# Joaquim P LeitÃ£o

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 90 papers | 1,914 citations | 279778 23 h-index | 276858 41 g-index |
| 91 all docs | 91 docs citations | 91 times ranked | 2529 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Photoluminescence and electrical study of fluctuating potentials in Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>ZnSnS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>-based thin films. Physical Review B, 2011, 84, . | 3.2 | 138 |
| 2 | Thermodynamic pathway for the formation of SnSe and SnSe2 polycrystalline thin films by selenization of metal precursors. CrystEngComm, 2013, 15, 10278. | 2.6 | 129 |
| 3 | Growth and characterization of Cu2ZnSn(S,Se)4 thin films for solar cells. Solar Energy Materials and Solar Cells, 2012, 101, 147-153. | 6.2 | 105 |
| 4 | Secondary crystalline phases identification in Cu $$_2$$ 2 ZnSnSe $$_4$$ 4 thin films: contributions from Raman scattering and photoluminescence. Journal of Materials Science, 2014, 49, 7425-7436. | 3.7 | 99 |
| 5 | Influence of the layer thickness in plasmonic gold nanoparticles produced by thermal evaporation. Scientific Reports, 2013, 3, 1469. | 3.3 | 97 |
| 6 | Hopping conduction and persistent photoconductivity in Cu<sub>2</sub>ZnSnS<sub>4</sub>thin films. Journal Physics D: Applied Physics, 2013, 46, 155107. | 2.8 | 86 |
| 7 | CdS and Zn1â^'xSnxOy buffer layers for CIGS solar cells. Solar Energy Materials and Solar Cells, 2017, 159, 272-281. | 6.2 | 56 |
| 8 | Enhancement of up-conversion efficiency by combining rare earth-doped phosphors with PbS quantum dots. Solar Energy Materials and Solar Cells, 2010, 94, 1923-1926. | 6.2 | 55 |
| 9 | Growth pressure dependence of Cu2ZnSnSe4 properties. Solar Energy Materials and Solar Cells, 2010, 94, 2176-2180. | 6.2 | 55 |
| 10 | A comparison between thin film solar cells made from coâ€evaporated CuIn<sub>1â€x</sub>Ga<sub>x</sub>Se<sub>2</sub> using a oneâ€stage process versus a threeâ€stage process. Progress in Photovoltaics: Research and Applications, 2015, 23, 470-478. | 8.1 | 53 |
| 11 | Passivation of Interfaces in Thin Film Solar Cells: Understanding the Effects of a Nanostructured Rear Point Contact Layer. Advanced Materials Interfaces, 2018, 5, 1701101. | 3.7 | 50 |
| 12 | Radiative transitions in highly doped and compensated chalcopyrites and kesterites: The case of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">Cu</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow>3.2mml:mi mathvariant="normal">ZnSnS</mml:mi></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, . | 3.2 | 48 |
| 13 | Optimization of post-deposition annealing in Cu 2 ZnSnS 4 thin film solar cells and its impact on device performance. Solar Energy Materials and Solar Cells, 2017, 170, 287-294. | 6.2 | 48 |
| 14 | Study of optical and structural properties of Cu2ZnSnS4 thin films. Thin Solid Films, 2011, 519, 7390-7393. | 1.8 | 47 |
| 15 | Growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0020.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>Sb</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> thin films by selenization of RF sputtered binary precursors. Solar Energy Materials and Solar Cells, 2018, 187, 219-226. | 6.2 | 45 |
| 16 | Effect of rapid thermal processing conditions on the properties of Cu2ZnSnS4 thin films and solar cell performance. Solar Energy Materials and Solar Cells, 2014, 126, 101-106. | 6.2 | 42 |
| 17 | Insulator Materials for Interface Passivation of Cu(In,Ga)Se<sub>2</sub> Thin Films. IEEE Journal of Photovoltaics, 2018, 8, 1313-1319. | 2.5 | 39 |
| 18 | Comparison of fluctuating potentials and donor-acceptor pair transitions in a Cu-poor Cu2ZnSnS4 based solar cell. Applied Physics Letters, 2014, 105, . | 3.3 | 34 |

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|---|---|---|---|
| 19 | The influence of hydrogen in the incorporation of Zn during the growth of Cu2ZnSnS4 thin films. Solar Energy Materials and Solar Cells, 2011, 95, 3482-3489. | 6.2 | 33 |
| 20 | Front passivation of Cu(In,Ga)Se2 solar cells using Al2O3: Culprits and benefits. Applied Materials Today, 2020, 21, 100867. | 4.3 | 28 |
| 21 | Structural and optical characterization of Mg-doped GaAs nanowires grown on GaAs and Si substrates. Journal of Applied Physics, 2013, 114, . | 2.5 | 25 |
| 22 | Spin resonance of electrons localized on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Ge</mml:mi><mml:mo>â^•</mml:mo><mml:mi mathvariant="normal">Si</mml:mi></mml:mrow></mml:math>quantum dots. Physical Review B, 2008, 77, . | 3.2 | 24 |
| 23 | Influence of CdS and ZnSnO Buffer Layers on the Photoluminescence of Cu(In,Ga)Se $_2$ Thin Films. IEEE Journal of Photovoltaics, 2017, 7, 670-675. | 2.5 | 23 |
| 24 | Cd and Cu Interdiffusion in Cu(In, Ga)Se<sub>2</sub>/CdS Hetero-Interfaces. IEEE Journal of Photovoltaics, 2017, 7, 858-863. | 2.5 | 23 |
| 25 | Slow-muon study of quaternary solar-cell materials: Single layers and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mo>â^’</mml:mo><mml:mi | 2.4 | 23 |
| 26 | Anomalous persistent photoconductivity in Cu2ZnSnS4 thin films and solar cells. Solar Energy Materials and Solar Cells, 2015, 137, 164-168. | 6.2 | 21 |
| 27 | Evidence of Limiting Effects of Fluctuating Potentials on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>V</mml:mi><mml:mi>OC</mml:mi></mml:msub></mml:math> of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Cu</mml:mi><mml:mo | | |

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|---|---|---|---|
| 37 | New insights into the temperature-dependent photoluminescence of Mg-doped GaAs nanowires and epilayers. Journal of Materials Chemistry C, 2014, 2, 7104. | 5.5 | 14 |
| 38 | High rate growth of nanocrystalline diamond films using high microwave power and pure nitrogen/methane/hydrogen plasma. Vacuum, 2015, 122, 342-346. | 3.5 | 14 |
| 39 | Down conversion photoluminescence on PVP/Ag-nanoparticles electrospun composite fibers. Optical Materials, 2015, 39, 278-281. | 3.6 | 14 |
| 40 | High resolution backscattering studies of nanostructured magnetic and semiconducting materials. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 454-458. | 1.4 | 13 |
| 41 | Fluctuating potentials in GaAs:Si nanowires: critical reduction of the influence of polytypism on the electronic structure. Nanoscale, 2018, 10, 3697-3708. | 5.6 | 13 |
| 42 | Raman spectrum of nanocrystals: Phonon dispersion splitting and anisotropy. Physical Review B, 2018, 98, . | 3.2 | 13 |
| 43 | Hydrogen plasma treatment of very thin p-type nanocrystalline Si films grown by RF-PECVD in the presence of B(CH3)3. Science and Technology of Advanced Materials, 2012, 13, 045004. | 6.1 | 12 |
| 44 | Influence of defects on the luminescence of Ge/Si quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 1267-1270. | 0.8 | 11 |
| 45 | Influence of defects on the optical and structural properties of Ge dots embedded in an Si/Ge superlattice. Journal of Luminescence, 2006, 121, 417-420. | 3.1 | 11 |
| 46 | Structural and optical properties of Er implanted AlN thin films: Green and infrared photoluminescence at room temperature. Optical Materials, 2011, 33, 1055-1058. | 3.6 | 11 |
| 47 | Recombination Channels in Cu(In,Ga)Se<sub>2</sub> Thin Films: Impact of the Ga-Profile. Journal of Physical Chemistry C, 2020, 124, 12295-12304. | 3.1 | 11 |
| 48 | Microwave Synthesis of Silver Sulfide and Silver Nanoparticles: Light and Time Influence. ACS Omega, 2020, 5, 12877-12881. | 3.5 | 11 |
| 49 | Optical amplification performance of erbium doped zirconia-yttria-alumina-baria silica fiber [Invited]. Optical Materials Express, 2019, 9, 2652. | 3.0 | 11 |
| 50 | Photoconduction in tunnel-coupled Ge/Si quantum dot arrays. Journal of Experimental and Theoretical Physics, 2006, 103, 269-277. | 0.9 | 10 |
| 51 | Muonium states in Cu<sub>2</sub>ZnSnS<sub>4</sub>solar cell material. Journal of Physics: Conference Series, 2014, 551, 012045. | 0.4 | 8 |
| 52 | MBE growth of Ge/Si quantum dots upon low-energy pulsed ion irradiation. Thin Solid Films, 2008, 517, 309-312. | 1.8 | 7 |
| 53 | Radiation hardness of GeSi heterostructures with thin Ge layers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 147, 191-194. | 3.5 | 7 |
| 54 | Substrate and Mg doping effects in GaAs nanowires. Beilstein Journal of Nanotechnology, 2017, 8, 2126-2138. | 2.8 | 7 |

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|---|---|---|---|
| 55 | Pulsed laser annealing of Siâ€“Ge superlattices. Materials Science and Engineering C, 2003, 23, 19-22. | 7.3 | 6 |
| 56 | Optical and structural study of Ge/Si quantum dots on Si(100) surface covered with a thin silicon oxide layer. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 462-465. | 3.5 | 6 |
| 57 | Strongly Photosensitive and Fluorescent F8T2 Electrospun Fibers. Macromolecular Materials and Engineering, 2013, 298, 174-180. | 3.6 | 6 |
| 58 | Synthesis and formation mechanism of CuInSe<sub>2</sub>nanowires by one-step self-catalysed evaporation growth. CrystEngComm, 2016, 18, 7147-7153. | 2.6 | 6 |
| 59 | Silicon Nanoparticle Films Infilled with Al<sub>2</sub>O<sub>3</sub> Using Atomic Layer Deposition for Photosensor, Light Emission, and Photovoltaic Applications. ACS Applied Nano Materials, 2020, 3, 5033-5044. | 5.0 | 6 |
| 60 | The Photoluminescence of Pt-Implanted Silicon. Materials Science Forum, 1997, 258-263, 473-478. | 0.3 | 5 |
| 61 | Uniaxial stress study of the1026âˆ’meVcenter inSi:Pt. Physical Review B, 2001, 63, . | 3.2 | 5 |
| 62 | RBS/channeling study of buried Ge quantum dots grown in a Si layer. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 462-465. | 1.4 | 5 |
| 63 | SiGe layer thickness effect on the structural and optical properties of well-organized SiGe/SiO2multilayers. Nanotechnology, 2017, 28, 345701. | 2.6 | 5 |
| 64 | Label-Free Nanoscale ZnO Tetrapod-Based Transducers for Tetracycline Detection. ACS Applied Nano Materials, 2022, 5, 1232-1243. | 5.0 | 5 |
| 65 | Hopping magnetoresistance in two-dimensional arrays of Ge/Si quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 296-299. | 0.8 | 4 |
| 66 | Optical and structural investigation of Cu<sub>2</sub>ZnSnS<sub>4</sub> based solar cells. Physica Status Solidi (B): Basic Research, 2016, 253, 2129-2135. | 1.5 | 4 |
| 67 | CuInSe<sub>2</sub> quantum dots grown by molecular beam epitaxy on amorphous SiO<sub>2</sub> surfaces. Beilstein Journal of Nanotechnology, 2019, 10, 1103-1111. | 2.8 | 4 |
| 68 | Low-temperature molecular beam epitaxy of Ge on Si. Materials Science in Semiconductor Processing, 2005, 8, 35-39. | 4.0 | 3 |
| 69 | Effect of Ge doping on the creation of luminescent radiation defects in MBE Si. Nuclear Instruments & Methods in Physics Research B, 2006, 248, 127-132. | 1.4 | 3 |
| 70 | Recombination of photo-generated charge carriers in H-terminated and (photo-)oxidized silicon nanoparticles. Applied Materials Today, 2021, 23, 101071. | 4.3 | 3 |
| 71 | Stress study of 1.5 Î¼m emission in Si : Er and GaAs : Er. Journal of Luminescence, 1997, 72-74, 110-111. | 3.1 | 2 |
| 72 | The 777meV photoluminescence band in Si:Pt. Physica B: Condensed Matter, 1999, 273-274, 420-423. | 2.7 | 2 |

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|---|---|---|---|
| 73 | Morphological Transformation of a Germanium Layer Grown on a Silicon Surface by Molecular-Beam Epitaxy at Low Temperatures. Physics of the Solid State, 2005, 47, 71. | 0.6 | 2 |
| 74 | MBE growth of vertically ordered Ge quantum dots on Si. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 262-264. | 0.8 | 2 |
| 75 | Electronic properties of Ge islands embedded in multilayer and superlattice structures. Thin Solid Films, 2008, 517, 303-305. | 1.8 | 2 |
| 76 | Optical study of strained double Ge/Si quantum dot layers. IOP Conference Series: Materials Science and Engineering, 2009, 6, 012018. | 0.6 | 2 |
| 77 | Growth of CuInSe<inf>2</inf> nanowires without external catalyst by molecular beam epitaxy. , 2016, , . | | 2 |
| 78 | Size-dependent critical transition in the origin of light emission from coreâ€“shell Siâ€“SiO2 nanoparticles. Journal of Materials Chemistry C, 2020, 8, 9012-9023. | 5.5 | 2 |
| 79 | Novel dielectrics compounds grown by atomic layer deposition as sustainable materials for chalcogenides thin-films photovoltaics technologies. , 2021, , 71-100. | | 2 |
| 80 | Structural Characterization and Luminescence of Ge/Si Quantum Dots. Materials Science Forum, 2004, 455-456, 540-544. | 0.3 | 1 |
| 81 | Photoluminescence and Raman study of a tensilely strained Si type-II quantum well on a relaxed SiGe graded buffer. IOP Conference Series: Materials Science and Engineering, 2009, 6, 012023. | 0.6 | 1 |
| 82 | Enhanced radiation hardness of InAs/InP quantum wires. Physica Status Solidi (B): Basic Research, 2015, 252, 134-138. | 1.5 | 1 |
| 83 | Mg-Doping of (111)B GaAs Thin Films Grown by Molecular Beam Epitaxy. Journal of Physical Chemistry C, 2019, 123, 12807-12812. | 3.1 | 1 |
| 84 | Effect Of Light Illumination On The Conductivity Of Tunnel-coupled Ge/Si Quantum Dots. AIP Conference Proceedings, 2007, , . | 0.4 | 1 |
| 85 | Insights into recombination channels in a CVT grown ZnSe single crystal. Applied Physics A: Materials Science and Processing, 2022, 128, 1. | 2.3 | 1 |
| 86 | OPTICAL AND STRUCTURAL ANALYSIS OF Ge/Si QUANTUM DOTS GROWN ON A Si(001) SURFACE COVERED WITH A SiO2 SUB-MONOLAYER. International Journal of Nanoscience, 2007, 06, 245-248. | 0.7 | 0 |
| 87 | Asymmetry effect on the spin relaxation in quantum dot structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 833-836. | 0.8 | 0 |
| 88 | Influence of CdS and Zn<inf>x</inf>Sn<inf>1â^'x</inf>O<inf>y</inf> buffer layers on the photoluminescence of Cu(In, Ga)Se<inf>2</inf> thin films. , 2016, , . | | 0 |
| 89 | SELF-ORGANIZATION PHENOMENA IN PULSED LASER ANNEALED Si/Ge SUPERLATTICES. , 2003, , . | | 0 |
| 90 | LUMINESCENCE OF Ge/Si QUANTUM DOTS SUBJECTED TO RADIATION DAMAGE AND HYDROGEN PASSIVATION. , 2003, , . | | 0 |