

# Sergei Novikov

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4179285/publications.pdf>

Version: 2024-02-01

79  
papers

1,732  
citations

304743

22  
h-index

302126

39  
g-index

79  
all docs

79  
docs citations

79  
times ranked

2280  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Exciton and Phonon Radiative Linewidths in Monolayer Boron Nitride. <i>Physical Review X</i> , 2022, 12, .   | 8.9  | 5         |
| 2  | Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride. <i>Nature Materials</i> , 2021, 20, 321-328.  | 27.5 | 210       |
| 3  | Epitaxy of boron nitride monolayers for graphene-based lateral heterostructures. <i>2D Materials</i> , 2021, 8, 034001.  | 4.4  | 15        |
| 4  | Band gap measurements of monolayer h-BN and insights into carbon-related point defects. <i>2D Materials</i> , 2021, 8, 044001.   | 4.4  | 34        |
| 5  | Step-flow growth of graphene-boron nitride lateral heterostructures by molecular beam epitaxy. <i>2D Materials</i> , 2020, 7, 035014.  | 4.4  | 14        |
| 6  | Direct band-gap crossover in epitaxial monolayer boron nitride. <i>Nature Communications</i> , 2019, 10, 2639.   | 12.8 | 162       |
| 7  | High-temperature molecular beam epitaxy of hexagonal boron nitride layers. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, .  | 1.2  | 31        |
| 8  | Lattice-Matched Epitaxial Graphene Grown on Boron Nitride. <i>Nano Letters</i> , 2018, 18, 498-504.  | 9.1  | 39        |
| 9  | High-Temperature Molecular Beam Epitaxy of Hexagonal Boron Nitride with High Active Nitrogen Fluxes. <i>Materials</i> , 2018, 11, 1119.  | 2.9  | 17        |
| 10 | Moiré-Modulated Conductance of Hexagonal Boron Nitride Tunnel Barriers. <i>Nano Letters</i> , 2018, 18, 4241-4246.   | 9.1  | 19        |
| 11 | Van der Waals epitaxy of two-dimensional single-layer h-BN on graphite by molecular beam epitaxy: Electronic properties and band structure. <i>Applied Physics Letters</i> , 2018, 112, .  | 3.3  | 50        |
| 12 | Deep ultraviolet emission in hexagonal boron nitride grown by high-temperature molecular beam epitaxy. <i>2D Materials</i> , 2017, 4, 021023.  | 4.4  | 102       |
| 13 | Terahertz conductivity of the highly mismatched amorphous alloy, GaN <sub>Bi</sub> . <i>Semiconductor Science and Technology</i> , 2017, 32, 125009.   | 2.0  | 1         |
| 14 | An atomic carbon source for high temperature molecular beam epitaxy of graphene. <i>Scientific Reports</i> , 2017, 7, 6598.  | 3.3  | 16        |
| 15 | Molecular beam epitaxy of free-standing bulk wurtzite Al <sub>x</sub> Ga <sub>1-x</sub> N layers using a highly efficient RF plasma source. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2016, 13, 217-220. | 0.8  | 1         |
| 16 | Hexagonal Boron Nitride Tunnel Barriers Grown on Graphite by High Temperature Molecular Beam Epitaxy. <i>Scientific Reports</i> , 2016, 6, 34474.  | 3.3  | 60        |
| 17 | High temperature MBE of graphene on sapphire and hexagonal boron nitride flakes on sapphire. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, .                                      | 1.2  | 22        |
| 18 | Strain-Engineered Graphene Grown on Hexagonal Boron Nitride by Molecular Beam Epitaxy. <i>Scientific Reports</i> , 2016, 6, 22440.   | 3.3  | 49        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | X-ray detection with zinc-blende (cubic) GaN Schottky diodes. Scientific Reports, 2016, 6, 29535.   | 3.3 | 6         |
| 20 | Study of confined coherent acoustic phonon modes in a free-standing cubic GaN membrane by femtosecond spectroscopy. Applied Physics Letters, 2015, 107, .   | 3.3 | 11        |
| 21 | 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         |
| 22 | Composition and optical properties of dilute-Sb GaN <sub>1-x</sub> Sb <sub>x</sub> highly mismatched alloys grown by MBE. Journal Physics D: Applied Physics, 2014, 47, 465102.   | 2.8 | 9         |
| 23 | Transmission electron microscopy of indium gallium nitride nanorods grown by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 417-420.   | 0.8 | 7         |
| 24 | Photoluminescence of magnesium and silicon doped cubic GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 385-388.  | 0.8 | 10        |
| 25 | Molecular beam epitaxy of highly mismatched N-rich GaN <sub>1-x</sub> Sb <sub>x</sub> and InN <sub>1-x</sub> As <sub>x</sub> alloys. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, . | 1.2 | 12        |
| 26 | Microstructure of Mg doped GaNAs alloys. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 453-456.   | 0.8 | 1         |
| 27 | Highly mismatched N-rich GaN <sub>1-x</sub> Sb <sub>x</sub> films grown by low temperature molecular beam epitaxy. Applied Physics Letters, 2013, 102, .  | 3.3 | 26        |
| 28 | Local structure of amorphous GaN <sub>1-x</sub> As <sub>x</sub> semiconductor alloys across the composition range. Journal of Applied Physics, 2013, 113, .   | 2.5 | 6         |
| 29 | Plasma-assisted electroepitaxy of GaN layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 388-391.  | 0.8 | 2         |
| 30 | Unusual broadening of E <sub>0</sub> and E <sub>0</sub> + $\tilde{\Gamma}$ SO transitions in GaAsBi studied by electromodulation spectroscopy. Journal of Applied Physics, 2012, 111, 066103.                                     | 2.5 | 20        |
| 31 | Molecular beam epitaxy of GaN <sub>1-x</sub> Bi <sub>x</sub> alloys with high bismuth content. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 419-423.  | 1.8 | 11        |
| 32 | 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         |
| 33 | Structural studies of GaN <sub>1-x</sub> As <sub>x</sub> and GaN <sub>1-x</sub> Bi <sub>x</sub> alloys for solar cell applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1586-1589.           | 0.8 | 1         |
| 34 | Thermal stability of amorphous GaN <sub>1-x</sub> As <sub>x</sub> alloys. Applied Physics Letters, 2011, 98, 161902.  | 3.3 | 8         |
| 35 | 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        |
| 36 | GaNAs alloys over the whole composition range grown on crystalline and amorphous substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2503-2505.  | 0.8 | 7         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Carrier localization and related photoluminescence in cubic AlGaIn epilayers. Journal of Applied Physics, 2011, 110, 063517.  | 2.5 | 9         |
| 38 | Doping of GaN $_{1-x}$ As $_x$ with high As content. Journal of Applied Physics, 2011, 110, 093702.   | 2.5 | 4         |
| 39 | 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        |
| 40 | Study of unintentional arsenic incorporation into free-standing zinc-blende GaN and AlGaIn 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         |
| 41 | Non-equilibrium GaNAs alloys with band gap ranging from 0.8-3.4 eV. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1847-1849.   | 0.8 | 17        |
| 42 | GaN $_{1-x}$ B $_x$ : Extremely mismatched semiconductor alloys. Applied Physics Letters, 2010, 97, 141919.   | 3.3 | 33        |
| 43 | 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        |
| 44 | 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        |
| 45 | 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        |
| 46 | Zinc-blende (Cubic) GaN and AlGaIn Layers, Structures and Bulk Crystals by Molecular Beam Epitaxy. , 2010, , .  |     | 0         |
| 47 | Low gap amorphous GaN $_{1-x}$ As $_x$ alloys grown on glass substrate. Applied Physics Letters, 2010, 97, .  | 3.3 | 18        |
| 48 | 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        |
| 49 | Elasto-optical properties of zinc-blende (cubic) GaN measured by picosecond acoustics. Journal Physics D: Applied Physics, 2009, 42, 115412.  | 2.8 | 13        |
| 50 | Carrier localization in GaBiAs probed by photomodulated transmittance and photoluminescence. Journal of Applied Physics, 2009, 106, 023518.   | 2.5 | 55        |
| 51 | Free-standing zinc-blende (cubic) GaN substrates grown by a molecular beam epitaxy process. Physica Status Solidi (B): Basic Research, 2008, 245, 890-892.  | 1.5 | 12        |
| 52 | Far-infrared transmission in GaN, AlN, and AlGaIn thin films grown by molecular beam epitaxy. Journal of Applied Physics, 2008, 104, 033544.  | 2.5 | 43        |
| 53 | Defect-controlled growth of GaN nanorods on (0001)sapphire by molecular beam epitaxy. Applied Physics Letters, 2008, 93, 111911.  | 3.3 | 24        |
| 54 | Growth and characterization of free-standing zinc-blende (cubic) GaN layers and substrates. Semiconductor Science and Technology, 2008, 23, 015018.   | 2.0 | 57        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | Defect reduction in GaN/(0001)sapphire films grown by molecular beam epitaxy using nanocolumn intermediate layers. Applied Physics Letters, 2008, 92, .  | 3.3 | 63        |
| 56 | X-ray in-plane scattering investigation of GaN nanorods. Journal of Applied Physics, 2008, 104, 103504.  | 2.5 | 8         |
| 57 | Depth dependence of the Mn valence and Mn-Mn coupling in (Ga,Mn)N. Physical Review B, 2007, 76, .  | 3.2 | 20        |
| 58 | Molecular beam epitaxy of GaBiAs on (311)B GaAs substrates. Applied Physics Letters, 2007, 91, 251909.   | 3.3 | 50        |
| 59 | Optical Enhancement of <sup>15</sup> N Nuclear Magnetic Resonance in Zinc-blende Ga <sub>15</sub> N. AIP Conference Proceedings, 2007, , .   | 0.4 | 1         |
| 60 | <sup>71</sup> Ga Nuclear Magnetic Relaxation Measurements in Zinc-blende GaN. AIP Conference Proceedings, 2007, , .  | 0.4 | 2         |
| 61 | Capacitance characterization of AlN/GaN double-barrier resonant tunnelling diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2265-2269.                         | 0.8 | 11        |
| 62 | Conductivity of Cubic GaMnN Grown on Undoped GaN Layers. , 2006, , .   |     | 0         |
| 63 | 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         |
| 64 | Search For Hole Mediated Ferromagnetism In Cubic (Ga,Mn)N. AIP Conference Proceedings, 2005, , .   | 0.4 | 3         |
| 65 | p-type conductivity in cubic (Ga,Mn)N thin films. Applied Physics Letters, 2005, 86, 152114.   | 3.3 | 34        |
| 66 | Structural characterization of zincblende Ga <sub>1-x</sub> Mn <sub>x</sub> N epilayers grown by molecular beam epitaxy on (001) GaAs substrates. Applied Physics Letters, 2005, 87, 031902.   | 3.3 | 2         |
| 67 | EdmondsetÅal.Reply:. Physical Review Letters, 2005, 94, .  | 7.8 | 7         |
| 68 | Generation of terahertz monochromatic acoustic phonon pulses by femtosecond optical excitation of a gallium nitride/aluminium nitride superlattice. Applied Physics Letters, 2005, 86, 221915. | 3.3 | 8         |
| 69 | Influence of internal fields on radiative and nonradiative processes in AlN/GaN superlattices. Journal of Applied Physics, 2004, 95, 7785-7789.  | 2.5 | 9         |
| 70 | 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         |
| 71 | Isoelectronic doping of AlGaIn alloys. Physica Status Solidi (B): Basic Research, 2003, 240, 408-411.  | 1.5 | 3         |
| 72 | 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         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Current-voltage instabilities in GaN/AlGaIn resonant tunnelling structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2389-2392.                     | 0.8 | 52        |
| 74 | Modulation of Arsenic Incorporation in GaN Layers Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2003, 798, 736.                                 | 0.1 | 0         |
| 75 | 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         |
| 76 | 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         |
| 77 | Carrier relaxation dynamics for As defects in GaN. Applied Physics Letters, 2001, 79, 69-71.  | 3.3 | 11        |
| 78 | The nature of arsenic incorporation in GaN. Applied Physics Letters, 2001, 79, 3239-3241.   | 3.3 | 8         |
| 79 | Homo- and Hetero-Epitaxial Gallium Nitride Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 1998, 537, 1.  | 0.1 | 0         |