

Axel Hoffmann

List of Publications by Year in descending order

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92
papers

4,591
citations

126708

33
h-index

98622

67
g-index

95
all docs

95
docs citations

95
times ranked

6380
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase-resolved electrical detection of coherently coupled magnonic devices. Applied Physics Letters, 2021, 118, 202403.	1.5	3
2	Proximity-induced anisotropic magnetoresistance in magnetized topological insulators. Applied Physics Letters, 2021, 118, .	1.5	7
3	Coherent Spin Pumping in a Strongly Coupled Magnon-Magnon Hybrid System. Physical Review Letters, 2020, 124, 117202.	2.9	75
4	Optical and Structural Properties of Nitride Based Nanostructures. Springer Series in Solid-state Sciences, 2020, , 135-201.	0.3	2
5	Enhancement of the UV emission from gold/ZnO nanorods exhibiting no green luminescence. Optical Materials Express, 2020, 10, 1476.	1.6	18
6	Controlled interconversion of quantized spin wave modes via local magnetic fields. Physical Review B, 2019, 100, .	1.1	19
7	Simultaneous Optical and Electrical Spin-Torque Magnetometry with Phase-Sensitive Detection of Spin Precession. Physical Review Applied, 2019, 11, .	1.5	14
8	Quasi-phase-matched second harmonic generation of UV light using AlN waveguides. Applied Physics Letters, 2019, 114, .	1.5	25
9	Tuning edge-localized spin waves in magnetic microstrips by proximate magnetic structures. Physical Review B, 2019, 100, .	1.1	11
10	Spin-wave frequency division multiplexing in an yttrium iron garnet microstripe magnetized by inhomogeneous field. Applied Physics Letters, 2019, 115, .	1.5	16
11	Optical emission of GaN/AlN quantum-wires “the role of charge transfer from a nanowire template. Nanoscale, 2018, 10, 5591-5598.	2.8	12
12	Correlation of the Carrier Decay Time and Barrier Thickness for Asymmetric Cubic GaN/Al _{0.64} Ga _{0.36} N Double Quantum Wells. Physica Status Solidi (B): Basic Research, 2018, 255, 1700373.	0.7	6
13	Auger recombination in AlGaIn quantum wells for UV light-emitting diodes. Applied Physics Letters, 2018, 113, .	1.5	59
14	Insulating Nanomagnets Driven by Spin Torque. Nano Letters, 2017, 17, 8-14.	4.5	29
15	Breakdown of Far-Field Raman Selection Rules by Light-Plasmon Coupling Demonstrated by Tip-Enhanced Raman Scattering. Journal of Physical Chemistry Letters, 2017, 8, 5462-5471.	2.1	16
16	Correlation between mobility collapse and carbon impurities in Si-doped GaN grown by low pressure metalorganic chemical vapor deposition. Journal of Applied Physics, 2016, 120, .	1.1	68
17	The effect of illumination power density on carbon defect configuration in silicon doped GaN. Journal of Applied Physics, 2016, 120, .	1.1	17
18	Unintentional indium incorporation into barriers of InGaIn/GaN multiple quantum wells studied by photoreflectance and photoluminescence excitation spectroscopy. Journal of Applied Physics, 2016, 120, .	1.1	5

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19	Polarization-induced confinement of continuous hole-states in highly pumped, industrial-grade, green InGaN quantum wells. <i>Journal of Applied Physics</i> , 2016, 119, 215707.	1.1	5
20	Temperature-dependent recombination coefficients in InGaN light-emitting diodes: Hole localization, Auger processes, and the green gap. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	79
21	Photoluminescence excitation spectroscopy of excited states of an asymmetric cubic GaN/Al _{0.25} Ga _{0.75} N double quantum well grown by molecular beam epitaxy. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 05FG01.	0.8	8
22	Spatially controlled growth of highly crystalline ZnO nanowires by an inkjet-printing catalyst-free method. <i>Materials Research Express</i> , 2016, 3, 025010.	0.8	8
23	Determination of recombination coefficients in InGaN quantum-well light-emitting diodes by small-signal time-resolved photoluminescence. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 05FJ01.	0.8	35
24	Raman and photoluminescence properties of ZnO nanowires grown by a catalyst-free vapor-transport process using ZnO nanoparticle seeds. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 883-888.	0.7	24
25	Revealing the origin of high-energy Raman local mode in nitrogen doped ZnO nanowires. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 334-338.	1.2	3
26	Epitaxial patterning of nanometer-thick Y ₃ Fe ₅ O ₁₂ films with low magnetic damping. <i>Nanoscale</i> , 2016, 8, 388-394.	2.8	41
27	Direct evidence of single quantum dot emission from GaN islands formed at threading dislocations using nanoscale cathodoluminescence: A source of single photons in the ultraviolet. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	29
28	Desorption induced GaN quantum dots on (0001) AlN by MOVPE. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 526-529.	1.2	9
29	Effects of annealing on optical and structural properties of zinc oxide nanocrystals. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 2620-2625.	0.7	18
30	Blowing magnetic skyrmion bubbles. <i>Science</i> , 2015, 349, 283-286.	6.0	1,177
31	Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. <i>Physical Review B</i> , 2015, 92, .	1.1	48
32	Opportunities at the Frontiers of Spintronics. <i>Physical Review Applied</i> , 2015, 4, .	1.5	287
33	Nature of red luminescence in oxygen treated hydrothermally grown zinc oxide nanorods. <i>Journal of Luminescence</i> , 2015, 168, 20-25.	1.5	22
34	Spin waves in micro-structured yttrium iron garnet nanometer-thick films. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	50
35	Manifestation of unconventional biexciton states in quantum dots. <i>Nature Communications</i> , 2014, 5, 5721.	5.8	44
36	Ferromagnetic resonance of sputtered yttrium iron garnet nanometer films. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	129

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37	Li-doped ZnO nanorods with single-crystal quality – non-classical crystallization and self-assembly into mesoporous materials. <i>CrystEngComm</i> , 2014, 16, 1525-1531.	1.3	17
38	Properties of AlN based lateral polarity structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 261-264.	0.8	11
39	Nanometer-Thick Yttrium Iron Garnet Films With Extremely Low Damping. <i>IEEE Magnetics Letters</i> , 2014, 5, 1-4.	0.6	254
40	Identification of electric dipole moments of excitonic complexes in nitride-based quantum dots. <i>Physical Review B</i> , 2013, 88, .	1.1	25
41	Array of tunneling-coupled quantum dots as a terahertz range quantum nanoantenna. <i>Journal of Nanophotonics</i> , 2013, 7, 073085.	0.4	7
42	Effects of strain on the valence band structure and exciton-polariton energies in ZnO. <i>Physical Review B</i> , 2013, 88, .	1.1	42
43	Carrier dynamics in InAs/GaAs submonolayer stacks coupled to Stranski-Krastanov quantum dots. <i>Physical Review B</i> , 2013, 88, .	1.1	21
44	Ge doped GaN with controllable high carrier concentration for plasmonic applications. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	45
45	Compensation effects in GaN:Mg probed by Raman spectroscopy and photoluminescence measurements. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	49
46	Signature of the two-dimensional phonon dispersion in graphene probed by double-resonant Raman scattering. <i>Physical Review B</i> , 2013, 87, .	1.1	60
47	Nitrogen and vacancy clusters in ZnO. <i>Journal of Materials Research</i> , 2013, 28, 1977-1983.	1.2	29
48	Effect of TMGa preflow on the properties of high temperature AlN layers grown on sapphire. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 285-290.	0.8	4
49	Phonon plasmon interaction in ternary group-III-nitrides. <i>Applied Physics Letters</i> , 2012, 101, 041909.	1.5	20
50	Effect of reactor pressure on the electrical and structural properties of InN epilayers grown by high-pressure chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	9
51	Effect of V/III molar ratio on the structural and optical properties of InN epilayers grown by HPCVD. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
52	Site-controlled quantum dot growth on buried oxide stressor layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 2411-2420.	0.8	27
53	Structural investigations of silicon nanostructures grown by self-organized island formation for photovoltaic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 108, 719-726.	1.1	5
54	Growth and ferromagnetic resonance properties of nanometer-thick yttrium iron garnet films. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	210

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55	Exciton acoustic-phonon coupling in single GaN/AlN quantum dots. <i>Physical Review B</i> , 2012, 85, .	1.1	45
56	Preface: Group III nitrides and their heterostructures for electronics and photonics. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1005-1006.	0.8	0
57	Preface: <i>Phys. Status Solidi C</i> 5/2012. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1223-1223.	0.8	0
58	Band-Gap Engineering of Zinc Oxide Colloids via Lattice Substitution with Sulfur Leading to Materials with Advanced Properties for Optical Applications Like Full Inorganic UV Protection. <i>Chemistry of Materials</i> , 2012, 24, 1771-1778.	3.2	46
59	Assembly of carbon nanotubes and alkylated fullerenes: nanocarbon hybrid towards photovoltaic applications. <i>Chemical Science</i> , 2011, 2, 2243.	3.7	47
60	Acoustic and optical phonon scattering in a single In(Ga)As quantum dot. <i>Physical Review B</i> , 2011, 83, .	1.1	53
61	Shape Anisotropy Influencing Functional Properties: Trigonal Prismatic ZnO Nanoparticles as an Example. <i>Advanced Functional Materials</i> , 2011, 21, 295-304.	7.8	54
62	Raman and Photoluminescence Spectroscopic Detection of Surface-Bound Li+O ²⁺ Defect Sites in Li-Doped ZnO Nanocrystals Derived from Molecular Precursors. <i>ChemPhysChem</i> , 2011, 12, 1189-1195.	1.0	19
63	Temperature dependent photoluminescence of lateral polarity junctions of metal organic chemical vapor deposition grown GaN. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	45
64	Anti-phase domains in cubic GaN. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	26
65	Optical properties of InN grown on templates with controlled surface polarities. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 2351-2354.	0.8	7
66	Clebsch-Gordan coefficients for scattering tensors in ZnO and other wurtzite semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1802-1806.	0.7	1
67	Preface: <i>Phys. Status Solidi C</i> 7/1. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 7-8.	0.8	5
68	Polariton effects in the dielectric function of ZnO excitons obtained by ellipsometry. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	20
69	Identification of a donor-related recombination channel in ZnO thin films. <i>Physical Review B</i> , 2010, 81, .	1.1	14
70	Optical spectra of ZnO in the far ultraviolet: First-principles calculations and ellipsometric measurements. <i>Physical Review B</i> , 2010, 81, .	1.1	48
71	Large internal dipole moment in InGaN/GaN quantum dots. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	53
72	Theory of time-resolved Raman scattering and fluorescence emission from semiconductor quantum dots. <i>Physical Review B</i> , 2010, 81, .	1.1	18

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73	Excited state properties of donor bound excitons in ZnO. Physical Review B, 2010, 82, .	1.1	45
74	Zinc Oxide. Springer Series in Materials Science, 2010, , .	0.4	293
75	Molecular Precursor Route to a Metastable Form of Zinc Oxide. Chemistry of Materials, 2010, 22, 4263-4270.	3.2	58
76	Magnetic and structural properties of transition metal doped zinc oxide nanostructures. Physica Status Solidi (B): Basic Research, 2009, 246, 766-770.	0.7	10
77	Nitrogen incorporation in homoepitaxial ZnO CVD epilayers. Physica Status Solidi - Rapid Research Letters, 2009, 3, 16-18.	1.2	28
78	Influence of substrate surface polarity on homoepitaxial growth of ZnO layers by chemical vapor deposition. Physical Review B, 2009, 79, .	1.1	47
79	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \hat{\langle \text{mml:mi} \rangle} \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{val}$ band symmetry related hole fine splitting of bound excitons in ZnO observed in magneto-optical studies. Physical Review B, 2009, 80, .	1.1	36
80	Fe in III-V and II-VI semiconductors. Physica Status Solidi (B): Basic Research, 2008, 245, 455-480.	0.7	103
81	Phonon interactions in InAs/GaAs quantum dots. , 2008, , .		0
82	On the Origin of the Unexpected Annealing Behavior of GaInNAs Quantum Wells. Japanese Journal of Applied Physics, 2007, 46, L614-L616.	0.8	0
83	ZnO based ternary transparent conductors. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2867-2872.	0.8	33
84	Multifunctional III-nitride dilute magnetic semiconductor epilayers and nanostructures as a future platform for spintronic devices. , 2005, , .		20
85	Reconciliation of luminescence and Hall measurements on the ternary semiconductor CuGaSe ₂ . Applied Physics Letters, 2005, 86, 091909.	1.5	33
86	The growth and optical properties of large, high-quality AlN single crystals. Journal of Applied Physics, 2004, 96, 5870-5876.	1.1	92
87	On the composition dependence of ZnO _{1-x} S _x . Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 694-697.	0.8	28
88	Editor's Preface: phys. stat. sol. (c) 0/1. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 21-21.	0.8	0
89	Microcalorimetric absorption spectroscopy in GaN-AlGaN quantum wells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 319-322.	1.7	0
90	The exciton-polariton effect on the fluorescence properties of GaN on sapphire. Journal of Crystal Growth, 1998, 189-190, 639-643.	0.7	4

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91	The influence of the Al-content on the optical gain in AlGaIn heterostructures. Journal of Crystal Growth, 1998, 189-190, 692-695.	0.7	3
92	Zero phonon lines of the M-center in ZnS crystals. Journal of Luminescence, 1988, 40-41, 321-322.	1.5	3