

Isaac Bryan

List of Publications by Year in descending order

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39
papers

1,500
citations

361045
20
h-index

329751
37
g-index

39
all docs

39
docs citations

39
times ranked

1323
citing authors

#	ARTICLE	IF	CITATIONS
1	Pinning of energy transitions of defects, complexes, and surface states in AlGa _x N alloys. Applied Physics Letters, 2020, 116, .	1.5	9
2	Structural characteristics of m-plane AlN substrates and homoepitaxial films. Journal of Crystal Growth, 2019, 507, 389-394.	0.7	5
3	On compensation in Si-doped AlN. Applied Physics Letters, 2018, 112, .	1.5	97
4	Doping and compensation in Al-rich AlGa _x N grown on single crystal AlN and sapphire by MOCVD. Applied Physics Letters, 2018, 112, .	1.5	107
5	Second-Harmonic Generation of Blue Light in GaN Waveguides. Applied Sciences (Switzerland), 2018, 8, 1218.	1.3	10
6	Step-free GaN surfaces grown by confined-area metal-organic vapor phase epitaxy. APL Materials, 2017, 5, .	2.2	5
7	High free carrier concentration in p-GaN grown on AlN substrates. Applied Physics Letters, 2017, 111, .	1.5	22
8	Nonlinear analysis of vanadium- and titanium-based contacts to Al-rich n-AlGa _x N. Japanese Journal of Applied Physics, 2017, 56, 100302.	0.8	19
9	The role of surface kinetics on composition and quality of AlGa _x N. Journal of Crystal Growth, 2016, 451, 65-71.	0.7	112
10	Surface kinetics in AlN growth: A universal model for the control of surface morphology in III-nitrides. Journal of Crystal Growth, 2016, 438, 81-89.	0.7	127
11	Status and challenges in deep UV semiconductor lasers. , 2015, , .		3
12	A conduction model for contacts to Si-doped AlGa _x N grown on sapphire and single-crystalline AlN. Journal of Applied Physics, 2015, 117, .	1.1	9
13	Long-term stability assessment of AlGa _x N/GaN field effect transistors modified with peptides: Device characteristics vs. surface properties. AIP Advances, 2015, 5, 097102.	0.6	7
14	Charge neutrality levels, barrier heights, and band offsets at polar AlGa _x N. Applied Physics Letters, 2015, 107, .	1.5	59
15	Growth and characterization of Al _x Ga _{1-x} N lateral polarity structures. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1039-1042.	0.8	15
16	Electronic Biosensors Based on III-Nitride Semiconductors. Annual Review of Analytical Chemistry, 2015, 8, 149-169.	2.8	66
17	Advantages and limitations of UV optoelectronics on AlN substrates. , 2015, , .		0
18	High internal quantum efficiency in AlGa _x N multiple quantum wells grown on bulk AlN substrates. Applied Physics Letters, 2015, 106, .	1.5	135

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19	Nanostructure surface patterning of GaN thin films and application to AlGaIn/AlN multiple quantum wells: A way towards light extraction efficiency enhancement of III-nitride based light emitting diodes. Journal of Applied Physics, 2015, 117, 113107.	1.1	29
20	Strain dependence on polarization properties of AlGaIn and AlGaIn-based ultraviolet lasers grown on AlN substrates. Applied Physics Letters, 2015, 106, .	1.5	48
21	Adsorption and adhesion of common serum proteins to nanotextured gallium nitride. Nanoscale, 2015, 7, 2360-2365.	2.8	17
22	Fermi level control of compensating point defects during metalorganic chemical vapor deposition growth of Si-doped AlGaIn. Applied Physics Letters, 2014, 105, 222101.	1.5	47
23	Schottky contact formation on polar and non-polar AlN. Journal of Applied Physics, 2014, 116, .	1.1	32
24	The role of the carbon-silicon complex in eliminating deep ultraviolet absorption in AlN. Applied Physics Letters, 2014, 104, .	1.5	59
25	Exciton transitions and oxygen as a donor in c-plane AlN homoepitaxial films. Journal of Applied Physics, 2014, 115, .	1.1	20
26	Homoepitaxial AlN thin films deposited on m-plane (11 $\bar{2}$ 00) AlN substrates by metalorganic chemical vapor deposition. Journal of Applied Physics, 2014, 116, 133517.	1.1	30
27	Point defect management in GaN by Fermi-level control during growth. Proceedings of SPIE, 2014, , .	0.8	10
28	Stimulated emission and optical gain in AlGaIn heterostructures grown on bulk AlN substrates. Journal of Applied Physics, 2014, 115, .	1.1	56
29	Sapphire decomposition and inversion domains in N-polar aluminum nitride. Applied Physics Letters, 2014, 104, .	1.5	29
30	The effect of polarity and surface states on the Fermi level at III-nitride surfaces. Journal of Applied Physics, 2014, 116, .	1.1	75
31	Properties of AlN based lateral polarity structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 261-264.	0.8	11
32	Surface preparation of non-polar single-crystalline AlN substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 454-457.	0.8	9
33	Direct Observation of the Polarity Control Mechanism in Aluminum Nitride Grown on Sapphire by Aberration Corrected Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 162-163.	0.2	2
34	Fermi Level Control of Point Defects During Growth of Mg-Doped GaN. Journal of Electronic Materials, 2013, 42, 815-819.	1.0	25
35	Ge doped GaN with controllable high carrier concentration for plasmonic applications. Applied Physics Letters, 2013, 103, .	1.5	45
36	Vacancy compensation and related donor-acceptor pair recombination in bulk AlN. Applied Physics Letters, 2013, 103, .	1.5	80

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37	Polarity control and growth of lateral polarity structures in AlN. Applied Physics Letters, 2013, 102, .	1.5	60
38	Lateral epitaxial overgrowth of nitrogen polar GaN on smooth nitrogen polar GaN templates by metalorganic chemical vapor deposition. Journal of Applied Physics, 2012, 112, .	1.1	3
39	An AFM Learning Module Employing Diffraction Gratings. Microscopy Today, 2010, 18, 42-48.	0.2	6