

# Axel Hoffmann

## List of Publications by Year in descending order

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92  
papers

4,591  
citations

126907

33  
h-index

98798

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.	3.3	3
2	Proximity-induced anisotropic magnetoresistance in magnetized topological insulators. Applied Physics Letters, 2021, 118, .	3.3	7
3	Coherent Spin Pumping in a Strongly Coupled Magnon-Magnon Hybrid System. Physical Review Letters, 2020, 124, 117202.	7.8	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.	3.0	18
6	Controlled interconversion of quantized spin wave modes via local magnetic fields. Physical Review B, 2019, 100, .	3.2	19
7	Simultaneous Optical and Electrical Spin-Torque Magnetometry with Phase-Sensitive Detection of Spin Precession. Physical Review Applied, 2019, 11, .	3.8	14
8	Quasi-phase-matched second harmonic generation of UV light using AlN waveguides. Applied Physics Letters, 2019, 114, .	3.3	25
9	Tuning edge-localized spin waves in magnetic microstrips by proximate magnetic structures. Physical Review B, 2019, 100, .	3.2	11
10	Spin-wave frequency division multiplexing in an yttrium iron garnet microstripe magnetized by inhomogeneous field. Applied Physics Letters, 2019, 115, .	3.3	16
11	Optical emission of GaN/AlN quantum-wires “the role of charge transfer from a nanowire template. Nanoscale, 2018, 10, 5591-5598.	5.6	12
12	Correlation of the Carrier Decay Time and Barrier Thickness for Asymmetric Cubic GaN/Al <sub>0.64</sub> Ga <sub>0.36</sub> N Double Quantum Wells. Physica Status Solidi (B): Basic Research, 2018, 255, 1700373.	1.5	6
13	Auger recombination in AlGaIn quantum wells for UV light-emitting diodes. Applied Physics Letters, 2018, 113, .	3.3	59
14	Insulating Nanomagnets Driven by Spin Torque. Nano Letters, 2017, 17, 8-14.	9.1	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.	4.6	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, .	2.5	68
17	The effect of illumination power density on carbon defect configuration in silicon doped GaN. Journal of Applied Physics, 2016, 120, .	2.5	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, .	2.5	5

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19	Polarization-induced confinement of continuous hole-states in highly pumped, industrial-grade, green InGaN quantum wells. Journal of Applied Physics, 2016, 119, 215707.	2.5	5
20	Temperature-dependent recombination coefficients in InGaN light-emitting diodes: Hole localization, Auger processes, and the green gap. Applied Physics Letters, 2016, 109, .	3.3	79
21	Photoluminescence excitation spectroscopy of excited states of an asymmetric cubic GaN/Al <sub>0.25</sub> Ga <sub>0.75</sub> N double quantum well grown by molecular beam epitaxy. Japanese Journal of Applied Physics, 2016, 55, 05FG01.	1.5	8
22	Spatially controlled growth of highly crystalline ZnO nanowires by an inkjet-printing catalyst-free method. Materials Research Express, 2016, 3, 025010.	1.6	8
23	Determination of recombination coefficients in InGaN quantum-well light-emitting diodes by small-signal time-resolved photoluminescence. Japanese Journal of Applied Physics, 2016, 55, 05FJ01.	1.5	35
24	Raman and photoluminescence properties of ZnO nanowires grown by a catalyst-free vapor-transport process using ZnO nanoparticle seeds. Physica Status Solidi (B): Basic Research, 2016, 253, 883-888.	1.5	24
25	Revealing the origin of high-energy Raman local mode in nitrogen doped ZnO nanowires. Physica Status Solidi - Rapid Research Letters, 2016, 10, 334-338.	2.4	3
26	Epitaxial patterning of nanometer-thick Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> films with low magnetic damping. Nanoscale, 2016, 8, 388-394.	5.6	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. Applied Physics Letters, 2015, 106, .	3.3	29
28	Desorption induced GaN quantum dots on (0001) AlN by MOVPE. Physica Status Solidi - Rapid Research Letters, 2015, 9, 526-529.	2.4	9
29	Effects of annealing on optical and structural properties of zinc oxide nanocrystals. Physica Status Solidi (B): Basic Research, 2015, 252, 2620-2625.	1.5	18
30	Blowing magnetic skyrmion bubbles. Science, 2015, 349, 283-286.	12.6	1,177
31	Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. Physical Review B, 2015, 92, .	3.2	48
32	Opportunities at the Frontiers of Spintronics. Physical Review Applied, 2015, 4, .	3.8	287
33	Nature of red luminescence in oxygen treated hydrothermally grown zinc oxide nanorods. Journal of Luminescence, 2015, 168, 20-25.	3.1	22
34	Spin waves in micro-structured yttrium iron garnet nanometer-thick films. Journal of Applied Physics, 2015, 117, .	2.5	50
35	Manifestation of unconventional biexciton states in quantum dots. Nature Communications, 2014, 5, 5721.	12.8	44
36	Ferromagnetic resonance of sputtered yttrium iron garnet nanometer films. Journal of Applied Physics, 2014, 115, .	2.5	129

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37	Li-doped ZnO nanorods with single-crystal quality “ non-classical crystallization and self-assembly into mesoporous materials. CrystEngComm, 2014, 16, 1525-1531.	2.6	17
38	Properties of AlN based lateral polarity structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 261-264.	0.8	11
39	Nanometer-Thick Yttrium Iron Garnet Films With Extremely Low Damping. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	254
40	Identification of electric dipole moments of excitonic complexes in nitride-based quantum dots. Physical Review B, 2013, 88, .	3.2	25
41	Array of tunneling-coupled quantum dots as a terahertz range quantum nanoantenna. Journal of Nanophotonics, 2013, 7, 073085.	1.0	7
42	Effects of strain on the valence band structure and exciton-polariton energies in ZnO. Physical Review B, 2013, 88, .	3.2	42
43	Carrier dynamics in InAs/GaAs submonolayer stacks coupled to Stranski-Krastanov quantum dots. Physical Review B, 2013, 88, .	3.2	21
44	Ge doped GaN with controllable high carrier concentration for plasmonic applications. Applied Physics Letters, 2013, 103, .	3.3	45
45	Compensation effects in GaN:Mg probed by Raman spectroscopy and photoluminescence measurements. Journal of Applied Physics, 2013, 113, .	2.5	49
46	Signature of the two-dimensional phonon dispersion in graphene probed by double-resonant Raman scattering. Physical Review B, 2013, 87, .	3.2	60
47	Nitrogen and vacancy clusters in ZnO. Journal of Materials Research, 2013, 28, 1977-1983.	2.6	29
48	Effect of TMGa preflow on the properties of high temperature AlN layers grown on sapphire. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 285-290.	1.8	4
49	Phonon plasmon interaction in ternary group-III-nitrides. Applied Physics Letters, 2012, 101, 041909.	3.3	20
50	Effect of reactor pressure on the electrical and structural properties of InN epilayers grown by high-pressure chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	9
51	Effect of V/III molar ratio on the structural and optical properties of InN epilayers grown by HPCVD. Proceedings of SPIE, 2012, , .	0.8	1
52	Site-controlled quantum dot growth on buried oxide stressor layers. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2411-2420.	1.8	27
53	Structural investigations of silicon nanostructures grown by self-organized island formation for photovoltaic applications. Applied Physics A: Materials Science and Processing, 2012, 108, 719-726.	2.3	5
54	Growth and ferromagnetic resonance properties of nanometer-thick yttrium iron garnet films. Applied Physics Letters, 2012, 101, .	3.3	210

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55	Exciton acoustic-phonon coupling in single GaN/AlN quantum dots. Physical Review B, 2012, 85, .	3.2	45
56	Preface: Group III nitrides and their heterostructures for electronics and photonics. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1005-1006.	0.8	0
57	Preface: Phys. Status Solidi C 5/2012. Physica Status Solidi C: Current Topics in Solid State Physics, 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. Chemistry of Materials, 2012, 24, 1771-1778.	6.7	46
59	Assembly of carbon nanotubes and alkylated fullerenes: nanocarbon hybrid towards photovoltaic applications. Chemical Science, 2011, 2, 2243.	7.4	47
60	Acoustic and optical phonon scattering in a single In(Ga)As quantum dot. Physical Review B, 2011, 83, .	3.2	53
61	Shape Anisotropy Influencing Functional Properties: Trigonal Prismatic ZnO Nanoparticles as an Example. Advanced Functional Materials, 2011, 21, 295-304.	14.9	54
62	Raman and Photoluminescence Spectroscopic Detection of Surface-Bound Li+O2 <sup>•-</sup> Defect Sites in Li-Doped ZnO Nanocrystals Derived from Molecular Precursors. ChemPhysChem, 2011, 12, 1189-1195.	2.1	19
63	Temperature dependent photoluminescence of lateral polarity junctions of metal organic chemical vapor deposition grown GaN. Journal of Applied Physics, 2011, 110, .	2.5	45
64	Anti-phase domains in cubic GaN. Journal of Applied Physics, 2011, 110, .	2.5	26
65	Optical properties of InN grown on templates with controlled surface polarities. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2351-2354.	1.8	7
66	Clebsch-Gordan coefficients for scattering tensors in ZnO and other wurtzite semiconductors. Physica Status Solidi (B): Basic Research, 2010, 247, 1802-1806.	1.5	1
67	Preface: Phys. Status Solidi C 7/1. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 7-8.	0.8	5
68	Polariton effects in the dielectric function of ZnO excitons obtained by ellipsometry. Applied Physics Letters, 2010, 96, .	3.3	20
69	Identification of a donor-related recombination channel in ZnO thin films. Physical Review B, 2010, 81, .	3.2	14
70	Optical spectra of ZnO in the far ultraviolet: First-principles calculations and ellipsometric measurements. Physical Review B, 2010, 81, .	3.2	48
71	Large internal dipole moment in InGaN/GaN quantum dots. Applied Physics Letters, 2010, 97, .	3.3	53
72	Theory of time-resolved Raman scattering and fluorescence emission from semiconductor quantum dots. Physical Review B, 2010, 81, .	3.2	18

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73	Excited state properties of donor bound excitons in ZnO. Physical Review B, 2010, 82, .	3.2	45
74	Zinc Oxide. Springer Series in Materials Science, 2010, , .	0.6	293
75	Molecular Precursor Route to a Metastable Form of Zinc Oxide. Chemistry of Materials, 2010, 22, 4263-4270.	6.7	58
76	Magnetic and structural properties of transition metal doped zinc oxide nanostructures. Physica Status Solidi (B): Basic Research, 2009, 246, 766-770.	1.5	10
77	Nitrogen incorporation in homoepitaxial ZnO CVD epilayers. Physica Status Solidi - Rapid Research Letters, 2009, 3, 16-18.	2.4	28
78	Influence of substrate surface polarity on homoepitaxial growth of ZnO layers by chemical vapor deposition. Physical Review B, 2009, 79, .	3.2	47
79	$\frac{1}{2} \left( \frac{1}{m_{\text{conduction}}} + \frac{1}{m_{\text{valence}}} \right)$ band symmetry related hole fine splitting of bound excitons in ZnO observed in magneto-optical studies. Physical Review B, 2009, 80, .	3.2	36
80	Fe in III-V and II-VI semiconductors. Physica Status Solidi (B): Basic Research, 2008, 245, 455-480.	1.5	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.	1.5	0
83	ZnO based ternary transparent conductors. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2867-2872.	1.8	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 <sub>2</sub> . Applied Physics Letters, 2005, 86, 091909.	3.3	33
86	The growth and optical properties of large, high-quality AlN single crystals. Journal of Applied Physics, 2004, 96, 5870-5876.	2.5	92
87	On the composition dependence of ZnO <sub>1-x</sub> S <sub>x</sub> . 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.	3.5	0
90	The exciton-polariton effect on the fluorescence properties of GaN on sapphire. Journal of Crystal Growth, 1998, 189-190, 639-643.	1.5	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.	1.5	3
92	Zero phonon lines of the M-center in ZnS crystals. Journal of Luminescence, 1988, 40-41, 321-322.	3.1	3