

Stephen Reynolds

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

97
papers

849
citations

14
h-index

25
g-index

100
ext. papers

904
ext. citations

2.4
avg, IF

3.51
L-index

| # | Paper | IF | Citations |
|----|---|-----|-----------|
| 97 | Modelling and simulation tool for off-grid PV-hydrogen energy system. <i>International Journal of Sustainable Energy</i> , 2020 , 39, 1-20 | 2.7 | 4 |
| 96 | Silicon Thin Films: Functional Materials for Energy, Healthcare, and IT Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1800847 | 1.6 | 1 |
| 95 | Spectral matching and outdoor solar to electrical conversion efficiency in thin-film silicon multi-junction solar cells. <i>Journal of Physics: Conference Series</i> , 2017 , 794, 012025 | 0.3 | 5 |
| 94 | Optical sensing of polarization using conical diffraction phenomenon. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 025609 | 1.7 | 7 |
| 93 | Micro/small wind turbine power control for electrolysis applications. <i>Renewable Energy</i> , 2016 , 87, 182-192 | 3.1 | 10 |
| 92 | Macro Micro Studio: A Prototype Energy Autonomous Laboratory. <i>Sustainability</i> , 2016 , 8, 500 | 3.6 | 4 |
| 91 | Modelling Performance of Two- And Four-terminal Thin-film Silicon Tandem Solar Cells under Varying Spectral Conditions. <i>Energy Procedia</i> , 2015 , 84, 251-260 | 2.3 | 12 |
| 90 | Equivalent-circuit and Transport-based Mobility Models of Microcrystalline Silicon Solar Cells. <i>Energy Procedia</i> , 2014 , 44, 192-202 | 2.3 | 2 |
| 89 | Electronic properties of undoped microcrystalline silicon oxide films. <i>Canadian Journal of Physics</i> , 2014 , 92, 753-757 | 1.1 | 1 |
| 88 | Study of electron-irradiated silicon thin films using transient photocurrent spectroscopy. <i>Journal of Physics: Conference Series</i> , 2014 , 558, 012001 | 0.3 | |
| 87 | Transient photocurrents as a spatially resolved probe of carrier transport and defect distributions in silicon thin films. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2013 , 178, 568-573 | 3.1 | |
| 86 | Properties of thin-film silicon solar cells at very high irradiance. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 2202-2205 | 3.9 | 2 |
| 85 | Continuous wave terahertz radiation from an InAs/GaAs quantum-dot photomixer device. <i>Applied Physics Letters</i> , 2012 , 101, 081114 | 3.4 | 15 |
| 84 | Modelling of two-and four-terminal thin-film silicon tandem solar cells. <i>Journal of Physics: Conference Series</i> , 2012 , 398, 012006 | 0.3 | 5 |
| 83 | Equivalent-circuit Modeling of Microcrystalline Silicon pin Solar Cells prepared over a Wide Range of Absorber-layer Compositions. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1245, 1 | | 1 |
| 82 | Early exploration of MRI-compatible diagnostic ultrasound transducers 2010 , | | 4 |
| 81 | Study of thin-film silicon solar cells at irradiances above ten thousand suns. <i>Journal of Physics: Conference Series</i> , 2010 , 253, 012042 | 0.3 | 1 |

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| 80 | Structure-related strain and stress in thin hydrogenated microcrystalline silicon films. <i>Journal of Physics: Conference Series</i> , 2010 , 253, 012056 | 0.3 | 0 |
| 79 | Carrier mobility, band tails and defects in microcrystalline silicon. <i>Journal of Physics: Conference Series</i> , 2010 , 253, 012002 | 0.3 | 5 |
| 78 | Measurement and modelling of transport in amorphous semiconductors. <i>Journal of Physics: Conference Series</i> , 2010 , 253, 012001 | 0.3 | |
| 77 | Intensity dependence of quantum efficiency and photo-gating effects in thin film silicon solar cells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010 , 7, NA-NA | | 3 |
| 76 | Correlation of structural and optoelectronic properties of thin film silicon prepared at the transition from microcrystalline to amorphous growth. <i>Thin Solid Films</i> , 2009 , 517, 6392-6395 | 2.2 | 12 |
| 75 | Electrical properties of nanocrystalline CdSe thin films prepared by thermal vacuum evaporation. <i>Semiconductor Science and Technology</i> , 2008 , 23, 095002 | 1.8 | 25 |
| 74 | Modulated photoconductivity study of nanocrystalline CdSe films. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 2744-2747 | 3.9 | 2 |
| 73 | Thermally stimulated currents in thin silicon films arising from atmospheric effects without light exposure. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 2337-2340 | 3.9 | 2 |
| 72 | Determination of the density of localized states in disordered semiconductors using transient photocurrent spectroscopy with a finite-width light pulse excitation. <i>Philosophical Magazine Letters</i> , 2008 , 88, 191-201 | 1 | 0 |
| 71 | Density of states in the gap of microcrystalline silicon determined from thermally-stimulated currents. <i>Thin Solid Films</i> , 2008 , 516, 6844-6847 | 2.2 | 6 |
| 70 | Thermally-Stimulated Currents in Thin-Film Semiconductors: Analysis and Modelling. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 910, 2 | | |
| 69 | Relationship between Phase Shift, Square-Wave Response and Density of States in Modulated Photocurrent Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 910, 1 | | |
| 68 | Time-resolved Photoconductivity as a Probe of Carrier Transport in Microcrystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 910, 1 | | |
| 67 | Numerical simulation of the steady state photoconductivity in hydrogenated amorphous silicon including localized state electron hopping. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 3721-3734 | 1.8 | 9 |
| 66 | Modulated photoluminescence studies for lifetime determination in amorphous-silicon passivated crystalline-silicon wafers. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1888-1891 | 3.9 | 32 |
| 65 | Numerical modeling of thermally-stimulated currents for the density-of-states determination in thin-film semiconductors. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1028-1031 | 3.9 | 5 |
| 64 | Metastable effects in silicon thin films: Atmospheric adsorption and light-induced degradation. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1075-1078 | 3.9 | 23 |
| 63 | Electron and hole transport in microcrystalline silicon solar cells studied by time-of-flight photocurrent spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1093-1096 | 3.9 | 27 |

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|----|---|-----|----|
| 62 | Atmospheric adsorption effects in hot-wire chemical-vapor-deposition microcrystalline silicon films with different electrode configurations. <i>Semiconductors</i> , 2005 , 39, 343-346 | 0.7 | 5 |
| 61 | Defect states in CdSe nanocrystalline layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005 , 202, 1081-1087 | 1.6 | 2 |
| 60 | Transport and Meyer-Neldel Rule in Microcrystalline Silicon Films. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 862, 561 | | 4 |
| 59 | Extension of the Constant Photocurrent Method to Determine Densities of Occupied and Unoccupied Localised States. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 808, 591 | | 2 |
| 58 | Decay from steady-state photocurrent in amorphous semiconductors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004 , 1, 1194-1207 | | 9 |
| 57 | Comparison of AC and DC constant photocurrent methods for determination of defect densities. <i>Journal of Non-Crystalline Solids</i> , 2004 , 338-340, 228-231 | 3.9 | 13 |
| 56 | Aging effects in microcrystalline silicon films studied by transient photoconductivity. <i>Journal of Non-Crystalline Solids</i> , 2004 , 338-340, 421-424 | 3.9 | 20 |
| 55 | Interpretation of Transient Photocurrents in Coplanar and Sandwich PIN Microcrystalline Silicon Structures. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 808, 332 | | 5 |
| 54 | Depth Profiling of Light-Induced Defects in Hydrogenated Amorphous Silicon by Transient Photocurrent Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 19131 | | |
| 53 | Determination of Defect Densities by Constant Photocurrent Method [Comparison of AC and DC Methods. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 19121 | | 2 |
| 52 | The influence of generation and transport processes in the constant photocurrent method. <i>Journal of Materials Science: Materials in Electronics</i> , 2003 , 14, 681-684 | 2.1 | 2 |
| 51 | Spatial and energetic profiling of defects in thin-film silicon. <i>Journal of Materials Science: Materials in Electronics</i> , 2003 , 14, 615-619 | 2.1 | 2 |
| 50 | Analysis and modelling of generation-recombination noise in amorphous semiconductors. <i>Thin Solid Films</i> , 2003 , 427, 133-136 | 2.2 | 2 |
| 49 | A Study of Electronic Defects in Hydrogenated Amorphous Silicon Prepared by the Expanding Thermal Plasma Technique. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 19141 | | 1 |
| 48 | Localised States in Microcrystalline Silicon Photovoltaic Structures Studied by Post-Transit Time-of-Flight Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 431 | | 2 |
| 47 | Transient Photoconductivity for the Identification of Spatial Inhomogeneities in the Defect Density in Amorphous Silicon. <i>Physica Status Solidi A</i> , 2002 , 191, 530-534 | | 1 |
| 46 | Depth profiling in amorphous and microcrystalline silicon by transient photoconductivity techniques. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 6909-6915 | 1.8 | 5 |
| 45 | Size-Dependent Absorption and Defect States in CdSe Nanocrystals in Various Multilayer Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2002 , 2, 645-652 | 1.3 | 5 |

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|----|---|-----|----|
| 44 | Probing localized states distributions in semiconductors by Laplace transform transient photocurrent spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 541-545 | 3.9 | 4 |
| 43 | The influence of defects on response speed of high gain two-beam photogating in a-Si:H PIN structures. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 594-598 | 3.9 | 1 |
| 42 | Transient Photocurrents in Microcrystalline Silicon Films. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 715, 2121 | | 8 |
| 41 | Size-dependent absorption and defect states in CdSe nanocrystals in various multilayer structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2002 , 2, 645-52 | 1.3 | |
| 40 | Depth profiling and the effect of oxygen and carbon on the photoelectrical properties of amorphous silicon films deposited using tungsten wire filaments. <i>Thin Solid Films</i> , 2001 , 395, 130-133 | 2.2 | 7 |
| 39 | Density-of-states distribution in AlGaIn obtained from transient photocurrent analysis. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001 , 82, 206-208 | 3.1 | 5 |
| 38 | Defect pool model based transient photoconductivity and the conduction band tail profile in a-Si:H. <i>Journal of Physics Condensed Matter</i> , 2001 , 13, 10969-10977 | 1.8 | 3 |
| 37 | Laplace-transform Transient Photocurrent Spectroscopy as a Probe of Metastable Defect Distributions in Hydrogenated Amorphous Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 1931 | | 4 |
| 36 | Effect of Experimental Noise on Recovery of the Electronic Density of States from Transient Photocurrent Data. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 2261 | | |
| 35 | Generation- Recombination Noise in Amorphous Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 2371 | | 1 |
| 34 | Improved High Resolution Post-Transit Spectroscopy for Determining the Density of States in Amorphous Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 609, 2761 | | |
| 33 | A Laplace Transform Technique for Direct Determination of Density of Electronic States in Disordered Semiconductors from Transient Photocurrent Data. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 609, 2781 | | 3 |
| 32 | High resolution density of states spectroscopy in semiconductors by exact post-transit current analysis. <i>Journal of Applied Physics</i> , 2000 , 88, 1190-1192 | 2.5 | 5 |
| 31 | An experimental evaluation of transient and modulated photocurrent density-of-states spectroscopies. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000 , 80, 547-559 | | 34 |
| 30 | Interpreting transient photocurrents as a signature of the density of states distribution: the profound importance of the short-time decay. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 362-366 | 3.9 | 5 |
| 29 | A comparative study of photoconductivity and carrier transport in oligomeric films. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 994-998 | 3.9 | 8 |
| 28 | An enhanced resolution technique for determination of the distribution of localized states in semiconductors from transient photocurrents. <i>Applied Physics Letters</i> , 2000 , 76, 3085-3087 | 3.4 | 3 |
| 27 | Bandwidth considerations in modulated and transient photoconductivity measurements to determine localized state distributions. <i>Journal of Applied Physics</i> , 2000 , 88, 278-282 | 2.5 | 4 |

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|----|--|-----|-----|
| 26 | Transient photoconductivity, density of tail states and doping effect in amorphous silicon. <i>Solid State Communications</i> , 1999 , 112, 535-539 | 1.6 | 8 |
| 25 | Investigation of collection efficiencies much larger than unity in a-Si:H p-i-n structures. <i>Journal of Applied Physics</i> , 1999 , 85, 296-301 | 2.5 | 8 |
| 24 | Photoconductivity Transient Response from the Steady State in Amorphous Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 421 | | 2 |
| 23 | Collection Efficiencies Greater Than Unity by Electron Or Hole Gating in a-Si:H p-i-n Diodes. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 475 | | 1 |
| 22 | An Experimental Evaluation of Modulated Photocurrent Spectroscopy as A Density of States Probe. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 427 | | 3 |
| 21 | Sign reversal in transient photoconductivity in the presence of optical bias in undoped homogeneous a-Si:H. <i>Journal of Non-Crystalline Solids</i> , 1998 , 227-230, 211-215 | 3.9 | 3 |
| 20 | Noise and modulated photocurrents in amorphous semiconductors. <i>Journal of Non-Crystalline Solids</i> , 1998 , 227-230, 233-237 | 3.9 | 7 |
| 19 | Effects of bandwidth limitations on the localized state distribution calculated from transient photoconductivity data. <i>Journal of Applied Physics</i> , 1998 , 83, 4782-4787 | 2.5 | 5 |
| 18 | Evaluation of the DICE analysis method for a-Si:H p-i-n devices. <i>Journal of Non-Crystalline Solids</i> , 1996 , 198-200, 1221-1225 | 3.9 | 4 |
| 17 | Measurement and modelling of vibrational mode lineshape and linewidth in inelastic electron tunnelling spectroscopy. <i>Surface Science</i> , 1996 , 368, 324-329 | 1.8 | 6 |
| 16 | The Study of Space Charge Effects by Spectral Response, Steady State Charge Collection and Transient Photocurrents in Thick a-Si:H Pin-Diodes. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 420, 251 | | 3 |
| 15 | Electroporation protocols for Agrobacterium. <i>Methods in Molecular Biology</i> , 1995 , 44, 405-12 | 1.4 | 25 |
| 14 | A high-voltage, high-frequency linear amplifier/driver for capacitive loads. <i>Measurement Science and Technology</i> , 1992 , 3, 283-288 | 2 | 3 |
| 13 | Determination of gap-state distributions in amorphous semiconductors from transient photocurrents using a fourier transform technique. <i>Solid State Communications</i> , 1992 , 83, 401-405 | 1.6 | 65 |
| 12 | Modulated and transient photoconductivity in a-As ₂ Se ₃ . <i>Journal of Non-Crystalline Solids</i> , 1991 , 137-138, 951-954 | 3.9 | 24 |
| 11 | An evaluation of phase-shift analysis of modulated photocurrents. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1990 , 62, 29-45 | | 138 |
| 10 | A phenomenological model of switching in metal-thin insulator-semiconductor-semiconductor devices: A development of the analogy with the thyristor. <i>Journal of Applied Physics</i> , 1989 , 65, 2102-2110 | 2.5 | 1 |
| 9 | Anomalous high zero bias resistance in metal - amorphous silicon - metal structures. <i>Journal of Non-Crystalline Solids</i> , 1989 , 115, 171-173 | 3.9 | 11 |

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| 8 | Bias polarity-dependent changes in vibrational mode energy in inelastic electron tunnelling spectroscopy. <i>Journal of Physics C: Solid State Physics</i> , 1987 , 20, 4297-4306 | | 4 |
| 7 | Amorphous semiconductors. <i>Physics in Technology</i> , 1987 , 18, 193-203 | | 2 |
| 6 | Pre-formed J-V and C-V characteristics of a-Si:H p+ ni junctions. <i>Journal of Non-Crystalline Solids</i> , 1987 , 97-98, 1331-1334 | 3.9 | |
| 5 | Transient current instabilities in a-Si: Hp+ni structures. <i>IEE Proceedings I: Solid State and Electron Devices</i> , 1987 , 134, 1 | | 1 |
| 4 | The application of inelastic electron tunnelling spectroscopy to adhesive bonding. <i>International Journal of Adhesion and Adhesives</i> , 1985 , 5, 59-65 | 3.4 | 11 |
| 3 | The switching mechanism in amorphous silicon junctions. <i>Journal of Non-Crystalline Solids</i> , 1985 , 77-78, 1373-1382 | 3.9 | 59 |
| 2 | Inelastic electron tunnelling spectroscopy of silane coupling agents. <i>Surface and Interface Analysis</i> , 1984 , 6, 40-45 | 1.5 | 33 |
| 1 | An adhesive study by electron tunnelling: Ethyl Cyanoacrylate adsorbed on an oxidized aluminium surface. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1982 , 38, 103-111 | | 19 |