Darren M Bagnall

List of Publications by Year
in descending order

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101 papers	8,175 citations	159358 30 h-index	91712 69 g-index
101 all docs	101 docs citations	101 times ranked	7278 citing authors

#	Article	IF	Citations
1	Molecular dynamic simulation on temperature evolution of SiC under directional microwave radiation. Journal of Physics Condensed Matter, 2022, 34, 195701.	0.7	1
2	Nanostructured Gas Sensors: From Air Quality and Environmental Monitoring to Healthcare and Medical Applications. Nanomaterials, 2021, 11, 1927.	1.9	28
3	Metal-Organic-Frameworks: Low Temperature Gas Sensing and Air Quality Monitoring. Chemosensors, 2021, 9, 316.	1.8	13
4	Quantifying and Improving Student Engagement with Remotely Accessible Laboratory Project Hardware (RALPH). , 2020, , .		2
5	Large-Area Nanosphere Gratings for Light Trapping and Reduced Surface Losses in Thin Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1012-1019.	1.5	8
6	Efficient light harvesting in hybrid quantum dotâ€“interdigitated back contact solar cells via resonant energy transfer and luminescent downshifting. Nanoscale, 2019, 11, 18837-18844.	2.8	15
7	On cooling/heating mechanisms in a self-cooled light-emitting diode with type-II band offset. Journal of Applied Physics, 2019, 125, .	1.1	0
8	Minimising bulk lifetime degradation during the processing of interdigitated back contact silicon solar cells. Progress in Photovoltaics: Research and Applications, 2018, 26, 38-47.	4.4	25
9	Telecommunications Engineering at Macquarie Univerity: Modernisation and Vision. , 2018, , .		0
10	Mie resonators as rearside light trapping structures in planar crystalline silicon solar cells. , 2018, , .		1
11	Spectral response of steady-state photoluminescence from GaAs1-xPx layers grown on a SiGe/Si system. Applied Physics Letters, 2017, 111, .	1.5	2
12	Evaluating the accuracy of point spread function deconvolutions applied to luminescence images. , 2016, , .		7
13	Rapid passivation of carrier-induced defects in p-type multi-crystalline silicon. Solar Energy Materials and Solar Cells, 2016, 158, 102-106.	3.0	49
14	Junction Formation With HWCVD and TCAD Model of an Epitaxial Back-Contact Solar Cell. IEEE Journal of Photovoltaics, 2016, 6, 1396-1402.	1.5	3
15	Helium ion beam lithography on fullerene molecular resists for sub-10nm patterning. Microelectronic Engineering, 2016, 155, 74-78.	1.1	39
16	Moth-Eye Antireflective Structures. , 2016, , 2275-2285.		1
17	Nanosphere lithography for improved absorption in thin crystalline silicon solar cells. , 2015, , .		0
18	Moth-Eye Antireflective Structures. , 2015, , 1-11.		0

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19	Integrated Simulator and Hardware Platform for Dynamic Photovoltaic Array Optimization and Testing. Journal of Nanoelectronics and Optoelectronics, 2015, 10, 104-113.	0.1	2
20	Reflectance properties of silicon moth-eyes in response to variations in angle of incidence, polarisation and azimuth orientation. Optics Express, 2014, 22, A402.	1.7	38
21	The Optimized-String Dynamic Photovoltaic Array. IEEE Transactions on Power Electronics, 2014, 29, 1768-1776.	5.4	76
22	Helium ion microscopy and energy selective scanning electron microscopy â€“ two advanced microscopy techniques with complementary applications. Journal of Physics: Conference Series, 2014, 522, 012049.	0.3	2
23	Broadband scattering of the solar spectrum by spherical metal nanoparticles. Progress in Photovoltaics: Research and Applications, 2013, 21, 600-611.	4.4	28
24	The alternating current dynamic photovoltaic array. , 2013, , .		0
25	Improved Optimization Strategy for Irradiance Equalization in Dynamic Photovoltaic Arrays. IEEE Transactions on Power Electronics, 2013, 28, 2946-2956.	5.4	131
26	Simulation platform for dynamic photovoltaic arrays. , 2013, , .		1
27	Suppression of backscattered diffraction from sub-wavelength â€˜moth-eyeâ€™ arrays. Optics Express, 2013, 21, 1.	1.7	48
28	Tuning Light Scattering by Periodic Metal Nanoparticle Arrays for Solar Cell Applications. Materials Research Society Symposia Proceedings, 2012, 1391, 65.	0.1	0
29	Tunable Low-loss Plasmonic Mirror for Diffuse Optical Scattering. Applied Physics Express, 2012, 5, 125205.	1.1	2
30	Helium ion beam milling to create a nano-structured domain wall magnetoresistance spin valve. Nanotechnology, 2012, 23, 395302.	1.3	18
31	Nanofabrication with the Helium Ion Microscope. Materials Research Society Symposia Proceedings, 2012, 1412, 43.	0.1	4
32	Ionoluminescence in the Helium Ion Microscope. Microscopy and Microanalysis, 2012, 18, 1253-1262.	0.2	32
33	Compact Fabry-Perot electro-optic switch based on n-ZnO/p-Si heterojunction structure. , 2012, , .		0
34	Downscaled graphene nanodevices: Fabrication and ab initio study. , 2012, , .		0
35	Fabrication and ab initio study of downscaled graphene nanoelectronic devices. , 2012, , .		0
36	Helium ion microscopy of Lepidoptera scales. Scanning, 2012, 34, 107-120.	0.7	36

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37	Silicon electro-optic switch based on n-ZnO/p-Si heterojunction structure. , 2011, , .		0
38	Imaging the Bulk Nanoscale Morphology of Organic Solar Cell Blends Using Helium Ion Microscopy. Nano Letters, 2011, 11, 4275-4281.	4.5	28
39	Optical properties of gold and aluminium nanoparticles for silicon solar cell applications. Journal of Applied Physics, 2011, 109, .	1.1	123
40	Focused helium ion beam milling and deposition. Microelectronic Engineering, 2011, 88, 2452-2455.	1.1	63
41	Single step deposition method for nearly stoichiometric CuInSe2 thin films. Thin Solid Films, 2011, 519, 3107-3112.	0.8	17
42	Broadband plasmonic couplers for light trapping and waveguiding. , 2010, , .		2
43	Solar energy harvesting in the epicuticle of the oriental hornet (Vespa orientalis). Die Naturwissenschaften, 2010, 97, 1067-1076.	0.6	36
44	A new polarimeter based on optical non-reciprocity inÂgratings withÂtwo-dimensional chirality. Applied Physics B: Lasers and Optics, 2010, 99, 679-693.	1.1	6
45	Optimization of mothâ€eye antireflection schemes for silicon solar cells. Progress in Photovoltaics: Research and Applications, 2010, 18, 195-203.	4.4	139
46	Modeling SWCNT Bandgap and Effective Mass Variation Using a Monte Carlo Approach. IEEE Nanotechnology Magazine, 2010, 9, 184-193.	1.1	57
47	A moth-eye bio-inspired approach to planar isotropic diffraction. Materials Research Society Symposia Proceedings, 2010, 1272, 1.	0.1	0
48	Characterization of experimental textured ZnO:Al films for thin film solar cell applications and comparison with commercial and plasmonic alternatives. , 2010, , .		0
49	A high PSRR capacitor-less on — Chip low dropout voltage regulator. , 2010, , .		6
50	A high PSRR low dropout voltage regulator with fast settling response. , 2010, , .		0
51	Nanostructured biomimetic moth-eye arrays in silicon by nanoimprint lithography. , 2009, , .		17
52	Influence of localized surface plasmon excitation in silver nanoparticles on the performance of silicon solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 1978-1985.	3.0	277
53	Sunrise to sunset optimization of thin film antireflective coatings for encapsulated, planar silicon solar cells. Progress in Photovoltaics: Research and Applications, 2009, 17, 241-252.	4.4	39
54	Improved deposition of large scale ordered nanosphere monolayers via liquid surface self-assembly. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 165, 186-189.	1.7	40

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55	Plasmonic and biomimetic light-trapping for photovoltaics. Proceedings of SPIE, 2009, , .	0.8	0
56	Si/SiGe near-infrared photodetectors grown using low pressure chemical vapour deposition. Journal of Materials Science: Materials in Electronics, 2008, 19, 179-182.	1.1	3
57	Double-polysilicon self-aligned lateral bipolar transistors. Journal of Materials Science: Materials in Electronics, 2008, 19, 183-187.	1.1	1
58	Photovoltaic technologies. Energy Policy, 2008, 36, 4390-4396.	4.2	172
59	Tunable reflection minima of nanostructured antireflective surfaces. Applied Physics Letters, 2008, 93, .	1.5	284
60	A new analytical model for predicting SWCNT band-gap from geometrical properties. , 2008, , .		2
61	Nonreciprocal diffraction through dielectric gratings with two-dimensional chirality. Physical Review A, 2008, 77, .	1.0	12
62	A detailed study of pâ€“n junction solar cells by means of collection efficiency. Solar Energy Materials and Solar Cells, 2007, 91, 160-166.	3.0	16
63	High-resolution electron beam lithography for the fabrication of high-density dielectric metamaterials. Thin Solid Films, 2007, 515, 3714-3717.	0.8	24
64	Bio-Mimetic Subwavelength Surfaces for Near-Zero Reflection Sunrise to Sunset. , 2006, , .		18
65	Giant optical activity in dielectric planar metamaterials with two-dimensional chirality. Journal of Optics, 2006, 8, 878-890.	1.5	28
66	Large area all-dielectric planar chiral metamaterials by electron beam lithography. Journal of Vacuum Science & Technology B, 2006, 24, 1455.	1.3	27
67	Raman study of the strain and H2 preconditioning effect on self-assembled Ge island on Si (001). Journal of Materials Science: Materials in Electronics, 2005, 16, 469-474.	1.1	1
68	Broken time-reversal and electromagnetic anyon quasiparticles in 2D chiral plasmon nanostructures. , 2004, , IThB4.		0
69	A new model of geometric chirality for two-dimensional continuous media and planar meta-materials. Journal of Optics, 2004, 6, 193-203.	1.5	32
70	Influence of H2 Preconditioning on the Nucleation and Growth of Self-Assembled Germanium Islands on Silicon (001). Materials Research Society Symposia Proceedings, 2004, 820, 358.	0.1	0
71	Lateral SiGe heterojunction bipolar transistor by confined selective epitaxial growth: simulation and material growth. Microelectronic Engineering, 2004, 73-74, 508-513.	1.1	2
72	Selective epitaxial growth using dichlorosilane and silane by low pressure chemical vapor deposition. Microelectronic Engineering, 2004, 73-74, 514-518.	1.1	7

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73	Planar chiral meta-materials for photonic devices. Journal of Materials Science: Materials in Electronics, 2003, 14, 393-395.	1.1	10
74	Title is missing!. Journal of Materials Science: Materials in Electronics, 2003, 14, 323-327.	1.1	5
75	Confined epitaxial growth by low-pressure chemical vapor deposition. Journal of Materials Science: Materials in Electronics, 2003, 14, 257-260.	1.1	0
76	Design of a 3Î¼m pixel linear CMOS sensor for earth observation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 512, 350-357.	0.7	8
77	Optical Manifestations of Planar Chirality. Physical Review Letters, 2003, 90, 107404.	2.9	445
78	Fabrication and characterization of n-ZnO/p-AlGaN heterojunction light-emitting diodes on 6H-SiC substrates. Applied Physics Letters, 2003, 83, 4719-4721.	1.5	444
79	Broken Time Reversal of Light Interaction with Planar Chiral Nanostructures. Physical Review Letters, 2003, 91, 247404.	2.9	116
80	Structural and Compositional Evolution of Self-Assembled Germanium Islands on Silicon (001) During High Growth Rate LPCVD. Materials Research Society Symposia Proceedings, 2003, 775, 9251.	0.1	0
81	<title>Layered chiral metallic meta-materials</title>. , 2002, , .		3
82	Micro-cavity lasing of optically excited CdS thin films at room temperature. Journal of Crystal Growth, 2000, 214-215, 1015-1018.	0.7	21
83	Photoluminescence and lasing of thin CdS films on glass formed by pulsed-laser-deposition. Journal of Luminescence, 2000, 87-89, 1162-1164.	1.5	38
84	ZnO as a novel photonic material for the UV region. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 75, 190-198.	1.7	406
85	Growth and characterization of beryllium-based IIâ€“VI compounds. Journal of Applied Physics, 1999, 85, 512-517.	1.1	32
86	Photoluminescence properties of thin CdS films on glass formed by laser ablation. Solid State Communications, 1999, 109, 757-760.	0.9	54
87	Microcavity lasing of optically excited cadmium sulfide thin films at room temperature. Optics Letters, 1999, 24, 1278.	1.7	22
88	ZnSe heteroepitaxy on GaAs (110) substrate. Journal of Electronic Materials, 1998, 27, 85-88.	1.0	1
89	Plasma assisted molecular beam epitaxy of ZnO on câ€‰-plane sapphire: Growth and characterization. Journal of Applied Physics, 1998, 84, 3912-3918.	1.1	1,268
90	High temperature excitonic stimulated emission from ZnO epitaxial layers. Applied Physics Letters, 1998, 73, 1038-1040.	1.5	762

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91	Optically pumped lasing of ZnO at room temperature. Applied Physics Letters, 1997, 70, 2230-2232.	1.5	2,117
92	Growth of ZnO single crystal thin films on c-plane (0 0 0 1) sapphire by plasma enhanced molecular beam epitaxy. Journal of Crystal Growth, 1997, 181, 165-169.	0.7	247
93	Self-Organized Growth of II-VI Wide Bandgap Quantum Dot Structures. Physica Status Solidi (B): Basic Research, 1997, 202, 827-833.	0.7	15
94	Overexcited CdSe quantum well lasers. Journal of Crystal Growth, 1996, 159, 684-688.	0.7	1
95	Electron beam pumping of CdZnSe quantum well laser structures using a variable energy electron beam. Journal of Crystal Growth, 1996, 159, 618-622.	0.7	16
96	Comment on â€˜â€˜Verticalâ€cavity stimulated emission from photopumped InGaN/GaN heterojunctions at room temperatureâ€™â€™ [Appl. Phys. Lett. 65, 520 (1994)]. Applied Physics Letters, 1996, 68, 3197-3197.	1.5	17
97	(Dark Line Defects, Bright Line Lasers)â€Microscopic Studies of Singleâ€Shot Lasing in CdSe Quantum Wells. Physica Status Solidi (B): Basic Research, 1995, 187, 451-456.	0.7	9
98	Photoacoustic spectroscopy of CuInSe2 thin films. Thin Solid Films, 1993, 226, 248-253.	0.8	23
99	Room-temperature green luminescence and lasing of thin CdS films on glass formed by pulsed laser-deposition. , 0, , .		0
100	Planar chiral meta-materials: controlling the polarization state of light in the far- and near- field. , 0, , .		0
101	Surface Morphology of Transparent Conductive ZnO Film Grown by DC Sputtering Method. Advanced Materials Research, 0, 894, 403-407.	0.3	4