Kazuhide Kumakura

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4122294/publications.pdf

Version: 2024-02-01

		257450	243625
101 papers	2,207 citations	24 h-index	44 g-index
102 all docs	102 docs citations	102 times ranked	2123 citing authors

#	Article	IF	Citations
1	Layered boron nitride as a release layer for mechanical transfer of GaN-based devices. Nature, 2012, 484, 223-227.	27.8	359
2	Minority carrier diffusion length in GaN: Dislocation density and doping concentration dependence. Applied Physics Letters, 2005, 86, 052105.	3.3	198
3	Mg-acceptor activation mechanism and transport characteristics in p-type InGaN grown by metalorganic vapor phase epitaxy. Journal of Applied Physics, 2003, 93, 3370-3375.	2.5	124
4	Activation Energy and Electrical Activity of Mg in Mg-Doped InxGa1-xN (x<0.2). Japanese Journal of Applied Physics, 2000, 39, L337-L339.	1.5	94
5	Al2O3Insulated-Gate Structure for AlGaN/GaN Heterostructure Field Effect Transistors Having Thin AlGaN Barrier Layers. Japanese Journal of Applied Physics, 2004, 43, L777-L779.	1.5	79
6	High current gains obtained by InGaN/GaN double heterojunction bipolar transistors with p-InGaN base. Applied Physics Letters, 2001, 79, 380-381.	3.3	66
7	Increased Electrical Activity of Mg-Acceptors in AlxGa1-xN/GaN Superlattices. Japanese Journal of Applied Physics, 1999, 38, L1012-L1014.	1.5	60
8	Low-resistance nonalloyed ohmic contact to p-type GaN using strained InGaN contact layer. Applied Physics Letters, 2001, 79, 2588-2590.	3.3	55
9	High hole concentrations in Mg-doped InGaN grown by MOVPE. Journal of Crystal Growth, 2000, 221, 267-270.	1.5	53
10	High-power characteristics of GaN/InGaN double heterojunction bipolar transistors. Applied Physics Letters, 2004, 84, 1964-1966.	3.3	53
11	Suppression of self-heating effect in AlGaN/GaN high electron mobility transistors by substrate-transfer technology using h-BN. Applied Physics Letters, 2014, 105, .	3.3	53
12	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
13	Formation and characterization of coupled quantum dots (CQDs) by selective area metalorganic vapor phase epitaxy. Journal of Crystal Growth, 1997, 170, 700-704.	1.5	44
14	Efficient Hole Generation above 10¹⁹ cm⁻³ in Mg-Doped InGaN/GaN Superlattices at Room Temperature. Japanese Journal of Applied Physics, 2000, 39, L195.	1.5	44
15	Oxygen Ion Implantation Isolation Planar Process for AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2007, 28, 476-478.	3.9	44
16	High current gain (>2000) of GaN/InGaN double heterojunction bipolar transistors using base regrowth of p-InGaN. Applied Physics Letters, 2003, 83, 1035-1037.	3.3	41
17	Enhanced Hole Generation in Mg-Doped AlGaN/GaN Superlattices Due to Piezoelectric Field. Japanese Journal of Applied Physics, 2000, 39, 2428-2430.	1.5	39
18	A Vertical InGaN/GaN Light-Emitting Diode Fabricated on a Flexible Substrate by a Mechanical Transfer Method Using BN. Applied Physics Express, 2012, 5, 072102.	2.4	39

#	Article	IF	Citations
19	Unintentional Ga incorporation in metalorganic vapor phase epitaxy of In-containing III-nitride semiconductors. Journal of Crystal Growth, 2013, 382, 36-40.	1.5	36
20	High hole concentration in Mg-doped AlN/AlGaN superlattices with high Al content. Japanese Journal of Applied Physics, 2018, 57, 04FH09.	1.5	35
21	Reduced damage of electron cyclotron resonance etching by In doping into p-GaN. Journal of Crystal Growth, 2000, 221, 350-355.	1.5	32
22	High Critical Electric Field Exceeding 8 MV/cm Measured Using an AlGaNpâ€“iâ€“nVertical Conducting Diode onn-SiC Substrate. Japanese Journal of Applied Physics, 2007, 46, 2316-2319.	1.5	32
23	InAs quantum dot formation on GaAs pyramids by selective area MOVPE. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 714-719.	2.7	29
24	High critical electric field of AlxGa1âˆ’xN p-i-n vertical conducting diodes on n-SiC substrates. Applied Physics Letters, 2006, 88, 173508.	3.3	29
25	Valence-band discontinuities between InGaN and GaN evaluated by capacitance-voltage characteristics of p-InGaN/n-GaN diodes. Journal of Electronic Materials, 2002, 31, 313-315.	2.2	24
26	Ohmic Contact top-GaN Using a Strained InGaN Contact Layer and Its Thermal Stability. Japanese Journal of Applied Physics, 2003, 42, 2254-2256.	1.5	21
27	Minority carrier diffusion lengths in MOVPE-grown n- and p-InGaN and performance of AlGaN/InGaN/GaN double heterojunction bipolar transistors. Journal of Crystal Growth, 2007, 298, 787-790.	1.5	19
28	Extrinsic Base Regrowth of p-InGaN for Npn-Type GaN/InGaN Heterojunction Bipolar Transistors. Japanese Journal of Applied Physics, 2004, 43, 1922-1924.	1.5	18
29	Epitaxial growth of monolayer MoSe₂ on GaAs. Applied Physics Express, 2016, 9, 115501.	2.4	17
30	DC and microwave performance of AlGaN/GaN HEMTs passivated with sputtered SiNx. Semiconductor Science and Technology, 2007, 22, 717-721.	2.0	16
31	Control of n-type electrical conductivity for cubic boron nitride (c-BN) epitaxial layers by Si doping. Applied Physics Letters, 2020, 116, 162104.	3.3	15
32	GaAs Single Electron Transistors Fabricated by Selective Area Metalorganic Vapor Phase Epitaxy and Their Application to Single Electron Logic Circuits. Japanese Journal of Applied Physics, 1999, 38, 415-417.	1.5	14
33	Common-emitter currentâ€“voltage characteristics of a pnp GaN bipolar junction transistor. Applied Physics Letters, 2002, 80, 1225-1227.	3.3	14
34	Heteroepitaxial growth of single-domain cubic boron nitride films by ion-beam-assisted MBE. Applied Physics Express, 2017, 10, 035501.	2.4	14
35	Structural analysis of cubic boron nitride (111) films heteroepitaxially grown on diamond (111) substrates. Journal of Applied Physics, 2019, 125, .	2.5	14
36	High-Temperature Performance of AlN MESFETs With Epitaxially Grown n-Type AlN Channel Layers. IEEE Electron Device Letters, 2022, 43, 350-353.	3.9	14

#	ARTICLE	IF	CITATIONS
37	Growth of GaN on sapphire substrates using novel buffer layers of ECR-plasma-sputtered Al2O3/graded-AlON/AlN/Al2O3. Journal of Crystal Growth, 2006, 292, 155-158.	1.5	13
38	Dynamics of selective metalorganic vapor phase epitaxy growth for GaAs/AlGaAs micro-pyramids. Journal of Crystal Growth, 1994, 145, 308-313.	1.5	12
39	Fabrication of GaAs/AlGaAs Quantum Dots by Metalorganic Vapor Phase Epitaxy on Patterned GaAs Substrates. Japanese Journal of Applied Physics, 1995, 34, 1098-1101.	1.5	12
40	Epitaxial Heusler alloy Co₂FeSi films on Si(1â€‰1â€‰1) substrates grown by molecular beam epitaxy. Journal Physics D: Applied Physics, 2010, 43, 305004.	2.8	12
41	High Current Gains Obtained by InGaN/GaN Double Heterojunction Bipolar Transistors. Physica Status Solidi A, 2001, 188, 183-186.	1.7	11
42	N-AlGaN/p-InGaN/n-GaN Heterojunction Bipolar Transistors for High Power Operation. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 95-98.	0.8	11
43	High power operation of Pnp AlGaN/GaN heterojunction bipolar transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2589-2592.	0.8	11
44	High-voltage operation with high current gain of pnp AlGaNâˆ•GaN heterojunction bipolar transistors with thin n-type GaN base. Applied Physics Letters, 2005, 86, 023506.	3.3	11
45	Current-voltage characteristics of pâ€•InGaNâˆ•nâ€•GaN vertical conducting diodes on n+â€•SiC substrates. Applied Physics Letters, 2005, 87, 233505.	3.3	11
46	High-temperature characteristics up to 590â€‰Â°C of a pnp AlGaN/GaN heterojunction bipolar transistor. Applied Physics Letters, 2009, 94, .	3.3	11
47	Infinite-layer phase formation in the Ca1â€“<i>x</i>Sr<i>x</i>CuO2 system by reactive molecular beam epitaxy. Journal of Applied Physics, 2018, 124, .	2.5	11
48	Ohmic contact to AlN:Si using graded AlGaN contact layer. Applied Physics Letters, 2019, 115, .	3.3	11
49	High performance pnpâ€ˆAlGaNâˆ•GaN heterojunction bipolar transistors on GaN substrates. Applied Physics Letters, 2008, 92, .	3.3	10
50	Fabrication and transport characterization of GaAs quantum dots connected with quantum wires fabricated by selective area metalorganic vapor phase epitaxy. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 809-814.	2.7	9
51	Common-emitter currentâ€“voltage characteristics of a Pnp AlGaN/GaN heterojunction bipolar transistor with a low-resistance base layer. Applied Physics Letters, 2002, 80, 3841-3843.	3.3	9
52	Critical electric fields of AlGaN in AlGaN-based vertical conducting diodes on -SiC substrates. Superlattices and Microstructures, 2006, 40, 332-337.	3.1	9
53	High electron concentrations in Si-doped AlN/AlGaN superlattices with high average Al content of 80%. Physica Status Solidi A, 2003, 200, 40-43.	1.7	8
54	Efficient heat dissipation in AlGaN/GaN high electron mobility transistors by substrate-transfer technique. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, .	1.8	8

#	Article	IF	Citations
55	Pyramidal quantum dot structures by self-limited selective area metalorganic vapor phase epitaxy. Solid-State Electronics, 1996, 40, 799-802.	1.4	7
56	Low Resistance Non-Alloy Ohmic Contact to p-Type GaN Using Mg-Doped InGaN Contact Layer. Physica Status Solidi A, 2001, 188, 363-366.	1.7	7
57	Temperature dependence of current-voltage characteristics of npn-type GaNâˆ•InGaN double heterojunction bipolar transistors. Applied Physics Letters, 2007, 91, 133514.	3.3	7
58	Influence of Metalorganic Vapor Phase Epitaxy Regrowth on Characteristics of InAlN/AlGaN/GaN High Electron Mobility Transistors. Japanese Journal of Applied Physics, 2013, 52, 04CF02.	1.5	7
59	Enhancement of performance of AlGaN/GaN high-electron-mobility transistors by transfer from sapphire to a copper plate. Japanese Journal of Applied Physics, 2016, 55, 05FH07.	1.5	7
60	Plasmon Control Driven by Spatial Carrier Density Modulation in Graphene. ACS Photonics, 2019, 6, 947-952.	6.6	7
61	Strained Thick p-InGaN Layers for GaN/InGaN Heterojunction Bipolar Transistors on Sapphire Substrates. Japanese Journal of Applied Physics, 2005, 44, 2722-2725.	1.5	6
62	Long-range order and thermal stability of thin Co2FeSi films on GaAs(1â€‰1â€‰1)B. Journal Physics D: Applied Physics, 2010, 43, 285404.	2.8	6
63	Transport characterization of GaAs quantum dots connected with quantum wires fabricated by selective area metalorganic vapor phase epitaxy. Solid-State Electronics, 1998, 42, 1227-1231.	1.4	5
64	Surface supersaturation in flow-rate modulation epitaxy of GaN. Journal of Crystal Growth, 2017, 468, 821-826.	1.5	5
65	High Room-Temperature Hole Concentrations above 10¹⁹ cm^{âˆ’3} in Mg-Doped InGaN/GaN Superlattices. Materials Research Society Symposia Proceedings, 2000, 622, 5111.	0.1	4
66	Schottky barrier heights of Au, Pd and Ni on n-GaN evaluated using mesa-structure diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2393-2395.	0.8	4
67	High breakdown voltage with low on-state resistance of p-InGaNâˆ•n-GaN vertical conducting diodes on n-GaN substrates. Applied Physics Letters, 2006, 89, 153509.	3.3	4
68	Influence of Lattice Constants of GaN and InGaN on npn-Type GaN/InGaN Heterojunction Bipolar Transistors. Japanese Journal of Applied Physics, 2006, 45, 3395-3397.	1.5	4
69	Low on-resistance of GaNp-i-n vertical conducting diodes grown on 4H-SiC substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2662-2665.	0.8	4
70	Carrier transport mechanisms of Pnp AlGaNâˆ•GaN heterojunction bipolar transistors. Applied Physics Letters, 2008, 92, 093504.	3.3	4
71	Surface morphology control of nonpolar <i>m</i>â€plane AlN homoepitaxial layers by flowâ€rate modulation epitaxy. Physica Status Solidi (B): Basic Research, 2017, 254, 1600545.	1.5	4
72	N-face $(000ar{1})$ GaN/InN/GaN double heterostructures emitting near-infrared photoluminescence grown by metalorganic vapor phase epitaxy. Applied Physics Express, 2018, 11, 081001.	2.4	4

#	Article	IF	Citations
73	High breakdown field of pnp GaN/InGaN/AlGaN DHBTs with AlGaN collector. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2037-2041.	1.8	3
74	A new AlON buffer layer for RF-MBE growth of AlN on a sapphire substrate. Journal of Crystal Growth, 2015, 425, 138-140.	1.5	3
75	Molecular beam epitaxy of Nd2PdO4 thin films. AIP Advances, 2017, 7, 075006.	1.3	3
76	Pnp AlGaN/GaN Heterojunction Bipolar Transistors Operating at 300 ï¿½C. Physica Status Solidi A, 2002, 194, 443-446.	1.7	2
77	Systematic investigation of minority carrier diffusion length in n-and p-GaN for nitride heterojunction bipolar transistors. , 0, , .		2
78	p-InGaN/n-GaN Vertical Conducting Diodes onn+-SiC Substrate for High Power Electronic Device Applications. Japanese Journal of Applied Physics, 2006, 45, 3387-3390.	1.5	2
79	Low-resistance graded AlxGa1âˆ’xN buffer layers for vertical conducting devices on n-SiC substrates. Journal of Crystal Growth, 2007, 298, 819-821.	1.5	2
80	High-Temperature Characteristics of Al_xGa_{1-x}N-Based Vertical Conducting Diodes. Japanese Journal of Applied Physics, 2008, 47, 2838.	1.5	2
81	Low-temperature characteristics of the current gain of GaN/InGaN double-heterojunction bipolar transistors. Journal of Crystal Growth, 2009, 311, 3000-3002.	1.5	2
82	Terahertz spectroscopy of graphene complementary split ring resonators with gate tunability. Japanese Journal of Applied Physics, 2017, 56, 095102.	1.5	2
83	Initial stage of hexagonal boron nitride growth in diffusion and precipitation method. Japanese Journal of Applied Physics, 2017, 56, 06GE06.	1.5	2
84	Fabrication of GaN/Alumina/GaN Structure to Reduce Dislocations in GaN. Japanese Journal of Applied Physics, 2004, 43, 1930-1933.	1.5	1
85	Pnp AlGaN/InGaN/GaN Double Heterojunction Bipolar Transistors With Low-Base-Resistance (<100) Tj ETQq1 1 0.784314 rgBT /Overloc	1.5	1
86	High-temperature (300 Â°C) operation ofnpn-type GaN/InGaN double heterojunction bipolar transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2957-2959.	0.8	1
87	GaN on h-BN technology for release and transfer of nitride devices. , 2014, , .		1
88	Surface structures of graphene covered Cu(103). Japanese Journal of Applied Physics, 2018, 57, 100301.	1.5	1
89	Wurtzite GaP nanowire grown by using tertiarybutylchloride and used to fabricate solar cell. Japanese Journal of Applied Physics, 2019, 58, 015004.	1.5	1
90	High blocking temperature of Fe nanoparticles embedded in diamond thin films. AIP Advances, 2022, 12, .	1.3	1

#	ARTICLE	IF	CITATIONS
91	Selective growth of MOVPE on AlGaAs/GaAs patterned substrates for quantum nano-structures. Materials Research Society Symposia Proceedings, 1996, 448, 259.	0.1	0
92	Quantum dots fabricated by selective area MOVPE and their application to single electron devices. Bulletin of Materials Science, 1999, 22, 531-535.	1.7	0
93	p-InGaN/n-GaN Heterojunction Diodes and their Application to Heterojunction Bipolar Transistors. Materials Research Society Symposia Proceedings, 2000, 639, 13101.	0.1	0
94	High common-emitter current gains obtained by pnp GaN bipolar junction transistors. Materials Research Society Symposia Proceedings, 2001, 693, 265.	0.1	0
95	High current gain (<2000) and reduced common-emitter offset voltage of GaN/InGaN double heterojunction bipolar transistors. , 0, , .		0
96	High-Power Characteristics of GaN/InGaN Double Heterojunction Bipolar Transistors with a Regrown p-InGaN Base Layer. Materials Research Society Symposia Proceedings, 2003, 798, 707.	0.1	0
97	Growth of nitride semiconductors and its application to heterojunction bipolar transistors. Electronics and Communications in Japan, 2006, 89, 20-25.	0.2	0
98	Layered boron nitride as a release layer for mechanical transfer of GaN-based devices. , 2014, , .		0
99	Flow-rate modulation epitaxy of nonpolar m-plane AlN homoepitaxial layers grown on AlN bulk substrates. , 2016, , .		0
100	High Current Gains Obtained by InGaN/GaN Double Heterojunction Bipolar Transistors. Physica Status Solidi A, 2001, 188, 183-186.	1.7	0
101	Low Resistance Non-Alloy Ohmic Contact to p-Type GaN Using Mg-Doped InGaN Contact Layer. Physica Status Solidi A, 2001, 188, 363-366.	1.7	0