

Yonder Berencã©n

List of Publications by Year in descending order

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74
papers

1,024
citations

394286

19
h-index

477173

29
g-index

75
all docs

75
docs citations

75
times ranked

1227
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Mid- and far-infrared localized surface plasmon resonances in chalcogen-hyperdoped silicon. <i>Nanoscale</i> , 2022, 14, 2826-2836. | 2.8 | 9 |
| 2 | Inverted fine structure of a 6H-SiC qubit enabling robust spin-photon interface. <i>Npj Quantum Information</i> , 2022, 8, . | 2.8 | 6 |
| 3 | Metal-assisted chemically etched silicon nanopillars hosting telecom photon emitters. <i>Journal of Applied Physics</i> , 2022, 132, . | 1.1 | 10 |
| 4 | Room-Temperature Infrared Photoresponse from Ion Beam-Hyperdoped Silicon. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000260. | 0.8 | 10 |
| 5 | Mapping the Stray Fields of a Micromagnet Using Spin Centers in SiC. <i>IEEE Magnetics Letters</i> , 2021, 12, 1-5. | 0.6 | 1 |
| 6 | Microwave-Assisted Spectroscopy of Vacancy-Related Spin Centers in Hexagonal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Si} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{C} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$. <i>Physical Review Applied</i> , 2021, 15, . | 1.5 | 4 |
| 7 | Overcoming the solid solubility limit of Te in Ge by ion implantation and pulsed laser melting recrystallization. , 2021, , . | | 0 |
| 8 | Silicon-Based Intermediate-Band Infrared Photodetector Realized by Te Hyperdoping. <i>Advanced Optical Materials</i> , 2021, 9, 2001546. | 3.6 | 19 |
| 9 | Critical behavior of the insulator-to-metal transition in Te-hyperdoped Si. <i>Physical Review B</i> , 2020, 102, . | 1.1 | 8 |
| 10 | Structural and optical properties of Si hyperdoped with Te by ion implantation and pulsed laser annealing. <i>Vacuum</i> , 2020, 178, 109434. | 1.6 | 8 |
| 11 | Local vibrational modes of Si vacancy spin qubits in SiC. <i>Physical Review B</i> , 2020, 101, . | 1.1 | 25 |
| 12 | Engineering telecom single-photon emitters in silicon for scalable quantum photonics. <i>Optics Express</i> , 2020, 28, 26111. | 1.7 | 43 |
| 13 | Dissolution of donor-vacancy clusters in heavily doped n-type germanium. <i>New Journal of Physics</i> , 2020, 22, 123036. | 1.2 | 4 |
| 14 | Band gap renormalization in n-type GeSn alloys made by ion implantation and flash lamp annealing. <i>Journal of Applied Physics</i> , 2019, 125, . | 1.1 | 9 |
| 15 | Nanoscale n++-p junction formation in GeOI probed by tip-enhanced Raman spectroscopy and conductive atomic force microscopy. <i>Journal of Applied Physics</i> , 2019, 125, 245703. | 1.1 | 5 |
| 16 | Breaking the Doping Limit in Silicon by Deep Impurities. <i>Physical Review Applied</i> , 2019, 11, . | 1.5 | 44 |
| 17 | Structural and optical properties of pulsed-laser deposited crystalline $\langle \text{i} \rangle^2 \langle \text{/i} \rangle$ -Ga ₂ O ₃ thin films on silicon. <i>Semiconductor Science and Technology</i> , 2019, 34, 035001. | 1.0 | 39 |
| 18 | Thermal stability of Te-hyperdoped Si: Atomic-scale correlation of the structural, electrical, and optical properties. <i>Physical Review Materials</i> , 2019, 3, . | 0.9 | 13 |

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|----|--|-----|-----------|
| 19 | <i>Ex situ</i> n ⁺ doping of GeSn alloys via non-equilibrium processing. <i>Semiconductor Science and Technology</i> , 2018, 33, 065008. | 1.0 | 13 |
| 20 | CMOS-compatible Controlled Hyperdoping of Silicon Nanowires. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800101. | 1.9 | 11 |
| 21 | Structural and electrical properties of Se-hyperdoped Si via ion implantation and flash lamp annealing. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2018, 424, 52-55. | 0.6 | 5 |
| 22 | On the insulator-to-metal transition in titanium-implanted silicon. <i>Scientific Reports</i> , 2018, 8, 4164. | 1.6 | 17 |
| 23 | Strain and Band-Gap Engineering in $\text{Ge} - \text{Sn}$ Alloys via Si/SiO_2 core/shell nanowires by ion beam doping. <i>Nanotechnology</i> , 2018, 29, 474001. | 1.5 | 17 |
| 24 | Formation of n- and p-type regions in individual Si/SiO_2 core/shell nanowires by ion beam doping. <i>Nanotechnology</i> , 2018, 29, 474001. | 1.3 | 6 |
| 25 | Extended Infrared Photoresponse in Te-Hyperdoped Si at Room Temperature. <i>Physical Review Applied</i> , 2018, 10, ... | 1.5 | 45 |
| 26 | Irradiation effects on the structural and optical properties of single crystal $\text{I}^2\text{-Ga}_2\text{O}_3$. <i>Semiconductor Science and Technology</i> , 2018, 33, 095022. | 1.0 | 30 |
| 27 | Room-temperature short-wavelength infrared Si photodetector. <i>Scientific Reports</i> , 2017, 7, 43688. | 1.6 | 79 |
| 28 | <i>In situ</i> ohmic contact formation for n-type Ge via non-equilibrium processing. <i>Semiconductor Science and Technology</i> , 2017, 32, 115006. | 1.0 | 10 |
| 29 | Engineering of optical and electrical properties of ZnO by non-equilibrium thermal processing: The role of zinc interstitials and zinc vacancies. <i>Journal of Applied Physics</i> , 2017, 122, 035303. | 1.1 | 17 |
| 30 | Hot electron engineering for boosting electroluminescence efficiencies of silicon-rich nitride light emitting devices. <i>Journal of Luminescence</i> , 2017, 183, 26-31. | 1.5 | 6 |
| 31 | Enhancement of carrier mobility in thin Ge layer by Sn co-doping. <i>Semiconductor Science and Technology</i> , 2016, 31, 105012. | 1.0 | 7 |
| 32 | Luminescence mechanism for Er^{3+} ions in a silicon-rich nitride host under electrical pumping. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 085106. | 1.3 | 13 |
| 33 | Ultra-doped n-type germanium thin films for sensing in the mid-infrared. <i>Scientific Reports</i> , 2016, 6, 27643. | 1.6 | 64 |
| 34 | Vertical coupling of laser glass microspheres to buried silicon nitride ellipses and waveguides. <i>Journal of Applied Physics</i> , 2015, 118, 093103. | 1.1 | 1 |
| 35 | Far-field characterization of the thermal dynamics in lasing microspheres. <i>Scientific Reports</i> , 2015, 5, 14452. | 1.6 | 2 |
| 36 | Amorphous sub-nanometre Tb-doped $\text{SiO}_2/\text{SiO}_2/\text{SiO}_2$ superlattices for optoelectronics. <i>Nanotechnology</i> , 2015, 26, 085203. | 1.3 | 10 |

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|----|--|-----|-----------|
| 37 | Structural parameters effect on the electrical and electroluminescence properties of silicon nanocrystals/SiO ₂ superlattices. Nanotechnology, 2015, 26, 185704. | 1.3 | 13 |
| 38 | Luminescence yield in Al and Tb ³⁺ -doped oxide thin films fabricated by electron beam evaporation. , 2015, , . | | 1 |
| 39 | On the photoluminescence of as-deposited Tb-doped silicon oxides and oxynitrides fabricated by ECR-PECVD. Proceedings of SPIE, 2014, , . | 0.8 | 1 |
| 40 | Electrical and electroluminescence properties of silicon nanocrystals/SiO ₂ superlattices. Proceedings of SPIE, 2014, , . | 0.8 | 0 |
| 41 | Charge trapping and physical parameters of Er ³⁺ doped light-emitting field-effect transistors. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 467-471. | 0.8 | 0 |
| 42 | The electroluminescence mechanism of Er ³⁺ in different silicon oxide and silicon nitride environments. Journal of Applied Physics, 2014, 116, . | 1.1 | 20 |
| 43 | Role of silicon excess in Er-doped silicon-rich nitride light emitting devices at 1.54 μ m. Journal of Applied Physics, 2014, 116, 083103. | 1.1 | 11 |
| 44 | (Invited) Transport and Electroluminescence Properties of Size-Controlled Silicon Nanocrystals Embedded in SiO ₂ Matrix Following the Superlattice Approach. ECS Transactions, 2014, 61, 133-139. | 0.3 | 0 |
| 45 | (Invited) Rare Earth Doped Metal-Oxide-Semiconductor Structures: A Promising Material System or a Dead End of Optoelectronic Evolution?. ECS Transactions, 2014, 61, 175-185. | 0.3 | 5 |
| 46 | Structural and compositional properties of Er-doped silicon nanoclusters/oxides for multilayered photonic devices studied by STEM-EELS. Nanoscale, 2013, 5, 9963. | 2.8 | 3 |
| 47 | Carrier transport and electroluminescence efficiency of erbium-doped silicon nanocrystal superlattices. Applied Physics Letters, 2013, 103, . | 1.5 | 20 |
| 48 | (Invited) Optimizing Er-Doped Layer Stacks for Integrated Light Emitting Devices. ECS Transactions, 2013, 53, 81-84. | 0.3 | 1 |
| 49 | Role of electron and hole transport processes in conductivity and light emission of silicon nanocrystals field-effect transistors. Proceedings of SPIE, 2013, , . | 0.8 | 0 |
| 50 | Toward a 1.54 μ m Electrically Driven Erbium-Doped Silicon Slot Waveguide and Optical Amplifier. Journal of Lightwave Technology, 2013, 31, 391-397. | 2.7 | 34 |
| 51 | Er-doped light emitting slot waveguides monolithically integrated in a silicon photonic chip. Nanotechnology, 2013, 24, 115202. | 1.3 | 24 |
| 52 | Electrically pumped Er-doped light emitting slot waveguides for on-chip optical routing at 1.54 μ m. Proceedings of SPIE, 2013, , . | 0.8 | 0 |
| 53 | Er-doped Si-based electroluminescent capacitors: Role of different host matrices on the electrical and luminescence properties. , 2013, , . | | 0 |
| 54 | Electroluminescence efficiencies of erbium in silicon-based hosts. Applied Physics Letters, 2013, 103, . | 1.5 | 33 |

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| 55 | Intense green-yellow electroluminescence from Tb ⁺ -implanted silicon-rich silicon nitride/oxide light emitting devices. Applied Physics Letters, 2013, 103, . | 1.5 | 32 |
| 56 | Charge transport and electroluminescence of silicon nanocrystals/SiO ₂ superlattices. Journal of Applied Physics, 2013, 114, . | 1.1 | 27 |
| 57 | Electrical pump & probe and injected carrier losses quantification in Er doped Si slot waveguides. Optics Express, 2012, 20, 28808. | 1.7 | 3 |
| 58 | Structural factors impacting carrier transport and electroluminescence from Si nanocluster-sensitized Er ions. Optics Express, 2012, 20, 22490. | 1.7 | 15 |
| 59 | Bipolar pulsed excitation of erbium-doped nanosilicon light emitting diodes. Journal of Applied Physics, 2012, 111, . | 1.1 | 12 |
| 60 | Correlation between charge transport and electroluminescence properties of Si-rich oxide/nitride/oxide-based light emitting capacitors. Journal of Applied Physics, 2012, 112, 033114. | 1.1 | 15 |
| 61 | Erbium emission in MOS light emitting devices: from energy transfer to direct impact excitation. Nanotechnology, 2012, 23, 125203. | 1.3 | 37 |
| 62 | Opto-electrical characterization of erbium-doped slot waveguides. Proceedings of SPIE, 2012, , . | 0.8 | 0 |
| 63 | Bulk silica-based luminescent materials by sol-gel processing of non-conventional precursors. Applied Physics Letters, 2012, 101, 171908. | 1.5 | 3 |
| 64 | Effect of the annealing treatments on the electroluminescence efficiency of SiO ₂ layers doped with Si and Er. Journal Physics D: Applied Physics, 2012, 45, 045103. | 1.3 | 8 |
| 65 | Polarization strategies to improve the emission of Si-based light sources emitting at 1.55 μ m. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 734-738. | 1.7 | 4 |
| 66 | 154 μ m Er doped light emitting devices: Role of silicon content. , 2011, , . | | 1 |
| 67 | Metal-nitride-oxide-semiconductor light-emitting devices for general lighting. Optics Express, 2011, 19, A234. | 1.7 | 19 |
| 68 | Blue-green to near-IR switching electroluminescence from Si-rich silicon oxide/nitride bilayer structures. Optics Letters, 2011, 36, 2617. | 1.7 | 11 |
| 69 | Copropagating pump and probe experiments on Si-nc in SiO ₂ rib waveguides doped with Er: The optical role of non-emitting ions. Applied Physics Letters, 2011, 99, 231114. | 1.5 | 8 |
| 70 | Effect of the annealing treatments on the transport and electroluminescence properties of SiO ₂ layers doped with Er and Si nanoclusters.. Materials Research Society Symposia Proceedings, 2011, 1289, 511. | 0.1 | 1 |
| 71 | (Invited) Si Nanocrystal MOSLEDs: From Materials to Transistors. ECS Transactions, 2010, 28, 269-277. | 0.3 | 1 |
| 72 | Current transport and electroluminescence mechanisms in thin SiO ₂ films containing Si nanocluster-sensitized erbium ions. Journal of Applied Physics, 2009, 106, . | 1.1 | 45 |

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|----|--|-----|-----------|
| 73 | Study of the electroluminescence at 1.5 μm of SiO_2/Er layers made by reactive magnetron sputtering. , 2009, , . | | 0 |
| 74 | Prism coupling characterization of planar optical waveguides made by silver ion exchange in glass. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3746-3749. | 0.8 | 5 |