

Stephen Reynolds

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3120608/publications.pdf>

Version: 2024-02-01

100
papers

959
citations

706676

14
h-index

591227

27
g-index

100
all docs

100
docs citations

100
times ranked

688
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling and simulation tool for off-grid PV-hydrogen energy system. International Journal of Sustainable Energy, 2020, 39, 1-20.	1.3	13
2	Silicon Thin Films: Functional Materials for Energy, Healthcare, and IT Applications. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800847.	0.8	1
3	Spectral matching and outdoor solar to electrical conversion efficiency in thin-film silicon multi-junction solar cells. Journal of Physics: Conference Series, 2017, 794, 012025.	0.3	5
4	Macro Micro Studio: A Prototype Energy Autonomous Laboratory. Sustainability, 2016, 8, 500.	1.6	7
5	Optical sensing of polarization using conical diffraction phenomenon. Journal of Optics (United Tj ETQq1 1 0.784314 rgBT /Qverlock	1.0	9
6	Micro/small wind turbine power control for electrolysis applications. Renewable Energy, 2016, 87, 182-192.	4.3	13
7	Modelling Performance of Two- And Four-terminal Thin-film Silicon Tandem Solar Cells under Varying Spectral Conditions. Energy Procedia, 2015, 84, 251-260.	1.8	14
8	Equivalent-circuit and Transport-based Mobility Models of Microcrystalline Silicon Solar Cells. Energy Procedia, 2014, 44, 192-202.	1.8	2
9	Electronic properties of undoped microcrystalline silicon oxide films. Canadian Journal of Physics, 2014, 92, 753-757.	0.4	1
10	Nikolay Kirov Nikolov. Journal of Physics: Conference Series, 2014, 558, 011003.	0.3	0
11	Study of electron-irradiated silicon thin films using transient photocurrent spectroscopy. Journal of Physics: Conference Series, 2014, 558, 012001.	0.3	0
12	Transient photocurrents as a spatially resolved probe of carrier transport and defect distributions in silicon thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 568-573.	1.7	0
13	Continuous wave terahertz radiation from an InAs/GaAs quantum-dot photomixer device. Applied Physics Letters, 2012, 101, 081114.	1.5	22
14	Modelling of two-and four-terminal thin-film silicon tandem solar cells. Journal of Physics: Conference Series, 2012, 398, 012006.	0.3	7
15	Properties of thin-film silicon solar cells at very high irradiance. Journal of Non-Crystalline Solids, 2012, 358, 2202-2205.	1.5	2
16	Structure-related strain and stress in thin hydrogenated microcrystalline silicon films. Journal of Physics: Conference Series, 2010, 253, 012056.	0.3	2
17	Carrier mobility, band tails and defects in microcrystalline silicon. Journal of Physics: Conference Series, 2010, 253, 012002.	0.3	6
18	Measurement and modelling of transport in amorphous semiconductors. Journal of Physics: Conference Series, 2010, 253, 012001.	0.3	1

#	ARTICLE	IF	CITATIONS
19	Excimer laser wet oxidation of hydrogenated amorphous silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, NA-NA.	0.8	2
20	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, 505-508.	0.8	7
21	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.	0.1	1
22	Early exploration of MRI-compatible diagnostic ultrasound transducers. , 2010, , .		8
23	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
24	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.	0.8	12
25	Density of states in the gap of microcrystalline silicon determined from thermally-stimulated currents. <i>Thin Solid Films</i> , 2008, 516, 6844-6847.	0.8	6
26	Electrical properties of nanocrystalline CdSe thin films prepared by thermal vacuum evaporation. <i>Semiconductor Science and Technology</i> , 2008, 23, 095002.	1.0	28
27	Modulated photoconductivity study of nanocrystalline CdSe films. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 2744-2747.	1.5	2
28	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.	1.5	2
29	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.	0.5	1
30	Modulated photoluminescence studies for lifetime determination in amorphous-silicon passivated crystalline-silicon wafers. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1888-1891.	1.5	37
31	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.	1.5	5
32	Metastable effects in silicon thin films: Atmospheric adsorption and light-induced degradation. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1075-1078.	1.5	24
33	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.	1.5	29
34	Thermally-Stimulated Currents in Thin-Film Semiconductors: Analysis and Modelling. <i>Materials Research Society Symposia Proceedings</i> , 2006, 910, 2.	0.1	0
35	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.	0.1	0
36	Time-resolved Photoconductivity as a Probe of Carrier Transport in Microcrystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2006, 910, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
37	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.	0.7	13
38	Atmospheric adsorption effects in hot-wire chemical-vapor-deposition microcrystalline silicon films with different electrode configurations. <i>Semiconductors</i> , 2005, 39, 343-346.	0.2	5
39	Defect states in CdSe nanocrystalline layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 1081-1087.	0.8	2
40	Transport and Meyer-Neldel Rule in Microcrystalline Silicon Films. <i>Materials Research Society Symposia Proceedings</i> , 2005, 862, 561.	0.1	4
41	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.	0.1	2
42	Decay from steady-state photocurrent in amorphous semiconductors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 1194-1207.	0.8	9
43	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.	1.5	16
44	Aging effects in microcrystalline silicon films studied by transient photoconductivity. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 421-424.	1.5	21
45	Interpretation of Transient Photocurrents in Coplanar and Sandwich PIN Microcrystalline Silicon Structures. <i>Materials Research Society Symposia Proceedings</i> , 2004, 808, 332.	0.1	5
46	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.	1.1	3
47	Spatial and energetic profiling of defects in thin-film silicon. <i>Journal of Materials Science: Materials in Electronics</i> , 2003, 14, 615-619.	1.1	2
48	Analysis and modelling of generation-recombination noise in amorphous semiconductors. <i>Thin Solid Films</i> , 2003, 427, 133-136.	0.8	3
49	Depth Profiling of Light-Induced Defects in Hydrogenated Amorphous Silicon by Transient Photocurrent Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003, 762, 19131.	0.1	0
50	Determination of Defect Densities by Constant Photocurrent Method - Comparison of AC and DC Methods. <i>Materials Research Society Symposia Proceedings</i> , 2003, 762, 19121.	0.1	2
51	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.	0.1	1
52	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.	0.1	2
53	Depth profiling in amorphous and microcrystalline silicon by transient photoconductivity techniques. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 6909-6915.	0.7	6
54	Size-Dependent Absorption and Defect States in CdSe Nanocrystals in Various Multilayer Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2002, 2, 645-652.	0.9	5

#	ARTICLE	IF	CITATIONS
55	Probing localized states distributions in semiconductors by Laplace transform transient photocurrent spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2002, 299-302, 541-545.	1.5	5
56	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.	1.5	5
57	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.	1.7	2
58	Transient Photocurrents in Microcrystalline Silicon Films. <i>Materials Research Society Symposia Proceedings</i> , 2002, 715, 2121.	0.1	8
59	Analysis of Post-Transit Photocurrent-Time Data by Application of Tikhonov Regularization. <i>Materials Research Society Symposia Proceedings</i> , 2002, 715, .	0.1	0
60	Size-dependent absorption and defect states in CdSe nanocrystals in various multilayer structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2002, 2, 645-52.	0.9	0
61	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.	0.1	5
62	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.	0.1	0
63	Generation- Recombination Noise in Amorphous Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 2001, 664, 2371.	0.1	1
64	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.	0.8	7
65	Density-of-states distribution in AlGaN obtained from transient photocurrent analysis. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001, 82, 206-208.	1.7	7
66	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.	0.7	3
67	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.	0.1	0
68	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.	0.1	4
69	High resolution density of states spectroscopy in semiconductors by exact post-transit current analysis. <i>Journal of Applied Physics</i> , 2000, 88, 1190-1192.	1.1	7
70	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.	0.6	34
71	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.	1.5	5
72	A comparative study of photoconductivity and carrier transport in oligomeric films. <i>Journal of Non-Crystalline Solids</i> , 2000, 266-269, 994-998.	1.5	10

#	ARTICLE	IF	CITATIONS
73	An enhanced resolution technique for determination of the distribution of localized states in semiconductors from transient photocurrents. Applied Physics Letters, 2000, 76, 3085-3087.	1.5	4
74	Bandwidth considerations in modulated and transient photoconductivity measurements to determine localized state distributions. Journal of Applied Physics, 2000, 88, 278-282.	1.1	7
75	Transient photoconductivity, density of tail states and doping effect in amorphous silicon. Solid State Communications, 1999, 112, 535-539.	0.9	9
76	Investigation of collection efficiencies much larger than unity in a-Si:H p-i-n structures. Journal of Applied Physics, 1999, 85, 296-301.	1.1	11
77	Photoconductivity Transient Response from the Steady State in Amorphous Semiconductors. Materials Research Society Symposia Proceedings, 1999, 557, 421.	0.1	2
78	Collection Efficiencies Greater Than Unity by Electron Or Hole Gating in a-Si:H p-i-n Diodes. Materials Research Society Symposia Proceedings, 1999, 557, 475.	0.1	1
79	An Experimental Evaluation of Modulated Photocurrent Spectroscopy as A Density of States Probe. Materials Research Society Symposia Proceedings, 1999, 557, 427.	0.1	3
80	Sign reversal in transient photoconductivity in the presence of optical bias in undoped homogeneous a-Si:H. Journal of Non-Crystalline Solids, 1998, 227-230, 211-215.	1.5	3
81	Noise and modulated photocurrents in amorphous semiconductors. Journal of Non-Crystalline Solids, 1998, 227-230, 233-237.	1.5	8
82	Effects of bandwidth limitations on the localized state distribution calculated from transient photoconductivity data. Journal of Applied Physics, 1998, 83, 4782-4787.	1.1	6
83	Evaluation of the DICE analysis method for a-Si:H p-i-n devices. Journal of Non-Crystalline Solids, 1996, 198-200, 1221-1225.	1.5	4
84	Measurement and modelling of vibrational mode lineshape and linewidth in inelastic electron tunnelling spectroscopy. Surface Science, 1996, 368, 324-329.	0.8	6
85	The Study of Space Charge Effects by Spectral Response, Steady State Charge Collection and Transient Photocurrents in Thick a-Si:H Pin-Diodes. Materials Research Society Symposia Proceedings, 1996, 420, 251.	0.1	3
86	Electroporation Protocols for Agrobacterium. , 1995, 44, 405-412.		27
87	A high-voltage, high-frequency linear amplifier/driver for capacitive loads. Measurement Science and Technology, 1992, 3, 283-288.	1.4	5
88	Determination of gap-state distributions in amorphous semiconductors from transient photocurrents using a fourier transform technique. Solid State Communications, 1992, 83, 401-405.	0.9	69
89	Modulated and transient photoconductivity in a-As ₂ Se ₃ . Journal of Non-Crystalline Solids, 1991, 137-138, 951-954.	1.5	25
90	An evaluation of phase-shift analysis of modulated photocurrents. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1990, 62, 29-45.	0.6	142

#	ARTICLE	IF	CITATIONS
91	A phenomenological model of switching in metal-insulator-semiconductor devices: A development of the analogy with the thyristor. Journal of Applied Physics, 1989, 65, 2102-2110.	1.1	1
92	Anomalous high zero bias resistance in metal - amorphous silicon - metal structures. Journal of Non-Crystalline Solids, 1989, 115, 171-173.	1.5	13
93	Bias polarity-dependent changes in vibrational mode energy in inelastic electron tunnelling spectroscopy. Journal of Physics C: Solid State Physics, 1987, 20, 4297-4306.	1.5	4
94	Amorphous semiconductors. Physics in Technology, 1987, 18, 193-203.	0.2	2
95	Pre-formed J-V and C-V characteristics of a-Si:H p+ ni junctions. Journal of Non-Crystalline Solids, 1987, 97-98, 1331-1334.	1.5	0
96	Transient current instabilities in a-Si: H _p +ni structures. IEE Proceedings I: Solid State and Electron Devices, 1987, 134, 1.	0.1	1
97	The application of inelastic electron tunnelling spectroscopy to adhesive bonding. International Journal of Adhesion and Adhesives, 1985, 5, 59-65.	1.4	12
98	The switching mechanism in amorphous silicon junctions. Journal of Non-Crystalline Solids, 1985, 77-78, 1373-1382.	1.5	64
99	Inelastic electron tunnelling spectroscopy of silane coupling agents. Surface and Interface Analysis, 1984, 6, 40-45.	0.8	34
100	An adhesive study by electron tunnelling: Ethyl $\hat{\iota}$ -cyanoacrylate adsorbed on an oxidized aluminium surface. Spectrochimica Acta Part A: Molecular Spectroscopy, 1982, 38, 103-111.	0.1	19