Theodore Moustakas

List of Publications by Year
in descending order

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120	8,590	41323	43868
papers	citations	49 h-index	91 g-index

122	122	122	5409
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thickness dependent thermal conductivity of gallium nitride. Applied Physics Letters, 2017, 110, .	1.5	67
2	Thermal transport through GaNâ€“SiC interfaces from 300 to 600â€‰K. Applied Physics Letters, 2015, 107, .	1.5	60
3	Deep-UV optical gain in AlGaN-based graded-index separate confinement heterostructure. Optical Materials Express, 2015, 5, 809.	1.6	17
4	Deep ultraviolet distributed Bragg reflectors based on graded composition AlGaN alloys. Applied Physics Letters, 2015, 106, .	1.5	19
5	Potassium and ion beam induced electron accumulation in InN. Surface Science, 2015, 632, 154-157.	0.8	5
6	Two-dimensional electron gas in monolayer InN quantum wells. Applied Physics Letters, 2014, 105, 213503.	1.5	20
7	Optoelectronic control of surface charge and translocation dynamics in solid-state nanopores. Nature Nanotechnology, 2013, 8, 946-951.	15.6	149
8	Photoluminescence and pressure effects in short period InN/nGaN superlattices. Journal of Applied Physics, 2013, 113, 123101.	1.1	26
9	Plasmonic off-axis unidirectional beaming of quantum-well luminescence. Applied Physics Letters, 2013, 103, .	1.5	18
10	InN/GaN Superlattices: Band Structures and Their Pressure Dependence. Japanese Journal of Applied Physics, 2013, 52, 08JL06.	0.8	4
11	Materials Issues for Vertical Gallium Nitride Power Devices. ECS Transactions, 2013, 58, 427-438.	0.3	1
12	Plasmon-enhanced light emission based on lattice resonances of silver nanocylinder arrays. Optics Letters, 2012, 37, 79.	1.7	42
13	Temperature dependent photon echoes of a GaN thin film. Applied Physics Letters, 2012, 101, 142102.	1.5	2
14	Coupled Metallic Thin-Film/Nanoparticle-Array Systems for Far-Field Engineering of Quantum-Well Luminescence. , 2012, , .		0
15	Composition dependent bilayer atomic ordering in AlxGa1â^'xN films examined by polarization-dependent extended x-ray absorption fine structure. Applied Physics Letters, 2012, 100, .	1.5	22
16	Far-infrared intersubband photodetectors based on double-step III-nitride quantum wells. Applied Physics Letters, 2012, 100, 241113.	1.5	60
17	Microstructure of vanadium-based contacts on n-type GaN. Journal Physics D: Applied Physics, 2012, 45, 105401.	1.3	5
18	Growth and characterization of deep ultraviolet emitting AlGaN structures on SiC substrates. , 2011, , .		0

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19	Comparison of Fe and Si doping of GaN: An EXAFS and Raman study. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 723-726.	1.7	10
20	Measurement of electric field across individual wurtzite GaN quantum dots using electron holography. Applied Physics Letters, 2011, 99, .	1.5	16
21	Enhanced near-green light emission from InGaN quantum wells by use of tunable plasmonic resonances in silver nanoparticle arrays. Optics Express, 2010, 18, 21322.	1.7	69
22	Sequential tunneling transport characteristics of GaN/AlGaN coupled-quantum-well structures. Journal of Applied Physics, 2010, 108, 103704.	1.1	22
23	Plasmon enhanced light emission from InGaN quantum wells via coupling to chemically synthesized silver nanoparticles. Applied Physics Letters, 2009, 95, 151109.	1.5	30
24	Deep ultraviolet emitting AlGaN quantum wells with high internal quantum efficiency. Applied Physics Letters, 2009, 94, .	1.5	130
25	Monte Carlo simulation of terahertz quantum cascade laser structures based on wide-bandgap semiconductors. Journal of Applied Physics, 2009, 105, .	1.1	98
26	Structural characterization of non-polar (1120) and semi-polar (1126) GaN films grown on r-plane sapphire. Journal of Crystal Growth, 2008, 310, 2981-2986.	0.7	21
27	Observation of an inverted band structure near the surface of InN. Europhysics Letters, 2008, 83, 47003.	0.7	7
28	Intermixing and chemical structure at the interface between n-GaN and V-based contacts. Applied Physics Letters, 2008, 93, .	1.5	14
29	Monte Carlo study of GaN versus GaAs terahertz quantum cascade structures. Applied Physics Letters, 2008, 92, .	1.5	98
30	1-D wavefunction localization and effective quantum wire behavior inside QWs deposited on textured GaN materials. , 2007, , .		0
31	Intersubband absorption in AlNâˆ•GaNâˆ•AlGaN coupled quantum wells. Applied Physics Letters, 2007, 91, 141104.	1.5	37
32	Nonlinear optical waveguides based on near-infrared intersubband transitions in GaN/AlN quantum wells. Optics Express, 2007, 15, 5860.	1.7	40
33	Ultrafast all-optical switching with low saturation energy via intersubband transitions in GaN/AlN quantum-well waveguides. Optics Express, 2007, 15, 17922.	1.7	67
34	Formation of large-area freestanding gallium nitride substrates by natural stress-induced separation of GaN and sapphire. Journal of Crystal Growth, 2007, 300, 37-41.	0.7	43
35	Complex and incommensurate ordering in Al0.72Ga0.28N thin films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2006, 88, 181915.	1.5	38
36	Ultraviolet light emitting diodes using non-polar A-plane AlGaN multiple quantum wells. Materials Research Society Symposia Proceedings, 2006, 955, 1.	0.1	0

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37	Resonant photoemission at the Ga 3p photothreshold in InxGa1âˆ'xN. Journal of Electron Spectroscopy and Related Phenomena, 2006, 152, 25-28.	0.8	1
38	Growth of InN films by RF plasma-assisted MBE and cluster beam epitaxy. Journal of Crystal Growth, 2006, 288, 254-260.	0.7	15
39	Photoemission study of sulfur and oxygen adsorption on GaN(). Surface Science, 2006, 600, 116-123.	0.8	12
40	High power ultraviolet light emitting diodes based on GaNâˆ•AlGaN quantum wells produced by molecular beam epitaxy. Journal of Applied Physics, 2006, 100, 104506.	1.1	21
41	Quantized Electron Accumulation States in Indium Nitride Studied by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2006, 97, 237601.	2.9	103
42	Microstructure of relaxed InN quantum dots grown on GaN buffer layers by molecular-beam epitaxy. Applied Physics Letters, 2006, 88, 231906.	1.5	16
43	Investigation of the design parameters of AlN/GaN multiple quantum wells grown by molecular beam epitaxy for intersubband absorption. Journal of Crystal Growth, 2005, 278, 387-392.	0.7	34
44	Resonant shake-up satellites in photoemission at the Ga 3p photothreshold in GaN. Solid State Communications, 2005, 136, 191-195.	0.9	4
45	Growth and silicon doping of AlGaN films in the entire alloy composition by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2220-2223.	0.8	18
46	Ultraviolet electroabsorption modulator based on AlGaNâˆ•GaN multiple quantum wells. Journal of Applied Physics, 2005, 97, 123515.	1.1	22
47	Efficient p-type doping of GaN films by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2004, 85, 4956-4958.	1.5	51
48	Well width dependence of disorder effects on the optical properties of AlGaNâˆ•GaN quantum wells. Applied Physics Letters, 2004, 85, 3068-3070.	1.5	13
49	Investigation of excitons in AlGaN/GaN multiple quantum wells by lateral photocurrent and photoluminescence spectroscopies. Journal of Applied Physics, 2004, 95, 3495-3502.	1.1	20
50	Complex ordering in ternary wurtzite nitride alloys. Journal of Physics and Chemistry of Solids, 2003, 64, 1525-1532.	1.9	16
51	Comparative study of GaN/AlGaN MQWs grown homoepitaxially on and (0001) GaN. Journal of Crystal Growth, 2003, 251, 487-493.	0.7	25
52	MBE Grown AlN Films on SiC for Piezoelectric MEMS Sensors. Materials Research Society Symposia Proceedings, 2003, 798, 193.	0.1	3
53	Surface degradation of InxGa1âˆ'xN thin films by sputter-anneal processing: A scanning photoemission microscope study. Journal of Applied Physics, 2003, 94, 5820-5825.	1.1	4
54	Interfacial and defect structures in multilayered GaN/AlN films. Journal of Physics Condensed Matter, 2002, 14, 13277-13283.	0.7	9

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55	Growth kinetics of AlGaN films by plasma-assisted molecular-beam epitaxy. Applied Physics Letters, 2002, 81, 295-297.	1.5	100
56	Epitaxial growth and self-organized superlattice structures in AlGaN films grown by plasma assisted molecular beam epitaxy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 87, 227-236.	1.7	21
57	Study of group-III binary and ternary nitrides using X-ray absorption fine structure measurements. Journal of Crystal Growth, 2001, 230, 405-409.	0.7	17
58	Chemical ordering in AlGaN alloys grown by molecular beam epitaxy. Applied Physics Letters, 2001, 78, 463-465.	1.5	62
59	High reflectivity and broad bandwidth AlN/GaN distributed Bragg reflectors grown by molecular-beam epitaxy. Applied Physics Letters, 2000, 76, 2818-2820.	1.5	156
60	Investigation of vertical transport in n-GaN films grown by molecular beam epitaxy using Schottky barrier diodes. Applied Physics Letters, 2000, 76, 1045-1047.	1.5	31
61	Surface electronic structure of p-type GaN(0001Ì„). Surface Science, 2000, 467, L827-L833.	0.8	23
62	Micro-Raman imaging of GaN hexagonal island structures. Applied Physics Letters, 1999, 75, 1757-1759.	1.5	36
63	Domain structure in chemically ordered InxGa1âˆ’xN alloys grown by molecular beam epitaxy. Journal of Applied Physics, 1999, 85, 883-886.	1.1	44
64	Epitaxial growth of gallium nitride thin films on A-Plane sapphire by molecular beam epitaxy. Journal of Applied Physics, 1999, 85, 3582-3589.	1.1	66
65	Unoccupied band structure of wurtzite GaN(0001). Physical Review B, 1999, 59, 5003-5007.	1.1	21
66	NitrogenK-edge NEXAFS measurements on group-III binary and ternary nitrides. Journal of Synchrotron Radiation, 1999, 6, 558-560.	1.0	1
67	GalliumK-edge EXAFS measurements on cubic and hexagonal GaN. Journal of Synchrotron Radiation, 1999, 6, 561-563.	1.0	13
68	NitrogenK-edge EXAFS measurements on Mg- and Si-doped GaN. Journal of Synchrotron Radiation, 1999, 6, 555-557.	1.0	4
69	Photoconductive detectors based on partially ordered AlxGa1âˆ’xN alloys grown by molecular beam epitaxy. Applied Physics Letters, 1999, 74, 2203-2205.	1.5	40
70	Distributed Bragg reflectors based on AlN/GaN multilayers. Applied Physics Letters, 1999, 74, 1036-1038.	1.5	81
71	Scattering of electrons at threading dislocations in GaN. Journal of Applied Physics, 1998, 83, 3656-3659.	1.1	578
72	Density of states, hybridization, and band-gap evolution inAlxGa1âˆ’xNalloys. Physical Review B, 1998, 58, 1928-1933.	1.1	76

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73	Broadening of near-band-gap photoluminescence in n-GaN films. Applied Physics Letters, 1998, 73, 375-377.	1.5	98
74	Phase separation and ordering in InGaN alloys grown by molecular beam epitaxy. Journal of Applied Physics, 1998, 84, 1389-1395.	1.1	212
75	X-ray characterization of GaN/AlGaN multiple quantum wells for ultraviolet laser diodes. Applied Physics Letters, 1998, 72, 1004-1006.	1.5	24
76	The role of dislocation scattering in n-type GaN films. Applied Physics Letters, 1998, 73, 821-823.	1.5	407
77	Optical properties of GaN grown over SiO2 on SiC substrates by molecular beam epitaxy. Applied Physics Letters, 1998, 72, 244-245.	1.5	18
78	Electrical characterization of GaN/SiC n-p heterojunction diodes. Applied Physics Letters, 1998, 72, 1371-1373.	1.5	55
79	Experimental determination of the N-p-partial density of states in the conduction band of GaN: Determination of the polytype fractions in mixed phase samples. Journal of Applied Physics, 1998, 83, 1437-1445.	1.1	54
80	NK-edge x-ray-absorption study of heteroepitaxial GaN films. Physical Review B, 1997, 56, 13380-13386.	1.1	27
81	Surface and bulk electronic structure of thin-film wurtzite GaN. Physical Review B, 1997, 56, 10271-10275.	1.1	108
82	Photoluminescence microscopy of InGaN quantum wells. Applied Physics Letters, 1997, 70, 1333-1335.	1.5	14
83	Long range order in AlxGa1â^'xN films grown by molecular beam epitaxy. Applied Physics Letters, 1997, 71, 72-74.	1.5	123
84	Phase separation in InGaN thick films and formation of InGaN/GaN double heterostructures in the entire alloy composition. Applied Physics Letters, 1997, 70, 1089-1091.	1.5	455
85	Vacuum flashover on diamond-like carbon-coated insulators. IEEE Transactions on Dielectrics and Electrical Insulation, 1996, 3, 108-112.	1.8	3
86	Growth and properties of InxGa1â^'xN/AlyGa1â^'yN multiquantum wells developed by molecular beam epitaxy. Applied Physics Letters, 1996, 69, 2388-2390.	1.5	28
87	Sub-bandgap absorption of gallium nitride determined by Photothermal Deflection Spectroscopy. Solid State Communications, 1996, 97, 365-370.	0.9	116
88	Nitrogen in diamond thin films. Physica B: Condensed Matter, 1996, 229, 27-36.	1.3	11
89	Electronic structure of GaN measured using soft-x-ray emission and absorption. Physical Review B, 1996, 54, R17335-R17338.	1.1	64
90	Characteristics of lightâ€emitting diodes based on GaNpâ€njunctions grown by plasmaâ€assisted molecular beam epitaxy. Journal of Applied Physics, 1996, 79, 2779-2783.	1.1	59

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91	Application of nearâ€edge xâ€ray absorption fine structure for the identification of hexagonal and cubic polytypes in epitaxial GaN. Applied Physics Letters, 1996, 69, 4206-4208.	1.5	31
92	Strongly localized excitons in gallium nitride. Applied Physics Letters, 1996, 68, 2556-2558.	1.5	65
93	The optical properties and electronic transitions of cubi and hexagonal GaN films between 1.5 and 10 eV. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1995, 29, 65-69.	1.7	18
94	Operation of a compact electron cyclotron resonance source for the growth of gallium nitride by molecular beam epitaxy (ECR-MBE). Journal of Electronic Materials, 1995, 24, 275-281.	1.0	47
95	Towards the Identification of the Dominant Donor in GaN. Physical Review Letters, 1995, 75, 296-299.	2.9	295
96	Blueâ€violet light emitting gallium nitride pâ€n junctions grown by electron cyclotron resonanceâ€assisted molecular beam epitaxy. Applied Physics Letters, 1995, 66, 268-270.	1.5	157
97	Mechanism of yellow luminescence in GaN. Applied Physics Letters, 1995, 67, 2188-2190.	1.5	208
98	Microstructures of GaN films deposited on (001) and (111) Si substrates using electron cyclotron resonance assisted-molecular beam epitaxy. Journal of Materials Research, 1994, 9, 2370-2378.	1.2	60
99	Effect of nitrogen on the growth of diamond films. Applied Physics Letters, 1994, 65, 403-405.	1.5	210
100	Hydrogenation ofpâ€type gallium nitride. Applied Physics Letters, 1994, 64, 2264-2266.	1.5	143
101	Temperature dependence of the energy gap in GaN bulk single crystals and epitaxial layer. Journal of Applied Physics, 1994, 76, 2429-2434.	1.1	171
102	Thermal expansion of gallium nitride. Journal of Applied Physics, 1994, 76, 4909-4911.	1.1	211
103	Electronic characterization of diamond films prepared by electron cyclotron resonance microwave plasma. Diamond and Related Materials, 1994, 3, 878-882.	1.8	12
104	Intensity dependence of photoluminescence in GaN thin films. Applied Physics Letters, 1994, 64, 336-338.	1.5	113
105	Growth of gallium nitride by electronâ€cyclotron resonance plasmaâ€assisted molecularâ€beam epitaxy: The role of charged species. Journal of Applied Physics, 1994, 76, 4587-4595.	1.1	130
106	Local vibrational modes in Mg-doped gallium nitride. Physical Review B, 1994, 49, 14758-14761.	1.1	65
107	Optical properties and temperature dependence of the interband transitions of cubic and hexagonal GaN. Physical Review B, 1994, 50, 18017-18029.	1.1	147
108	Doping, Schottky barrier and p-n junction formation in amorphous germanium and silicon by rf sputtering. Solid State Communications, 1993, 88, 1019-1022.	0.9	9

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109	Growth of GaN by ECR-assisted MBE. Physica B: Condensed Matter, 1993, 185, 36-49.	1.3	239
110	Study of defects in wide band gap semiconductors by electron paramagnetic resonance. Physica B: Condensed Matter, 1993, 185, 228-233.	1.3	33
111	Conduction-electron spin resonance in zinc-blende GaN thin films. Physical Review B, 1993, 48, 15144-15147.	1.1	74
112	Heteroepitaxy, polymorphism, and faulting in GaN thin films on silicon and sapphire substrates. Journal of Applied Physics, 1993, 74, 4430-4437.	1.1	220
113	Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures. Diamond and Related Materials, 1993, 2, 1355-1359.	1.8	8
114	Electrical conductivity studies of diamond films prepared by electron cyclotron resonance microwave plasma. Applied Physics Letters, 1993, 63, 2354-2356.	1.5	33
115	Metal contacts to gallium nitride. Applied Physics Letters, 1993, 62, 2859-2861.	1.5	327
116	Defects in diamond thin films. Physical Review B, 1993, 48, 14982-14988.	1.1	48
117	Electron transport mechanism in gallium nitride. Applied Physics Letters, 1993, 62, 72-74.	1.5	161
118	Growth of gallium nitride thin films by electron cyclotron resonance microwave plasmaâ€assisted molecular beam epitaxy. Journal of Applied Physics, 1993, 73, 448-455.	1.1	97
119	Epitaxial growth and characterization of zincâ€blende gallium nitride on (001) silicon. Journal of Applied Physics, 1992, 71, 4933-4943.	1.1	344
120	Study of defects in diamond films with electron paramagnetic resonance measurements. Diamond and Related Materials, 1992, 1, 773-775.	1.8	24