

Kevin O'Donnell

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8651750/publications.pdf>

Version: 2024-02-01

143
papers

5,672
citations

87723

38
h-index

85405

71
g-index

145
all docs

145
docs citations

145
times ranked

4915
citing authors

#	ARTICLE	IF	CITATIONS
1	Acceptor state anchoring in gallium nitride. Applied Physics Letters, 2020, 116, .	1.5	2
2	Eu ²⁺ Mg defects and donor ⁺ acceptor pairs in GaN: photodissociation and the excitation transfer problem. Journal Physics D: Applied Physics, 2018, 51, 065106.	1.3	5
3	Hysteretic Photochromic Switching (HPS) in Doubly Doped GaN(Mg):Eu ²⁺ A Summary of Recent Results. Materials, 2018, 11, 1800.	1.3	5
4	Extended X-ray absorption fine structure study of the Er bonding in AlNO:Er _x films with x=3.6%. Journal of Applied Physics, 2018, 124, 085705.	1.1	3
5	Simultaneous composition and cathodoluminescence spectral mapping of III-nitride structures. , 2018, , 293-296.		0
6	Hysteretic photochromic switching of Eu-Mg defects in GaN links the shallow transient and deep ground states of the Mg acceptor. Scientific Reports, 2017, 7, 41982.	1.6	11
7	Luminescence of Eu ³⁺ in GaN(Mg, Eu): Transitions from the 5D1 level. Applied Physics Letters, 2017, 111, .	1.5	12
8	Crystalfield symmetries of luminescent Eu ³⁺ centers in GaN: The importance of the 5D to 7F1 transition. Applied Physics Letters, 2016, 108, .	1.5	28
9	Quantitative Chemical Mapping of InGaN Quantum Wells from Calibrated High-Angle Annular Dark Field Micrographs. Microscopy and Microanalysis, 2015, 21, 994-1005.	0.2	3
10	Luminescence studies on green emitting InGaN/GaN MQWs implanted with nitrogen. Scientific Reports, 2015, 5, 9703.	1.6	19
11	Photoluminescence studies of a perceived white light emission from a monolithic InGaN/GaN quantum well structure. Scientific Reports, 2015, 5, 13739.	1.6	19
12	Indirect excitation of Eu ³⁺ in GaN codoped with Mg and Eu. Journal of Physics: Conference Series, 2015, 619, 012025.	0.3	2
13	Analysis of the stability of InGaN/GaN multiquantum wells against ion beam intermixing. Nanotechnology, 2015, 26, 425703.	1.3	6
14	The temperature dependence of the luminescence of rare-earth-doped semiconductors: 25 years after Favenec. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 466-468.	0.8	9
15	Europium ²⁺ doped GaN(Mg): beyond the limits of the light ⁺ emitting diode. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 662-665.	0.8	17
16	Sequential multiple-step europium ion implantation and annealing of GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 253-257.	0.8	9
17	Structural Dynamics of GaN Microcrystals in Evolutionary Selection Selective Area Growth probed by X-ray Microdiffraction. Scientific Reports, 2014, 4, 4651.	1.6	8
18	Characterisation of III ⁺ nitride materials by synchrotron X ⁺ ray microdiffraction reciprocal space mapping. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 481-485.	0.8	5

#	ARTICLE	IF	CITATIONS
19	Temperature-dependent hysteresis of the emission spectrum of Eu-implanted, Mg-doped HVPE GaN. AIP Conference Proceedings, 2013, , .	0.3	5
20	Induced magnetic moment of Eu ³⁺ ions in GaN. Scientific Reports, 2012, 2, 969.	1.6	35
21	High pressure annealing of Europium implanted GaN. Proceedings of SPIE, 2012, , .	0.8	23
22	It's not easy being green: Strategies for all ^{III} nitrides, all ^{III} colour solid state lighting. Physica Status Solidi - Rapid Research Letters, 2012, 6, 49-52.	1.2	56
23	Al ^{1-x} In _x N/GaN bilayers: Structure, morphology, and optical properties. Physica Status Solidi (B): Basic Research, 2010, 247, 1740-1746.	0.7	10
24	Lattice site location of optical centers in GaN:Eu light emitting diode material grown by organometallic vapor phase epitaxy. Applied Physics Letters, 2010, 97, 111911.	1.5	29
25	Identification of the prime optical center in GaN:Eu . Physical Review B, 2010, 81, .	1.1	90
26	Structural and optical characterization of Eu-implanted GaN. Journal Physics D: Applied Physics, 2009, 42, 165103.	1.3	48
27	Rare earth doping of III ^{III} nitride alloys by ion implantation. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 34-37.	0.8	8
28	Luminescence spectroscopy of Eu ^{III} implanted zincblende GaN. Physica Status Solidi (B): Basic Research, 2008, 245, 170-173.	0.7	3
29	Relaxation of compressively strained AlInN on GaN. Journal of Crystal Growth, 2008, 310, 4058-4064.	0.7	50
30	Raman scattering and cathodoluminescence characterization of near lattice-matched In _x Al ^{1-x} N epilayers. Semiconductor Science and Technology, 2008, 23, 105002.	1.0	1
31	Role of Nanoscale Strain Inhomogeneity on the Light Emission from InGaN Epilayers. Advanced Functional Materials, 2007, 17, 37-42.	7.8	60
32	Photoluminescence and phonon satellites of single InGa ^N GaN quantum wells with varying GaN cap thickness. Applied Physics Letters, 2006, 89, 101910.	1.5	31
33	Anomalous Ion Channeling in AlInN/GaN Bilayers: Determination of the Strain State. Physical Review Letters, 2006, 97, 085501.	2.9	125
34	Rare earth doped III-nitrides for optoelectronics. EPJ Applied Physics, 2006, 36, 91-103.	0.3	59
35	Depth profiling of ion-implanted AlInN using time-of-flight secondary ion mass spectrometry and cathodoluminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1927-1930.	0.8	8
36	High temperature annealing of rare earth implanted GaN films: Structural and optical properties. Optical Materials, 2006, 28, 750-758.	1.7	47

#	ARTICLE	IF	CITATIONS
37	Optical Properties of Nearly Lattice-matched AlInN/GaN Single Quantum Wells with Varying Well-widths. Materials Research Society Symposia Proceedings, 2006, 955, 1.	0.1	0
38	Local structure of luminescent InGaN alloys. Applied Physics Letters, 2006, 89, 101908.	1.5	22
39	Cathodoluminescence of rare earth implanted AlInN. Applied Physics Letters, 2006, 89, 131912.	1.5	15
40	Photoluminescence studies of Eu-implanted GaN epilayers. Physica Status Solidi (B): Basic Research, 2005, 242, 1491-1496.	0.7	10
41	Selectively excited photoluminescence from Eu-implanted GaN. Applied Physics Letters, 2005, 87, 112107.	1.5	85
42	High-temperature annealing and optical activation of Eu-implanted GaN. Applied Physics Letters, 2004, 85, 2712-2714.	1.5	67
43	SITE MULTIPLICITY OF RARE EARTH IONS IN III-NITRIDES. Materials Research Society Symposia Proceedings, 2004, 831, 714.	0.1	5
44	The composition dependence of the optical properties of InN-rich InGaN grown by MBE. Materials Research Society Symposia Proceedings, 2004, 831, 479.	0.1	3
45	E-BEAM PUMPED VCSEL ON MOVPE-GROWN HEXAGONAL CdSSe/CdS MQW STRUCTURE. International Journal of Nanoscience, 2004, 03, 213-221.	0.4	1
46	The composition dependence of the $\text{In}_x\text{Ga}_{1-x}\text{N}$ bandgap. Journal of Crystal Growth, 2004, 269, 100-105.	0.7	45
47	Cathodoluminescence spectral mapping of III-nitride structures. Physica Status Solidi A, 2004, 201, 665-672.	1.7	42
48	Development of CdSSe/CdS VCSELs for Application to Laser Cathode Ray Tubes. Physica Status Solidi A, 2004, 201, 673-677.	1.7	0
49	Structural and optical characterization of highly Er and Eu doped GaN layers grown by MBE. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2577-2580.	0.8	1
50	Implantation and annealing studies of Tm-implanted GaN. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 97-100.	1.7	13
51	Hexagonal ZnCdS epilayers and CdSSe/ZnCdS QW structures on CdS(0001) and ZnCdS(0001) substrates grown by MOVPE. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 516-517.	1.3	8
52	Wishful physics – some common misconceptions about InGaN. Physica Status Solidi A, 2003, 195, 532-536.	1.7	8
53	Simultaneous composition mapping and hyperspectral cathodoluminescence imaging of InGaN epilayers. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2474-2477.	0.8	24
54	High Temperature Implantation of Tm in GaN. Materials Research Society Symposia Proceedings, 2003, 798, 548.	0.1	6

#	ARTICLE	IF	CITATIONS
55	Electron micro-probe analysis and cathodoluminescence spectroscopy of rare earth - implanted GaN. Materials Research Society Symposia Proceedings, 2003, 798, 466.	0.1	1
56	Extended X-ray Absorption Fine Structure Studies of GaN Epilayers Doped <i>in situ</i> with Er and Eu During Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2003, 798, 45.	0.1	4
57	Anomalous Composition Dependence of Optical Energies of MBE-grown InGaN. Materials Research Society Symposia Proceedings, 2003, 798, 565.	0.1	2
58	Light emission ranging from blue to red from a series of InGaN/GaN single quantum wells. Journal Physics D: Applied Physics, 2002, 35, 604-608.	1.3	36
59	Occurrence of "Accidental" Quantum Dots in Indium Gallium Nitride/Gallium Nitride Heterostructures. Materials Research Society Symposia Proceedings, 2002, 737, 195.	0.1	0
60	2D Assemblies of Silicon Nanocrystallites Prepared by sol-gel Method from Triethoxysilane.. Materials Research Society Symposia Proceedings, 2002, 737, 462.	0.1	0
61	Electron Microprobe and Photoluminescence Analysis of Europium-Doped Gallium Nitride Light Emitters. Materials Research Society Symposia Proceedings, 2002, 743, L6.15.1.	0.1	3
62	Structural and optical properties of InGaN/GaN layers close to the critical layer thickness. Applied Physics Letters, 2002, 81, 1207-1209.	1.5	94
63	Strain and composition distributions in wurtzite InGaN/GaN layers extracted from x-ray reciprocal space mapping. Applied Physics Letters, 2002, 80, 3913-3915.	1.5	209
64	Microcomposition and Luminescence of InGaN Emitters. Physica Status Solidi A, 2002, 192, 117-123.	1.7	32
65	Photoluminescence excitation spectroscopy of InGaN epilayers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 93, 147-149.	1.7	14
66	Splitting of X-ray diffraction and photoluminescence peaks in InGaN/GaN layers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 93, 163-167.	1.7	20
67	Characterization of nitride thin films by electron backscatter diffraction. Journal of Microscopy, 2002, 205, 226-230.	0.8	8
68	Interpretation of double x-ray diffraction peaks from InGaN layers. Applied Physics Letters, 2001, 79, 1432-1434.	1.5	55
69	The dependence of the optical energies on InGaN composition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 82, 194-196.	1.7	33
70	A Mystery Wrapped in an Enigma: Optical Properties of InGaN Alloys. Physica Status Solidi A, 2001, 183, 117-120.	1.7	19
71	Structural analysis of InGaN epilayers. Journal of Physics Condensed Matter, 2001, 13, 6977-6991.	0.7	75
72	Direct evidence of spontaneous quantum dot formation in a thick InGaN epilayer. Applied Physics Letters, 2000, 77, 507-509.	1.5	47

#	ARTICLE	IF	CITATIONS
73	Exciton localization and the Stokes shift in InGaN epilayers. Applied Physics Letters, 1999, 74, 263-265.	1.5	269
74	Intrinsic Infrared Luminescence from InGaN Epilayers. Physica Status Solidi (B): Basic Research, 1999, 216, 141-144.	0.7	19
75	Origin of Luminescence from InGaN Diodes. Physical Review Letters, 1999, 82, 237-240.	2.9	468
76	Probing Nitride Thin Films in 3-Dimensions using a Variable Energy Electron Beam. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	0
77	Infrared spectroscopy of confined optical and folded acoustical phonons in strained CdSe/CdS superlattices. Physical Review B, 1998, 57, 13068-13071.	1.1	20
78	Photoluminescence of localized excitons in pulsed-laser-deposited GaN. Applied Physics Letters, 1998, 73, 3390-3392.	1.5	28
79	Properties of GaN epilayers grown on misoriented sapphire substrates. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	5
80	Electronic states and optical gain in strained CdS/ZnS quantum structures. Physical Review B, 1997, 55, 1364-1367.	1.1	51
81	Probing The Indium Mole Fraction In An InGaN Epilayer By Depth Resolved Cathodoluminescence. Materials Research Society Symposia Proceedings, 1997, 482, 738.	0.1	3
82	Photoluminescence from GaN films grown by MBE on an substrate. Semiconductor Science and Technology, 1997, 12, 59-63.	1.0	20
83	Optical linewidths of InGaN light emitting diodes and epilayers. Applied Physics Letters, 1997, 70, 1843-1845.	1.5	70
84	Comparison of Luminescence and Physical Morphologies of GaN Epilayers. MRS Internet Journal of Nitride Semiconductor Research, 1997, 2, 1.	1.0	3
85	Optical properties of Si nanocrystals prepared by magnetron sputtering. Applied Physics Letters, 1996, 69, 4148-4150.	1.5	23
86	The Morphology and Cathodoluminescence of GaN Thin Films. MRS Internet Journal of Nitride Semiconductor Research, 1996, 1, 1.	1.0	13
87	Electron beam pumping of CdZnSe quantum well laser structures using a variable energy electron beam. Journal of Crystal Growth, 1996, 159, 618-622.	0.7	16
88	Morphology of luminescent GaN films grown by molecular beam epitaxy. Applied Physics Letters, 1996, 68, 355-357.	1.5	38
89	Exciton dynamics in a CdSe/ZnSe multiple quantum well. Physical Review B, 1996, 53, R1697-R1700.	1.1	16
90	(Dark Line Defects, Bright Line Lasers) Microscopic Studies of Single Shot Lasing in CdSe Quantum Wells. Physica Status Solidi (B): Basic Research, 1995, 187, 451-456.	0.7	9

#	ARTICLE	IF	CITATIONS
91	Excitation dynamics of luminescence from porous silicon. Journal of Applied Physics, 1995, 77, 323-326.	1.1	28
92	Origin of the Stokes Shift: A Geometrical Model of Exciton Spectra in 2D Semiconductors. Physical Review Letters, 1994, 72, 1945-1945.	2.9	5
93	Depth-resolved cathodoluminescence of ZnSe epilayers. Advanced Materials for Optics and Electronics, 1994, 3, 295-299.	0.6	6
94	Optical Properties of Wide Bandgap II-VI Superlattices. , 1993, , 255-278.		3
95	Origin of the Stokes shift: A geometrical model of exciton spectra in 2D semiconductors. Physical Review Letters, 1993, 70, 323-326.	2.9	195
96	Fluorescence line narrowing Zeeman spectroscopy of Cr ³⁺ -doped Gd ₃ Sc ₂ Al ₃ O ₁₂ garnet crystals. II. Calculation of the lineshape. Journal of Physics Condensed Matter, 1993, 5, 915-926.	0.7	5
97	Luminescence from porous silicon. Semiconductor Science and Technology, 1993, 8, 92-96.	1.0	33
98	Band alignments in Zn(Cd)S(Se) strained layer superlattices. Semiconductor Science and Technology, 1992, 7, 536-541.	1.0	39
99	Fluorescence-line-narrowing Zeeman spectroscopy of Cr ³⁺ -doped silicate and Li borate glass. Journal of Physics Condensed Matter, 1992, 4, 8151-8162.	0.7	6
100	A statistical topographic model for exciton luminescence spectra. Journal of Physics Condensed Matter, 1992, 4, 8863-8878.	0.7	28
101	Fluorescence line narrowing-Zeeman spectroscopy of Cr ³⁺ -doped Gd ₃ Sc ₂ Al ₃ O ₁₂ garnet crystals. Journal of Physics Condensed Matter, 1992, 4, 7307-7316.	0.7	7
102	Luminescence decay in disordered low-dimensional semiconductors. Applied Physics Letters, 1992, 60, 2672-2674.	1.5	127
103	Line shape of the Cr ³⁺ luminescence in garnet crystals. Physical Review B, 1992, 46, 3273-3282.	1.1	38
104	Disorder and nonradiative decay of Cr ³⁺ -doped glasses. Physical Review B, 1992, 46, 652-661.	1.1	59
105	Electro paramagnetic resonance and optical spectra of Ti ³⁺ -doped YAlO ₃ . Journal of Physics Condensed Matter, 1992, 4, 7285-7294.	0.7	34
106	EPR and optical spectroscopy of Cr ³⁺ ions in Y ₃ Ga ₅ O ₁₂ crystalline thin films. Applied Physics A: Solids and Surfaces, 1992, 54, 470-473.	1.4	4
107	Critical thickness of common-anion II-VI strained layer superlattices (SLSs). Journal of Crystal Growth, 1992, 117, 492-496.	0.7	38
108	The optical properties of wide bandgap binary II-VI superlattices. Journal of Crystal Growth, 1992, 117, 497-500.	0.7	25

#	ARTICLE	IF	CITATIONS
109	The Zn(Cd)S(Se) family of superlattices. <i>Journal of Luminescence</i> , 1992, 52, 133-146.	1.5	26
110	Line shape and lifetimes of Cr ³⁺ luminescence in silicate glasses. <i>Physical Review B</i> , 1991, 44, 4853-4861.	1.1	49
111	Temperature dependence of semiconductor band gaps. <i>Applied Physics Letters</i> , 1991, 58, 2924-2926.	1.5	960
112	Disorder and the optical spectroscopy of Cr ³⁺ -doped glasses. II. Glasses with high and low ligand fields. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 3825-3840.	0.7	49
113	The growth of ZnSe and other wide-bandgap II-VI semiconductors by MOCVD. <i>Semiconductor Science and Technology</i> , 1991, 6, A29-A35.	1.0	13
114	Disorder and the optical spectroscopy of Cr ³⁺ -doped glasses: I. Silicate glasses. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 1915-1930.	0.7	87
115	Polarization of emission spectra from Ti ³⁺ -doped oxide crystals. <i>Applied Physics B: Lasers and Optics</i> , 1991, 52, 225-229.	1.1	11
116	Optical spectroscopy of Cr ³⁺ ions in LiF single crystals. <i>Applied Physics A: Solids and Surfaces</i> , 1991, 53, 209-213.	1.4	2
117	Polarization of emission spectra from Ti ³⁺ -Doped oxide crystals. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1991, 52, 122-131.	1.5	14
118	Interdiffusion in wide-bandgap Zn(Cd)S(Se) strained layer superlattices. <i>Semiconductor Science and Technology</i> , 1991, 6, 818-821.	1.0	23
119	Optical absorption of ZnSe/ZnS strained layer superlattices. <i>Applied Physics Letters</i> , 1991, 59, 2142-2144.	1.5	23
120	Disorder in laser materials. <i>Radiation Effects and Defects in Solids</i> , 1991, 119-121, 209-216.	0.4	2
121	The growth of ZnSe / CdSe and ZnS / CdS strained layer superlattices by MOVPE. <i>Journal of Crystal Growth</i> , 1990, 106, 503-509.	0.7	41
122	Disorder and the shape of the R-lines in Cr ³⁺ -doped garnets. <i>Applied Physics A: Solids and Surfaces</i> , 1990, 50, 565-572.	1.4	25
123	Temperature dependence of the lifetime of Cr ³⁺ luminescence in garnet crystals I. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1990, 50, 425-431.	1.5	47
124	Temperature dependence of the lifetime of Cr ³⁺ luminescence in garnet crystals. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1990, 51, 132-136.	1.5	46
125	Radiative and non-radiative decays from the excited state of Ti ³⁺ ions in oxide crystals. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1990, 51, 329-335.	1.5	30
126	Photoluminescence of wide bandgap II-VI superlattices. <i>Journal of Crystal Growth</i> , 1990, 101, 554-558.	0.7	39

#	ARTICLE	IF	CITATIONS
127	Polarization spectroscopy of Cr ³⁺ ions in laser host crystals. Journal of Luminescence, 1990, 46, 397-418.	1.5	29
128	Time-resolved optical studies of piezoelectric effects in wurtzite strained-layer superlattices. Semiconductor Science and Technology, 1990, 5, 997-1000.	1.0	13
129	Polarized photoluminescence from Cr ³⁺ ions in laser host crystals III. ZnWO ₄ . Journal of Luminescence, 1990, 47, 65-70.	1.5	31
130	Tunnelling between excited ⁴ T ₂ and ² E states of Cr ³⁺ ions with small energy separation-the case of GSGG. Journal of Physics Condensed Matter, 1989, 1, 9175-9182.	0.7	40
131	The MOCVD growth without prereaction of ZnSe and ZnS layers. Journal of Crystal Growth, 1989, 94, 441-447.	0.7	63
132	Vibronic structure in the photoluminescence spectrum of Cr ³⁺ ions in garnets. Journal of Luminescence, 1989, 42, 365-373.	1.5	58
133	Photoluminescence of Cr ³⁺ ions in RF-sputtered YGG thin films. Journal of Luminescence, 1988, 39, 335-341.	1.5	21
134	The temperature dependence of Cr ³⁺ photoluminescence in some garnet crystals. Journal of Physics C: Solid State Physics, 1988, 21, 6187-6198.	1.5	51
135	An ODMR study of a luminescence excitation process in ZnSe:Fe. Journal of Physics C: Solid State Physics, 1983, 16, L723-L728.	1.5	30
136	Optical Detection of Magnetic Resonance for a Deep-Level Defect in Silicon. Physical Review Letters, 1982, 48, 37-40.	2.9	57
137	ODMR studies of antisite-related luminescence in GaP. Solid State Communications, 1982, 44, 1015-1018.	0.9	41
138	Optically detected magnetic resonance of the zinc vacancy in ZnS. Solid State Communications, 1982, 41, 881-883.	0.9	39
139	The TR ₁₂ vibronic band in diamond. Journal of Physics C: Solid State Physics, 1981, 14, 4153-4165.	1.5	43
140	Photochromism in irradiated diamond. Journal of Physics C: Solid State Physics, 1980, 13, L363-L367.	1.5	2
141	EPR and optical absorption studies of radiation-produced defects in sodium beta -alumina. Journal of Physics C: Solid State Physics, 1978, 11, 3871-3879.	1.5	21
142	Axial Cr ³⁺ centres in MgO: EPR and fluorescence studies. Journal of Physics C: Solid State Physics, 1977, 10, 3877-3884.	1.5	18
143	ESR of Mn ²⁺ in sodium β -alumina. Journal of Physics C: Solid State Physics, 1977, 10, 4127-4135.	1.5	19