

Rafael Dalmau

List of Publications by Year in descending order

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49
papers

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430442

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#	ARTICLE	IF	CITATIONS
1	Prismatic Slip in AlN Crystals Grown By PVT. ECS Transactions, 2021, 104, 57-64.	0.3	2
2	(Invited) Complex Relative Permittivity of UV-C Transparent AlN. ECS Transactions, 2021, 104, 49-56.	0.3	1
3	Prismatic Slip in AlN Crystals Grown By PVT. ECS Meeting Abstracts, 2021, MA2021-02, 987-987.	0.0	0
4	(Invited) Complex Relative Permittivity of UV-C Transparent AlN. ECS Meeting Abstracts, 2021, MA2021-02, 986-986.	0.0	0
5	Study of Dislocations in Homoepitaxially and Heteroepitaxially Grown AlN Layers. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000465.	0.8	3
6	Hydride vapor phase epitaxy of Si-doped AlN layers using SiCl ₄ as a doping gas. Journal of Crystal Growth, 2020, 545, 125730.	0.7	3
7	(Invited) Insights into the UV-C Optical Absorption of AlN Substrates Grown by PVT. ECS Transactions, 2020, 98, 3-11.	0.3	1
8	(Invited) Insights into the UV-C Optical Absorption of AlN Substrates Grown by PVT. ECS Meeting Abstracts, 2020, MA2020-02, 1802-1802.	0.0	0
9	Influences of screw dislocations on electroluminescence of AlGaIn/AlN-based UVC LEDs. AIP Advances, 2019, 9, .	0.6	11
10	P-type silicon as hole supplier for nitride-based UVC LEDs. New Journal of Physics, 2019, 21, 023011.	1.2	16
11	(Invited) X-Ray Metrology of AlN Single Crystal Substrates. ECS Transactions, 2019, 92, 113-121.	0.3	4
12	(Invited) X-Ray Metrology of AlN Single Crystal Substrates. ECS Meeting Abstracts, 2019, , .	0.0	1
13	229-nm UV LEDs on aluminum nitride single crystal substrates using p-type silicon for increased hole injection. Applied Physics Letters, 2018, 112, .	1.5	52
14	(Invited) Polarization-Induced Doping in Graded AlGaIn Epilayers Grown on AlN Single Crystal Substrates. ECS Transactions, 2018, 86, 31-40.	0.3	26
15	226-nm AlGaIn/AlN UV LEDs using p-type Si for hole injection and UV reflection. Applied Physics Letters, 2018, 113, .	1.5	59
16	(Invited) Polarization-Induced Doping in Graded AlGaIn Epilayers Grown on AlN Single Crystal Substrates. ECS Meeting Abstracts, 2018, , .	0.0	0
17	(Invited) Progress and Challenges of AlGaIn Schottky Diodes Grown on AlN Substrates. ECS Transactions, 2017, 80, 217-226.	0.3	6
18	Single crystal AlN substrates for AlGaIn-based UV optoelectronics. , 2017, , .		5

#	ARTICLE	IF	CITATIONS
19	(Invited) Progress and Challenges of AlGa _N Schottky Diodes Grown on AlN Substrates. ECS Meeting Abstracts, 2017, MA2017-02, 1342-1342.	0.0	1
20	Influence of high-temperature processing on the surface properties of bulk AlN substrates. Journal of Crystal Growth, 2016, 446, 33-38.	0.7	12
21	High-temperature electromechanical characterization of AlN single crystals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 1880-1887.	1.7	63
22	The role of the carbon-silicon complex in eliminating deep ultraviolet absorption in AlN. Applied Physics Letters, 2014, 104, .	1.5	59
23	Characterization of Threading Dislocations in PVT-Grown AlN Substrates via x-Ray Topography and Ray Tracing Simulation. Journal of Electronic Materials, 2014, 43, 838-842.	1.0	29
24	Vacancy compensation and related donor-acceptor pair recombination in bulk AlN. Applied Physics Letters, 2013, 103, .	1.5	80
25	Deep-Ultraviolet Light-Emitting Diodes Fabricated on AlN Substrates Prepared by Hydride Vapor Phase Epitaxy. Applied Physics Express, 2012, 5, 122101.	1.1	114
26	On the origin of the 265-nm absorption band in AlN bulk crystals. Applied Physics Letters, 2012, 100, .	1.5	137
27	Preparation of a Freestanding AlN Substrate from a Thick AlN Layer Grown by Hydride Vapor Phase Epitaxy on a Bulk AlN Substrate Prepared by Physical Vapor Transport. Applied Physics Express, 2012, 5, 055504.	1.1	121
28	265 nm Light Emitting Diodes on AlN Single Crystal Substrates: Growth and Characterization. , 2011, , .		1
29	Characterization of dislocation arrays in AlN single crystals grown by PVT. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1545-1547.	0.8	37
30	Progress on n-type doping of AlGa _N alloys on AlN single crystal substrates for UV optoelectronic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2031-2033.	0.8	153
31	Ni/Au Schottky diodes on Al _x Ga _{1-x} N (0.7<x<1) grown on AlN single crystal substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2407-2409.	0.8	37
32	Impact of gallium supersaturation on the growth of N-polar GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2078-2080.	0.8	24
33	Implementation of the GaN lateral polarity junction in a MESFET utilizing polar doping selectivity. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 45-48.	0.8	19
34	X-ray characterization of composition and relaxation of Al _x Ga _{1-x} N (0<x<1) layers grown on GaN/sapphire templates by low pressure organometallic vapor phase epitaxy. Journal of Applied Physics, 2010, 108, .	1.1	30
35	Growth and Characterization of AlN and AlGa _N Epitaxial Films on AlN Single Crystal Substrates. ECS Transactions, 2010, 33, 43-54.	0.3	6
36	AlN Bulk Crystal Growth by Physical Vapor Transport. , 2010, , 821-843.		19

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37	Fabrication of a GaN p/n lateral polarity junction by polar doping selectivity. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1977-1979.	0.8	8
38	Growth of highly resistive Ga-polar GaN by LP-MOVPE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 2260-2263.	0.8	8
39	Characterization of bulk grown GaN and AlN single crystal materials. <i>Journal of Crystal Growth</i> , 2006, 287, 349-353.	0.7	20
40	Structural Characterization of Bulk AlN Single Crystals Grown from Self-Seeding and Seeding by SiC Substrates. <i>Materials Science Forum</i> , 2006, 527-529, 1521-1524.	0.3	3
41	The growth and optical properties of large, high-quality AlN single crystals. <i>Journal of Applied Physics</i> , 2004, 96, 5870-5876.	1.1	92
42	Synchrotron white beam x-ray topography (SWBXT) and high resolution triple axis diffraction studies on AlN layers grown on 4H- and 6H-SiC seeds. <i>Materials Research Society Symposia Proceedings</i> , 2004, 831, 631.	0.1	0
43	Crucible Selection in AlN Bulk Crystal Growth. <i>Materials Research Society Symposia Proceedings</i> , 2003, 798, 361.	0.1	4
44	Synchrotron white beam topography characterization of physical vapor transport grown AlN and ammonothermal GaN. <i>Journal of Crystal Growth</i> , 2002, 246, 271-280.	0.7	24
45	Growth of AlN bulk crystals from the vapor phase. <i>Materials Research Society Symposia Proceedings</i> , 2001, 693, 780.	0.1	12
46	Low Defect Density Bulk AlN Substrates for High Performance Electronics and Optoelectronics. <i>Materials Science Forum</i> , 0, 717-720, 1287-1290.	0.3	26
47	Defect Generation Mechanisms in PVT-Grown AlN Single Crystal Boules. <i>Materials Science Forum</i> , 0, 740-742, 91-94.	0.3	14
48	High Quality AlN Single Crystal Substrates for AlGaIn-Based Devices. <i>Materials Science Forum</i> , 0, 924, 923-926.	0.3	19
49	X-Ray Topography Characterization of Large Diameter AlN Single Crystal Substrates. <i>Materials Science Forum</i> , 0, 1004, 63-68.	0.3	7