

# 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	Blowing magnetic skyrmion bubbles. Science, 2015, 349, 283-286.	12.6	1,177
2	Zinc Oxide. Springer Series in Materials Science, 2010, , .	0.6	293
3	Opportunities at the Frontiers of Spintronics. Physical Review Applied, 2015, 4, .	3.8	287
4	Nanometer-Thick Yttrium Iron Garnet Films With Extremely Low Damping. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	254
5	Growth and ferromagnetic resonance properties of nanometer-thick yttrium iron garnet films. Applied Physics Letters, 2012, 101, .	3.3	210
6	Ferromagnetic resonance of sputtered yttrium iron garnet nanometer films. Journal of Applied Physics, 2014, 115, .	2.5	129
7	Fe in IIIâ€“V and IIâ€“VI semiconductors. Physica Status Solidi (B): Basic Research, 2008, 245, 455-480.	1.5	103
8	The growth and optical properties of large, high-quality AlN single crystals. Journal of Applied Physics, 2004, 96, 5870-5876.	2.5	92
9	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
10	Coherent Spin Pumping in a Strongly Coupled Magnon-Magnon Hybrid System. Physical Review Letters, 2020, 124, 117202.	7.8	75
11	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
12	Signature of the two-dimensional phonon dispersion in graphene probed by double-resonant Raman scattering. Physical Review B, 2013, 87, .	3.2	60
13	Auger recombination in AlGaIn quantum wells for UV light-emitting diodes. Applied Physics Letters, 2018, 113, .	3.3	59
14	Molecular Precursor Route to a Metastable Form of Zinc Oxide. Chemistry of Materials, 2010, 22, 4263-4270.	6.7	58
15	Shape Anisotropy Influencing Functional Properties: Trigonal Prismatic ZnO Nanoparticles as an Example. Advanced Functional Materials, 2011, 21, 295-304.	14.9	54
16	Large internal dipole moment in InGaIn/GaN quantum dots. Applied Physics Letters, 2010, 97, .	3.3	53
17	Acoustic and optical phonon scattering in a single In(Ga)As quantum dot. Physical Review B, 2011, 83, .	3.2	53
18	Spin waves in micro-structured yttrium iron garnet nanometer-thick films. Journal of Applied Physics, 2015, 117, .	2.5	50

#	ARTICLE	IF	CITATIONS
19	Compensation effects in GaN:Mg probed by Raman spectroscopy and photoluminescence measurements. Journal of Applied Physics, 2013, 113, .	2.5	49
20	Optical spectra of ZnO in the far ultraviolet: First-principles calculations and ellipsometric measurements. Physical Review B, 2010, 81, .	3.2	48
21	Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. Physical Review B, 2015, 92, .	3.2	48
22	Influence of substrate surface polarity on homoepitaxial growth of ZnO layers by chemical vapor deposition. Physical Review B, 2009, 79, .	3.2	47
23	Assembly of carbon nanotubes and alkylated fullerenes: nanocarbon hybrid towards photovoltaic applications. Chemical Science, 2011, 2, 2243.	7.4	47
24	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
25	Excited state properties of donor bound excitons in ZnO. Physical Review B, 2010, 82, .	3.2	45
26	Temperature dependent photoluminescence of lateral polarity junctions of metal organic chemical vapor deposition grown GaN. Journal of Applied Physics, 2011, 110, .	2.5	45
27	Exciton acoustic-phonon coupling in single GaN/AlN quantum dots. Physical Review B, 2012, 85, .	3.2	45
28	Ge doped GaN with controllable high carrier concentration for plasmonic applications. Applied Physics Letters, 2013, 103, .	3.3	45
29	Manifestation of unconventional biexciton states in quantum dots. Nature Communications, 2014, 5, 5721.	12.8	44
30	Effects of strain on the valence band structure and exciton-polariton energies in ZnO. Physical Review B, 2013, 88, .	3.2	42
31	Epitaxial patterning of nanometer-thick $\text{Y}_{\text{3}}\text{Fe}_{\text{5}}\text{O}_{\text{12}}$ films with low magnetic damping. Nanoscale, 2016, 8, 388-394.	5.6	41
32	$\langle \text{mml:math xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"} \text{display}=\text{"inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \hat{I}^{\langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{valen}}$ band symmetry related hole fine splitting of bound excitons in ZnO observed in magneto-optical studies. Physical Review B, 2009, 80, .	3.2	36
33	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
34	Reconciliation of luminescence and Hall measurements on the ternary semiconductor CuGaSe <sub>2</sub> . Applied Physics Letters, 2005, 86, 091909.	3.3	33
35	ZnO based ternary transparent conductors. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2867-2872.	1.8	33
36	Nitrogen and vacancy clusters in ZnO. Journal of Materials Research, 2013, 28, 1977-1983.	2.6	29

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37	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
38	Insulating Nanomagnets Driven by Spin Torque. Nano Letters, 2017, 17, 8-14.	9.1	29
39	On the composition dependence of ZnO $\lambda^{\sim}$ x S x. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 694-697.	0.8	28
40	Nitrogen incorporation in homoepitaxial ZnO CVD epilayers. Physica Status Solidi - Rapid Research Letters, 2009, 3, 16-18.	2.4	28
41	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
42	Anti-phase domains in cubic GaN. Journal of Applied Physics, 2011, 110, .	2.5	26
43	Identification of electric dipole moments of excitonic complexes in nitride-based quantum dots. Physical Review B, 2013, 88, .	3.2	25
44	Quasi-phase-matched second harmonic generation of UV light using AlN waveguides. Applied Physics Letters, 2019, 114, .	3.3	25
45	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
46	Nature of red luminescence in oxygen treated hydrothermally grown zinc oxide nanorods. Journal of Luminescence, 2015, 168, 20-25.	3.1	22
47	Carrier dynamics in InAs/GaAs submonolayer stacks coupled to Stranski-Krastanov quantum dots. Physical Review B, 2013, 88, .	3.2	21
48	Multifunctional III-nitride dilute magnetic semiconductor epilayers and nanostructures as a future platform for spintronic devices. , 2005, , .		20
49	Polariton effects in the dielectric function of ZnO excitons obtained by ellipsometry. Applied Physics Letters, 2010, 96, .	3.3	20
50	Phonon plasmon interaction in ternary group-III-nitrides. Applied Physics Letters, 2012, 101, 041909.	3.3	20
51	Raman and Photoluminescence Spectroscopic Detection of Surface-Bound Li+O $\lambda^{\sim}$ Defect Sites in Li-Doped ZnO Nanocrystals Derived from Molecular Precursors. ChemPhysChem, 2011, 12, 1189-1195.	2.1	19
52	Controlled interconversion of quantized spin wave modes via local magnetic fields. Physical Review B, 2019, 100, .	3.2	19
53	Theory of time-resolved Raman scattering and fluorescence emission from semiconductor quantum dots. Physical Review B, 2010, 81, .	3.2	18
54	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

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55	Enhancement of the UV emission from gold/ZnO nanorods exhibiting no green luminescence. Optical Materials Express, 2020, 10, 1476.	3.0	18
56	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
57	The effect of illumination power density on carbon defect configuration in silicon doped GaN. Journal of Applied Physics, 2016, 120, .	2.5	17
58	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
59	Spin-wave frequency division multiplexing in an yttrium iron garnet microstripe magnetized by inhomogeneous field. Applied Physics Letters, 2019, 115, .	3.3	16
60	Identification of a donor-related recombination channel in ZnO thin films. Physical Review B, 2010, 81, .	3.2	14
61	Simultaneous Optical and Electrical Spin-Torque Magnetometry with Phase-Sensitive Detection of Spin Precession. Physical Review Applied, 2019, 11, .	3.8	14
62	Optical emission of GaN/AlN quantum-wires – the role of charge transfer from a nanowire template. Nanoscale, 2018, 10, 5591-5598.	5.6	12
63	Properties of AlN based lateral polarity structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 261-264.	0.8	11
64	Tuning edge-localized spin waves in magnetic microstrips by proximate magnetic structures. Physical Review B, 2019, 100, .	3.2	11
65	Magnetic and structural properties of transition metal doped zinc-oxide nanostructures. Physica Status Solidi (B): Basic Research, 2009, 246, 766-770.	1.5	10
66	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
67	Desorption induced GaN quantum dots on (0001) AlN by MOVPE. Physica Status Solidi - Rapid Research Letters, 2015, 9, 526-529.	2.4	9
68	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
69	Spatially controlled growth of highly crystalline ZnO nanowires by an inkjet-printing catalyst-free method. Materials Research Express, 2016, 3, 025010.	1.6	8
70	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
71	Array of tunneling-coupled quantum dots as a terahertz range quantum nanoantenna. Journal of Nanophotonics, 2013, 7, 073085.	1.0	7
72	Proximity-induced anisotropic magnetoresistance in magnetized topological insulators. Applied Physics Letters, 2021, 118, .	3.3	7

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73	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
74	Preface: Phys. Status Solidi C 7/1. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 7-8.	0.8	5
75	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
76	Unintentional indium incorporation into barriers of InGaN/GaN multiple quantum wells studied by photorefectance and photoluminescence excitation spectroscopy. Journal of Applied Physics, 2016, 120, .	2.5	5
77	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
78	The exciton-polariton effect on the fluorescence properties of GaN on sapphire. Journal of Crystal Growth, 1998, 189-190, 639-643.	1.5	4
79	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
80	Zero phonon lines of the M-center in ZnS crystals. Journal of Luminescence, 1988, 40-41, 321-322.	3.1	3
81	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
82	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
83	Phase-resolved electrical detection of coherently coupled magnonic devices. Applied Physics Letters, 2021, 118, 202403.	3.3	3
84	Optical and Structural Properties of Nitride Based Nanostructures. Springer Series in Solid-state Sciences, 2020, , 135-201.	0.3	2
85	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
86	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
87	Microcalorimetric absorption spectroscopy in GaN-AlGaIn quantum wells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 319-322.	3.5	0
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	On the Origin of the Unexpected Annealing Behavior of GaInNAs Quantum Wells. Japanese Journal of Applied Physics, 2007, 46, L614-L616.	1.5	0
90	Phonon interactions in InAs/GaAs quantum dots. , 2008, , .		0

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91	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
92	Preface: Phys. Status Solidi C 5/2012. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1223-1223.	0.8	0