Anodic oxides on gallium phosphide for optoelectronic device and processing applications. Journal of Applied Physics, 1978, 49, 4459-4464.	2.5	6
121	Study on ECR dry etching and selective MBE growth of AlGaN/GaN for fabrication of quantum nanostructures on GaN (0001) substrates. Applied Surface Science, 2005, 244, 84-87.	6.1	6
122	Self-ordered quantum dots: A new growth mode on high-index semiconductor surfaces. , 1996, , 103-122.		5
123	Characterization and control of surfaces and interfaces for IIIâ€“V nanoelectronics. Physica Status Solidi A, 2003, 195, 9-17.	1.7	5
124	Tunneling Injection of Electrons at Nanometer-Scale Schottky Gate Edge of AlGaN/GaN Heterostructure Transistors and Its Computer Simulation. E-Journal of Surface Science and Nanotechnology, 2005, 3, 433-438.	0.4	5
125	TOWARD ULTRA-LOW POWER III-V QUANTUM LARGE SCALE INTEGRATED CIRCUITS FOR UBIQUITOUS NETWORK ERA. International Journal of High Speed Electronics and Systems, 2006, 16, 421-436.	0.7	5
126	MBE growth and in situ XPS characterization of silicon interlayers on (111)B surfaces for passivation of GaAs quantum wire devices. Journal of Crystal Growth, 2007, 301-302, 951-954.	1.5	5

#	Article	IF	Citations
127	Distributed Pinning Spot Model for High-k Insulator - III-V Semiconductor Interfaces. E-Journal of Surface Science and Nanotechnology, 2009, 7, 122-128.	0.4	5
128	Computer analysis of photon-induced non-equilibrium phenomena at Si and AlGaAs surfaces. Vacuum, 2000, 57, 111-120.	3.5	4
129	Properties of a GaAs Single Electron Path Switching Node Device Using a Single Quantum Dot for Hexagonal BDD Quantum Circuits. Journal of Physics: Conference Series, 2006, 38, 104-107.	0.4	4
130	Selective molecular beam epitaxy growth of size- and position-controlled GaNâˆ•AlGaN nanowires on nonplanar (0001) substrates and its growth mechanism. Journal of Vacuum Science & Technology B, 2006, 24, 2087.	1.3	4
131	Hydrogen Response of Pd Schottky Diodes Formed on AlGaN/GaN Heterostructure. E-Journal of Surface Science and Nanotechnology, 2005, 3, 314-318.	0.4	4
132	Polycrystalline and Amorphous Si MOS Solar Cells by Anodization. Japanese Journal of Applied Physics, 1982, 21, 53.	1.5	4
133	Contactless capacitanceâ€"voltage and photoluminescence characterization of ultrathin oxideâ€"silicon interfaces formed on hydrogen terminated (111) surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 2872.	1.6	3
134	Formation of InP-based quantum structures by selective MBE on patterned substrates having high-index facets. Microelectronics Journal, 1997, 28, 887-901.	2.0	3
135	Electrochemical formation and characterization of Schottky in-plane and wrap gate structures for realization of GaAs- and InP-based quantum wires and dots. Applied Surface Science, 1998, 123-124, 335-338.	6.1	3
136	Selective molecular beam epitaxy growth of quantum wireâ€"dot coupled structures with novel high index facets for InGaAs single electron transistor arrays. Microelectronics Journal, 1999, 30, 397-401.	2.0	3
137	MICROSCOPIC UNDERSTANDING AND CONTROL OF SURFACES AND INTERFACES OF COMPOUND SEMICONDUCTORS FOR MESOSCOPIC DEVICES. Surface Review and Letters, 2000, 07, 583-588.	1.1	3
138	Poly-Si and a-Si: H MOS Photodiodes for Large-Area, High Spatial Resolution Photosensor Arrays. Japanese Journal of Applied Physics, 1982, 21, 57.	1.5	2
139	Measurement of surface recombination velocity of silicon wafers under sunlight condition by novel photoluminescence surface state spectroscopy. Solar Energy Materials and Solar Cells, 1994, 34, 161-167.	6.2	2
140	Conductance oscillation characteristics of GaAs Schottky wrap-gate single-electron transistors. Physica B: Condensed Matter, 1999, 272, 88-91.	2.7	2
141	Ultra high vacuum-based in situ characterization of compound semiconductor surfaces by a contactless capacitanceâ€"voltage technique. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 80, 147-151.	3.5	2
142	Influence of Initial Amorphous Layer Deposition Temperature on Lateral solid-Phase Epitaxy of Silicon. Japanese Journal of Applied Physics, 2002, 41, 472-481.	1.5	2
143	IIIâ€"V quantum devices and circuits based on nanoscale Schottky gate control of hexagonal quantum wire networks. Applied Surface Science, 2002, 190, 176-183.	6.1	2
144	Interdigital-Gated HEMT Structure for High Frequency Devices. , 2006, , .		2

#	Article	IF	Citations
145	Removal of Side-gating Effects in GaAs Quantum Nanodevices with Nano-Schottky Gates by Surface Passivation Using Si Interface Control Layer. E-Journal of Surface Science and Nanotechnology, 2005, 3, 332-337.	0.4	2
146	Surfaces and interfaces of III-V compounds semiconductors.. Hyomen Kagaku, 1989, 10, 838-849.	0.0	2
147	A Novel Surface Pivation Structure for III-V Compound Semiconductors Utilizing a Silicon Interface Control Layer and its Application. Materials Research Society Symposia Proceedings, 1999, 573, 45.	0.1	1
148	Scanning tunneling microscopy and spectroscopy study of ultrathin Si interface control layers grown on (001) GaAs for surface passivation. Applied Surface Science, 2000, 159-160, 292-300.	6.1	1
149	Advanced mesoscopic device concepts and technology. Microelectronic Engineering, 2000, 53, 29-36.	2.4	1
150	Surface passivation of epitaxial multilayer structures for InP-based high-speed devices by an ultrathin silicon layer. Electronics and Communications in Japan, 2002, 85, 17-28.	0.2	1
151	Terahertz response of Schottky wrap gate-controlled quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 1329-1332.	0.8	1
152	Fabrication of BDD quantum node switches on embedded GaAs quantum wires grown by selective MBE. Superlattices and Microstructures, 2003, 34, 485-491.	3.1	1
153	A UHV contactless capacitanceâ€“voltage characterization method applicable to semiconductor layers grown on insulating substrates. Physica Status Solidi A, 2003, 195, 248-254.	1.7	1
154	Selective MBE growth of hexagonal networks of trapezoidal and triangular GaAs nanowires on patterned (111)B substrates. Journal of Crystal Growth, 2007, 301-302, 857-861.	1.5	1
155	On the Band Alignment and Fermi Level Pinning at Compound Semiconductor Interfaces. Hyomen Kagaku, 2008, 29, 76-83.	0.0	1
156	Electrochemical Formation of Chaotic and Regular Nanostructures on (001) and (111)B InP Substrates and Their Photoluminescence Characterizations. E-Journal of Surface Science and Nanotechnology, 2006, 4, 184-191.	0.4	1
157	Liquid phase epitaxial growth of high resistivity gaas layers by impurity doping. Electronics and Communications in Japan, 1980, 63, 109-117.	0.1	0
158	Characterization of GaAs regrowth interfaces grown by metal-organic vapor phase epitaxy. Electronics and Communications in Japan, 1988, 71, 12-19.	0.2	0
159	Analysis of noise properties of dcâ€SQUIDs. Electronics and Communications in Japan, 1989, 72, 84-95.	0.2	0
160	Fabrication and electrical characterization of InGaAs MISFET using ultrathin Si interface control layer. Electronics and Communications in Japan, 1994, 77, 66-76.	0.2	0
161	Properties of Surface States on GaN and Related Compounds and Their Passivation by Dielectric Films. Materials Research Society Symposia Proceedings, 2002, 743, L2.6.1.	0.1	0
162	III-V semiconductor nanoelectronics for post si era. , 2006, , .		0

#	Article	IF	Citations
163	In-situ X-ray photoelectron spectroscopy characterization of Si interlayer based surface passivation process for AlGaAs/GaAs quantum wire transistors. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1034-1040.	1.8	0
164	Performance comparison of InP and AlGaN/GaN Schottky diode hydrogen sensors. , 2008, , .		0
165	Design, Fabrication and Characterization of GaAs-Based Interdigital-Gated HEMT Devices for Solid-State THz Wave Amplifiers. , 2011, , .		0
166	Properties of III-V Semiconductor Surfaces and Their Control From Gallium Arsenide to Nitrides. Shinku/Journal of the Vacuum Society of Japan, 2002, 45, 775-782.	0.2	0
167	TOWARD ULTRA-LOW POWER III-V QUANTUM LARGE SCALE INTEGRATED CIRCUITS FOR UBIQUITOUS NETWORK ERA. , 2006, , .		0
168	Growth and electron trap characterization of GaAs by molecular beam epitaxy.. Shinku/Journal of the Vacuum Society of Japan, 1985, 28, 587-595.	0.2	0
169	Control of Silicon Nitride-In0.53Ga0.47As Interface by Ultrathin Silicon Interface Control Layer. , 1994, , 277-282.		0
170	Inâ€“situ Characterization of AlGaAs/GaAs Quantum Well Interfaces by Photoluminescence Surface State Spectroscopy. , 1994, , 109-114.		0
171	Barrier Height Control and Current Transport in GaAs and InP Schottky Diodes Having An Ultrathin Silicon Interface Control Layer. , 1994, , 187-192.		0
172	Epitaxy on High-Index Surfaces: A Key to Self-Organizing Quantum-Wires and Dots. , 1995, , 81-92.		0