# Victor Izquierdo-Roca

List of Publications by Year
in descending order



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|---|---|---|---|
| 190 papers | 8,192 citations | 38720 50 h-index | 54882 84 g-index |
| 192 all docs | 192 docs citations | 192 times ranked | 4744 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Evaluation of defect formation in chalcopyrite compounds under Cu-poor conditions by advanced structural and vibrational analyses. Acta Materialia, 2022, 223, 117507. | 3.8 | 5 |
| 2 | Ultrathin Wideâ€Bandgap aâ€Si:Hâ€Based Solar Cells for Transparent Photovoltaic Applications. Solar Rrl, 2022, 6, 2100909. | 3.1 | 7 |
| 3 | Insights into the Effects of RbFâ€Postâ€Deposition Treatments on the Absorber Surface of High Efficiency Cu(In,Ga)Se<sub>2</sub> Solar Cells and Development of Analytical and Machine Learning Process Monitoring Methodologies Based on Combinatorial Analysis. Advanced Energy Materials, 2022, 12, . | 10.2 | 6 |
| 4 | Controlling the Anionic Ratio and Gradient in Kesterite Technology. ACS Applied Materials & Interfaces, 2022, 14, 1177-1186. | 4.0 | 16 |
| 5 | Comprehensive physicochemical and photovoltaic analysis of different Zn substitutes (Mn, Mg, Fe, Ni,) Tj ETQq1 1 0.784314 rgBT /Over | 5.2 | 5 |
| 6 | Characterization of the Stability of Indium Tin Oxide and Functional Layers for Semitransparent Backâ€Contact Applications on Cu(in,Ga)Se<sub>2</sub> Solar Cells. Solar Rrl, 2022, 6, . | 3.1 | 8 |
| 7 | Does Sb<sub>2</sub>Se<sub>3</sub> Admit Nonstoichiometric Conditions? How Modifying the Overall Se Content Affects the Structural, Optical, and Optoelectronic Properties of Sb<sub>2</sub>Se<sub>3</sub> Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 11222-11234. | 4.0 | 17 |
| 8 | ZnO/Ag Nanocomposites with Enhanced Antimicrobial Activity. Applied Sciences (Switzerland), 2022, 12, 5023. | 1.3 | 13 |
| 9 | Kinetics and phase analysis of kesterite compounds: Influence of chalcogen availability in the reaction pathway. Materialia, 2022, 24, 101509. | 1.3 | 2 |
| 10 | Defect depth-profiling in kesterite absorber by means of chemical etching and surface analysis. Applied Surface Science, 2021, 540, 148342. | 3.1 | 6 |
| 11 | Rear interface engineering of kesterite Cu<sub>2</sub>ZnSnSe<sub>4</sub> solar cells by adding CuGaSe<sub>2</sub> thin layers. Progress in Photovoltaics: Research and Applications, 2021, 29, 334-343. | 4.4 | 11 |
| 12 | Combinatorial and machine learning approaches for the analysis of Cu<sub>2</sub>ZnGeSe<sub>4</sub>: influence of the off-stoichiometry on defect formation and solar cell performance. Journal of Materials Chemistry A, 2021, 9, 10466-10476. | 5.2 | 13 |
| 13 | Contact resistance stability and cation mixing in a Vulcan-based LiNi<sub>1/3</sub>Co<sub>1/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> slurry for semi-solid flow batteries. Dalton Transactions, 2021, 50, 6710-6717. | 1.6 | 7 |
| 14 | Effective module level encapsulation of CIGS solar cells with Al2O3 thin film grown by atomic layer deposition. Solar Energy Materials and Solar Cells, 2021, 222, 110914. | 3.0 | 8 |
| 15 | Bromine etching of kesterite thin films: perspectives in depth defect profiling and device performance improvement. , 2021, , . | | 1 |
| 16 | Insights on the Thermal Stability of the Sb<sub>2</sub>Se<sub>3</sub> Quasiâ€1D Photovoltaic Technology. Solar Rrl, 2021, 5, 2100517. | 3.1 | 2 |
| 17 | Insights into interface and bulk defects in a high efficiency kesterite-based device. Energy and Environmental Science, 2021, 14, 507-523. | 15.6 | 48 |
| 18 | spectrapepper: A Python toolbox for advanced analysis of spectroscopic data for materials and devices.. Journal of Open Source Software, 2021, 6, 3781. | 2.0 | 2 |

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| 19 | Point defects, compositional fluctuations, and secondary phases in non-stoichiometric kesterites. JPhys Energy, 2020, 2, 012002. | 2.3 | 92 |
| 20 | Structural and vibrational properties of Î±- and Ï€-SnS polymorphs for photovoltaic applications. Acta Materialia, 2020, 183, 1-10. | 3.8 | 43 |
| 21 | Vibrational Properties of RbInSe<sub>2</sub>: Raman Scattering Spectroscopy and First-Principle Calculations. Journal of Physical Chemistry C, 2020, 124, 1285-1291. | 1.5 | 5 |
| 22 | UVâ€Selective Optically Transparent Zn(O,S)â€Based Solar Cells. Solar Rrl, 2020, 4, 2070112. | 3.1 | 0 |
| 23 | Rear Band gap Grading Strategies on Snâ€"Ge-Alloyed Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10362-10375. | 2.5 | 29 |
| 24 | Investigation on limiting factors affecting Cu2ZnGeSe4 efficiency: Effect of annealing conditions and surface treatment. Solar Energy Materials and Solar Cells, 2020, 216, 110701. | 3.0 | 17 |
| 25 | UVâ€Selective Optically Transparent Zn(O,S)â€Based Solar Cells. Solar Rrl, 2020, 4, 2000470. | 3.1 | 12 |
| 26 | Cu-Sn-S system: Vibrational properties and coexistence of the Cu2SnS3, Cu3SnS4 and Cu4SnS4 compounds. Scripta Materialia, 2020, 186, 180-184. | 2.6 | 15 |
| 27 | Uncovering details behind the formation mechanisms of Cu2ZnGeSe4 photovoltaic absorbers. Journal of Materials Chemistry C, 2020, 8, 4003-4011. | 2.7 | 13 |
| 28 | Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. ACS Applied Materials & Interfaces, 2020, 12, 33656-33669. | 4.0 | 29 |
| 29 | CZTS solar cells and the possibility of increasing VOC using evaporated Al2O3 at the CZTS/CdS interface. Solar Energy, 2020, 198, 696-703. | 2.9 | 28 |
| 30 | Advanced Raman spectroscopy of Cs2AgBiBr6 double perovskites and identification of Cs3Bi2Br9 secondary phases. Scripta Materialia, 2020, 184, 24-29. | 2.6 | 46 |
| 31 | Synthesis and Crystal Structure Evolution of Co-Evaporated Cs<sub>2</sub>AgBiBr<sub>6</sub> Thin Films upon Thermal Treatment. Journal of Physical Chemistry C, 2020, 124, 9249-9255. | 1.5 | 20 |
| 32 | Efficient Seâ€Rich Sb<sub>2</sub>Se<sub>3</sub>/CdS Planar Heterojunction Solar Cells by Sequential Processing: Control and Influence of Se Content. Solar Rrl, 2020, 4, 2000141. | 3.1 | 23 |
| 33 | Over 10% Efficient Wide Bandgap CIGSe Solar Cells on Transparent Substrate with Na Predeposition Treatment. Solar Rrl, 2020, 4, 2000284. | 3.1 | 8 |
| 34 | Influence of co-electrodeposition parameters in the synthesis of kesterite thin films for photovoltaic. Journal of Alloys and Compounds, 2020, 839, 155679. | 2.8 | 10 |
| 35 | Is It Possible To Develop Complex Sâ€"Se Graded Band Gap Profiles in Kesterite-Based Solar Cells?. ACS Applied Materials & Interfaces, 2019, 11, 32945-32956. | 4.0 | 42 |
| 36 | Improving Carrier-Transport Properties of CZTS by Mg Incorporation with Spray Pyrolysis. ACS Applied Materials & Interfaces, 2019, 11, 25824-25832. | 4.0 | 42 |

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| 37 | Multiwavelength excitation Raman scattering study of Sb <sub>2</sub> Se <sub>3</sub> compound: fundamental vibrational properties and secondary phases detection. 2D Materials, 2019, 6, 045054. | 2.0 | 69 |
| 38 | Suppressed Deep Traps and Bandgap Fluctuations in Cu<sub>2</sub>CdSnS<sub>4</sub> Solar Cells with â‰ˆ8% Efficiency. Advanced Energy Materials, 2019, 9, 1902509. | 10.2 | 65 |
| 39 | Study and optimization of alternative MBEâ€deposited metallic precursors for highly efficient kesterite CZTSe:Ge solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 779-788. | 4.4 | 12 |
| 40 | CuZnInSe<sub>3</sub>â€based solar cells: Impact of copper concentration on vibrational and structural properties and device performance. Progress in Photovoltaics: Research and Applications, 2019, 27, 716-723. | 4.4 | 7 |
| 41 | Defect characterisation in Cu<sub>2</sub>ZnSnSe<sub>4</sub>kesterites<i>via</i>resonance Raman spectroscopy and the impact on optoelectronic solar cell properties. Journal of Materials Chemistry A, 2019, 7, 13293-13304. | 5.2 | 63 |
| 42 | Evaluation of AA-CVD deposited phase pure polymorphs of SnS for thin films solar cells. RSC Advances, 2019, 9, 14899-14909. | 1.7 | 42 |
| 43 | Progress and Perspectives of Thin Film Kesterite Photovoltaic Technology: A Critical Review. Advanced Materials, 2019, 31, e1806692. | 11.1 | 333 |
| 44 | Impact of Thin CuGa Layers Added at the Rear Interface of Cu2ZnSnSe4 Solar Cells. , 2019, , . | | 0 |
| 45 | Numerical modeling and experimental realization of wide bandgap ZnTe-based solar cells for semi-transparent PV application. , 2019, , . | | 0 |
| 46 | An Insight into Pure Ge Based Kesterite Synthesis. , 2019, , . | | 1 |
| 47 | Effect of Cd on cation redistribution and order-disorder transition in Cu<sub>2</sub>(Zn,Cd)SnS<sub>4</sub>. Journal of Materials Chemistry A, 2019, 7, 26927-26933. | 5.2 | 22 |
| 48 | Insights into the Formation Pathways of Cu<sub>2</sub>ZnSnSe<sub>4</sub> Using Rapid Thermal Processes. ACS Applied Energy Materials, 2018, 1, 1981-1989. | 2.5 | 16 |
| 49 | Turning Earth Abundant Kesterite-Based Solar Cells Into Efficient Protected Water-Splitting Photocathodes. ACS Applied Materials & Interfaces, 2018, 10, 13425-13433. | 4.0 | 31 |
| 50 | How small amounts of Ge modify the formation pathways and crystallization of kesterites. Energy and Environmental Science, 2018, 11, 582-593. | 15.6 | 169 |
| 51 | C<scp>ZTS</scp>e solar cells developed on polymer substrates: Effects of lowâ€temperature processing. Progress in Photovoltaics: Research and Applications, 2018, 26, 55-68. | 4.4 | 23 |
| 52 | Double band gap gradients in sequentially processed photovoltaic absorbers from the Cu(In,Ga)Se<sub>2</sub>â€ZnSe pseudobinary system. Progress in Photovoltaics: Research and Applications, 2018, 26, 135-144. | 4.4 | 7 |
| 53 | Enhanced Heteroâ€Junction Quality and Performance of Kesterite Solar Cells by Aluminum Hydroxide Nanolayers and Efficiency Limitation Revealed by Atomicâ€resolution Scanning Transmission Electron Microscopy. Solar Rrl, 2018, 3, 1800279. | 3.1 | 6 |
| 54 | Doping Effects on Kesterites Other than Alkalis. , 2018, , . | | 2 |

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| 55 | An in-depth investigation on the grain growth and the formation of secondary phases of ultrasonic-sprayed Cu2ZnSnS4 based thin films assisted by Na crystallization catalyst. Solar Energy, 2018, 176, 277-286. | 2.9 | 8 |
| 56 | Sulfurization of co-evaporated Cu2ZnSnSe4 thin film solar cells: The role of Na. Solar Energy Materials and Solar Cells, 2018, 186, 115-123. | 3.0 | 17 |
| 57 | Pre-annealing of metal stack precursors and its beneficial effect on kesterite absorber properties and device performance. Solar Energy Materials and Solar Cells, 2018, 185, 226-232. | 3.0 | 11 |
| 58 | Effect of Magnesium Incorporation on Solution-Processed Kesterite Solar Cells. Frontiers in Chemistry, 2018, 6, 5. | 1.8 | 24 |
| 59 | Cu2ZnSnSe4 based solar cells combining co-electrodeposition and rapid thermal processing. Solar Energy, 2018, 173, 955-963. | 2.9 | 13 |
| 60 | Nondestructive Raman Scattering Assessment of Solution-Processed ZnO-Doped Layers for Photovoltaic Applications. Journal of Physical Chemistry C, 2017, 121, 3212-3218. | 1.5 | 17 |
| 61 | Cationic compositional optimization of CuIn(S 1-y Se y ) 2 ultra-thin layers obtained by chemical bath deposition. Applied Surface Science, 2017, 404, 57-62. | 3.1 | 4 |
| 62 | Structural Polymorphism in â€œKesteriteâ€•Cu<sub>2</sub>ZnSnS<sub>4</sub>: Raman Spectroscopy and First-Principles Calculations Analysis. Inorganic Chemistry, 2017, 56, 3467-3474. | 1.9 | 84 |
| 63 | Cu2ZnSnS4 thin film solar cells grown by fast thermal evaporation and thermal treatment. Solar Energy, 2017, 141, 236-241. | 2.9 | 32 |
| 64 | Subcellular Optical pH Nanoscale Sensor. ChemistrySelect, 2017, 2, 8115-8121. | 0.7 | 5 |
| 65 | Bifacial Kesterite Solar Cells on FTO Substrates. ACS Sustainable Chemistry and Engineering, 2017, 5, 11516-11524. | 3.2 | 45 |
| 66 | Characterization of Cu<sub>2</sub>SnS<sub>3</sub>polymorphism and its impact on optoelectronic properties. Journal of Materials Chemistry A, 2017, 5, 23863-23871. | 5.2 | 56 |
| 67 | Preparation and characterization of Cu<sub>2</sub>ZnSnSe<sub>4</sub>and Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub>powders by ball milling process for solar cells application. Materials Research Express, 2017, 4, 125501. | 0.8 | 11 |
| 68 | Resonant Raman scattering based approaches for the quantitative assessment of nanometric ZnMgO layers in high efficiency chalcogenide solar cells. Scientific Reports, 2017, 7, 1144. | 1.6 | 9 |
| 69 | Towards In-reduced photovoltaic absorbers: Evaluation of zinc-blende CuInSe2-ZnSe solid solution. Solar Energy Materials and Solar Cells, 2017, 160, 26-33. | 3.0 | 15 |
| 70 | Multiwavelength excitation Raman scattering of Cu2ZnSn1-xGex(S,Se)4 single crystals for earth abundant photovoltaic applications. Journal of Alloys and Compounds, 2017, 692, 249-256. | 2.8 | 28 |
| 71 | Transition Metal Oxides Nano-Layers as Efficient Back Electron Reflectors For Cu2ZnSnSe4 Solar Cells. , 2017, , . | | 0 |
| 72 | Raman scattering assessment of point defects in kesterite semiconductors: UV resonant Raman characterization for advanced photovoltaics. , 2017, , . | | 3 |

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| 73 | Optical properties of quaternary kesterite-type Cu<sub>2</sub>Zn(Sn<sub>1âˆ’x</sub>Ge<sub>x</sub>)S<sub>4</sub>crystalline alloys: Raman scattering, photoluminescence and first-principle calculations. RSC Advances, 2016, 6, 67756-67763. | 1.7 | 25 |
| 74 | Post-deposition annealing of Cu<inf>2</inf>ZnSnSe<inf>4</inf>/CdS based solar cells: Analysis of the absorber's surface defects. , 2016, , . | | 0 |
| 75 | Advanced hybrid buffer layers for Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , . | | 1 |
| 76 | Enhancing grain growth and boosting Voc in CZTSe absorber layers â€" Is Ge doping the answer?. , 2016, , . | | 1 |
| 77 | Development of Cu<inf>2</inf>SnS<inf>3</inf> based solar cells by a sequential process. , 2016, , . | | 0 |
| 78 | The Cu(In, Ga)Se<inf>2</inf>-ZnSe system: Optimizing solid solutions for high V<inf>OC</inf> photovoltaic devices. , 2016, , . | | 0 |
| 79 | CdS bi-layers for optimized CdS/Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , . | | 0 |
| 80 | Selenization of Cu2ZnSnS4 thin films obtained by pneumatic spray pyrolysis. Journal of Analytical and Applied Pyrolysis, 2016, 120, 45-51. | 2.6 | 11 |
| 81 | <i>V</i><sub>oc</sub> Boosting and Grain Growth Enhancing Ge-Doping Strategy for Cu<sub>2</sub>ZnSnSe<sub>4</sub> Photovoltaic Absorbers. Journal of Physical Chemistry C, 2016, 120, 9661-9670. | 1.5 | 69 |
| 82 | Phosphonic acids aid composition adjustment in the synthesis of Cu2+x Zn1âˆ’x SnSe4âˆ’y nanoparticles. Journal of Nanoparticle Research, 2016, 18, 1. | 0.8 | 5 |
| 83 | Perchlorate-Induced Doping of Electrodeposited ZnO Films for Optoelectronic Applications. Journal of Physical Chemistry C, 2016, 120, 18953-18962. | 1.5 | 13 |
| 84 | Influence of Amorphous Silicon Carbide Intermediate Layer in the Back-Contact Structure of Cu<sub>2</sub>ZnSnSe<sub>4</sub>Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 1327-1332. | 1.5 | 8 |
| 85 | Advanced Raman Spectroscopy of Methylammonium Lead Iodide: Development of a Non-destructive Characterisation Methodology. Scientific Reports, 2016, 6, 35973. | 1.6 | 103 |
| 86 | Raman scattering analysis of the surface chemistry of kesterites: Impact of post-deposition annealing and Cu/Zn reordering on solar cell performance. Solar Energy Materials and Solar Cells, 2016, 157, 462-467. | 3.0 | 71 |
| 87 | Polarized Raman scattering study of kesterite type Cu2ZnSnS4 single crystals. Scientific Reports, 2016, 6, 19414. | 1.6 | 88 |
| 88 | Bi-directional crystallization of Cu<inf>2</inf>ZnSnSe<inf>4</inf> assisted with back/front Ge nanolayers. , 2016, , . | | 1 |
| 89 | The importance of back contact modification in Cu2ZnSnSe4 solar cells: The role of a thin MoO2 layer. Nano Energy, 2016, 26, 708-721. | 8.2 | 77 |
| 90 | Optical phonons in the kesterite Cu<sub>2</sub>ZnGeS<sub>4</sub>semiconductor: polarized Raman spectroscopy and first-principle calculations. RSC Advances, 2016, 6, 13278-13285. | 1.7 | 35 |

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| 91 | Ultra-thin CdS for highly performing chalcogenides thin film based solar cells. Solar Energy Materials and Solar Cells, 2016, 158, 138-146. | 3.0 | 31 |
| 92 | Alkali doping strategies for flexible and light-weight Cu<sub>2</sub>ZnSnSe<sub>4</sub> solar cells. Journal of Materials Chemistry A, 2016, 4, 1895-1907. | 5.2 | 88 |
| 93 | Optical methodology for process monitoring of chalcopyrite photovoltaic technologies: Application to low cost Cu(In,Ga)(S,Se)2 electrodeposition based processes. Solar Energy Materials and Solar Cells, 2016, 158, 168-183. | 3.0 | 51 |
| 94 | Secondary phase and Cu substitutional defect dynamics in kesterite solar cells: Impact on optoelectronic properties. Solar Energy Materials and Solar Cells, 2016, 149, 304-309. | 3.0 | 82 |
| 95 | Impact of Na Dynamics at the Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub>/CdS Interface During Post Low Temperature Treatment of Absorbers. ACS Applied Materials & Interfaces, 2016, 8, 5017-5024. | 4.0 | 72 |
| 96 | Towards high performance Cd-free CZTSe solar cells with a ZnS(O,OH) buffer layer: the influence of thiourea concentration on chemical bath deposition. Journal Physics D: Applied Physics, 2016, 49, 125602. | 1.3 | 39 |
| 97 | Raman scattering quantitative assessment of the anion composition ratio in Zn(O,S) layers for Cd-free chalcogenide-based solar cells. RSC Advances, 2016, 6, 24536-24542. | 1.7 | 13 |
| 98 | Role of S and Se atoms on the microstructural properties of kesterite Cu<sub>2</sub>ZnSn(S<sub>x</sub>Se<sub>1âˆ’x</sub>)<sub>4</sub> thin film solar cells. Physical Chemistry Chemical Physics, 2016, 18, 8692-8700. | 1.3 | 43 |
| 99 | Wide band-gap tuning Cu2ZnSn1âˆ’xGexS4 single crystals: Optical and vibrational properties. Solar Energy Materials and Solar Cells, 2016, 158, 147-153. | 3.0 | 44 |
| 100 | Resonant Raman scattering of ZnS<sub>x</sub>Se<sub>1âˆ’x</sub> solid solutions: the role of S and Se electronic states. Physical Chemistry Chemical Physics, 2016, 18, 7632-7640. | 1.3 | 43 |
| 101 | Efficient bifacial Cu2ZnSnSe4 solar cells. , 2015, , . | | 3 |
| 102 | Large Efficiency Improvement in Cu<sub>2</sub>ZnSnSe<sub>4</sub> Solar Cells by Introducing a Superficial Ge Nanolayer. Advanced Energy Materials, 2015, 5, 1501070. | 10.2 | 188 |
| 103 | Large performance improvement in Cu2ZnSnSe4 based solar cells by surface engineering with a nanometric Ge layer. , 2015, , . | | 4 |
| 104 | Chemical bath deposition route for the synthesis of ultra-thin CuIn(S,Se) 2 based solar cells. Thin Solid Films, 2015, 582, 74-78. | 0.8 | 6 |
| 105 | Optimization of CdS buffer layer for highâ€performance Cu<sub>2</sub>ZnSnSe<sub>4</sub> solar cells and the effects of light soaking: elimination of crossover and red kink. Progress in Photovoltaics: Research and Applications, 2015, 23, 1660-1667. | 4.4 | 110 |
| 106 | Raman scattering quantitative analysis of the anion chemical composition in kesterite Cu2ZnSn(SxSe1âˆ’x)4 solid solutions. Journal of Alloys and Compounds, 2015, 628, 464-470. | 2.8 | 69 |
| 107 | An overview of technological aspects of Cu(In,Ga)Se<sub>2</sub>solar cell architectures incorporating ZnO nanorod arrays. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 76-87. | 0.8 | 15 |
| 108 | Influence of compositionally induced defects on the vibrational properties of device grade Cu2ZnSnSe4 absorbers for kesterite based solar cells. Applied Physics Letters, 2015, 106, . | 1.5 | 135 |

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| 109 | Non-destructive assessment of ZnO:Al window layers in advanced Cu(In,Ga)Se<sub>2</sub>photovoltaic technologies. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 56-60. | 0.8 | 12 |
| 110 | Advanced characterization of electrodeposition-based high efficiency solar cells: Non-destructive Raman scattering quantitative assessment of the anion chemical composition in Cu(In,Ga)(S,Se)2 absorbers. Solar Energy Materials and Solar Cells, 2015, 143, 212-217. | 3.0 | 26 |
| 111 | Complex Surface Chemistry of Kesterites: Cu/Zn Reordering after Low Temperature Postdeposition Annealing and Its Role in High Performance Devices. Chemistry of Materials, 2015, 27, 5279-5287. | 3.2 | 99 |
| 112 | Synthesis of CuIn(S,Se)2 quaternary alloys by screen printing and selenization-sulfurization sequential steps: Development of composition graded absorbers for low cost photovoltaic devices. Materials Chemistry and Physics, 2015, 160, 237-243. | 2.0 | 9 |
| 113 | Structural characterisation of Cu<sub>2.04</sub>Zn<sub>0.91</sub>Sn<sub>1.05</sub>S<sub>2.08</sub>Se<sub>1.92</sub>. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 588-591. | 0.8 | 19 |
| 114 | Impact of Cuâ€"Au type domains in high current density CuInS 2 solar cells. Solar Energy Materials and Solar Cells, 2015, 139, 101-107. | 3.0 | 15 |
| 115 | Formation and impact of secondary phases in Cu-poor Zn-rich Cu2ZnSn(S1â^'Se )4 (0â‰yâ‰1) based solar cells. Solar Energy Materials and Solar Cells, 2015, 140, 289-298. | 3.0 | 60 |
| 116 | Compositional paradigms in multinary compound systems for photovoltaic applications: a case study of kesterites. Journal of Materials Chemistry A, 2015, 3, 9451-9455. | 5.2 | 34 |
| 117 | Towards the growth of Cu 2 ZnSn 1â^'x Ge x S 4 thin films by a single-stage process: Effect of substrate temperature and composition. Solar Energy Materials and Solar Cells, 2015, 139, 1-9. | 3.0 | 33 |
| 118 | Multiwavelength excitation Raman scattering analysis of bulk and two-dimensional MoS <sub>2</sub> : vibrational properties of atomically thin MoS <sub>2</sub> layers. 2D Materials, 2015, 2, 035006. | 2.0 | 97 |
| 119 | Synthesis of Cu2ZnSnS4nanoparticles and analysis of secondary phases in powder pellets. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 329-335. | 0.8 | 8 |
| 120 | Cu<sub>2</sub>ZnSnS<sub>4</sub>absorber layers deposited by spray pyrolysis for advanced photovoltaic technology. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 126-134. | 0.8 | 7 |
| 121 | CuIn1â^'Al Se2 thin film solar cells with depth gradient composition prepared by selenization of evaporated metallic precursors. Solar Energy Materials and Solar Cells, 2015, 132, 245-251. | 3.0 | 22 |
| 122 | Raman scattering analysis of electrodeposited Cu(In,Ga)Se2 solar cells: Impact of ordered vacancy compounds on cell efficiency. Applied Physics Letters, 2014, 105, . | 1.5 | 49 |
| 123 | Multiwavelength excitation Raman scattering of Cu2ZnSn(SxSe1â^'x)4 (0â€‰â‰â€‰<i>x</i>â€‰â‰â€‰1) polycrystalline thin films: Vibrational properties of sulfoselenide solid solutions. Applied Physics Letters, 2014, 105, . | 1.5 | 64 |
| 124 | Rapid thermal processing of Cu<inf>2</inf>ZnSnSe<inf>4</inf> thin films. , 2014, , . | | 1 |
| 125 | Simplified formation process for Cu2ZnSnS4-based solar cells. Thin Solid Films, 2014, 573, 148-158. | 0.8 | 15 |
| 126 | Structural study and Raman scattering analysis of Cu_2ZnSiTe_4 bulk crystals. Optics Express, 2014, 22, A1936. | 1.7 | 11 |

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| 127 | Rapid annealing of reactively sputtered precursors for Cu<sub>2</sub>ZnSnS<sub>4</sub> solar cells. Progress in Photovoltaics: Research and Applications, 2014, 22, 10-17. | 4.4 | 131 |
| 128 | Secondary phase formation in Znâ€rich Cu<sub>2</sub>ZnSnSe<sub>4</sub>â€based solar cells annealed in low pressure and temperature conditions. Progress in Photovoltaics: Research and Applications, 2014, 22, 479-487. | 4.4 | 97 |
| 129 | High V<inf>OC</inf> Cu<inf>2</inf>ZnSnSe<inf>4</inf>/CdS:Cu based solar cell: Evidences of a metal-insulator-semiconductor (MIS) type hetero-junction. , 2014, , . | | 8 |
| 130 | ZnS grain size effects on near-resonant Raman scattering: optical non-destructive grain size estimation. CrystEngComm, 2014, 16, 4120. | 1.3 | 105 |
| 131 | Two ideal compositions for kesterite-based solar cell devices. , 2014, , . | | 3 |
| 132 | Vibrational and structural properties of Cu<inf>2</inf>ZnSn(S<inf>x</inf>Se<inf>1−x</inf>)<inf>4</inf> (0 ≤ x ≤ 1) solid solutions. , 2014, , . | | 0 |
| 133 | Discrimination and detection limits of secondary phases in Cu2ZnSnS4 using X-ray diffraction and Raman spectroscopy. Thin Solid Films, 2014, 569, 113-123. | 0.8 | 98 |
| 134 | Precursor Stack Ordering Effects in Cu<sub>2</sub>ZnSnSe<sub>4</sub> Thin Films Prepared by Rapid Thermal Processing. Journal of Physical Chemistry C, 2014, 118, 17291-17298. | 1.5 | 53 |
| 135 | Impact of Sn(S,Se) Secondary Phases in Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub> Solar Cells: a Chemical Route for Their Selective Removal and Absorber Surface Passivation. ACS Applied Materials & Interfaces, 2014, 6, 12744-12751. | 4.0 | 132 |
| 136 | Multiwavelength excitation Raman scattering study of polycrystalline kesterite Cu2ZnSnS4 thin films. Applied Physics Letters, 2014, 104, . | 1.5 | 249 |
| 137 | Combined Raman scattering/photoluminescence analysis of Cu(In,Ga)Se2 electrodeposited layers. Solar Energy, 2014, 103, 89-95. | 2.9 | 16 |
| 138 | Optical phonons in the wurtzstanniteCu2ZnGeS4semiconductor: Polarized Raman spectroscopy and first-principle calculations. Physical Review B, 2014, 89, . | 1.1 | 24 |
| 139 | Raman scattering crystalline assessment of polycrystalline Cu2ZnSnS4 thin films for sustainable photovoltaic technologies: Phonon confinement model. Acta Materialia, 2014, 70, 272-280. | 3.8 | 115 |
| 140 | ZnSe Etching of Znâ€Rich Cu<sub>2</sub>ZnSnSe<sub>4</sub>: An Oxidation Route for Improved Solarâ€Cell Efficiency. Chemistry - A European Journal, 2013, 19, 14814-14822. | 1.7 | 118 |
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