Gavin J Conibeer

List of Publications by Year
in descending order

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267	8,054	50276	58581
papers	citations	46 h-index	82 g-index

286	286	286	8624
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Silicon nanostructures for third generation photovoltaic solar cells. Thin Solid Films, 2006, 511-512, 654-662.	1.8	542
2	Third-generation photovoltaics. Materials Today, 2007, 10, 42-50.	14.2	407
3	Silicon quantum dot nanostructures for tandem photovoltaic cells. Thin Solid Films, 2008, 516, 6748-6756.	1.8	395
4	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. Nature Communications, 2017, 8, 14120.	12.8	330
5	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
6	Silicon quantum dot/crystalline silicon solar cells. Nanotechnology, 2008, 19, 245201.	2.6	288
7	Hot carrier solar cells: Principles, materials and design. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2862-2866.	2.7	192
8	Slowing of carrier cooling in hot carrier solar cells. Thin Solid Films, 2008, 516, 6948-6953.	1.8	141
9	Selective energy contacts for hot carrier solar cells. Thin Solid Films, 2008, 516, 6968-6973.	1.8	133
10	n-Type silicon quantum dots and p-type crystalline silicon heteroface solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 684-690.	6.2	123
11	Structural, electrical and photovoltaic characterization of Si nanocrystals embedded SiC matrix and Si nanocrystals/c-Si heterojunction devices. Solar Energy Materials and Solar Cells, 2008, 92, 474-481.	6.2	120
12	Si nanocrystal p-i-n diodes fabricated on quartz substrates for third generation solar cell applications. Applied Physics Letters, 2009, 95, .	3.3	117
13	Progress on hot carrier cells. Solar Energy Materials and Solar Cells, 2009, 93, 713-719.	6.2	108
14	Hot carrier solar cells operating under practical conditions. Journal of Applied Physics, 2009, 105, .	2.5	107
15	Silicon Quantum Dots in a Dielectric Matrix for All-Silicon Tandem Solar Cells. Advances in OptoElectronics, 2007, 2007, 1-11.	0.6	101
16	Fourier transform infrared spectroscopy of annealed silicon-rich silicon nitride thin films. Journal of Applied Physics, 2008, 104, .	2.5	95
17	Physical properties of very thin SnS films deposited by thermal evaporation. Thin Solid Films, 2011, 520, 837-841.	1.8	90
18	Can Tauc plot extrapolation be used for direct-band-gap semiconductor nanocrystals?. Journal of Applied Physics, 2015, 117, .	2.5	88

#	Article	IF	Citations
19	Efficient electron transfer in carbon nanodotâ€“graphene oxide nanocomposites. Journal of Materials Chemistry C, 2014, 2, 2894.	5.5	87
20	Structural characterization of annealed Si1â^'xCx/SiC multilayers targeting formation of Si nanocrystals in a SiC matrix. Journal of Applied Physics, 2008, 103, 083544.	2.5	84
21	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
22	Hot carrier solar cell absorber prerequisites and candidate material systems. Solar Energy Materials and Solar Cells, 2015, 135, 124-129.	6.2	76
23	Evolution of Si (and SiC) nanocrystal precipitation in SiC matrix. Thin Solid Films, 2008, 516, 3824-3830.	1.8	75
24	Modelling of hot carrier solar cell absorbers. Solar Energy Materials and Solar Cells, 2010, 94, 1516-1521.	6.2	73
25	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
26	Achieving high-performance PbS quantum dot solar cells by improving hole extraction through Ag doping. Nano Energy, 2018, 46, 212-219.	16.0	72
27	Morphological Evolution and Singlet Fission in Aqueous Suspensions of TIPS-Pentacene Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 157-165.	3.1	71
28	Effects of boron doping on the structural and optical properties of silicon nanocrystals in a silicon dioxide matrix. Nanotechnology, 2008, 19, 424019.	2.6	70
29	A New Passivation Route Leading to Over 8% Efficient PbSe Quantumâ€Đot Solar Cells via Direct Ion Exchange with Perovskite Nanocrystals. Advanced Materials, 2017, 29, 1703214.	21.0	69
30	Role of the interface for the electronic structure of Si quantum dots. Physical Review B, 2008, 78, .	3.2	66
31	Effects of phosphorus doping on structural and optical properties of silicon nanocrystals in a SiO2 matrix. Thin Solid Films, 2009, 517, 5646-5652.	1.8	66
32	Correlating flat band and onset potentials for solar water splitting on model hematite photoanodes. RSC Advances, 2015, 5, 61021-61030.	3.6	66
33	Trendsetters in Highâ€Efficiency Organic Solar Cells: Toward 20% Power Conversion Efficiency. Solar Rrl, 2020, 4, 1900342.	5.8	66
34	Silicon quantum dot based solar cells: addressing the issues of doping, voltage and current transport. Progress in Photovoltaics: Research and Applications, 2011, 19, 813-824.	8.1	63
35	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
36	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

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37	Single-Mode Near-Infrared Lasing in a GaAsSb-Based Nanowire Superlattice at Room Temperature. Nano Letters, 2018, 18, 2304-2310.	9.1	62
38	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
39	Theoretical and Experimental Investigation of the Electronic Structure and Quantum Confinement of Wet-Chemistry Synthesized Ag₂S Nanocrystals. Journal of Physical Chemistry C, 2015, 119, 867-872.	3.1	61
40	Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr₃ Perovskite Colloidal Nanocrystal Back Layer. Advanced Energy Materials, 2017, 7, 1601773.	19.5	56
41	A comparison of PV/electrolyser and photoelectrolytic technologies for use in solar to hydrogen energy storage systems. International Journal of Hydrogen Energy, 2007, 32, 2703-2711.	7.1	55
42	Wrapping the walls of n-TiO2 nanotubes with p-CuInS2 nanoparticles using pulsed-electrodeposition for improved heterojunction photoelectrodes. Chemical Communications, 2011, 47, 11288.	4.1	55
43	Fabrication and electrical characteristics of Si nanocrystal/c-Si heterojunctions. Applied Physics Letters, 2007, 91, 123510.	3.3	50
44	Lessons Learnt from Spatially Resolved Electroâ€•and Photoluminescence Imaging: Interfacial Delamination in CH₃NH₃PbI₃ Planar Perovskite Solar Cells upon Illumination. Advanced Energy Materials, 2017, 7, 1602111.	19.5	50
45	Enhanced optoelectronic performance in AgBiS₂ nanocrystals obtained via an improved amine-based synthesis route. Journal of Materials Chemistry C, 2018, 6, 731-737.	5.5	49
46	MoS2 incorporated hybrid hole transport layer for high performance and stable perovskite solar cells. Synthetic Metals, 2018, 246, 195-203.	3.9	49
47	Improving Cu₂ZnSnS₄ (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
48	Fabrication and characterization of Si nanocrystals in SiC matrix produced by magnetron cosputtering. Journal of Vacuum Science & Technology B, 2007, 25, 1327-1335.	1.3	46
49	Energy selective contacts for hot carrier solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 1546-1550.	6.2	46
50	Si solid-state quantum dot-based materials for tandem solar cells. Nanoscale Research Letters, 2012, 7, 193.	5.7	46
51	Solution-processed WO3 and water-free PEDOT:PSS composite for hole transport layer in conventional perovskite solar cell. Electrochimica Acta, 2019, 319, 349-358.	5.2	44
52	Influence of EDTA concentration on the structure and properties of SnS films prepared by electro-deposition. Surface and Coatings Technology, 2008, 202, 6070-6074.	4.8	43
53	Rapid thermal annealing and crystallization mechanisms study of silicon nanocrystal in silicon carbide matrix. Nanoscale Research Letters, 2011, 6, 129.	5.7	42
54	Formation and photoluminescence of Si nanocrystals in controlled multilayer structure comprising of Si-rich nitride and ultrathin silicon nitride barrier layers. Thin Solid Films, 2011, 519, 5408-5412.	1.8	42

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55	Sulphur diffusion in CdTe and the phase diagram of the CdSâ€“CdTe pseudo-binary alloy. Journal of Crystal Growth, 1999, 197, 743-748.	1.5	41
56	The effects of annealing temperature on the photoluminescence from silicon nitride multilayer structures. Journal of Crystal Growth, 2008, 310, 3680-3684.	1.5	41
57	Slow-light-enhanced upconversion for photovoltaic applications in one-dimensional photonic crystals. Optics Letters, 2011, 36, 3990.	3.3	41
58	Role of Surface Recombination in Halide Perovskite Nanoplatelets. ACS Applied Materials & Interfaces, 2018, 10, 31586-31593.	8.0	41
59	Practical Factors Lowering Conversion Efficiency of Hot Carrier Solar Cells. Applied Physics Express, 2010, 3, 104301.	2.4	40
60	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
61	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
62	Size controlled synthesis of Ge nanocrystals in SiO2 at temperatures below 400â€‰Â°C using magnetron sputtering. Applied Physics Letters, 2010, 96, 261901.	3.3	39
63	Low-temperature processed efficient and colourful semitransparent perovskite solar cells for building integration and tandem applications. Organic Electronics, 2019, 65, 401-411.	2.6	39
64	Fabrication of multilayered Ge nanocrystals by magnetron sputtering and annealing. Nanotechnology, 2008, 19, 455611.	2.6	37
65	In situ low temperature growth of poly-crystalline germanium thin film on glass by RF magnetron sputtering. Solar Energy Materials and Solar Cells, 2010, 94, 1501-1505.	6.2	37
66	A comparison of hydrogen storage technologies for solar-powered stand-alone power supplies: A photovoltaic system sizing approach. International Journal of Hydrogen Energy, 2007, 32, 2712-2718.	7.1	32
67	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
68	Bipolar Photothermoelectric Effect Across Energy Filters in Single Nanowires. Nano Letters, 2017, 17, 4055-4060.	9.1	32
69	Enhancing PbS Colloidal Quantum Dot Tandem Solar Cell Performance by Graded Band Alignment. Journal of Physical Chemistry Letters, 2019, 10, 5729-5734.	4.6	32
70	Passivation effects in B doped self-assembled Si nanocrystals. Applied Physics Letters, 2014, 105, 222108.	3.3	30
71	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
72	Effect of Blend Composition on Bulk Heterojunction Organic Solar Cells: A Review. Solar Rrl, 2017, 1, 1700035.	5.8	29

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73	Thiocyanate assisted nucleation for high performance mix-cation perovskite solar cells with improved stability. Journal of Power Sources, 2020, 466, 228320.	7.8	29
74	Resonant tunneling through defects in an insulator: Modeling and solar cell applications. Journal of Applied Physics, 2004, 96, 5006-5012.	2.5	28
75	Impacts of Post-metallisation Processes on the Electrical and Photovoltaic Properties of Si Quantum Dot Solar Cells. Nanoscale Research Letters, 2010, 5, 1762-1767.	5.7	28
76	Air-stable PbS quantum dots synthesized with slow reaction kinetics via a PbBr₂ precursor. RSC Advances, 2015, 5, 68579-68586.	3.6	27
77	Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBr3-xIx) quantum dots. Journal of Colloid and Interface Science, 2017, 504, 586-592.	9.4	27
78	A review on thermalization mechanisms and prospect absorber materials for the hot carrier solar cells. Solar Energy Materials and Solar Cells, 2021, 225, 111073.	6.2	27
79	Size dependent optical properties of Si quantum dots in Si-rich nitride/Si3N4 superlattice synthesized by magnetron sputtering. Journal of Applied Physics, 2011, 109, .	2.5	26
80	Quasi-Two-Dimensional Luminescent Silicon Nanosheets. Journal of Physical Chemistry C, 2018, 122, 18912-18921.	3.1	26
81	Sputter-grown Si quantum dot nanostructures for tandem solar cells. Journal Physics D: Applied Physics, 2013, 46, 024003.	2.8	25
82	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
83	Towards an understanding of hot carrier cooling mechanisms in multiple quantum wells. Japanese Journal of Applied Physics, 2017, 56, 091201.	1.5	25
84	Doping of Silicon Quantum Dots Embedded in Nitride Matrix for All-Silicon Tandem Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE10.	1.5	25
85	Impact ionization and Auger recombination at high carrier temperature. Solar Energy Materials and Solar Cells, 2009, 93, 797-802.	6.2	24
86	Rapid thermal annealed Molybdenum back contact for Cu2ZnSnS4 thin film solar cells. Applied Physics Letters, 2015, 106, .	3.3	24
87	Hafnium nitride for hot carrier solar cells. Solar Energy Materials and Solar Cells, 2016, 144, 781-786.	6.2	24
88	Effects of non-ideal energy selective contacts and experimental carrier cooling rate on the performance of an indium nitride based hot carrier solar cell. Applied Physics Letters, 2011, 99, .	3.3	23
89	Extended hot carrier lifetimes observed in bulk In0.265Â±0.02Ga0.735N under high-density photoexcitation. Applied Physics Letters, 2016, 108, .	3.3	22
90	Electrical properties of conductive Ge nanocrystal thin films fabricated by low temperaturein situgrowth. Nanotechnology, 2011, 22, 125204.	2.6	21

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91	Electroluminescence from Si nanocrystal/c-Si heterojunction light-emitting diodes. Applied Physics Letters, 2011, 99, 251113.	3.3	21
92	Limiting efficiency of generalized realistic c-Si solar cells coupled to ideal up-converters. Journal of Applied Physics, 2012, 112, .	2.5	21
93	Investigation of carrier-carrier scattering effect on the performance of hot carrier solar cells with relaxation time approximation. Applied Physics Letters, 2013, 102, .	3.3	21
94	Three-dimensional imaging for precise structural control of Si quantum dot networks for all-Si solar cells. Nanoscale, 2013, 5, 7499.	5.6	20
95	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
96	Improving carrier extraction in a PbSe quantum dot solar cell by introducing a solution-processed antimony-doped SnO₂ buffer layer. Journal of Materials Chemistry C, 2018, 6, 9861-9866.	5.5	20
97	Designing Bottom Silicon Solar Cells for Multijunction Devices. IEEE Journal of Photovoltaics, 2015, 5, 683-690.	2.5	19
98	Synthesis of nano-crystalline germanium carbide using radio frequency magnetron sputtering. Thin Solid Films, 2015, 592, 162-166.	1.8	19
99	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
100	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
101	Nanosecond long excited state lifetimes observed in hafnium nitride. Solar Energy Materials and Solar Cells, 2017, 169, 13-18.	6.2	19
102	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
103	Fabrication and characterization of tin-based nanocrystals. Journal of Applied Physics, 2007, 102, 114304.	2.5	17
104	Single-nanowire, low-bandgap hot carrier solar cells with tunable open-circuit voltage. Nanotechnology, 2017, 28, 434001.	2.6	17
105	Optimisation of annealing temperature for low temperature processed inverted structure Caesium Formamidinium Lead Triiodide perovskite solar cells. Materials Science in Semiconductor Processing, 2019, 102, 104580.	4.0	17
106	Free chargesversusexcitons: photoluminescence investigation of InGaN/GaN multiple quantum well nanorods and their planar counterparts. Nanoscale, 2018, 10, 5358-5365.	5.6	16
107	Review of the mechanisms for the phonon bottleneck effect in IIIâ€“V semiconductors and their application for efficient hot carrier solar cells. Progress in Photovoltaics: Research and Applications, 2022, 30, 581-596.	8.1	16
108	N-type conductivity of nanostructured thin film composed of antimony-doped Si nanocrystals in silicon nitride matrix. Europhysics Letters, 2011, 96, 17011.	2.0	15

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109	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
110	Post-Sputtering Heat Treatments of Molybdenum on Silicon Wafer. Applied Sciences (Switzerland), 2018, 8, 1692.	2.5	15
111	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
112	Zinc diffusion in tellurium doped gallium antimonide. Journal of Electronic Materials, 1996, 25, 1108-1112.	2.2	13
113	Formation of a nanocomposite from plasma enhanced chemical vapour deposition multilayer structures. Journal of Crystal Growth, 2008, 310, 3685-3689.	1.5	13
114	Characterisation of size-controlled and red luminescent Ge nanocrystals in multilayered superlattice structure. Thin Solid Films, 2010, 518, 5483-5487.	1.8	13
115	Optical characterisation of silicon nanocrystals embedded in SiO2/Si3N4 hybrid matrix for third generation photovoltaics. Nanoscale Research Letters, 2011, 6, 612.	5.7	13
116	Ultra-thin silicon nitride barrier implementation for Si nano-crystals embedded in amorphous silicon carbide matrix with hybrid superlattice structure. Europhysics Letters, 2011, 95, 67006.	2.0	13
117	Accurate determination of the size distribution of Si nanocrystals from PL spectra. RSC Advances, 2015, 5, 55119-55125.	3.6	13
118	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
119	Increased methane production in cyanobacteria and methanogenic microbe co-cultures. Bioresource Technology, 2017, 243, 686-692.	9.6	13
120	Anomalous Structural Evolution and Glassy Lattice in Mixedâ€Halide Hybrid Perovskites. Small, 2022, 18, e2200847.	10.0	13
121	Study on electrical properties of Si quantum dots based materials. Physica Status Solidi (B): Basic Research, 2011, 248, 472-476.	1.5	12
122	All-silicon tandem solar cells: Practical limits for energy conversion and possible routes for improvement. Journal of Applied Physics, 2016, 119, .	2.5	12
123	Resonant Tunneling through Monolayer Si Colloidal Quantum Dots and Ge Nanocrystals. Advanced Functional Materials, 2017, 27, 1605348.	14.9	12
124	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
125	Potential of HfN, ZrN, and TiH as hot carrier absorber and Al₂O₃/Ge quantum well/Al₂O₃and Al₂O₃/PbS quantum dots/Al₂O₃as energy selective contacts. Japanese Journal of Applied Physics, 2017, 56, 08MA03.	1.5	12
126	A Study of the Phase Boundaries and Lattice Parameters of the CdS-CdTe Pseudobinary System. Journal of Materials Science Letters, 1998, 17, 1511-1514.	0.5	11

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127	Introducing dopants by diffusion to improve the conductivity of silicon quantum dot materials in 3rd generation photovoltaic devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 205-208.	0.8	11
128	Determination of active doping in highly resistive boron doped silicon nanocrystals embedded in SiO2 by capacitance voltage measurement on inverted metal oxide semiconductor structure. Journal of Applied Physics, 2015, 118, 154305.	2.5	11
129	Observation of Hot Carriers Existing in Ag₂S Nanoparticles and Its Implication on Solar Cell Application. Journal of Physical Chemistry C, 2016, 120, 10199-10205.	3.1	11
130	Pulsed KrF excimer laser dopant activation in nanocrystal silicon in a silicon dioxide matrix. Applied Physics Letters, 2016, 108, .	3.3	11
131	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
132	Surface states induced high P-type conductivity in nanostructured thin film composed of Ge nanocrystals in SiO2 matrix. Applied Physics Letters, 2010, 97, 132109.	3.3	10
133	Single layer of silicon quantum dots in silicon oxide matrix: Investigation of forming gas hydrogenation on photoluminescence properties and study of the composition of silicon rich oxide layers. Journal of Crystal Growth, 2011, 327, 84-88.	1.5	10
134	CHAPTER 12. Hot Carrier Solar Cells. RSC Energy and Environment Series, 0, , 379-424.	0.5	10
135	Atom probe tomography of sizeâ€controlled phosphorus doped silicon nanocrystals. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600376.	2.4	10
136	Structural and optical study of Ge nanocrystals embedded in Si3N4 matrix. Energy Procedia, 2011, 10, 20-27.	1.8	9
137	Surface plasmons for improving the performance of quantum dot structures for third generation solar cell applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 181-184.	0.8	9
138	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
139	Hot Carrier solar cell absorbers: Superstructures, materials and mechanisms for slowed carrier cooling. , 2012, , .		9
140	Sizeâ€dependent evolution of phonon confinement in colloidal Si nanoparticles. Journal of Raman Spectroscopy, 2015, 46, 1110-1116.	2.5	9
141	Ab initio calculation of halide ligand passivation onÂPbSe quantum dot facets. RSC Advances, 2016, 6, 104699-104707.	3.6	9
142	In situ formation of tin nanocrystals embedded in silicon nitride matrix. Journal of Applied Physics, 2009, 105, .	2.5	8
143	Lateral growth of Ge nanocrystals in a thin Ge-rich silicon nitride layer. Journal of Crystal Growth, 2013, 383, 36-42.	1.5	8
144	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

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145	Characterisation of active dopants in boron-doped self-assembled silicon nanostructures. Applied Physics Letters, 2016, 109, .	3.3	8
146	MgCl₂ passivated ZnO electron transporting layer to improve PbS quantum dot solar cells. Nanotechnology, 2019, 30, 085403.	2.6	8
147	Hot carrier solar cells: Challenges and recent progress. , 2010, , .		7
148	Impact of disorder in double barrier QD structures on energy selectivity investigated by two dimensional effective mass approximation. Energy Procedia, 2010, 2, 213-219.	1.8	7
149	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
150	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
151	In-situ fabrication and characterization of ordered Ge QDs in Si3N4 matrix without barrier layers by rf-magnetron sputtering. Applied Surface Science, 2014, 290, 167-171.	6.1	6
152	Characterization of a Cu2 ZnSnS4 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
153	Ab initio study of M ₂ SnBr ₆ (M = K, Rb, Cs): Electronic and optical properties. Europhysics Letters, 2016, 115, 57002.	2.0	6
154	Repurposing commercial anaerobic digester wastewater to improve cyanobacteria cultivation and digestibility for bioenergy systems. Sustainable Energy and Fuels, 2019, 3, 841-849.	4.9	6
155	Capacitance and conductance characteristics of silicon nanocrystal metalâ€“insulatorâ€“semiconductor devices. Solid-State Electronics, 2009, 53, 530-539.	1.4	5
156	Modelling of metalâ€“insulatorâ€“semiconductor devices featuring a silicon quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2211-2217.	2.7	5
157	Structural studies of multilayered Ge nanocrystals embedded in <mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	1.8	5
158	Optimized resonant tunnelling structures with high conductivity and selectivity. Europhysics Letters, 2011, 96, 57006.	2.0	5
159	Si and Other Group IV Quantum Dot Based Materials for Tandem Solar Cells. Energy Procedia, 2012, 15, 200-205.	1.8	5
160	Study of Photo-cathode Materials for Tandem Photoelectrochemical Cell for Direct Water Splitting. Energy Procedia, 2012, 22, 10-14.	1.8	5
161	Investigation in feasibility of Molybdenum as a back contact layer for Silicon based quantum dot solar cells. Proceedings of SPIE, 2013, , .	0.8	5
162	Theoretical calculation of the vibrational and thermal properties of wurtzite InN-GaN multiple quantum well superlattice. Journal of Applied Physics, 2013, 113, 164304.	2.5	5

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163	Evaluation of hafnium nitride and zirconium nitride as Hot Carrier absorber. , 2014, , .		5
164	Improvement of Mo/Cu2ZnSnS4 interface for Cu2ZnSnS4 (CZTS) thin film solar cell application. Materials Research Society Symposia Proceedings, 2014, 1638, 1.	0.1	5
165	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
166	Inelastic X-ray scattering measurements of IIIâ€“V multiple quantum wells. Applied Physics Letters, 2017, 110, 043102.	3.3	5
167	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
168	Hot carrier transfer processes in nonstoichiometric titanium hydride. Japanese Journal of Applied Physics, 2017, 56, 08MA10.	1.5	5
169	Get them while theyâ€™re hot. Nature Energy, 2020, 5, 280-281.	39.5	5
170	Lattice-Matched Hot Carrier Solar Cell with Energy Selectivity Integrated into Hot Carrier Absorber. Japanese Journal of Applied Physics, 2012, 51, 10ND02.	1.5	5
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