Sefer Bora LiÅesivdin

List of Publications by Year
in descending order

71 papers	1,024 citations	471371 17 h-index	477173 29 g-index
71 all docs	71 docs citations	71 times ranked	1191 citing authors

#	Article	IF	Citations
1	Electrical properties of TiO2 thin films. Journal of Non-Crystalline Solids, 2008, 354, 4944-4947.	1.5	113
2	Scattering analysis of 2DEG carrier extracted by QMSA in undoped Al0.25Ga0.75N/GaN heterostructures. Semiconductor Science and Technology, 2007, 22, 543-548.	1.0	60
3	The persistent photoconductivity effect in AlGaN/GaN heterostructures grown on sapphire and SiC substrates. Journal of Applied Physics, 2008, 103, .	1.1	59
4	Scattering analysis of two-dimensional electrons in AlGaN/GaN with bulk related parameters extracted by simple parallel conduction extraction method. Journal of Applied Physics, 2010, 108, .	1.1	59
5	The effect of AlN interlayer thicknesses on scattering processes in lattice-matched AlInN/GaN two-dimensional electron gas heterostructures. New Journal of Physics, 2009, 11, 063031.	1.2	56
6	Non-adiabatic small polaron hopping conduction in Nb-doped TiO2 thin film. Physica B: Condensed Matter, 2009, 404, 1423-1426.	1.3	52
7	Determination of two-dimensional electron and hole gas carriers in AlGaN/GaN/AlN heterostructures grown by Metal Organic Chemical Vapor Deposition. Thin Solid Films, 2008, 516, 2041-2044.	0.8	31
8	Mobility limiting scattering mechanisms in nitride-based two-dimensional heterostructures with the InGaN channel. Semiconductor Science and Technology, 2010, 25, 045024.	1.0	31
9	High Figure-of-Merit (${V}_{ext{BR}}^{ext{2}}$ /${R}_{ext{ON}}$) AlGaN/GaN Power HEMT With Periodically C-Doped GaN Buffer and AlGaN Back Barrier. IEEE Journal of the Electron Devices Society, 2018, 6, 1179-1186.	1.2	29
10	Electronic transport characterization of AlGaNâˆ•GaN heterostructures using quantitative mobility spectrum analysis. Applied Physics Letters, 2007, 91, .	1.5	27
11	First-principles calculations of Pd-terminated symmetrical armchair graphene nanoribbons. Computational Materials Science, 2013, 68, 18-22.	1.4	26
12	Growth parameter investigation of Al_{0.25}Ga_{0.75}N/GaN/AlN heterostructures with Hall effect measurements. Semiconductor Science and Technology, 2008, 23, 095008.	1.0	24
13	Improvement of breakdown characteristics in AlGaN/GaN/AlxGa1âˆ’xN HEMT based on a grading AlxGa1âˆ’xN buffer layer. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2593-2596.	0.8	22
14	Large zero-field spin splitting in AlGaN/AlN/GaN/AlN heterostructures. Journal of Applied Physics, 2009, 105, .	1.1	21
15	Electronic and optical properties of black phosphorus doped with Au, Sn and I atoms. Philosophical Magazine, 2018, 98, 155-164.	0.7	20
16	Electronic transport in n- and p-type modulation doped Ga_xIn_{1âˆ’x}N_yAs_{1âˆ’y}GaAs quantum wells. Journal of Physics Condensed Matter, 2009, 21, 174210.	0.7	19
17	Stokes Shift and Band Gap Bowing in In_xGa_{1-x}N (0.060 â‰¤ x â‰¤ 0.105) Grown by Metalorganic Vapour Phase Epitaxy. Acta Physica Polonica A, 2008, 113, 731-739.	0.2	19
18	The substrate temperature dependent electrical properties of titanium dioxide thin films. Journal of Materials Science: Materials in Electronics, 2010, 21, 692-697.	1.1	14

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19	Ab initiostudy of Ru-terminated and Ru-doped armchair graphene nanoribbons. Molecular Physics, 2012, 110, 2295-2300.	0.8	14
20	The variation of temperatureâ€dependent carrier concentration and mobility in AlGaN/AlN/GaN heterostructure with SiN passivation. Physica Status Solidi (B): Basic Research, 2015, 252, 1960-1965.	0.7	14
21	Evaluation of morphological and chemical differences of gunshot residues in different ammunitions using SEM/EDS technique. Environmental Forensics, 2016, 17, 68-79.	1.3	14
22	Structural and optical properties of hexagonal ZnO nanostructures grown by ultrasonic spray CVD. Optik, 2018, 168, 86-91.	1.4	14
23	Electronic properties of zigzag ZnO nanoribbons with hydrogen and magnesium passivations. Physica B: Condensed Matter, 2019, 556, 12-16.	1.3	14
24	Anomalous temperature dependence of the electrical resistivity in In0.17Ga0.83N. Solid State Communications, 2009, 149, 337-340.	0.9	13
25	Analytic modeling of temperature dependence of 2D carrier mobility in as-grown and annealed GaInNAs/GaAs quantum well structures. Semiconductor Science and Technology, 2014, 29, 125009.	1.0	13
26	A simple parallel conduction extraction method (SPCEM) for MODFETs and undoped GaN-based HEMTs. Microelectronics Journal, 2009, 40, 413-417.	1.1	12
27	Temperature dependent energy relaxation time in AlGaN/AlN/GaN heterostructures. Superlattices and Microstructures, 2012, 51, 733-744.	1.4	12
28	Electronic properties of Li-doped zigzag graphene nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 543-547.	1.3	12
29	Determination of the LO phonon energy by using electronic and optical methods in AlGaN/GaN. Open Physics, 2012, 10, .	0.8	11
30	Determination of the in-plane effective mass and quantum lifetime of 2D electrons in AlGaN/GaN based HEMTs. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1625-1628.	0.8	10
31	The Relationship Between the Surface Morphology and Chemical Composition of Gunshot Residue Particles. Journal of Forensic Sciences, 2015, 60, 1030-1033.	0.9	10
32	A Comparative Study of AlGaN and InGaN Back-Barriers in Ultrathin-Barrier AlN/GaN Heterostructures. Journal of Electronic Materials, 2017, 46, 5278-5286.	1.0	10
33	Numerical simulation of novel ultrathin barrier n-GaN/InAlN/AlN/GaN HEMT structures: Effect of indium-mole fraction, doping and layer thicknesses. Physica B: Condensed Matter, 2010, 405, 4020-4026.	1.3	9
34	Ab initio study of electronic properties of armchair graphene nanoribbons passivated with heavy metal elements. Solid State Communications, 2019, 296, 8-11.	0.9	9
35	General-purpose open-source 1D self-consistent SchrÃ¶dinger-Poisson Solver: Aestimo 1D. Computational Materials Science, 2021, 186, 110015.	1.4	9
36	The effect of strain relaxation on electron transport in undoped Al0.25Ga0.75N/GaN heterostructures. Physica B: Condensed Matter, 2007, 399, 132-137.	1.3	8

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37	Investigation of low-temperature electrical conduction mechanisms in highly resistive GaN bulk layers extracted withÂSimple Parallel Conduction Extraction Method. Applied Physics A: Materials Science and Processing, 2010, 98, 557-563.	1.1	8
38	Electrical conduction properties of Si Î´-doped GaAs grown by MBE. Physica B: Condensed Matter, 2009, 404, 4202-4206.	1.3	7
39	Numerical optimization of In-mole fractions and layer thicknesses in AlxGa1â^'xN/AlN/GaN high electron mobility transistors with InGaN back barriers. Physica B: Condensed Matter, 2011, 406, 1513-1518.	1.3	7
40	Effect of substitutional As impurity on electrical and optical properties of Î²-Si 3 N 4 structure. Materials Research Bulletin, 2016, 83, 128-134.	2.7	7
41	Two dimensional electron gas in a hybrid GaN/InGaN/ZnO heterostructure with ultrathin InGaN channel layer. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 79, 67-71.	1.3	7
42	Electron Transport in Ga-Rich In x Ga 1â^' x N Alloys. Chinese Physics Letters, 2007, 24, 2930-2933.	1.3	6
43	Well parameters of twoâ€dimensional electron gas in Al_{0.88}In_{0.12}N/AlN/GaN/AlN heterostructures grown by MOCVD. Crystal Research and Technology, 2010, 45, 133-139.	0.6	6
44	Extraction and scattering analyses of 2D and bulk carriers in epitaxial graphene-on-SiC structure. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 63, 87-92.	1.3	6
45	Self-consistent scattering analysis of Al_{0.2}Ga_{0.8}N/AlN/GaN/AlN heterostructures grown on 6H-SiC substrates using photo-Hall effect measurements. Journal of Physics Condensed Matter, 2008, 20, 045208.	0.7	5
46	Scattering analysis of 2DEG mobility in undoped and doped AlGaN/AlN/GaN heterostructures with an in situ Si 3 N 4 passivation layer. Solid-State Electronics, 2016, 118, 12-17.	0.8	5
47	Negative Differential Resistance Observation and a New Fitting Model for Electron Drift Velocity in GaN-Based Heterostructures. IEEE Transactions on Electron Devices, 2018, 65, 950-956.	1.6	5
48	Electronic properties of graphene nanoribbons doped with zinc, cadmium, mercury atoms. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 124-129.	1.3	5
49	Scattering analysis of ultrathin barrier (<â€‰7Ânm) GaN-based heterostructures. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	5
50	Growth dynamics of mist-CVD grown ZnO nanoplatelets. Physica B: Condensed Matter, 2021, 614, 413028.	1.3	5
51	DX-center energy calculation with quantitative mobility spectrum analysis in n-AlGaAs/GaAs structures with low Al content. Superlattices and Microstructures, 2009, 45, 604-611.	1.4	4
52	Determination of the critical indium composition corresponding to the metalâ€“insulator transition in InxGa1â^'xN (0.06â©½xâ©½0.135) layers. Current Applied Physics, 2010, 10, 838-841.	1.1	4
53	A numerical study on subband structure of InxAl1â^'xN/GaN-based HEMT structures with low-indium (x<0.10) barrier layer. Solid State Communications, 2013, 162, 8-12.	0.9	4
54	Optical gain in 1.3-Î¼m electrically driven dilute nitride VCSOAs. Nanoscale Research Letters, 2014, 9, 22.	3.1	4

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55	SiC Substrate effects on electron transport in the epitaxial graphene layer. Electronic Materials Letters, 2014, 10, 387-391.	1.0	4
56	Energy Relaxation of Electrons in InGaN Quantum Wells. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1565-1569.	1.1	4
57	Numerical investigation of the 2DEG properties of AlGaN/AlN/GaN HEMT structures with InGaN/GaN MQW back-barrier structure. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 65, 110-113.	1.3	4
58	Double subband occupation of the two-dimensional electron gas in InxAl1â^'xN/AlN/GaN/AlN heterostructures with a low indium content (0.064â‰xâ‰0.140) barrier. Thin Solid Films, 2010, 518, 5572-5575.	0.8	3
59	The effect of InxGa1â^'xN back-barriers on the dislocation densities in Al0.31Ga0.69N/AlN/GaN/InxGa1â^'xN/GaN heterostructures (0.05Ââ‰ÂxÂâ‰Â0.14). Current Applied Physics, 2013, 13, 224-227.	1.1	3
60	Investigation of Structural and Optical Properties of ZnO Thin Films Grown on Different Substrates by Mist-CVD Enhanced with Ozone Gas Produced by Corona Discharge Plasma. Advances in Condensed Matter Physics, 2021, 2021, 1-8.	0.4	3
61	gpaw-tools â€“ higher-level user interaction scripts for GPAW calculations and interatomic potential based structure optimization. Computational Materials Science, 2022, 204, 111201.	1.4	3
62	Analysis of defect related optical transitions in biased AlGaN/GaN heterostructures. Materials Science in Semiconductor Processing, 2010, 13, 105-108.	1.9	2
63	Contributions of impurity band and electronâ€“electron interactions to magnetoconductance in AlGaN. Philosophical Magazine, 2010, 90, 3591-3599.	0.7	2
64	Energy relaxation of hot electrons by LO phonon emission in AlGaN/AlN/GaN heterostructure with in situ Si3N4 passivation. Journal of Alloys and Compounds, 2016, 659, 90-94.	2.8	2
65	A first principles investigation of the effect of aluminum, gallium and indium impurities on optical properties of Î²-Si3N4 structure. Optik, 2017, 147, 115-122.	1.4	2
66	Grain boundary related electrical transport in Al-rich Al x Ga1 â^' x N layers grown by metal-organic chemical vapor deposition. Semiconductors, 2011, 45, 33-36.	0.2	1
67	Electron Transport Properties of Two-Dimensional Electron Gas in BexZn1â^'xO/ZnO Heterostructures. Philosophical Magazine, 2015, 95, 79-89.	0.7	1
68	Mole Fraction Dependence of Mobility in InxGa1â^'xN Alloys. AIP Conference Proceedings, 2007, , .	0.3	0
69	Activation Mechanism in InGaN Grown by MOVPE. AIP Conference Proceedings, 2007, , .	0.3	0
70	Strain Calculations from Hall Measurements in Undoped Al0.25Ga0.75N/GaN HEMT Structures. AIP Conference Proceedings, 2007, , .	0.3	0
71	Power-loss mechanisms in surface passivated AlGaN/AlN/GaN heterojunctions. , 2015, , .		0