

Henning Riechert

List of Publications by Year in descending order

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docs citations

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times ranked

3849
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon-Nanowire Transistors with Intruded Nickel-Silicide Contacts. Nano Letters, 2006, 6, 2660-2666.	4.5	231
2	Suitability of Au- and Self-Assisted GaAs Nanowires for Optoelectronic Applications. Nano Letters, 2011, 11, 1276-1279.	4.5	180
3	Direct comparison of catalyst-free and catalyst-induced GaN nanowires. Nano Research, 2010, 3, 528-536.	5.8	161
4	Development of InGaAsN-based 1.3 Åm VCSELs. Semiconductor Science and Technology, 2002, 17, 892-897.	1.0	132
5	The nanorod approach: GaN NanoLEDs for solid state lighting. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2296-2301.	0.8	128
6	Coaxial Multishell (In,Ga)As/GaAs Nanowires for Near-Infrared Emission on Si Substrates. Nano Letters, 2014, 14, 2604-2609.	4.5	111
7	Sub-meV linewidth of excitonic luminescence in single GaN nanowires: Direct evidence for surface excitons. Physical Review B, 2010, 81, .	1.1	104
8	Properties of GaN Nanowires Grown by Molecular Beam Epitaxy. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 878-888.	1.9	104
9	Formation of high-quality quasi-free-standing bilayer graphene on SiC(0 0 1) by oxygen intercalation upon annealing in air. Carbon, 2013, 52, 83-89.	5.4	104
10	Self-Assisted Nucleation and Vapor-Solid Growth of InAs Nanowires on Bare Si(111). Crystal Growth and Design, 2011, 11, 4001-4008.	1.4	95
11	Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. Scientific Reports, 2016, 6, 23843.	1.6	93
12	Continuous-Flow MOVPE of Ga-Polar GaN Column Arrays and Core-Shell LED Structures. Crystal Growth and Design, 2013, 13, 3475-3480.	1.4	80
13	p-Type Doping of GaN Nanowires Characterized by Photoelectrochemical Measurements. Nano Letters, 2017, 17, 1529-1537.	4.5	77
14	Surface Reconstruction-Induced Coincidence Lattice Formation Between Two-Dimensionally Bonded Materials and a Three-Dimensionally Bonded Substrate. Nano Letters, 2014, 14, 3534-3538.	4.5	70
15	Band gap of wurtzite GaAs: A resonant Raman study. Physical Review B, 2012, 86, .	1.1	68
16	Metal-Exchange Catalysis in the Growth of Sesquioxides: Towards Heterostructures of Transparent Oxide Semiconductors. Physical Review Letters, 2017, 119, 196001.	2.9	68
17	Computing Equilibrium Shapes of Wurtzite Crystals: The Example of GaN. Physical Review Letters, 2015, 115, 085503.	2.9	66
18	Preconditioning of c-plane sapphire for GaN epitaxy by radio frequency plasma nitridation. Applied Physics Letters, 1997, 71, 341-343.	1.5	63

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19	Toward Truly Single Crystalline GeTe Films: The Relevance of the Substrate Surface. Journal of Physical Chemistry C, 2014, 118, 29724-29730.	1.5	61
20	Scaling growth kinetics of self-induced GaN nanowires. Applied Physics Letters, 2012, 100, .	1.5	60
21	Photoelectrochemical Properties of (In,Ga)N Nanowires for Water Splitting Investigated by in Situ Electrochemical Mass Spectroscopy. Journal of the American Chemical Society, 2013, 135, 10242-10245.	6.6	58
22	Mono- and few-layer nanocrystalline graphene grown on Al ₂ O ₃ (0 0 0 1) by molecular beam epitaxy. Carbon, 2013, 56, 339-350.	5.4	54
23	Scaling thermodynamic model for the self-induced nucleation of GaN nanowires. Physical Review B, 2012, 85, .	1.1	53
24	Ga Adlayer Governed Surface Defect Evolution of (0001)GaN Films Grown by Plasma-Assisted Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2005, 44, L906-L908.	0.8	50
25	Collector Phase Transitions during Vapor-Solid Nucleation of GaN Nanowires. Nano Letters, 2010, 10, 3426-3431.	4.5	46
26	Direct Probing of Schottky Barriers in Si Nanowire Schottky Barrier Field Effect Transistors. Physical Review Letters, 2011, 107, 216807.	2.9	45
27	Polarity Control in 3D GaN Structures Grown by Selective Area MOVPE. Crystal Growth and Design, 2012, 12, 2552-2556.	1.4	45
28	Shell-doping of GaAs nanowires with Si for n-type conductivity. Nano Research, 2012, 5, 796-804.	5.8	42
29	Synthesis of quasi-free-standing bilayer graphene nanoribbons on SiC surfaces. Nature Communications, 2015, 6, 7632.	5.8	42
30	Ga adsorbate on (0001) GaN:In situ characterization with quadrupole mass spectrometry and reflection high-energy electron diffraction. Journal of Applied Physics, 2006, 99, 074902.	1.1	41
31	Control over the Number Density and Diameter of GaAs Nanowires on Si(111) Mediated by Droplet Epitaxy. Nano Letters, 2013, 13, 3607-3613.	4.5	41
32	On the epitaxy of germanium telluride thin films on silicon substrates. Physica Status Solidi (B): Basic Research, 2012, 249, 1939-1944.	0.7	35
33	Silicon to nickel-silicide axial nanowire heterostructures for high performance electronics. Physica Status Solidi (B): Basic Research, 2007, 244, 4170-4175.	0.7	34
34	Insight into the Growth and Control of Single-Crystal Layers of GeSbTe Phase-Change Material. Crystal Growth and Design, 2011, 11, 4606-4610.	1.4	34
35	High-Temperature Growth of GaN Nanowires by Molecular Beam Epitaxy: Toward the Material Quality of Bulk GaN. Crystal Growth and Design, 2015, 15, 4104-4109.	1.4	34
36	Strain Engineering of Nanowire Multi-Quantum Well Demonstrated by Raman Spectroscopy. Nano Letters, 2013, 13, 4053-4059.	4.5	33

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37	Epitaxy of GeSbTe phase-change memory alloys. Applied Physics Letters, 2009, 94, .	1.5	32
38	Coincident-site lattice matching during van der Waals epitaxy. Scientific Reports, 2016, 5, 18079.	1.6	31
39	Formation of High-Quality GaN Microcrystals by Pendeoepitaxial Overgrowth of GaN Nanowires on Si(111) by Molecular Beam Epitaxy. Crystal Growth and Design, 2011, 11, 4257-4260.	1.4	30
40	Bound-to-bound and bound-to-free transitions in surface photovoltage spectra: Determination of the band offsets for $\text{In}_x\text{Ga}_{1-x}\text{As}$ and $\text{In}_x\text{Ga}_{1-x}\text{As}_y\text{N}_y$ quantum wells. Physical Review B, 2005, 72, .	1.1	29
41	Epitaxial phase-change materials. Physica Status Solidi - Rapid Research Letters, 2012, 6, 415-417.	1.2	29
42	Nitrogen-polar core-shell GaN light-emitting diodes grown by selective area metalorganic vapor phase epitaxy. Applied Physics Letters, 2012, 101, .	1.5	29
43	Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. Scientific Reports, 2016, 6, 20633.	1.6	29
44	Plasma preconditioning of sapphire substrate for GaN epitaxy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 43, 253-257.	1.7	27
45	Silicon nanowires: catalytic growth and electrical characterization. Physica Status Solidi (B): Basic Research, 2006, 243, 3340-3345.	0.7	26
46	Formation of resonant bonding during growth of ultrathin GeTe films. NPG Asia Materials, 2017, 9, e396-e396.	3.8	25
47	Nitrogen and indium dependence of the band offsets in InGaAsN quantum wells. Applied Physics Letters, 2005, 86, 131925.	1.5	24
48	Statistical analysis of excitonic transitions in single, free-standing GaN nanowires: Probing impurity incorporation in the poissonian limit. Nano Research, 2010, 3, 881-888.	5.8	24
49	GaN nanowire templates for the pendeoepitaxial coalescence overgrowth on Si(111) by molecular beam epitaxy. Journal of Crystal Growth, 2011, 323, 418-421.	0.7	21
50	Surface preparation and patterning by nano imprint lithography for the selective area growth of GaAs nanowires on Si(111). Semiconductor Science and Technology, 2017, 32, 115003.	1.0	21
51	Electrical performance of phase change memory cells with $\text{Ge}_3\text{Sb}_2\text{Te}_6$ deposited by molecular beam epitaxy. Applied Physics Letters, 2015, 106, .	1.5	17
52	Growth of wurtzite InN on bulk $\text{In}_2\text{O}_3(111)$ wafers. Applied Physics Letters, 2012, 101, .	1.5	16
53	Plan-view transmission electron microscopy investigation of GaAs/(In,Ga)As core-shell nanowires. Applied Physics Letters, 2014, 105, 121602.	1.5	16
54	<i>In situ</i> doping of catalyst-free InAs nanowires with Si: Growth, polytypism, and local vibrational modes of Si. Applied Physics Letters, 2013, 103, .	1.5	15

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55	Light coupling between vertical III-As nanowires and planar Si photonic waveguides for the monolithic integration of active optoelectronic devices on a Si platform. <i>Optics Express</i> , 2016, 24, 18417.	1.7	13
56	Quantitative spectroscopy of substitutional nitrogen in GaAs _{1-x} N _x epitaxial layers by local vibrational mode absorption. <i>Semiconductor Science and Technology</i> , 2003, 18, 303-306.	1.0	11
57	Integration of GaN Crystals on Micropatterned Si(0 0 1) Substrates by Plasma-Assisted Molecular Beam Epitaxy. <i>Crystal Growth and Design</i> , 2015, 15, 4886-4892.	1.4	10
58	Quadrupole mass spectrometry desorption analysis of Ga adsorbate on AlN (0001). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006, 24, 1979-1984.	0.9	9
59	Temperature and pressure dependence of the recombination mechanisms in 1.3 μm and 1.5 μm GaInNAs lasers. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 208-212.	0.7	8
60	Nickel enhanced graphene growth directly on dielectric substrates by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2016, 120, 045309.	1.1	7
61	In situ characterization of GaN quantum dot growth with reflection high-energy electron diffraction and line-of-sight mass spectrometry. <i>Journal of Applied Physics</i> , 2006, 99, 124909.	1.1	6
62	Broad Band Light Absorption and High Photocurrent of (In,Ga)N Nanowire Photoanodes Resulting from a Radial Stark Effect. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34490-34496.	4.0	5
63	Protection Mechanism against Photocorrosion of GaN Photoanodes Provided by NiO Thin Layers. <i>Solar Rrl</i> , 2020, 4, 2000568.	3.1	2
64	Nitride nanowire structures for LED applications. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
65	Polarized recombination of acoustically transported carriers in GaAs nanowires. <i>Nanoscale Research Letters</i> , 2012, 7, 247.	3.1	1
66	Influence of nanowire template morphology on the coalescence overgrowth of GaN nanowires on Si by molecular beam epitaxy. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0