

Giorgia Franzo

List of Publications by Year in descending order

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171
papers

9,389
citations

66315

42
h-index

38368

95
g-index

172
all docs

172
docs citations

172
times ranked

4555
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Optical gain in silicon nanocrystals. Nature, 2000, 408, 440-444. | 13.7 | 2,269 |
| 2 | Correlation between luminescence and structural properties of Si nanocrystals. Journal of Applied Physics, 2000, 87, 1295-1303. | 1.1 | 494 |
| 3 | Room-temperature electroluminescence from Er-doped crystalline Si. Applied Physics Letters, 1994, 64, 2235-2237. | 1.5 | 350 |
| 4 | Role of the energy transfer in the optical properties of undoped and Er-doped interacting Si nanocrystals. Journal of Applied Physics, 2001, 89, 264-272. | 1.1 | 300 |
| 5 | Excitation and nonradiative deexcitation processes of Er ³⁺ in crystalline Si. Physical Review B, 1998, 57, 4443-4455. | 1.1 | 267 |
| 6 | Temperature dependence and quenching processes of the intra-4f luminescence of Er in crystalline Si. Physical Review B, 1994, 49, 16313-16320. | 1.1 | 263 |
| 7 | Electroluminescence of silicon nanocrystals in MOS structures. Applied Physics A: Materials Science and Processing, 2002, 74, 1-5. | 1.1 | 234 |
| 8 | The excitation mechanism of rare-earth ions in silicon nanocrystals. Applied Physics A: Materials Science and Processing, 1999, 69, 3-12. | 1.1 | 229 |
| 9 | The erbium-impurity interaction and its effects on the 1.54 μ m luminescence of Er ³⁺ in crystalline silicon. Journal of Applied Physics, 1995, 78, 3874-3882. | 1.1 | 187 |
| 10 | Quantum confinement and recombination dynamics in silicon nanocrystals embedded in Si/SiO ₂ superlattices. Journal of Applied Physics, 2000, 87, 8165-8173. | 1.1 | 184 |
| 11 | Modeling and perspectives of the Si nanocrystals-Er interaction for optical amplification. Physical Review B, 2003, 67, . | 1.1 | 179 |
| 12 | Mechanism and performance of forward and reverse bias electroluminescence at 1.54 μ m from Er-doped Si diodes. Journal of Applied Physics, 1997, 81, 2784-2793. | 1.1 | 164 |
| 13 | Electroluminescence at 1.54 μ m in Er-doped Si nanocluster-based devices. Applied Physics Letters, 2002, 81, 3242-3244. | 1.5 | 164 |
| 14 | Sensitizing properties of amorphous Si clusters on the 1.54- μ m luminescence of Er in Si-rich SiO ₂ . Applied Physics Letters, 2003, 82, 3871-3873. | 1.5 | 156 |
| 15 | Dynamics of stimulated emission in silicon nanocrystals. Applied Physics Letters, 2003, 82, 4636-4638. | 1.5 | 151 |
| 16 | Optical activation and excitation mechanisms of Er implanted in Si. Physical Review B, 1993, 48, 11782-11788. | 1.1 | 138 |
| 17 | Sensitization of Er luminescence by Si nanoclusters. Physical Review B, 2004, 69, . | 1.1 | 131 |
| 18 | Efficient Luminescence and Energy Transfer in Erbium Silicate Thin Films. Advanced Materials, 2007, 19, 1582-1588. | 11.1 | 124 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Er ³⁺ ions in Si nanocrystals interactions and their effects on the luminescence properties. Applied Physics Letters, 2000, 76, 2167-2169. | 1.5 | 123 |
| 20 | Stimulated emission in plasma-enhanced chemical vapour deposited silicon nanocrystals. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 297-308. | 1.3 | 121 |
| 21 | High efficiency and fast modulation of Er-doped light emitting Si diodes. Applied Physics Letters, 1996, 69, 2077-2079. | 1.5 | 116 |
| 22 | Nonlinear optical properties of silicon nanocrystals grown by plasma-enhanced chemical vapor deposition. Journal of Applied Physics, 2002, 91, 4607-4610. | 1.1 | 116 |
| 23 | Electrical and optical characterization of Er-implanted Si: The role of impurities and defects. Journal of Applied Physics, 1993, 74, 4936-4942. | 1.1 | 111 |
| 24 | Optical and structural properties of Er ₂ O ₃ films grown by magnetron sputtering. Journal of Applied Physics, 2006, 100, 013502. | 1.1 | 102 |
| 25 | Excitation and de-excitation properties of silicon quantum dots under electrical pumping. Applied Physics Letters, 2002, 81, 1866-1868. | 1.5 | 96 |
| 26 | Light absorption in silicon quantum dots embedded in silica. Journal of Applied Physics, 2009, 106, . | 1.1 | 90 |
| 27 | The effects of oxygen and defects on the deep-level properties of Er in crystalline Si. Journal of Applied Physics, 1995, 78, 3867-3873. | 1.1 | 87 |
| 28 | Defect production and annealing in ion-irradiated Si nanocrystals. Physical Review B, 2002, 65, . | 1.1 | 86 |
| 29 | Light Emission From Er-Doped Si: Materials Properties, Mechanisms, and Device Performance. MRS Bulletin, 1998, 23, 25-32. | 1.7 | 79 |
| 30 | Evolution of the local environment around Er upon thermal annealing in Er and O co-implanted Si. Applied Physics Letters, 1997, 70, 1712-1714. | 1.5 | 73 |
| 31 | Electroluminescence and transport properties in amorphous silicon nanostructures. Nanotechnology, 2006, 17, 1428-1436. | 1.3 | 68 |
| 32 | Room temperature all-silicon photonic crystal nanocavity light emitting diode at sub-bandgap wavelengths. Laser and Photonics Reviews, 2013, 7, 114-121. | 4.4 | 67 |
| 33 | Quantum confinement and electroluminescence in ultrathin silicon nanowires fabricated by a maskless etching technique. Nanotechnology, 2012, 23, 075204. | 1.3 | 66 |
| 34 | Erbium-doped Si nanocrystals: optical properties and electroluminescent devices. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 331-340. | 1.3 | 60 |
| 35 | Linear and nonlinear optical properties of plasma-enhanced chemical-vapour deposition grown silicon nanocrystals. Journal of Modern Optics, 2002, 49, 719-730. | 0.6 | 59 |
| 36 | Direct evidence of impact excitation and spatial profiling of excited Er in light emitting Si diodes. Applied Physics Letters, 1998, 73, 93-95. | 1.5 | 54 |

| # | ARTICLE | IF | CITATIONS |
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| 37 | Light amplification in silicon nanocrystals by pump and probe transmission measurements. Journal of Applied Physics, 2004, 96, 5747-5755. | 1.1 | 54 |
| 38 | Radiative mechanism and surface modification of four visible deep level defect states in ZnO nanorods. Nanoscale, 2016, 8, 995-1006. | 2.8 | 52 |
| 39 | Electron paramagnetic resonance and photoluminescence study of Er-impurity complexes in Si. Physical Review B, 1999, 59, 2773-2782. | 1.1 | 51 |
| 40 | Electroluminescence properties of light emitting devices based on silicon nanocrystals. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 395-399. | 1.3 | 50 |
| 41 | Silicon nanocrystals and Er ³⁺ ions in an optical microcavity. Journal of Applied Physics, 2001, 89, 8354-8356. | 1.1 | 44 |
| 42 | New Generation of Ultrasensitive Label-Free Optical Si Nanowire-Based Biosensors. ACS Photonics, 2018, 5, 471-479. | 3.2 | 43 |
| 43 | Mechanism of swelling in low-energy ion-irradiated silicon. Physical Review B, 2001, 65, . | 1.1 | 42 |
| 44 | Photoluminescence transient study of surface defects in ZnO nanorods grown by chemical bath deposition. Applied Physics Letters, 2015, 106, . | 1.5 | 42 |
| 45 | Light-emitting silicon nanowires obtained by metal-assisted chemical etching. Semiconductor Science and Technology, 2017, 32, 043004. | 1.0 | 39 |
| 46 | Microstructural evolution of SiO _x films and its effect on the luminescence of Si nanoclusters. Journal of Applied Physics, 2008, 104, 094306. | 1.1 | 38 |
| 47 | Evidence of energy transfer in an aluminosilicate glass codoped with Si nanoaggregates and Er ³⁺ ions. Journal of Applied Physics, 2004, 96, 3925-3932. | 1.1 | 37 |
| 48 | Silicon-Based Light-Emitting Devices: Properties and Applications of Crystalline, Amorphous and Er-Doped Nanoclusters. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1596-1606. | 1.9 | 37 |
| 49 | Photonic-crystal silicon-nanocluster light-emitting device. Applied Physics Letters, 2006, 88, 033501. | 1.5 | 37 |
| 50 | Evidence for a "dark exciton" state of PbS nanocrystals in a silicate glass. Applied Physics Letters, 2006, 88, 181115. | 1.5 | 36 |
| 51 | Excitation and non-radiative de-excitation processes in Er-doped Si nanocrystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 9-15. | 1.7 | 35 |
| 52 | Influence of the matrix properties on the performances of Er-doped Si nanoclusters light emitting devices. Journal of Applied Physics, 2010, 107, 054302. | 1.1 | 33 |
| 53 | Flexible Organic/Inorganic Hybrid Field-Effect Transistors with High Performance and Operational Stability. ACS Applied Materials & Interfaces, 2017, 9, 573-584. | 4.0 | 32 |
| 54 | Role of the Si excess on the excitation of Er doped SiO _x . Applied Physics Letters, 2007, 90, 183102. | 1.5 | 31 |

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|----|---|-----|-----------|
| 55 | Light emitting devices based on silicon nanostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007, 38, 181-187. | 1.3 | 31 |
| 56 | A monolithic silicon detector telescope. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1996, 378, 262-266. | 0.7 | 30 |
| 57 | Electron paramagnetic resonance of erbium doped silicon. <i>Applied Physics Letters</i> , 1996, 69, 3854-3856. | 1.5 | 30 |
| 58 | Carrier-induced quenching processes on the erbium luminescence in silicon nanocluster devices. <i>Physical Review B</i> , 2006, 73, . | 1.1 | 30 |
| 59 | Eu ³⁺ reduction and efficient light emission in Eu ₂ O ₃ films deposited on Si substrates. <i>Optics Express</i> , 2012, 20, 5501. | 1.7 | 30 |
| 60 | Materials issues and device performances for light emitting Er-implanted Si. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995, 106, 386-392. | 0.6 | 29 |
| 61 | Formation, evolution and photoluminescence properties of Si nanoclusters. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 225003. | 0.7 | 29 |
| 62 | Enhanced rare earth luminescence in silicon nanocrystals. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 69-70, 335-339. | 1.7 | 28 |
| 63 | Effect of O:Er concentration ratio on the structural, electrical, and optical properties of Si:Er:O layers grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2000, 88, 4091. | 1.1 | 28 |
| 64 | Structural and Optical Properties of Silicon Nanocrystals Grown by Plasma-Enhanced Chemical Vapor Deposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 159-168. | 0.9 | 26 |
| 65 | Transient behavior of the strong violet electroluminescence of Ge-implanted SiO ₂ layers. <i>Applied Physics B: Lasers and Optics</i> , 2002, 74, 53-56. | 1.1 | 26 |
| 66 | Silicon nanowire and carbon nanotube hybrid for room temperature multiwavelength light source. <i>Scientific Reports</i> , 2015, 5, 16753. | 1.6 | 26 |
| 67 | Optical gain in silicon nanocrystals. <i>Optical Materials</i> , 2001, 17, 41-44. | 1.7 | 25 |
| 68 | Structure of Er-O complexes in crystalline Si. <i>Physical Review B</i> , 2004, 69, . | 1.1 | 25 |
| 69 | Correlation between electroluminescence and structural properties of Si nanoclusters. <i>Optical Materials</i> , 2005, 27, 1031-1040. | 1.7 | 24 |
| 70 | Er site in Er-implanted Si nanoclusters embedded in SiO ₂ . <i>Physical Review B</i> , 2006, 74, . | 1.1 | 24 |
| 71 | Luminescence properties of Si nanocrystals embedded in optical microcavities. <i>Materials Science and Engineering C</i> , 2002, 19, 377-381. | 3.8 | 23 |
| 72 | New strategies to improve the luminescence efficiency of Eu ions embedded in Si-based matrices. <i>Journal of Applied Physics</i> , 2013, 113, . | 1.1 | 21 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | SiOC thin films: an efficient light source and an ideal host matrix for Eu ²⁺ ions. Optics Express, 2013, 21, 20280. | 1.7 | 20 |
| 74 | Catalytic role of adsorbates in the photoluminescence emission of Si nanocrystals. Physical Review B, 2008, 78, . | 1.1 | 18 |
| 75 | Room temperature light emitting silicon diodes fabricated by erbium ion implantation. Nuclear Instruments & Methods in Physics Research B, 1995, 96, 374-377. | 0.6 | 17 |
| 76 | Chemical composition and local structure of plasma enhanced chemical vapor-deposited Si nanodots and their embedding silica matrix. Applied Physics Letters, 2003, 82, 889-891. | 1.5 | 17 |
| 77 | New Hybrid Light Harvesting Antenna Based on Silicon Nanowires and Metal Dendrimers. Advanced Optical Materials, 2020, 8, 2001070. | 3.6 | 17 |
| 78 | Understanding and control of the erbium non-radiative de-excitation processes in silicon. Journal of Luminescence, 1998, 80, 19-28. | 1.5 | 16 |
| 79 | Size dependence of the luminescence properties in Si nanocrystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 454-458. | 1.7 | 16 |
| 80 | The influence of substrate on the properties of Er ₂ O ₃ films grown by magnetron sputtering. Journal of Luminescence, 2006, 121, 233-237. | 1.5 | 16 |
| 81 | Temperature dependence and aging effects on silicon nanowires photoluminescence. Optics Express, 2012, 20, 1483. | 1.7 | 16 |
| 82 | Optical and electrical doping of silicon with holmium. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 497-501. | 0.6 | 15 |
| 83 | Electroluminescence properties of SiO _x layers implanted with rare earth ions. Nuclear Instruments & Methods in Physics Research B, 2004, 216, 222-227. | 0.6 | 15 |
| 84 | Light absorption enhancement in closely packed Ge quantum dots. Applied Physics Letters, 2013, 102, . | 1.5 | 15 |
| 85 | MeV ion implantation induced damage in relaxed Si _{1-x} Gex. Journal of Applied Physics, 1997, 81, 2208-2218. | 1.1 | 14 |
| 86 | The role of Zn vacancies in UV sensing with ZnO nanorods. Applied Physics Letters, 2016, 109, . | 1.5 | 14 |
| 87 | Formation of epitaxial Fe ³⁺ -FeSi ₂ and Fe ²⁺ -FeSi ₂ layers on (111) Si. Applied Surface Science, 1994, 74, 19-26. | 3.1 | 13 |
| 88 | Amorphization and recrystallization of ion implanted Si nanocrystals probed through their luminescence properties. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 404-409. | 1.3 | 13 |
| 89 | Enhancement of Er optical efficiency through bismuth sensitization in yttrium oxide. Applied Physics Letters, 2015, 107, 041908. | 1.5 | 13 |
| 90 | EPR study of erbium-impurity complexes in silicon. Journal of Luminescence, 1998, 80, 297-301. | 1.5 | 12 |

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| 91 | Influence of the spatial arrangement on the quantum confinement properties of Si nanocrystals. <i>Optical Materials</i> , 2001, 17, 51-55. | 1.7 | 12 |
| 92 | Er doped Si nanostructures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 105, 197-204. | 1.7 | 12 |
| 93 | Study of the energy transfer mechanism in different glasses co-doped with Si nanoaggregates and Er ³⁺ ions. <i>Optical Materials</i> , 2005, 27, 904-909. | 1.7 | 12 |
| 94 | Electrical conduction and optical properties of doped silicon-on-insulator photonic crystals. <i>Applied Physics Letters</i> , 2011, 98, 203506. | 1.5 | 12 |
| 95 | Photonic crystal light emitting diode based on Er and Si nanoclusters co-doped slot waveguide. <i>Applied Physics Letters</i> , 2014, 104, . | 1.5 | 12 |
| 96 | Large-Area SiC-UV Photodiode for Spectroscopy Portable System. <i>IEEE Sensors Journal</i> , 2019, 19, 2931-2936. | 2.4 | 12 |
| 97 | Room-temperature luminescence from rare-earth ions implanted into Si nanocrystals. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000, 80, 719-728. | 0.6 | 11 |
| 98 | Site of Er ions in Er-implanted silica containing Si nanoclusters. <i>Optical Materials</i> , 2005, 27, 900-903. | 1.7 | 11 |
| 99 | Revealing the sequential nature of the Si-nanocluster-Er interaction by variable pulse duration excitation. <i>Physical Review B</i> , 2005, 72, . | 1.1 | 11 |
| 100 | White light emission from Eu-doped SiOC films. <i>Applied Physics Express</i> , 2014, 7, 012601. | 1.1 | 11 |
| 101 | Er Luminescence in Si: A Critical Balance between Optical Activity and Pumping Efficiency. <i>Materials Research Society Symposia Proceedings</i> , 1993, 301, 125. | 0.1 | 10 |
| 102 | EXAFS analysis of Er sites in Er-O and Er-F co-doped crystalline Si. <i>Journal of Luminescence</i> , 1998, 80, 363-367. | 1.5 | 10 |
| 103 | Oxidation of ion implanted silicon carbide. <i>Materials Science in Semiconductor Processing</i> , 2001, 4, 345-349. | 1.9 | 10 |
| 104 | X-ray absorption study of light emitting silicon nanocrystals. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 16, 321-325. | 1.3 | 10 |
| 105 | Thermal evolution and photoluminescence properties of nanometric Si layers. <i>Nanotechnology</i> , 2005, 16, 3012-3016. | 1.3 | 10 |
| 106 | Time dependence and excitation spectra of the photoluminescence emission at 1.54 μ m in Si-nanocluster and Er co-doped silica. <i>Optical Materials</i> , 2005, 27, 884-889. | 1.7 | 9 |
| 107 | Synthesis of crystalline Si quantum dots by millisecond laser irradiation of SiOxNy layers. <i>Journal of Applied Physics</i> , 2010, 107, 023703. | 1.1 | 9 |
| 108 | Structural and luminescence properties of undoped and Eu-doped SiOC thin films. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014, 56, 012009. | 0.3 | 9 |

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| 109 | Probe of the Si nanoclusters to Er ³⁺ energy transfer dynamics by double-pulse excitation. Applied Physics Letters, 2005, 87, 061109. | 1.5 | 8 |
| 110 | Er-based materials for Si microphotronics. Optical Materials, 2009, 31, 1269-1274. | 1.7 | 8 |
| 111 | Multicolor Depth-Resolved Cathodoluminescence from Eu-Doped SiOC Thin Films. ACS Applied Materials & Interfaces, 2015, 7, 18201-18205. | 4.0 | 8 |
| 112 | Optical doping of materials by erbium ion implantation. Nuclear Instruments & Methods in Physics Research B, 1996, 116, 77-84. | 0.6 | 7 |
| 113 | Synthesis and luminescence properties of erbium silicate thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 146, 29-34. | 1.7 | 7 |
| 114 | Hydrogen induced optically-active defects in silicon photonic nanocavities. Optics Express, 2014, 22, 8843. | 1.7 | 7 |
| 115 | Visible and infrared emission from Si/Ge nanowires synthesized by metal-assisted wet etching. Nanoscale Research Letters, 2014, 9, 74. | 3.1 | 7 |
| 116 | Erbium implantation in silicon: from materials properties to light emitting devices. Materials Chemistry and Physics, 1998, 54, 273-279. | 2.0 | 6 |
| 117 | Erbium Implantation in Silicon: A Way Towards Si-Based Optoelectronics. Materials Research Society Symposia Proceedings, 1993, 316, 397. | 0.1 | 5 |
| 118 | Erbium-oxygen interactions in crystalline silicon. Semiconductor Science and Technology, 2011, 26, 055002. | 1.0 | 5 |
| 119 | A room temperature light source based on silicon nanowires. Thin Solid Films, 2016, 613, 59-63. | 0.8 | 5 |
| 120 | 4H-SiC Detector in High Photons and Ions Irradiation Regime. IEEE Transactions on Electron Devices, 2018, 65, 599-604. | 1.6 | 5 |
| 121 | Ion beam synthesis of undoped and Er-doped Si nanocrystals. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 140-147. | 0.6 | 4 |
| 122 | Optical gain in PECVD silicon nanocrystals. , 2002, 4808, 13. | | 4 |
| 123 | Light Emitting Devices Based On Silicon Nanocrystals. , 2003, , 29-43. | | 4 |
| 124 | Coupling between Ge-nanocrystals and defects in SiO ₂ . Journal of Luminescence, 2006, 121, 409-412. | 1.5 | 4 |
| 125 | Synthesis and characterization of light emitting Eu ₂ O ₃ films on Si substrates. Journal of Luminescence, 2012, 132, 3133-3135. | 1.5 | 4 |
| 126 | Erbium doping of crystalline and amorphous silicon for optoelectronic applications. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1996, 18, 1131-1148. | 0.4 | 3 |

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| 127 | Ion implantation doping of Si for optoelectronic applications. Nuclear Instruments & Methods in Physics Research B, 1996, 120, 74-80. | 0.6 | 3 |
| 128 | 2 MeV Si ion implantation damage in relaxed Si _{1-x} Ge _x . Nuclear Instruments & Methods in Physics Research B, 1996, 120, 165-168. | 0.6 | 3 |
| 129 | Si:Er:O layers grown by molecular beam epitaxy: structural, electrical and optical properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 62-66. | 1.7 | 3 |
| 130 | Stimulated Emission In Silicon Nanocrystals Gain Measurement And Rate Equation Modelling. , 2003, , 145-164. | | 3 |
| 131 | Study of the Si-nanocluster to Er ³⁺ energy transfer dynamics using a double-pulse experiment. Optical Materials, 2006, 28, 815-819. | 1.7 | 3 |
| 132 | New approaches for enhancing light emission from Er-based materials and devices. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 891-898. | 1.3 | 3 |
| 133 | Excitation Mechanisms and Light Emitting Device Performances in Er-Doped Crystalline Si. Materials Research Society Symposia Proceedings, 1996, 422, 305. | 0.1 | 2 |
| 134 | Optical gain in silicon nanocrystals. , 2001, 4293, 162. | | 2 |
| 135 | Si Nanocrystals as Sensitizers for Er PL in SiO ₂ . Materials Research Society Symposia Proceedings, 2003, 770, 691. | 0.1 | 2 |
| 136 | Silicon Nanocrystal Nucleation as a Function of the Annealing Temperature in SiO _x Films. Materials Research Society Symposia Proceedings, 2003, 770, 131. | 0.1 | 2 |
| 137 | Optical and structural investigation on the energy transfer in a multicomponent glass co-doped with Si nanoaggregates and Er ³⁺ ions. Materials Research Society Symposia Proceedings, 2004, 817, 49. | 0.1 | 2 |
| 138 | Light emitting devices based on silicon nanoclusters. , 0, , . | | 2 |
| 139 | Evaluation of the excess and clustered silicon profiles in a silicon implanted SiO ₂ layer. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 104-107. | 0.6 | 2 |
| 140 | Experimental and Theoretical Joint Study on the Electronic and Structural Properties of Silicon Nanocrystals Embedded in SiO ₂ : active Role of the Interface Region. Materials Research Society Symposia Proceedings, 2003, 770, 611. | 0.1 | 2 |
| 141 | Oxygen-impurity interactions in crystalline silicon: The cases of aluminum and erbium. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 18-23. | 0.6 | 1 |
| 142 | Oxidation induced precipitation in Al implanted epitaxial silicon. Journal of Applied Physics, 2000, 88, 3988. | 1.1 | 1 |
| 143 | Electroluminescent devices based on Er-doped Si nanoclusters. Materials Research Society Symposia Proceedings, 2002, 737, 754. | 0.1 | 1 |
| 144 | Rare-earth doped Si nanostructures for Microphotonics. Materials Research Society Symposia Proceedings, 2004, 817, 19. | 0.1 | 1 |

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| 145 | Structural properties of Si nanocrystals: implications for light emitting devices fabrication. , 2008, , | | 1 |
| 146 | Electrical transport and depletion region in dry-etched Si-based nanostructures. Semiconductor Science and Technology, 2012, 27, 045016. | 1.0 | 1 |
| 147 | (Invited) Er Doped-Si Nanostructures Coupled with Photonic Crystals for High Enhancement of Light Extraction. ECS Transactions, 2013, 53, 71-80. | 0.3 | 1 |
| 148 | Impact Excitation And Auger Quenching Processes In Er Doped Light Emitting Si Devices. Materials Research Society Symposia Proceedings, 1997, 486, 127. | 0.1 | 0 |
| 149 | Electroluminescence of Si Quantum Dots in MOS Structures. Solid State Phenomena, 2002, 82-84, 601-606. | 0.3 | 0 |
| 150 | Luminescence from Si Nanocrystals and Er ³⁺ Ions Embedded in Resonant Cavities. Solid State Phenomena, 2002, 82-84, 617-622. | 0.3 | 0 |
| 151 | Tuning of the electroluminescence from Si nanocrystals through the control of their structural properties. Materials Research Society Symposia Proceedings, 2002, 737, 291. | 0.1 | 0 |
| 152 | Optical gain and stimulated emission in silicon nanocrystals. Materials Research Society Symposia Proceedings, 2002, 738, 881. | 0.1 | 0 |
| 153 | Time-Resolved Gain Dynamics in Silicon Nanocrystals. Materials Research Society Symposia Proceedings, 2003, 770, 341. | 0.1 | 0 |
| 154 | Coupling and Cooperative Up-conversion Coefficients in Er-doped Si Nanocrystals. Materials Research Society Symposia Proceedings, 2003, 770, 681. | 0.1 | 0 |
| 155 | Luminescence Properties of a Multi-Component Glass Co-Implanted with Si and Er. Solid State Phenomena, 2004, 99-100, 37-40. | 0.3 | 0 |
| 156 | Erbium Doped Materials for a Si-Based Microphotronics. Solid State Phenomena, 2007, 131-133, 563-570. | 0.3 | 0 |
| 157 | Light emitting devices based on Si nanoclusters: the integration with a photonic crystal and electroluminescence properties. Optoelectronics Letters, 2007, 3, 321-325. | 0.4 | 0 |
| 158 | Influence of stoichiometry on the structural and optical properties of erbium silicate. , 2008, , | | 0 |
| 159 | Electrical and optical properties of ion implanted SOI-based photonic crystals. , 2011, , | | 0 |
| 160 | Microscopic investigations of advanced thin films for photonics. Journal of Physics: Conference Series, 2013, 471, 012004. | 0.3 | 0 |
| 161 | Room temperature electrically pumped silicon nano-light source at telecommunication wavelengths. Proceedings of SPIE, 2013, , | 0.8 | 0 |
| 162 | Silicon photonic crystals: light emission, modulation and detection. , 2014, , | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 163 | (Invited) Advances in Silicon Nanophotonics. ECS Transactions, 2014, 61, 149-159. | 0.3 | 0 |
| 164 | New strategies to improve Eu light emission in Si-based matrices. Proceedings of SPIE, 2014, , . | 0.8 | 0 |
| 165 | Silicon nanowires: a building block for future technologies. , 2021, , . | | 0 |
| 166 | Silicon Nanostructures and their Interactions with Erbium Ions. , 2000, , 161-176. | | 0 |
| 167 | Materials issues and device performances for light emitting Er-implanted Si. , 1996, , 386-392. | | 0 |
| 168 | Nanoscale silicon in photonics and photovoltaics. Series in Materials Science and Engineering, 2017, , 593-616. | 0.1 | 0 |
| 169 | Structural properties of silicon nanostructures determined by energy-filtered transmission electron microscopy. , 2018, , 429-432. | | 0 |
| 170 | Light Emission from Si Nanostructures. Springer Proceedings in Physics, 2008, , 291-300. | 0.1 | 0 |
| 171 | SILICON NANOCRYSTALS: STRUCTURAL AND OPTICAL PROPERTIES AND DEVICE APPLICATIONS. , 0, , 149-178. | | 0 |