Atsushi Kobayashi

List of Publications by Year
in descending order

107 papers	1,677 citations	304743 22 h-index	361022 35 g-index
108 all docs	108 docs citations	108 times ranked	1306 citing authors

#	Article	IF	Citations
1	Fabrication of full-color InGaN-based light-emitting diodes on amorphous substrates by pulsed sputtering. Scientific Reports, 2014, 4, 5325.	3.3	115
2	Room Temperature Layer by Layer Growth of GaN on Atomically Flat ZnO. Japanese Journal of Applied Physics, 2004, 43, L53-L55.	1.5	76
3	Room temperature epitaxial growth of m-plane GaN on lattice-matched ZnO substrates. Applied Physics Letters, 2007, 90, 041908.	3.3	71
4	Polarity control of GaN grown on ZnO (0001Â¯) surfaces. Applied Physics Letters, 2006, 88, 181907.	3.3	69
5	Low temperature epitaxial growth of In0.25Ga0.75N on lattice-matched ZnO by pulsed laser deposition. Journal of Applied Physics, 2006, 99, 123513.	2.5	61
6	Room-temperature epitaxial growth of GaN on lattice-matched ZrB2 substrates by pulsed-laser deposition. Applied Physics Letters, 2005, 87, 221907.	3.3	57
7	Room-Temperature Epitaxial Growth of High Quality AlN on SiC by Pulsed Sputtering Deposition. Applied Physics Express, 2009, 2, 011003.	2.4	57
8	Electrical properties of Si-doped GaN prepared using pulsed sputtering. Applied Physics Letters, 2017, 110, .	3.3	56
9	High hole mobility p-type GaN with low residual hydrogen concentration prepared by pulsed sputtering. APL Materials, 2016, 4, 086103.	5.1	55
10	Field-effect transistors based on cubic indium nitride. Scientific Reports, 2015, 4, 3951.	3.3	40
11	Investigation of the initial stage of GaN epitaxial growth on 6H-SiC (0001) at room temperature. Applied Physics Letters, 2006, 89, 031916.	3.3	36
12	Electron transport properties of degenerate <i>n</i>-type GaN prepared by pulsed sputtering. APL Materials, 2017, 5, .	5.1	34
13	Low temperature epitaxial growth of GaN films on LiGaO2 substrates. Applied Physics Letters, 2007, 90, 211913.	3.3	33
14	Structural properties of GaN films grown on multilayer graphene films by pulsed sputtering. Applied Physics Express, 2014, 7, 085502.	2.4	30
15	AlGaN/GaN heterostructure prepared on a Si (110) substrate <i>via</i> pulsed sputtering. Applied Physics Letters, 2014, 104, .	3.3	29
16	Highly conductive Ge-doped GaN epitaxial layers prepared by pulsed sputtering. Applied Physics Express, 2017, 10, 101002.	2.4	29
17	Room temperature epitaxial growth of AlGaN on ZnO by pulsed laser deposition. Applied Physics Letters, 2006, 89, 111918.	3.3	27
18	Epitaxial growth of nonpolar AlN films on ZnO substrates using room temperature grown GaN buffer layers. Applied Physics Letters, 2007, 91, 081915.	3.3	25

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19	Characteristics of Single Crystal ZnO Annealed in a Ceramic ZnO Box and Its Application for Epitaxial Growth of GaN. Japanese Journal of Applied Physics, 2006, 45, 5724-5727.	1.5	24
20	Band offsets of polar and nonpolar GaN/ZnO heterostructures determined by synchrotron radiation photoemission spectroscopy. Physica Status Solidi (B): Basic Research, 2011, 248, 956-959.	1.5	24
21	Growth of a-plane GaN on lattice-matched ZnO substrates using a room-temperature buffer layer. Applied Physics Letters, 2007, 91, .	3.3	22
22	Epitaxial growth mechanisms of AlN on SiC substrates at room temperature. Applied Physics Letters, 2007, 91, 151903.	3.3	22
23	InN thin-film transistors fabricated on polymer sheets using pulsed sputtering deposition at room temperature. Applied Physics Letters, 2016, 109, 032106.	3.3	20
24	Layer-by-Layer Growth of AlN on ZnO(000$ar{1}$) Substrates at Room Temperature. Japanese Journal of Applied Physics, 2006, 45, L1139-L1141.	1.5	19
25	Fabrication of full-color GaN-based light-emitting diodes on nearly lattice-matched flexible metal foils. Scientific Reports, 2017, 7, 2112.	3.3	19
26	Room-temperature epitaxial growth of AlN on atomically flat MgAl2O4 substrates. Applied Physics Letters, 2006, 89, 182104.	3.3	18
27	Structural properties of GaN grown on Zn-face ZnO at room temperature. Journal of Crystal Growth, 2007, 305, 70-73.	1.5	18
28	Wide range doping controllability of p-type GaN films prepared via pulsed sputtering. Applied Physics Letters, 2019, 114, .	3.3	18
29	Lowâ€temperature growth of high quality AlN films on carbon face 6Hâ€SiC. Physica Status Solidi - Rapid Research Letters, 2008, 2, 13-15.	2.4	17
30	Electron mobility of ultrathin InN on yttria-stabilized zirconia with two-dimensionally grown initial layers. Applied Physics Letters, 2013, 102, 022103.	3.3	17
31	Optical characteristics of highly conductive n-type GaN prepared by pulsed sputtering deposition. Scientific Reports, 2019, 9, 20242.	3.3	17
32	GaN heteroepitaxial growth on LiNbO3(0001) step substrates with AlN buffer layers. Physica Status Solidi A, 2005, 202, R145-R147.	1.7	16
33	Characteristics of InGaN with High In Concentrations Grown on ZnO at Low Temperatures. Japanese Journal of Applied Physics, 2006, 45, L611-L613.	1.5	15
34	Room-Temperature Epitaxial Growth of GaN on Atomically Flat MgAl2O4Substrates by Pulsed-Laser Deposition. Japanese Journal of Applied Physics, 2006, 45, L457-L459.	1.5	15
35	Characteristics of InN grown directly on Al2O3 (0001) substrates by pulsed laser deposition. Journal of Crystal Growth, 2009, 311, 1316-1320.	1.5	15
36	Investigation on the conversion efficiency of InGaN solar cells fabricated on GaN and ZnO substrates. Physica Status Solidi - Rapid Research Letters, 2010, 4, 88-90.	2.4	15

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37	Electrical properties of amorphous-Al2O3/single-crystal ZnO heterointerfaces. Applied Physics Letters, 2013, 103, 172101.	3.3	15
38	Fabrication of InGaN thin-film transistors using pulsed sputtering deposition. Scientific Reports, 2016, 6, 29500.	3.3	15
39	Growth temperature dependence of structural properties of AlN films on ZnO (0001Â¯) substrates. Applied Physics Letters, 2007, 90, 141908.	3.3	14
40	Room-temperature epitaxial growth of high-qualitym-plane InGaN films on ZnO substrates. Physica Status Solidi - Rapid Research Letters, 2009, 3, 124-126.	2.4	14
41	Characteristics of unintentionally doped and lightly Si-doped GaN prepared via pulsed sputtering. AIP Advances, 2019, 9, .	1.3	14
42	Room temperature growth of semipolar AlN (1$ ar 1 $02) films on ZnO (1$ ar 1 $02) substrates by pulsed laser deposition. Physica Status Solidi - Rapid Research Letters, 2009, 3, 58-60.	2.4	13
43	Layer-by-Layer Growth of InAlN Films on ZnO(000ar1) Substrates at Room Temperature. Applied Physics Express, 2010, 3, 021001.	2.4	13
44	Operations of hydrogenated diamond metalâ€“oxideâ€“semiconductor field-effect transistors after annealing at 500 Â°C. Journal Physics D: Applied Physics, 2019, 52, 315104.	2.8	13
45	Coherent epitaxial growth of superconducting NbN ultrathin films on AlN by sputtering. Applied Physics Express, 2020, 13, 061006.	2.4	13
46	Epitaxial growth of InN on nearly lattice-matched (Mn,Zn)Fe2O4. Solid State Communications, 2006, 137, 208-211.	1.9	12
47	Electronic structures of c-plane and a-plane AlN/ZnO heterointerfaces determined by synchrotron radiation photoemission spectroscopy. Applied Physics Letters, 2010, 97, 252111.	3.3	12
48	Room-Temperature Epitaxial Growth of High-Quality m-Plane InAlN Films on Nearly Lattice-Matched ZnO Substrates. Japanese Journal of Applied Physics, 2010, 49, 070202.	1.5	12
49	Vertical p-type GaN Schottky barrier diodes with nearly ideal thermionic emission characteristics. Applied Physics Letters, 2021, 118, .	3.3	12
50	AlN/Al_{0.5}Ga_{0.5}N HEMTs with heavily Si-doped degenerate GaN contacts prepared via pulsed sputtering. Applied Physics Express, 2022, 15, 031002.	2.4	12
51	Structural properties of semipolar AlxGa1âˆ’xN($1ar {1}03$) films grown on ZnO substrates using room temperature epitaxial buffer layers. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2149-2152.	1.8	11
52	Coherent growth of <i>r</i>â€plane GaN films on ZnO substrates at room temperature. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 834-837.	1.8	11
53	Growth temperature dependence of structural properties for single crystalline GaN films on MgAl2O4substrates by pulsed laser deposition. Semiconductor Science and Technology, 2006, 21, 1026-1029.	2.0	10
54	High-current-density indium nitride ultrathin-film transistors on glass substrates. Applied Physics Letters, 2016, 109, 142104.	3.3	10

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55	Polarity Dependence of Structural and Electronic Properties of Al$_{2}$O$_{3}$/InN Interfaces. Applied Physics Express, 2011, 4, 091002.	2.4	9
56	Autonomous growth of NbN nanostructures on atomically flat AlN surfaces. Applied Physics Letters, 2020, 117, .	3.3	9
57	Characteristics of GaN/ZrB2Heterointerfaces Prepared by Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2006, 45, 6893-6896.	1.5	8
58	Epitaxial growth of InN films on lattice-matched EuN buffer layers. Journal of Crystal Growth, 2009, 311, 4483-4485.	1.5	8
59	Structural Characteristics of GaN/InN Heterointerfaces Fabricated at Low Temperatures by Pulsed Laser Deposition. Applied Physics Express, 2010, 3, 021003.	2.4	8
60	Dependence on composition of the optical polarization properties of m-plane InxGa1â^'xN commensurately grown on ZnO. Applied Physics Letters, 2011, 99, 061912.	3.3	8
61	Epitaxial growth of GaN films on nearly lattice-matched hafnium substrates using a low-temperature growth technique. APL Materials, 2016, 4, .	5.1	8
62	Pulsed sputtering epitaxial growth of m-plane InGaN lattice-matched to ZnO. Scientific Reports, 2017, 7, 12820.	3.3	8
63	Heavily Si-doped pulsed sputtering deposited GaN for tunneling junction contacts in UV-A light emitting diodes. Applied Physics Letters, 2021, 118, .	3.3	8
64	Pulsed Sputtering Preparation of InGaN Multi-Color Cascaded LED Stacks for Large-Area Monolithic Integration of RGB LED Pixels. Crystals, 2022, 12, 499.	2.2	8
65	Polarity control and growth mode of InN on yttriaâ€stabilized zirconia (111) surfaces. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2251-2254.	1.8	7
66	Structural Properties ofm-Plane InAlN Films Grown on ZnO Substrates with Room-Temperature GaN Buffer Layers. Applied Physics Express, 2013, 6, 021003.	2.4	7
67	Epitaxial Growth of Thick Polar and Semipolar InN Films on Yttriaâ€Stabilized Zirconia Using Pulsed Sputtering Deposition. Physica Status Solidi (B): Basic Research, 2018, 255, 1700320.	1.5	7
68	Growth of Si-doped AlN on sapphire (0001) via pulsed sputtering. APL Materials, 2018, 6, .	5.1	7
69	Heteroepitaxial growth of GaN on atomically flat LiTaO3 (0001) using low-temperature AlN buffer layers. Journal of Crystal Growth, 2006, 293, 22-26.	1.5	6
70	Growth of group III nitride films by pulsed electron beam deposition. Journal of Solid State Chemistry, 2009, 182, 1241-1244.	2.9	6
71	Structural and Optical Properties of Nonpolar AlN(1120) Films Grown on ZnO(1120) Substrates with a Room-Temperature GaN Buffer Layer. Japanese Journal of Applied Physics, 2010, 49, 060213.	1.5	6
72	Theoretical study of the initial stage of InN growth on cubic zirconia (111) substrates. Physica Status Solidi - Rapid Research Letters, 2013, 7, 207-210.	2.4	6

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73	Epitaxial growth of high purity cubic InN films on MgO substrates using HfN buffer layers by pulsed laser deposition. Journal of Solid State Chemistry, 2009, 182, 2887-2889.	2.9	5
74	Characteristics of Thickm-Plane InGaN Films Grown on ZnO Substrates Using Room Temperature Epitaxial Buffer Layers. Applied Physics Express, 2010, 3, 061001.	2.4	5
75	Growth Orientation Control of Semipolar InN Films Using Yttria-Stabilized Zirconia Substrates. Japanese Journal of Applied Physics, 2010, 49, 080204.	1.5	5
76	Atomic scattering spectroscopy for determination of the polarity of semipolar AlN grown on ZnO. Applied Physics Letters, 2013, 103, .	3.3	5
77	Combined infrared reflectance and Raman spectroscopy analysis of Si-doping limit of GaN. Applied Physics Letters, 2020, 117, 192103.	3.3	5
78	GaN Heteroepitaxial Growth on LiTaO3(0001) Step Substrates by Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2005, 44, L1522-L1524.	1.5	4
79	Effects of low-temperature-grown buffers on pulsed-laser deposition of GaN on LiNbO3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 2021-2024.	2.1	4
80	Structural characteristics of semipolar InN (112<i>l</i>) films grown on yttria stabilized zirconia substrates. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2269-2271.	1.8	4
81	Improvement in the Crystalline Quality of Semipolar AlN(1ar102) Films by Using ZnO Substrates with Self-Organized Nanostripes. Applied Physics Express, 2010, 3, 041002.	2.4	4
82	Polarity replication across m-plane GaN/ZnO interfaces. Applied Physics Letters, 2011, 99, 181910.	3.3	4
83	Theoretical Investigation of the Polarity Determination for<i>c</i>-Plane InN Grown on Yttria-Stabilized Zirconia (111) Substrates with Yttrium Surface Segregation. Applied Physics Express, 2013, 6, 021002.	2.4	4
84	Ultrathin rock-salt type NbN films grown on atomically flat AlN/sapphire substrates. Journal of Crystal Growth, 2021, 572, 126269.	1.5	4
85	Characteristics ofm-Plane InN Films Grown on ZnO Substrates at Room Temperature by Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2010, 49, 080202.	1.5	3
86	Band Configuration of SiO₂/m-Plane ZnO Heterointerface Correlated with Electrical Properties of Al/SiO₂/ZnO Structures. Japanese Journal of Applied Physics, 2013, 52, 011101.	1.5	3
87	Characterization of GaN films grown on hafnium foils by pulsed sputtering deposition. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700244.	1.8	3
88	GaN-Based Light-Emitting Diodes with Graphene Buffers for Their Application to Large-Area Flexible Devices. IEICE Transactions on Electronics, 2017, E100.C, 161-165.	0.6	3
89	Optical polarization characteristics of <i>m</i> â€plane InGaN films coherently grown on ZnO substrates. Physica Status Solidi - Rapid Research Letters, 2010, 4, 188-190.	2.4	2
90	Investigation of anisotropic wafer bending curvature in a-plane GaN films grown on r-plane sapphire substrates. Journal of Crystal Growth, 2015, 424, 11-13.	1.5	2

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91	Epitaxial growth of In-rich InGaN on yttria-stabilized zirconia and its application to metalâ€“insulatorâ€“semiconductor field-effect transistors. Journal of Applied Physics, 2016, 120, 085709.	2.5	2
92	Improving the electron mobility of polycrystalline InN grown on glass substrates using AlN crystalline orientation layers. Journal of Applied Physics, 2019, 126, 075701.	2.5	2
93	AlN/InAlN thin-film transistors fabricated on glass substrates at room temperature. Scientific Reports, 2019, 9, 6254.	3.3	2
94	Pulsed sputtering growth of heavily Si-doped GaN (20 2ì„ 1) for tunneling junction contacts on semipolar InGaN (20 2ì„ 1) LEDs. Applied Physics Express, 2021, 14, 051011.	2.4	2
95	High Electron Mobility AlN on Sapphire (0001) with a Low Dislocation Density Prepared via Sputtering and Highâ€Temperature Annealing. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100074.	1.8	2
96	Reduction of Twin Boundary in NbN Films Grown on Annealed AlN. Crystal Growth and Design, 2022, 22, 1720-1723.	3.0	2
97	Effect of ambient gas on pulsed laser deposition of group III nitrides. Thin Solid Films, 2004, 457, 118-121.	1.8	1
98	Demonstration of enhanced optical polarization for improved deep ultraviolet light extraction in coherently grown semipolar Al0.83Ga0.17N/AlN on ZnO substrates. Applied Physics Letters, 2011, 99, 121906.	3.3	1
99	Fabrication of densely packed arrays of GaN nanostructures on nano-imprinted substrates. Journal of Crystal Growth, 2011, 319, 102-105.	1.5	1
100	Epitaxial growth of semipolar InAlN films on yttria-stabilized zirconia. Physica Status Solidi (B): Basic Research, 2017, 254, 1700211.	1.5	1
101	Growth of InN ultrathin films on AlN for the application to field-effect transistors. AIP Advances, 2020, 10, 125221.	1.3	1
102	Improvements in Optical Properties of Semipolarr-Plane GaN Films Grown Using Atomically Flat ZnO Substrates and Room-Temperature Epitaxial Buffer Layers. Japanese Journal of Applied Physics, 2010, 49, 100202.	1.5	0
103	Xâ€ray reciprocal space mapping study on semipolar InAlN films coherently grown on ZnO substrates. Physica Status Solidi - Rapid Research Letters, 2011, 5, 400-402.	2.4	0
104	Growth of group III nitride nanostructures on nano-imprinted sapphire substrates. Thin Solid Films, 2011, 519, 6534-6537.	1.8	0
105	Solidâ€phase epitaxy of InO<i>_x</i> N<i>_y</i> alloys via thermal oxidation of InN films on yttriaâ€stabilized zirconia. Physica Status Solidi - Rapid Research Letters, 2014, 8, 362-366.	2.4	0
106	Theoretical study of InN growth on Mn-stabilized zirconia (111) substrates. Thin Solid Films, 2014, 551, 110-113.	1.8	0
107	Feasibility of Fabricating Large-Area Inorganic Crystalline Semiconductor Devices. , 2016, , 249-275.		0