James P Connolly

List of Publications by Year
in descending order

63	1,726	331670 21	289244 40
papers	citations	h-index	g-index

65	65	65	1269
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Threeâ€terminal perovskite/integrated back contact silicon tandem solar cells under low light intensity conditions. , 2022, 1, 148-156.		36
2	Complex Investigation of High Efficiency and Reliable Heterojunction Solar Cell Based on an Improved Cu2O Absorber Layer. Energies, 2020, 13, 4667.	3.1	7
3	Morphological, optical and photovoltaic characteristics of MoSe2/SiOx/Si heterojunctions. Scientific Reports, 2020, 10, 1215.	3.3	13
4	KPFM surface photovoltage measurement and numerical simulation. EPJ Photovoltaics, 2019, 10, 3.	1.6	2
5	The observation of thermal photon gain in quantum well solar cells. , 2019, , .		0
6	Ferroelectric photovoltaic characteristics of pulsed laser deposited 0.5Ba(Zr0.2Ti0.8)O3-0.5(Ba0.7Ca0.3)TiO3/ZnO heterostructures. Solar Energy, 2018, 167, 18-23.	6.1	13
7	A new approach to modelling Kelvin probe force microscopy of hetero-structures in the dark and under illumination. Optical and Quantum Electronics, 2018, 50, 1.	3.3	6
8	Multiscale in modelling and validation for solar photovoltaics. EPJ Photovoltaics, 2018, 9, 10.	1.6	6
9	GaAs microcrystals selectively grown on silicon: Intrinsic carbon doping during chemical beam epitaxy with trimethylgallium. Journal of Applied Physics, 2017, 121, 035704.	2.5	1
10	Multiscale approaches to high efficiency photovoltaics. Renewable Energy and Environmental Sustainability, 2016, 1, 6.	1.4	3
11	High current density GaAs/Si rectifying heterojunction by defect free Epitaxial Lateral overgrowth on Tunnel Oxide from nano-seed. Scientific Reports, 2016, 6, 25328.	3.3	7
12	Realistic Simulation of Metal Nanoparticles on Solar Cells. Energy Procedia, 2015, 84, 204-213.	1.8	2
13	Introducing novel light management to design a hybrid high concentration photovoltaic/water splitting system. , 2015, , .		0
14	Anisotropic emission and photon-recycling in strain-balanced quantum well solar cells. Journal of Applied Physics, 2014, 115, 164502.	2.5	3
15	IIIâ€“V Solar Cells. RSC Energy and Environment Series, 2014, , 209-246.	0.5	2
16	A Statistical Analysis of the Temperature Coefficients of Industrial Silicon Solar Cells. Energy Procedia, 2014, 55, 578-588.	1.8	50
17	Designing III-V multijunction solar cells on silicon. Progress in Photovoltaics: Research and Applications, 2014, 22, 810-820.	8.1	79
18	Modelling of GaAsP/InGaAs/GaAs strain-balanced multiple-quantum well solar cells. Journal of Applied Physics, 2013, 113, 024512.	2.5	24

#	Article	IF	Citations
19	Theory of random nanoparticle layers in photovoltaic devices applied to self-aggregated metal samples. Solar Energy Materials and Solar Cells, 2013, 109, 294-299.	6.2	16
20	Controlling radiative loss in quantum well solar cells. Journal Physics D: Applied Physics, 2013, 46, 264007.	2.8	20
21	Effect of Ag nanoparticles integrated within antireflection coatings for solar cells. Journal of Renewable and Sustainable Energy, 2013, 5, 033116.	2.0	26
22	Demonstration of Photon Coupling in Dual Multiple-Quantum-Well Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 68-74.	2.5	40
23	Cost Model Developed in European Project LIMA. Energy Procedia, 2012, 27, 646-651.	1.8	2
24	Cost model for LIMA device. Energy Procedia, 2011, 8, 443-448.	1.8	2
25	Recent results for singleâ€junction and tandem quantum well solar cells. Progress in Photovoltaics: Research and Applications, 2011, 19, 865-877.	8.1	66
26	Observation of reduced radiative recombination in low-well-number strain-balanced quantum well solar cells. Journal of Applied Physics, 2010, 107, 044502.	2.5	2
27	Physics of quantum well solar cells. Proceedings of SPIE, 2009, , .	0.8	6
28	Two step wet surface treatment influence on the electronic properties of Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2009, 517, 2550-2553.	1.8	9
29	Solution Processing Route to High Efficiency CuIn(S,Se)₂ Solar Cells. Journal of Nano Research, 2009, 4, 79-89.	0.8	12
30	Analysis of electronic transport properties of thin film CuIn(S,Se)2 solar cells based on electrodeposition. Thin Solid Films, 2008, 516, 6999-7003.	1.8	7
31	Admittance spectroscopy defect density of electrodeposited CuIn(S,Se)₂ and its correlation with solar cells performances. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3449-3452.	0.8	2
32	Strain-balanced quantum well concentrator cells from multiwafer production. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	1
33	Hot carriers in strain balanced quantum well solar cells. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	3
34	Tandem quantum well solar cells. , 2008, , .		7
35	Observation of photon recycling in strain-balanced quantum well solar cells. Applied Physics Letters, 2007, 90, 213505.	3.3	49
36	Conversion efficiency enhancement of AlGaAs quantum well solar cells. Microelectronics Journal, 2007, 38, 513-518.	2.0	39

#	Article	IF	Citations
37	Comparison of optical and electrical gap of electrodeposited CuIn(S,Se)2 determined by spectral photo response and Iâ€“Vâ€“T measurements. Thin Solid Films, 2007, 515, 6233-6237.	1.8	10
38	Strain Balanced Quantum Well Monolithic Tandem Solar Cells. , 2006, , .		0
39	Modelling the Confined States in Multi Quantum Well Solar Cells. , 2006, , .		0
40	InP-based lattice-matched InGaAsP and strain-compensated InGaAsâˆ•InGaAs quantum well cells for thermophotovoltaic applications. Journal of Applied Physics, 2006, 100, 114510.	2.5	13
41	Quantum Well Solar Cells and Quantum Dot Concentrators. , 2006, , 517-537.		9
42	Cu(In,Ga)(S,Se)2 solar cells and modules by electrodeposition. Thin Solid Films, 2005, 480-481, 526-531.	1.8	89
43	Advances in Bragg stack quantum well solar cells. Solar Energy Materials and Solar Cells, 2005, 87, 169-179.	6.2	44
44	Spectral response and I-V characteristics of large well number multi quantum well solar cells. Journal of Materials Science, 2005, 40, 1445-1449.	3.7	39
45	Quantum and conversion efficiency calculation of AlGaAs/GaAs multiple quantum well solar cells. Physica Status Solidi (B): Basic Research, 2005, 242, 1842-1845.	1.5	27
46	Effect of well number on the performance of quantum-well solar cells. Journal of Applied Physics, 2005, 97, 124908.	2.5	70
47	Quantum well cells for thermophotovoltaics. Semiconductor Science and Technology, 2003, 18, S216-S220.	2.0	13
48	Short-circuit current enhancement in Bragg stack multi-quantum-well solar cells for multi-junction space cell applications. Solar Energy Materials and Solar Cells, 2003, 75, 299-305.	6.2	41
49	Characterisation Of Strain-Compensated InGaAs/InGaAs Quantum Well Cells For TPV Applications. AIP Conference Proceedings, 2003, , .	0.4	5
50	Quantum well solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 27-36.	2.7	136
51	InGaAs/InGaAs strain-compensated quantum well cells for thermophotovoltaic applications. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 158-161.	2.7	17
52	Strain-balanced quantum well solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 132-135.	2.7	27
53	Strained and strain-balanced quantum well devices for high-efficiency tandem solar cells. Solar Energy Materials and Solar Cells, 2001, 68, 71-87.	6.2	106
54	Optimisation of InGaAsP quantum well cells for hybrid solar-thermophotovoltaic applications. , 1999, , .		3

#	Article	IF	Citations
55	Effect of quantum well location on single quantum well p-i-n photodiode dark currents. Journal of Applied Physics, 1999, 86, 5898-5905.	2.5	42
56	Strain-balanced GaAsP/InGaAs quantum well solar cells. Applied Physics Letters, 1999, 75, 4195-4197.	3.3	258
57	Voltage enhancement in quantum well solar cells. Journal of Applied Physics, 1996, 80, 1201-1206.	2.5	73
58	Modeling the spectral response of the quantum well solar cell. Journal of Applied Physics, 1993, 74, 614-621.	2.5	122
59	Simulating multiple quantum well solar cells. , 0, , .		13
60	Strain-balanced In/sub 0.62/Ga/sub 0.38/As/In/sub 0.47/Ga/sub 0.53/As(InP) quantum well cell for thermophotovoltaics. , 0, , .		3
61	Towards 50% Efficiency in Solar Cells. , 0, , .		0
62	Analytical Models of Bulk and Quantum Well Solar Cells and Relevance of the Radiative Limit. Advances in Chemical and Materials Engineering Book Series, 0, , 59-77.	0.3	2
63	Analytical Models of Bulk and Quantum Well Solar Cells and Relevance of the Radiative Limit. , 0, , 1195-1212.		0