# Henning Riechert

List of Publications by Year
in descending order



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|---|---|---|---|
| 66 papers | 3,257 citations | 126907 33 h-index | 144013 57 g-index |
| 66 all docs | 66 docs citations | 66 times ranked | 3849 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Silicon-Nanowire Transistors with Intruded Nickel-Silicide Contacts. Nano Letters, 2006, 6, 2660-2666. | 9.1 | 231 |
| 2 | Suitability of Au- and Self-Assisted GaAs Nanowires for Optoelectronic Applications. Nano Letters, 2011, 11, 1276-1279. | 9.1 | 180 |
| 3 | Direct comparison of catalyst-free and catalyst-induced GaN nanowires. Nano Research, 2010, 3, 528-536. | 10.4 | 161 |
| 4 | Development of InGaAsN-based 1.3 Âm VCSELs. Semiconductor Science and Technology, 2002, 17, 892-897. | 2.0 | 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. | 9.1 | 111 |
| 7 | Sub-meV linewidth of excitonic luminescence in single GaN nanowires: Direct evidence for surface excitons. Physical Review B, 2010, 81, . | 3.2 | 104 |
| 8 | Properties of GaN Nanowires Grown by Molecular Beam Epitaxy. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 878-888. | 2.9 | 104 |
| 9 | Formation of high-quality quasi-free-standing bilayer graphene on SiC(0 0 0 1) by oxygen intercalation upon annealing in air. Carbon, 2013, 52, 83-89. | 10.3 | 104 |
| 10 | Self-Assisted Nucleation and Vaporâ€“Solid Growth of InAs Nanowires on Bare Si(111). Crystal Growth and Design, 2011, 11, 4001-4008. | 3.0 | 95 |
| 11 | Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. Scientific Reports, 2016, 6, 23843. | 3.3 | 93 |
| 12 | Continuous-Flow MOVPE of Ga-Polar GaN Column Arrays and Coreâ€“Shell LED Structures. Crystal Growth and Design, 2013, 13, 3475-3480. | 3.0 | 80 |
| 13 | p-Type Doping of GaN Nanowires Characterized by Photoelectrochemical Measurements. Nano Letters, 2017, 17, 1529-1537. | 9.1 | 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. | 9.1 | 70 |
| 15 | Band gap of wurtzite GaAs: A resonant Raman study. Physical Review B, 2012, 86, . | 3.2 | 68 |
| 16 | Metal-Exchange Catalysis in the Growth of Sesquioxides: Towards Heterostructures of Transparent Oxide Semiconductors. Physical Review Letters, 2017, 119, 196001. | 7.8 | 68 |
| 17 | Computing Equilibrium Shapes of Wurtzite Crystals: The Example of GaN. Physical Review Letters, 2015, 115, 085503. | 7.8 | 66 |
| 18 | Preconditioning of c-plane sapphire for GaN epitaxy by radio frequency plasma nitridation. Applied Physics Letters, 1997, 71, 341-343. | 3.3 | 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. | 3.1 | 61 |
| 20 | Scaling growth kinetics of self-induced GaN nanowires. Applied Physics Letters, 2012, 100, . | 3.3 | 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. | 13.7 | 58 |
| 22 | Mono- and few-layer nanocrystalline graphene grown on Al2O3(0 0 0 1) by molecular beam epitaxy. Carbon, 2013, 56, 339-350. | 10.3 | 54 |
| 23 | Scaling thermodynamic model for the self-induced nucleation of GaN nanowires. Physical Review B, 2012, 85, . | 3.2 | 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. | 1.5 | 50 |
| 25 | Collector Phase Transitions during Vaporâ˘'Solidâ˘'Solid Nucleation of GaN Nanowires. Nano Letters, 2010, 10, 3426-3431. | 9.1 | 46 |
| 26 | Direct Probing of Schottky Barriers in Si Nanowire Schottky Barrier Field Effect Transistors. Physical Review Letters, 2011, 107, 216807. | 7.8 | 45 |
| 27 | Polarity Control in 3D GaN Structures Grown by Selective Area MOVPE. Crystal Growth and Design, 2012, 12, 2552-2556. | 3.0 | 45 |
| 28 | Shell-doping of GaAs nanowires with Si for n-type conductivity. Nano Research, 2012, 5, 796-804. | 10.4 | 42 |
| 29 | Synthesis of quasi-free-standing bilayer graphene nanoribbons on SiC surfaces. Nature Communications, 2015, 6, 7632. | 12.8 | 42 |
| 30 | Ga adsorbate on (0001) GaN:In situcharacterization with quadrupole mass spectrometry and reflection high-energy electron diffraction. Journal of Applied Physics, 2006, 99, 074902. | 2.5 | 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. | 9.1 | 41 |
| 32 | On the epitaxy of germanium telluride thin films on silicon substrates. Physica Status Solidi (B): Basic Research, 2012, 249, 1939-1944. | 1.5 | 35 |
| 33 | Silicon to nickel-silicide axial nanowire heterostructures for high performance electronics. Physica Status Solidi (B): Basic Research, 2007, 244, 4170-4175. | 1.5 | 34 |
| 34 | Insight into the Growth and Control of Single-Crystal Layers of Geâ€"Sbâ€"Te Phase-Change Material. Crystal Growth and Design, 2011, 11, 4606-4610. | 3.0 | 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. | 3.0 | 34 |
| 36 | Strain Engineering of Nanowire Multi-Quantum Well Demonstrated by Raman Spectroscopy. Nano Letters, 2013, 13, 4053-4059. | 9.1 | 33 |

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|---|---|---|---|
| 37 | Epitaxy of Geâ€“Sbâ€“Te phase-change memory alloys. Applied Physics Letters, 2009, 94, . | 3.3 | 32 |
| 38 | Coincident-site lattice matching during van der Waals epitaxy. Scientific Reports, 2016, 5, 18079. | 3.3 | 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. | 3.0 | 30 |
| 40 | Bound-to-bound and bound-to-free transitions in surface photovoltage spectra: Determination of the band offsets forInxGa1â^’xAsandInxGa1â^’xAs1â^’yNyquantum wells. Physical Review B, 2005, 72, . | 3.2 | 29 |
| 41 | Epitaxial phaseâ€change materials. Physica Status Solidi - Rapid Research Letters, 2012, 6, 415-417. | 2.4 | 29 |
| 42 | Nitrogen-polar core-shell GaN light-emitting diodes grown by selective area metalorganic vapor phase epitaxy. Applied Physics Letters, 2012, 101, . | 3.3 | 29 |
| 43 | Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. Scientific Reports, 2016, 6, 20633. | 3.3 | 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. | 3.5 | 27 |
| 45 | Silicon nanowires: catalytic growth and electrical characterization. Physica Status Solidi (B): Basic Research, 2006, 243, 3340-3345. | 1.5 | 26 |
| 46 | Formation of resonant bonding during growth of ultrathin GeTe films. NPG Asia Materials, 2017, 9, e396-e396. | 7.9 | 25 |
| 47 | Nitrogen and indium dependence of the band offsets in InGaAsN quantum wells. Applied Physics Letters, 2005, 86, 131925. | 3.3 | 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. | 10.4 | 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. | 1.5 | 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. | 2.0 | 21 |
| 51 | Electrical performance of phase change memory cells with Ge3Sb2Te6 deposited by molecular beam epitaxy. Applied Physics Letters, 2015, 106, . | 3.3 | 17 |
| 52 | Growth of wurtzite InN on bulk In2O3(111) wafers. Applied Physics Letters, 2012, 101, . | 3.3 | 16 |
| 53 | Plan-view transmission electron microscopy investigation of GaAs/(In,Ga)As core-shell nanowires. Applied Physics Letters, 2014, 105, 121602. | 3.3 | 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, . | 3.3 | 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. Optics Express, 2016, 24, 18417. | 3.4 | 13 |
| 56 | Quantitative spectroscopy of substitutional nitrogen in GaAs1ÂxNxepitaxial layers by local vibrational mode absorption. Semiconductor Science and Technology, 2003, 18, 303-306. | 2.0 | 11 |
| 57 | Integration of GaN Crystals on Micropatterned Si(0 0 1) Substrates by Plasma-Assisted Molecular Beam Epitaxy. Crystal Growth and Design, 2015, 15, 4886-4892. | 3.0 | 10 |
| 58 | Quadrupole mass spectrometry desorption analysis of Ga adsorbate on AlN (0001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1979-1984. | 2.1 | 9 |
| 59 | Temperature and pressure dependence of the recombination mechanisms in 1.3 Î¼m and 1.5 Î¼m GaInNAs lasers. Physica Status Solidi (B): Basic Research, 2007, 244, 208-212. | 1.5 | 8 |
| 60 | Nickel enhanced graphene growth directly on dielectric substrates by molecular beam epitaxy. Journal of Applied Physics, 2016, 120, 045309. | 2.5 | 7 |
| 61 | In situ characterization of GaN quantum dot growth with reflection high-energy electron diffraction and line-of-sight mass spectrometry. Journal of Applied Physics, 2006, 99, 124909. | 2.5 | 6 |
| 62 | Broad Band Light Absorption and High Photocurrent of (In,Ga)N Nanowire Photoanodes Resulting from a Radial Stark Effect. ACS Applied Materials & Interfaces, 2016, 8, 34490-34496. | 8.0 | 5 |
| 63 | Protection Mechanism against Photocorrosion of GaN Photoanodes Provided by NiO Thin Layers. Solar Rrl, 2020, 4, 2000568. | 5.8 | 2 |
| 64 | Nitride nanowire structures for LED applications. Proceedings of SPIE, 2011, , . | 0.8 | 1 |
| 65 | Polarized recombination of acoustically transported carriers in GaAs nanowires. Nanoscale Research Letters, 2012, 7, 247. | 5.7 | 1 |
| 66 | Influence of nanowire template morphology on the coalescence overgrowth of GaN nanowires on Si by molecular beam epitaxy. Proceedings of SPIE, 2012, , . | 0.8 | 0 |