

Gavin J Conibeer

List of Publications by Year in descending order

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267
papers

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citations

50276

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286
docs citations

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times ranked

8624
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of thermal annealing on the distribution of boron and phosphorus in p-i-n structured silicon nanocrystals embedded in silicon dioxide. <i>Nanotechnology</i> , 2022, 33, 075709.	2.6	5
2	Investigating Electronic, Optical, and Phononic Properties of Bulk M_2ON_2 and $\text{M}_7\text{O}_8\text{N}_4$ (M = Hf and Zr) Insulators Using Density Functional Theory. <i>ACS Omega</i> , 2022, 7, 9196-9205.	3.5	2
3	Review of the mechanisms for the phonon bottleneck effect in III-V semiconductors and their application for efficient hot carrier solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2022, 30, 581-596.	8.1	16
4	Anomalous Structural Evolution and Glassy Lattice in Mixed-Halide Hybrid Perovskites. <i>Small</i> , 2022, 18, e2200847.	10.0	13
5	Optoelectronic reciprocity in hot carrier solar cells with ideal energy selective contacts. <i>Progress in Photovoltaics: Research and Applications</i> , 2021, 29, 433-444.	8.1	4
6	Degradation of Indigo Carmine in Alkaline Dye-Mediated Direct Carbohydrate Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2021, 168, 044523.	2.9	2
7	Simultaneous Fe_3O_4 Nanoparticle Formation and Catalyst-Driven Hydrothermal Cellulose Degradation. <i>ACS Omega</i> , 2021, 6, 10790-10800.	3.5	4
8	Passivating Quantum Dot Carrier Transport Layer with Metal Salts. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 28679-28688.	8.0	3
9	Structural and Optical Properties of Nonstoichiometric Titanium Hydride, Vanadium Hydride and Zirconium Hydride as Hot Carrier Solar Cell Absorbers. , 2021, , .		0
10	Synthesis and Characterisation of Hafnium Oxynitride Thin Film: Can It Be Used as a Hot Carrier Solar Cell Material?. , 2021, , .		1
11	A review on thermalization mechanisms and prospect absorber materials for the hot carrier solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 225, 111073.	6.2	27
12	Effect of nanostructuring on picosecond acoustics in a Zr film. <i>Physica Scripta</i> , 2021, 96, 125716.	2.5	0
13	Explore the correlation between intervalley scattering and phonon bottleneck effect on the hot carrier relaxation in bulk GaSb and InN for hot carrier solar cells. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	5
14	Trendsetters in High-Efficiency Organic Solar Cells: Toward 20% Power Conversion Efficiency. <i>Solar Rrl</i> , 2020, 4, 1900342.	5.8	66
15	Get them while they're hot. <i>Nature Energy</i> , 2020, 5, 280-281.	39.5	5
16	Thiocyanate assisted nucleation for high performance mix-cation perovskite solar cells with improved stability. <i>Journal of Power Sources</i> , 2020, 466, 228320.	7.8	29
17	Hafnium and zirconium nitrides with rock-salt and Th_3P_4 structures: electronic and phonon band structure calculations to examine hot carrier solar cell and thermoelectric properties. <i>Electronic Structure</i> , 2020, 2, 025004.	2.8	3
18	Materials and mechanisms for hot carrier solar cell absorbers. , 2020, , .		0

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19	Hot carrier dynamics in nitrogen “ rich hafnium nitride thin film. , 2020, , .		1
20	Solution-processed WO ₃ and water-free PEDOT:PSS composite for hole transport layer in conventional perovskite solar cell. <i>Electrochimica Acta</i> , 2019, 319, 349-358.	5.2	44
21	Optimisation of annealing temperature for low temperature processed inverted structure Caesium Formamidinium Lead Triiodide perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2019, 102, 104580.	4.0	17
22	Enhancing PbS Colloidal Quantum Dot Tandem Solar Cell Performance by Graded Band Alignment. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5729-5734.	4.6	32
23	Solar Cells Based on Hot Carriers and Quantum Dots. , 2019, , 175-213.		2
24	Repurposing commercial anaerobic digester wastewater to improve cyanobacteria cultivation and digestibility for bioenergy systems. <i>Sustainable Energy and Fuels</i> , 2019, 3, 841-849.	4.9	6
25	Investigation of materials for hot carrier solar cell absorbers. , 2019, , .		0
26	Surface Passivation on PEDOT:PSS in conventional perovskite solar cells. , 2019, , .		0
27	Investigation of Structural and Optical Properties of Atomic Layer Deposited Hafnium Nitride Films. , 2019, , .		3
28	Experimental investigation of double barrier structures for energy selective contacts for hot carrier solar cells. , 2019, , .		0
29	Low-temperature processed efficient and colourful semitransparent perovskite solar cells for building integration and tandem applications. <i>Organic Electronics</i> , 2019, 65, 401-411.	2.6	39
30	High-temperature annealing effects on molybdenum“silicon contact substrate for vertically structured silicon quantum-dot solar cells. <i>Applied Nanoscience (Switzerland)</i> , 2019, 9, 135-142.	3.1	0
31	MgCl ₂ passivated ZnO electron transporting layer to improve PbS quantum dot solar cells. <i>Nanotechnology</i> , 2019, 30, 085403.	2.6	8
32	Germanium Template Assisted Integration of Gallium Arsenide Nanocrystals on Silicon: A Versatile Platform for Modern Optoelectronic Materials. <i>Advanced Optical Materials</i> , 2018, 6, 1701329.	7.3	0
33	Single-Mode Near-Infrared Lasing in a GaAsSb-Based Nanowire Superlattice at Room Temperature. <i>Nano Letters</i> , 2018, 18, 2304-2310.	9.1	62
34	Achieving high-performance PbS quantum dot solar cells by improving hole extraction through Ag doping. <i>Nano Energy</i> , 2018, 46, 212-219.	16.0	72
35	Free charges versus excitons: photoluminescence investigation of InGaN/GaN multiple quantum well nanorods and their planar counterparts. <i>Nanoscale</i> , 2018, 10, 5358-5365.	5.6	16
36	Enhanced optoelectronic performance in AgBiS ₂ nanocrystals obtained via an improved amine-based synthesis route. <i>Journal of Materials Chemistry C</i> , 2018, 6, 731-737.	5.5	49

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37	V2O5 -PEDOT: PSS bilayer as hole transport layer for highly efficient and stable perovskite solar cells. Organic Electronics, 2018, 53, 66-73.	2.6	63
38	Improving hole extraction for PbS quantum dot solar cells. , 2018, , .		1
39	Post-Sputtering Heat Treatments of Molybdenum on Silicon Wafer. Applied Sciences (Switzerland), 2018, 8, 1692.	2.5	15
40	MoS2 incorporated hybrid hole transport layer for high performance and stable perovskite solar cells. Synthetic Metals, 2018, 246, 195-203.	3.9	49
41	Improving carrier extraction in a PbSe quantum dot solar cell by introducing a solution-processed antimony-doped SnO ₂ buffer layer. Journal of Materials Chemistry C, 2018, 6, 9861-9866.	5.5	20
42	Potential for improved transport in core-shell CuInS ₂ nanoparticle solar cells from an Ag surface termination. CrystEngComm, 2018, 20, 3381-3387.	2.6	2
43	Quasi-Two-Dimensional Luminescent Silicon Nanosheets. Journal of Physical Chemistry C, 2018, 122, 18912-18921.	3.1	26
44	Ab initio calculation of electronic transport properties between PbSe quantum dots facets with halide ligands (Cl, Br, I). Japanese Journal of Applied Physics, 2018, 57, 08RF01.	1.5	2
45	Role of Surface Recombination in Halide Perovskite Nanoplatelets. ACS Applied Materials & Interfaces, 2018, 10, 31586-31593.	8.0	41
46	Ultrafast carrier dynamics in GaN/InGaN multiple quantum wells nanorods. , 2018, , .		0
47	Mie resonators as rearside light trapping structures in planar crystalline silicon solar cells. , 2018, , .		1
48	Ab initio calculation of transport properties between PbSe quantum dots facets with iodide ligands. , 2018, , .		0
49	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. Nature Communications, 2017, 8, 14120.	12.8	330
50	Inelastic X-ray scattering measurements of III-V multiple quantum wells. Applied Physics Letters, 2017, 110, 043102.	3.3	5
51	Nanoscale characterization of GaN/InGaN multiple quantum wells on GaN nanorods by photoluminescence spectroscopy. , 2017, , .		1
52	Selective optical contacting for solar spectrum management. Proceedings of SPIE, 2017, , .	0.8	0
53	Hot carrier cooling mechanisms in multiple quantum wells. , 2017, , .		2
54	Nanosecond long excited state lifetimes observed in hafnium nitride. Solar Energy Materials and Solar Cells, 2017, 169, 13-18.	6.2	19

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55	Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBr ₃ -xI _x) quantum dots. Journal of Colloid and Interface Science, 2017, 504, 586-592.	9.4	27
56	Bipolar Photothermoelectric Effect Across Energy Filters in Single Nanowires. Nano Letters, 2017, 17, 4055-4060.	9.1	32
57	Resonant Tunneling through Monolayer Si Colloidal Quantum Dots and Ge Nanocrystals. Advanced Functional Materials, 2017, 27, 1605348.	14.9	12
58	Effect of Blend Composition on Bulk Heterojunction Organic Solar Cells: A Review. Solar Rrl, 2017, 1, 1700035.	5.8	29
59	Morphology effects on the bandgap of silicon nanocrystalsâ€”Numerically modelled by a full multi-grid method. Journal of Applied Physics, 2017, 121, .	2.5	4
60	Atom probe tomography of sizeâ€”controlled phosphorus doped silicon nanocrystals. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600376.	2.4	10
61	Lessons Learnt from Spatially Resolved Electroâ€”and Photoluminescence Imaging: Interfacial Delamination in CH ₃ NH ₃ PbI ₃ Planar Perovskite Solar Cells upon Illumination. Advanced Energy Materials, 2017, 7, 1602111.	19.5	50
62	Difference in hot carrier cooling rate between Langmuirâ€”Blodgett and drop cast PbS QD films due to strong electronâ€”phonon coupling. Nanoscale, 2017, 9, 17133-17142.	5.6	11
63	High Performance PbS Colloidal Quantum Dot Solar Cells by Employing Solutionâ€”Processed CdS Thin Films from a Singleâ€”Source Precursor as the Electron Transport Layer. Advanced Functional Materials, 2017, 27, 1703687.	14.9	40
64	A New Passivation Route Leading to Over 8% Efficient PbSe Quantumâ€”Dot Solar Cells via Direct Ion Exchange with Perovskite Nanocrystals. Advanced Materials, 2017, 29, 1703214.	21.0	69
65	Interfacial Area between Heteroâ€”Epitaxial Î²-Al ₂ O ₃ and Silicon. Advanced Materials Interfaces, 2017, 4, 1700259.	3.7	0
66	Single-nanowire, low-bandgap hot carrier solar cells with tunable open-circuit voltage. Nanotechnology, 2017, 28, 434001.	2.6	17
67	Properties of silicon nanocrystals with boron and phosphorus doping fabricated via silicon rich oxide and silicon dioxide bilayers. Materials Research Express, 2017, 4, 075004.	1.6	12
68	Potential of HfN, ZrN, and TiH as hot carrier absorber and Al ₂ O ₃ /Ge quantum well/Al ₂ O ₃ and Al ₂ O ₃ /PbS quantum dots/Al ₂ O ₃ as energy selective contacts. Japanese Journal of Applied Physics, 2017, 56, 08MA03.	1.5	12
69	Increased methane production in cyanobacteria and methanogenic microbe co-cultures. Bioresource Technology, 2017, 243, 686-692.	9.6	13
70	Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr ₃ Perovskite Colloidal Nanocrystal Back Layer. Advanced Energy Materials, 2017, 7, 1601773.	19.5	56
71	Effect of vacuum thermal annealing on a molybdenum bilayer back contact deposited by radio-frequency magnetron sputtering for chalcogenide- and kesterite-based solar cells. Journal of the Korean Physical Society, 2017, 71, 968-973.	0.7	5
72	Accurate analysis of the size distribution and crystallinity of boron doped Si nanocrystals via Raman and PL spectra. RSC Advances, 2017, 7, 34244-34250.	3.6	25

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73	Towards an understanding of hot carrier cooling mechanisms in multiple quantum wells. Japanese Journal of Applied Physics, 2017, 56, 091201.	1.5	25
74	Development of Absorber and Energy Selective Contacts for Hot Carrier Solar Cells. , 2017, , .		1
75	Hot carrier transfer processes in nonstoichiometric titanium hydride. Japanese Journal of Applied Physics, 2017, 56, 08MA10.	1.5	5
76	The current status and future prospects of kesterite solar cells: a brief review. Progress in Photovoltaics: Research and Applications, 2016, 24, 879-898.	8.1	316
77	All-silicon tandem solar cells: Practical limits for energy conversion and possible routes for improvement. Journal of Applied Physics, 2016, 119, .	2.5	12
78	Absorption in and scattering from single horizontal Au-contacted InAs/InP heterostructure nanowires. , 2016, , .		0
79	Atom probe tomography of phosphorus- and boron-doped silicon nanocrystals with various compositions of silicon rich oxide. MRS Communications, 2016, 6, 283-288.	1.8	13
80	Structural, optical, and electrical properties of silicon nanocrystals fabricated by high silicon content silicon-rich oxide and silicon dioxide bilayers. Applied Physics Express, 2016, 9, 115001.	2.4	3
81	Extended hot carrier lifetimes observed in bulk In _{0.265} As _{0.735} N under high-density photoexcitation. Applied Physics Letters, 2016, 108, .	3.3	22
82	Characterisation of active dopants in boron-doped self-assembled silicon nanostructures. Applied Physics Letters, 2016, 109, .	3.3	8
83	Theoretical investigation of carrier transfer by an optical contacting scheme for optoelectronic application. Journal of Applied Physics, 2016, 119, .	2.5	4
84	Observation of Hot Carriers Existing in Ag ₂ S Nanoparticles and Its Implication on Solar Cell Application. Journal of Physical Chemistry C, 2016, 120, 10199-10205.	3.1	11
85	Effect of substrate temperature and radio frequency power on compositional, structural and optical properties of amorphous germanium carbide films deposited using sputtering. Journal of Non-Crystalline Solids, 2016, 443, 97-102.	3.1	7
86	Vertically Oriented Growth of GaN Nanorods on Si Using Graphene as an Atomically Thin Buffer Layer. Nano Letters, 2016, 16, 3524-3532.	9.1	73
87	Up-conversion equivalent circuit to boost current in Si cells. Proceedings of SPIE, 2016, , .	0.8	0
88	Atom Probe Tomography Analysis of Boron and/or Phosphorus Distribution in Doped Silicon Nanocrystals. Journal of Physical Chemistry C, 2016, 120, 17845-17852.	3.1	62
89	Quantification of hot carrier thermalization in PbS colloidal quantum dots by power and temperature dependent photoluminescence spectroscopy. RSC Advances, 2016, 6, 90846-90855.	3.6	20
90	Metal Hydrides as hot carrier cell absorber materials. Proceedings of SPIE, 2016, , .	0.8	0

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91	Ab initio study of $M_{2-x}SnBr_6$ ($M = K, Rb, Cs$): Electronic and optical properties. Europhysics Letters, 2016, 115, 57002.	2.0	6
92	Nanoscale Characterization of Carrier Dynamic and Surface Passivation in InGaN/GaN Multiple Quantum Wells on GaN Nanorods. ACS Applied Materials & Interfaces, 2016, 8, 31887-31893.	8.0	32
93	Ab initio calculation of halide ligand passivation on PbSe quantum dot facets. RSC Advances, 2016, 6, 104699-104707.	3.6	9
94	Pulsed KrF excimer laser dopant activation in nanocrystal silicon in a silicon dioxide matrix. Applied Physics Letters, 2016, 108, .	3.3	11
95	Hafnium nitride for hot carrier solar cells. Solar Energy Materials and Solar Cells, 2016, 144, 781-786.	6.2	24
96	Effect of blend composition on ternary blend organic solar cells using a low band gap polymer. Synthetic Metals, 2016, 212, 142-153.	3.9	5
97	Morphological Evolution and Singlet Fission in Aqueous Suspensions of TIPS-Pentacene Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 157-165.	3.1	71
98	Hot carrier dynamics in HfN and ZrN measured by transient absorption spectroscopy. Solar Energy Materials and Solar Cells, 2016, 150, 51-56.	6.2	19
99	Generation of hot carrier population in colloidal silicon quantum dots for high-efficiency photovoltaics. Solar Energy Materials and Solar Cells, 2016, 145, 391-396.	6.2	19
100	Hot Carrier Cooling in $In_{0.17}Ga_{0.83}As/GaAs_{0.80}P_{0.20}$ Multiple Quantum Wells: The Effect of Barrier Thickness. IEEE Journal of Photovoltaics, 2016, 6, 166-171.	2.5	7
101	Study on the Ultrafast Carrier Dynamics in the Bulk $In_{0.265}GaN$ Thin Film. Energy Procedia, 2015, 84, 165-175.	1.8	3
102	Determination of active doping in highly resistive boron doped silicon nanocrystals embedded in SiO_2 by capacitance voltage measurement on inverted metal oxide semiconductor structure. Journal of Applied Physics, 2015, 118, 154305.	2.5	11
103	Dynamics of metal-induced crystallization of ultrathin Ge films by rapid thermal annealing. Applied Physics Letters, 2015, 107, .	3.3	4
104	Investigation on stability of halide treated PbSe quantum dot thin films for photovoltaic devices. , 2015, , .		0
105	Simplified tight-binding model for conductance calculation with phonon scattering for atomic junctions. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 625-629.	2.7	0
106	Characterization of a Cu_2ZnSnS_4 solar cell fabricated by sulfurization of metallic precursor Mo/Zn/Cu/Sn. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2074-2079.	1.8	6
107	Characterization and simulation of optical absorption in Si nanocrystals. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 271-274.	0.8	1
108	Theoretical investigation of plasmon enhanced optically-coupled hot carrier extraction. , 2015, , .		0

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109	Carrier dynamics and phonon properties of hafnium nitride: Potential hot carrier solar cell absorber. , 2015, , .		0
110	Fabrication and optical characterisation of InGaN/GaN nanorods. , 2015, , .		0
111	High Si content SRO/SiO ₂ bilayer superlattices with boron and phosphorus doping for next generation Si quantum dot photovoltaics. , 2015, , .		2
112	Ultrafast transient absorption study of hot carrier dynamics in hafnium nitride and zirconium nitride. , 2015, , .		0
113	Potential of transition metal nitrides and hydrides as hot carrier solar cell absorbers. , 2015, , .		0
114	Designing Bottom Silicon Solar Cells for Multijunction Devices. IEEE Journal of Photovoltaics, 2015, 5, 683-690.	2.5	19
115	Correlating flat band and onset potentials for solar water splitting on model hematite photoanodes. RSC Advances, 2015, 5, 61021-61030.	3.6	66
116	Accurate determination of the size distribution of Si nanocrystals from PL spectra. RSC Advances, 2015, 5, 55119-55125.	3.6	13
117	Rapid thermal annealed Molybdenum back contact for Cu ₂ ZnSnS ₄ thin film solar cells. Applied Physics Letters, 2015, 106, .	3.3	24
118	Can Tauc plot extrapolation be used for direct-band-gap semiconductor nanocrystals?. Journal of Applied Physics, 2015, 117, .	2.5	88
119	Boron doped Si rich oxide/SiO ₂ and silicon rich nitride/SiN _x bilayers on molybdenum-fused silica substrates for vertically structured Si quantum dot solar cells. Journal of Applied Physics, 2015, 118, 045303.	2.5	3
120	Effect of Halide Treatments on PbSe Quantum Dot Thin Films: Stability, Hot Carrier Lifetime, and Application to Photovoltaics. Journal of Physical Chemistry C, 2015, 119, 24149-24155.	3.1	40
121	Air-stable PbS quantum dots synthesized with slow reaction kinetics via a PbBr ₂ precursor. RSC Advances, 2015, 5, 68579-68586.	3.6	27
122	Size-dependent evolution of phonon confinement in colloidal Si nanoparticles. Journal of Raman Spectroscopy, 2015, 46, 1110-1116.	2.5	9
123	Synthesis of nano-crystalline germanium carbide using radio frequency magnetron sputtering. Thin Solid Films, 2015, 592, 162-166.	1.8	19
124	Theoretical and Experimental Investigation of the Electronic Structure and Quantum Confinement of Wet-Chemistry Synthesized Ag ₂ S Nanocrystals. Journal of Physical Chemistry C, 2015, 119, 867-872.	3.1	61
125	Hot carrier solar cell absorber prerequisites and candidate material systems. Solar Energy Materials and Solar Cells, 2015, 135, 124-129.	6.2	76
126	Hetero-epitaxial Al ₂ O ₃ on Si (100) substrate by sputtering. Materials Letters, 2015, 141, 20-22.	2.6	2

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127	Evaluation of hafnium nitride and zirconium nitride as Hot Carrier absorber. , 2014, , .		5
128	Growth Mechanism and Surface Structure of Ge Nanocrystals Prepared by Thermal Annealing of Cosputtered GeSiO Ternary Precursor. Journal of Nanomaterials, 2014, 2014, 1-7.	2.7	2
129	Passivation effects in B doped self-assembled Si nanocrystals. Applied Physics Letters, 2014, 105, 222108.	3.3	30
130	Electronic confinement in modulation doped quantum dots. Applied Physics Letters, 2014, 104, 153102.	3.3	1
131	The impact of disorder on charge transport in three dimensional quantum dot resonant tunneling structures. Journal of Applied Physics, 2014, 116, 163707.	2.5	8
132	Capacitance-Voltage characterization of in-situ Boron doped silicon quantum dot in silicon dioxide. , 2014, , .		1
133	Hot carrier solar cell absorbers: materials, mechanisms and nanostructures. Proceedings of SPIE, 2014, , .	0.8	4
134	Efficient electron transfer in carbon nanodotâ€“graphene oxide nanocomposites. Journal of Materials Chemistry C, 2014, 2, 2894.	5.5	87
135	In-situ fabrication and characterization of ordered Ge QDs in Si ₃ N ₄ matrix without barrier layers by rf-magnetron sputtering. Applied Surface Science, 2014, 290, 167-171.	6.1	6
136	Improving Cu ₂ ZnSnS ₄ (CZTS) solar cell performance by an ultrathin ZnO intermediate layer between CZTS absorber and Mo back contact. Physica Status Solidi - Rapid Research Letters, 2014, 8, 966-970.	2.4	48
137	Silicon nanocrystal photovoltaic device fabricated via photolithography and its currentâ€“voltage temperature dependence. Solar Energy Materials and Solar Cells, 2014, 128, 435-440.	6.2	15
138	Ultrafast electron transfer in the nanocomposite of the graphene oxideâ€“Au nanocluster with graphene oxide as a donor. Journal of Materials Chemistry C, 2014, 2, 3826-3834.	5.5	82
139	Investigation on the effects of phosphine doping in Si nanocrystal material. , 2014, , .		1
140	Semi-Empirical Limiting Efficiency of Singlet-Fission-Capable Polyacene/Inorganic Hybrid Solar Cells. Journal of Physical Chemistry C, 2014, 118, 2298-2305.	3.1	18
141	Limiting Efficiency of Erbium-Based Up-Conversion for Generalized Realistic c-Si Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 799-806.	2.5	14
142	Improvement of Mo/Cu ₂ ZnSnS ₄ interface for Cu ₂ ZnSnS ₄ (CZTS) thin film solar cell application. Materials Research Society Symposia Proceedings, 2014, 1638, 1.	0.1	5
143	Study of phonons in self-assembled InAs quantum dots embedded in an InGaAlAs matrix. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 57, 1-5.	2.7	1
144	Improved nanocrystal formation, quantum confinement and carrier transport properties of doped Si quantum dot superlattices for third generation photovoltaics. Progress in Photovoltaics: Research and Applications, 2013, 21, 569-577.	8.1	29

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145	Three-dimensional imaging for precise structural control of Si quantum dot networks for all-Si solar cells. <i>Nanoscale</i> , 2013, 5, 7499.	5.6	20
146	Lateral growth of Ge nanocrystals in a thin Ge-rich silicon nitride layer. <i>Journal of Crystal Growth</i> , 2013, 383, 36-42.	1.5	8
147	Investigation in feasibility of Molybdenum as a back contact layer for Silicon based quantum dot solar cells. <i>Proceedings of SPIE</i> , 2013, , .	0.8	5
148	Optical properties and electron dynamics in carbon nanodots. , 2013, , .		0
149	Hot carrier solar cells from group III-V quantum well structures. , 2013, , .		1
150	Investigation of carrier-carrier scattering effect on the performance of hot carrier solar cells with relaxation time approximation. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	21
151	A hot carrier solar cell device model using a coupled electron phonon energy balance model. , 2013, , .		1
152	Size-dependent optical absorption of silicon nanocrystals embedded in SiO ₂ /Si ₃ N ₄ hybrid matrix. <i>Journal of Non-Crystalline Solids</i> , 2013, 362, 169-174.	3.1	2
153	Sputter-grown Si quantum dot nanostructures for tandem solar cells. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 024003.	2.8	25
154	Silicon rich carbide as a conductive substrate for Si QD solar cells. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
155	Theoretical calculation of the vibrational and thermal properties of wurtzite InN-GaN multiple quantum well superlattice. <i>Journal of Applied Physics</i> , 2013, 113, 164304.	2.5	5
156	Hot Carrier Solar Cells: Materials with Modulated Phonon Energy for Slowed Carrier Cooling. , 2013, , .		1
157	Potential of hafnium nitride for the hot carrier solar cell. <i>Proceedings of SPIE</i> , 2013, , .	0.8	2
158	Heterogeneous nano-particle array for the realization of the hot carrier solar cell. , 2013, , .		2
159	Er^{3+}-NaYF ₄ :Er ³⁺ nanocrystal films as a spectral converter to improve photoconversion efficiency of crystalline silicon solar cells. , 2013, , .		0
160	Design of bottom silicon solar cell for multijunction devices. , 2013, , .		3
161	Silicon-Based Photovoltaics. <i>Series in Optics and Optoelectronics</i> , 2013, , 749-812.	0.0	0
162	Limiting efficiency of generalized realistic c-Si solar cells coupled to ideal up-converters. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	21

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163	Growth and characterization of germanium carbide films for hot carrier solar cell absorber. , 2012, , .		0
164	Lattice-Matched Hot Carrier Solar Cell with Energy Selectivity Integrated into Hot Carrier Absorber. Japanese Journal of Applied Physics, 2012, 51, 10ND02.	1.5	9
165	Effect of Surface Plasmon Resonance on the Photoluminescence from Si Quantum Dot Structures for Third Generation Solar Cell Applications. Materials Research Society Symposia Proceedings, 2012, 1391, 18.	0.1	0
166	Fabrication of two-dimensional close-packed arrays of colloidal silicon nanoparticles via Langmuir-Blodgett deposition. , 2012, , .		0
167	Doping of Silicon Quantum Dots Embedded in Nitride Matrix for All-Silicon Tandem Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE10.	1.5	2
168	Structural, mechanical and optical properties of Ge nanocrystals embedded in superlattices fabricated by in situ low temperature annealing. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 45, 207-213.	2.7	2
169	Si and Other Group IV Quantum Dot Based Materials for Tandem Solar Cells. Energy Procedia, 2012, 15, 200-205.	1.8	5
170	Study of Photo-cathode Materials for Tandem Photoelectrochemical Cell for Direct Water Splitting. Energy Procedia, 2012, 22, 10-14.	1.8	5
171	Hot Carrier solar cell absorbers: Superstructures, materials and mechanisms for slowed carrier cooling. , 2012, , .		9
172	Application of Ge quantum wells fabricated by laser annealing as energy selective contacts for hot-carrier solar cells. , 2012, , .		0
173	Interplay between the hot phonon effect and intervalley scattering on the cooling rate of hot carriers in GaAs and InP. Progress in Photovoltaics: Research and Applications, 2012, 20, 82-92.	8.1	61
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