

Sergei Novikov

List of Publications by Year in descending order

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79
papers

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citations

304743

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79
all docs

79
docs citations

79
times ranked

2280
citing authors

#	ARTICLE	IF	CITATIONS
1	Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride. Nature Materials, 2021, 20, 321-328.	27.5	210
2	Direct band-gap crossover in epitaxial monolayer boron nitride. Nature Communications, 2019, 10, 2639.	12.8	162
3	Deep ultraviolet emission in hexagonal boron nitride grown by high-temperature molecular beam epitaxy. 2D Materials, 2017, 4, 021023.	4.4	102
4	Defect reduction in GaN/(0001)sapphire films grown by molecular beam epitaxy using nanocolumn intermediate layers. Applied Physics Letters, 2008, 92, .	3.3	63
5	Highly mismatched crystalline and amorphous GaN $_{1-x}$ As $_x$ alloys in the whole composition range. Journal of Applied Physics, 2009, 106, .	2.5	61
6	Hexagonal Boron Nitride Tunnel Barriers Grown on Graphite by High Temperature Molecular Beam Epitaxy. Scientific Reports, 2016, 6, 34474.	3.3	60
7	Growth and characterization of free-standing zinc-blende (cubic) GaN layers and substrates. Semiconductor Science and Technology, 2008, 23, 015018.	2.0	57
8	Carrier localization in GaBiAs probed by photomodulated transmittance and photoluminescence. Journal of Applied Physics, 2009, 106, 023518.	2.5	55
9	Current-voltage instabilities in GaN/AlGa $_N$ resonant tunnelling structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2389-2392.	0.8	52
10	Molecular beam epitaxy of GaBiAs on (311)B GaAs substrates. Applied Physics Letters, 2007, 91, 251909.	3.3	50
11	Van der Waals epitaxy of two-dimensional single-layer h-BN on graphite by molecular beam epitaxy: Electronic properties and band structure. Applied Physics Letters, 2018, 112, .	3.3	50
12	Strain-Engineered Graphene Grown on Hexagonal Boron Nitride by Molecular Beam Epitaxy. Scientific Reports, 2016, 6, 22440.	3.3	49
13	Far-infrared transmission in GaN, AlN, and AlGa $_N$ thin films grown by molecular beam epitaxy. Journal of Applied Physics, 2008, 104, 033544.	2.5	43
14	Lattice-Matched Epitaxial Graphene Grown on Boron Nitride. Nano Letters, 2018, 18, 498-504.	9.1	39
15	p-type conductivity in cubic (Ga,Mn)N thin films. Applied Physics Letters, 2005, 86, 152114.	3.3	34
16	Band gap measurements of monolayer h-BN and insights into carbon-related point defects. 2D Materials, 2021, 8, 044001.	4.4	34
17	GaN $_{1-x}$ Bi $_x$: Extremely mismatched semiconductor alloys. Applied Physics Letters, 2010, 97, 141919.	3.3	33
18	High-temperature molecular beam epitaxy of hexagonal boron nitride layers. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2018, 36, .	1.2	31

#	ARTICLE	IF	CITATIONS
19	Molecular beam epitaxy as a method for the growth of freestanding zinc-blende (cubic) GaN layers and substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C3B1-C3B6.	1.2	28
20	Highly mismatched N-rich GaN $_{1-x}$ Sbx films grown by low temperature molecular beam epitaxy. Applied Physics Letters, 2013, 102, .	3.3	26
21	Defect-controlled growth of GaN nanorods on (0001)sapphire by molecular beam epitaxy. Applied Physics Letters, 2008, 93, 111911.	3.3	24
22	Current-voltage characteristics of zinc-blende (cubic) Al _{0.3} Ga _{0.7} N/GaN double barrier resonant tunneling diodes. Applied Physics Letters, 2010, 97, .	3.3	23
23	High temperature MBE of graphene on sapphire and hexagonal boron nitride flakes on sapphire. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	22
24	Depth dependence of the Mn valence and Mn-Mn coupling in (Ga,Mn)N. Physical Review B, 2007, 76, .	3.2	20
25	Unusual broadening of E ₀ and E ₀ + $\tilde{\Gamma}$ SO transitions in GaAsBi studied by electromodulation spectroscopy. Journal of Applied Physics, 2012, 111, 066103.	2.5	20
26	Moiré-Modulated Conductance of Hexagonal Boron Nitride Tunnel Barriers. Nano Letters, 2018, 18, 4241-4246.	9.1	19
27	Low gap amorphous GaN $_{1-x}$ Asx alloys grown on glass substrate. Applied Physics Letters, 2010, 97, .	3.3	18
28	Non-equilibrium GaNAs alloys with band gap ranging from 0.8 to 3.4 eV. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1847-1849.	0.8	17
29	High-Temperature Molecular Beam Epitaxy of Hexagonal Boron Nitride with High Active Nitrogen Fluxes. Materials, 2018, 11, 1119.	2.9	17
30	An atomic carbon source for high temperature molecular beam epitaxy of graphene. Scientific Reports, 2017, 7, 6598.	3.3	16
31	Zinc-blende (cubic) GaN bulk crystals grown by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1439-1444.	0.8	15
32	Epitaxy of boron nitride monolayers for graphene-based lateral heterostructures. 2D Materials, 2021, 8, 034001.	4.4	15
33	Growth and characterization of free-standing zinc-blende GaN layers and substrates. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1277-1282.	1.8	14
34	Step-flow growth of graphene-boron nitride lateral heterostructures by molecular beam epitaxy. 2D Materials, 2020, 7, 035014.	4.4	14
35	Elasto-optical properties of zinc-blende (cubic) GaN measured by picosecond acoustics. Journal Physics D: Applied Physics, 2009, 42, 115412.	2.8	13
36	Molecular beam epitaxy of GaNAs alloys with high As content for potential photoanode applications in hydrogen production. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C3B12-C3B16.	1.2	13

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37	Free-standing zinc-blende (cubic) GaN substrates grown by a molecular beam epitaxy process. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 890-892.	1.5	12
38	Molecular beam epitaxy of highly mismatched N-rich GaN _{1-x} Sbx and InN _{1-x} Asx alloys. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, .	1.2	12
39	Carrier relaxation dynamics for As defects in GaN. <i>Applied Physics Letters</i> , 2001, 79, 69-71.	3.3	11
40	Capacitance characterization of AlN/GaN double-barrier resonant tunnelling diodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 2265-2269.	0.8	11
41	Molecular beam epitaxy of GaN _{1-x} Bi _x alloys with high bismuth content. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 419-423.	1.8	11
42	Study of confined coherent acoustic phonon modes in a free-standing cubic GaN membrane by femtosecond spectroscopy. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	11
43	Photoluminescence of magnesium and silicon doped cubic GaN. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 385-388.	0.8	10
44	Influence of internal fields on radiative and nonradiative processes in AlN/GaN superlattices. <i>Journal of Applied Physics</i> , 2004, 95, 7785-7789.	2.5	9
45	Carrier localization and related photoluminescence in cubic AlGaIn epilayers. <i>Journal of Applied Physics</i> , 2011, 110, 063517.	2.5	9
46	Composition and optical properties of dilute-Sb GaN _{1-x} Sb _x highly mismatched alloys grown by MBE. <i>Journal of Applied Physics</i> , 2014, 47, 465102.	2.8	9
47	The nature of arsenic incorporation in GaN. <i>Applied Physics Letters</i> , 2001, 79, 3239-3241.	3.3	8
48	Generation of terahertz monochromatic acoustic phonon pulses by femtosecond optical excitation of a gallium nitride/aluminium nitride superlattice. <i>Applied Physics Letters</i> , 2005, 86, 221915.	3.3	8
49	X-ray in-plane scattering investigation of GaN nanorods. <i>Journal of Applied Physics</i> , 2008, 104, 103504.	2.5	8
50	Thermal stability of amorphous GaN _{1-x} Asx alloys. <i>Applied Physics Letters</i> , 2011, 98, 161902.	3.3	8
51	EdmondsetÂal.Reply:. <i>Physical Review Letters</i> , 2005, 94, .	7.8	7
52	GaNAs alloys over the whole composition range grown on crystalline and amorphous substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 2503-2505.	0.8	7
53	Transmission electron microscopy of indium gallium nitride nanorods grown by molecular beam epitaxy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 417-420.	0.8	7
54	Local structure of amorphous GaN _{1-x} Asx semiconductor alloys across the composition range. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	6

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55	Effects of native defects on properties of low temperature grown, non-stoichiometric gallium nitride. Journal Physics D: Applied Physics, 2015, 48, 385101.	2.8	6
56	X-ray detection with zinc-blende (cubic) GaN Schottky diodes. Scientific Reports, 2016, 6, 29535.	3.3	6
57	Exciton and Phonon Radiative Linewidths in Monolayer Boron Nitride. Physical Review X, 2022, 12, .	8.9	5
58	Doping of GaN $_{1-x}$ As $_x$ with high As content. Journal of Applied Physics, 2011, 110, 093702.	2.5	4
59	Photoluminescence from self-assembled GaAs inclusions embedded in a GaN host crystal. Physica Status Solidi (B): Basic Research, 2003, 238, 204-212.	1.5	3
60	Isoelectronic doping of AlGa $_x$ N alloys. Physica Status Solidi (B): Basic Research, 2003, 240, 408-411.	1.5	3
61	Optical characterisation of Bi-doped GaN films grown by molecular beam epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 850-853.	1.8	3
62	Search For Hole Mediated Ferromagnetism In Cubic (Ga,Mn)N. AIP Conference Proceedings, 2005, , .	0.4	3
63	Study of unintentional arsenic incorporation into free-standing zinc-blende GaN and AlGa $_x$ N layers grown by molecular beam epitaxy on GaAs substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2033-2035.	0.8	3
64	Structural characterization of zincblende Ga $_{1-x}$ Mn $_x$ N epilayers grown by molecular beam epitaxy on (001) GaAs substrates. Applied Physics Letters, 2005, 87, 031902.	3.3	2
65	Plasma-assisted electroepitaxy as a novel method for the growth of GaN layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 538-541.	0.8	2
66	Plasma-assisted electroepitaxy of GaN layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 388-391.	0.8	2
67	^{71}Ga Nuclear Magnetic Relaxation Measurements in Zinc-blende GaN. AIP Conference Proceedings, 2007, , .	0.4	2
68	Optical Enhancement of ^{15}N Nuclear Magnetic Resonance in Zinc-blende Ga $_{15}\text{N}$. AIP Conference Proceedings, 2007, , .	0.4	1
69	Structural studies of GaN $_{1-x}$ As $_x$ and GaN $_{1-x}$ Bi $_x$ alloys for solar cell applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1586-1589.	0.8	1
70	Microstructure of Mg doped GaN $_x$ Al $_{1-x}$ alloys. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 453-456.	0.8	1
71	Molecular beam epitaxy of free-standing bulk wurtzite Al $_x$ Ga $_{1-x}$ N layers using a highly efficient RF plasma source. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 217-220.	0.8	1
72	Terahertz conductivity of the highly mismatched amorphous alloy, GaN $_x$ Bi. Semiconductor Science and Technology, 2017, 32, 125009.	2.0	1

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73	Homo- and Hetero-Epitaxial Gallium Nitride Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 1998, 537, 1.	0.1	0
74	Characterisation of nitrides by energy filtered TEM and EELS. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2452-2455.	0.8	0
75	Modulation of Arsenic Incorporation in GaN Layers Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2003, 798, 736.	0.1	0
76	The Structure of Dislocations in GaN Grown by MBE as a Function of the Gallium to Nitrogen Ratio. Materials Research Society Symposia Proceedings, 2003, 798, 754.	0.1	0
77	The Influence of Substrate Polarity on the Blue Emission from As-doped GaN Layers Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2003, 798, 215.	0.1	0
78	Conductivity of Cubic GaMnN Grown on Undoped GaN Layers. , 2006, , .		0
79	Zinc-blende (Cubic) GaN and AlGaIn Layers, Structures and Bulk Crystals by Molecular Beam Epitaxy. , 2010, , .		0