

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	Optically pumped lasing of ZnO at room temperature. Applied Physics Letters, 1997, 70, 2230-2232.	1.5	2,117
2	Plasma assisted molecular beam epitaxy of ZnO on c-plane sapphire: Growth and characterization. Journal of Applied Physics, 1998, 84, 3912-3918.	1.1	1,268
3	High temperature excitonic stimulated emission from ZnO epitaxial layers. Applied Physics Letters, 1998, 73, 1038-1040.	1.5	762
4	Optical Manifestations of Planar Chirality. Physical Review Letters, 2003, 90, 107404.	2.9	445
5	Fabrication and characterization of n-ZnO/p-AlGaIn heterojunction light-emitting diodes on 6H-SiC substrates. Applied Physics Letters, 2003, 83, 4719-4721.	1.5	444
6	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
7	Tunable reflection minima of nanostructured antireflective surfaces. Applied Physics Letters, 2008, 93, .	1.5	284
8	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
9	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
10	Photovoltaic technologies. Energy Policy, 2008, 36, 4390-4396.	4.2	172
11	Optimization of moth-eye antireflection schemes for silicon solar cells. Progress in Photovoltaics: Research and Applications, 2010, 18, 195-203.	4.4	139
12	Improved Optimization Strategy for Irradiance Equalization in Dynamic Photovoltaic Arrays. IEEE Transactions on Power Electronics, 2013, 28, 2946-2956.	5.4	131
13	Optical properties of gold and aluminium nanoparticles for silicon solar cell applications. Journal of Applied Physics, 2011, 109, .	1.1	123
14	Broken Time Reversal of Light Interaction with Planar Chiral Nanostructures. Physical Review Letters, 2003, 91, 247404.	2.9	116
15	The Optimized-String Dynamic Photovoltaic Array. IEEE Transactions on Power Electronics, 2014, 29, 1768-1776.	5.4	76
16	Focused helium ion beam milling and deposition. Microelectronic Engineering, 2011, 88, 2452-2455.	1.1	63
17	Modeling SWCNT Bandgap and Effective Mass Variation Using a Monte Carlo Approach. IEEE Nanotechnology Magazine, 2010, 9, 184-193.	1.1	57
18	Photoluminescence properties of thin CdS films on glass formed by laser ablation. Solid State Communications, 1999, 109, 757-760.	0.9	54

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19	Rapid passivation of carrier-induced defects in p-type multi-crystalline silicon. <i>Solar Energy Materials and Solar Cells</i> , 2016, 158, 102-106.	3.0	49
20	Suppression of backscattered diffraction from sub-wavelength "moth-eye"™ arrays. <i>Optics Express</i> , 2013, 21, 1.	1.7	48
21	Improved deposition of large scale ordered nanosphere monolayers via liquid surface self-assembly. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009, 165, 186-189.	1.7	40
22	Sunrise to sunset optimization of thin film antireflective coatings for encapsulated, planar silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2009, 17, 241-252.	4.4	39
23	Helium ion beam lithography on fullerene molecular resists for sub-10nm patterning. <i>Microelectronic Engineering</i> , 2016, 155, 74-78.	1.1	39
24	Photoluminescence and lasing of thin CdS films on glass formed by pulsed-laser-deposition. <i>Journal of Luminescence</i> , 2000, 87-89, 1162-1164.	1.5	38
25	Reflectance properties of silicon moth-eyes in response to variations in angle of incidence, polarisation and azimuth orientation. <i>Optics Express</i> , 2014, 22, A402.	1.7	38
26	Solar energy harvesting in the epicuticle of the oriental hornet (<i>Vespa orientalis</i>). <i>Die Naturwissenschaften</i> , 2010, 97, 1067-1076.	0.6	36
27	Helium ion microscopy of Lepidoptera scales. <i>Scanning</i> , 2012, 34, 107-120.	0.7	36
28	Growth and characterization of beryllium-based II-VI compounds. <i>Journal of Applied Physics</i> , 1999, 85, 512-517.	1.1	32
29	A new model of geometric chirality for two-dimensional continuous media and planar meta-materials. <i>Journal of Optics</i> , 2004, 6, 193-203.	1.5	32
30	Ionoluminescence in the Helium Ion Microscope. <i>Microscopy and Microanalysis</i> , 2012, 18, 1253-1262.	0.2	32
31	Giant optical activity in dielectric planar metamaterials with two-dimensional chirality. <i>Journal of Optics</i> , 2006, 8, 878-890.	1.5	28
32	Imaging the Bulk Nanoscale Morphology of Organic Solar Cell Blends Using Helium Ion Microscopy. <i>Nano Letters</i> , 2011, 11, 4275-4281.	4.5	28
33	Broadband scattering of the solar spectrum by spherical metal nanoparticles. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 600-611.	4.4	28
34	Nanostructured Gas Sensors: From Air Quality and Environmental Monitoring to Healthcare and Medical Applications. <i>Nanomaterials</i> , 2021, 11, 1927.	1.9	28
35	Large area all-dielectric planar chiral metamaterials by electron beam lithography. <i>Journal of Vacuum Science & Technology B</i> , 2006, 24, 1455.	1.3	27
36	Minimising bulk lifetime degradation during the processing of interdigitated back contact silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2018, 26, 38-47.	4.4	25

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37	High-resolution electron beam lithography for the fabrication of high-density dielectric metamaterials. <i>Thin Solid Films</i> , 2007, 515, 3714-3717.	0.8	24
38	Photoacoustic spectroscopy of CuInSe ₂ thin films. <i>Thin Solid Films</i> , 1993, 226, 248-253.	0.8	23
39	Microcavity lasing of optically excited cadmium sulfide thin films at room temperature. <i>Optics Letters</i> , 1999, 24, 1278.	1.7	22
40	Micro-cavity lasing of optically excited CdS thin films at room temperature. <i>Journal of Crystal Growth</i> , 2000, 214-215, 1015-1018.	0.7	21
41	Bio-Mimetic Subwavelength Surfaces for Near-Zero Reflection Sunrise to Sunset. , 2006, , .		18
42	Helium ion beam milling to create a nano-structured domain wall magnetoresistance spin valve. <i>Nanotechnology</i> , 2012, 23, 395302.	1.3	18
43	Comment on "Vertical-cavity stimulated emission from photopumped InGaN/GaN heterojunctions at room temperature" [Appl. Phys. Lett. 65, 520 (1994)]. <i>Applied Physics Letters</i> , 1996, 68, 3197-3197.	1.5	17
44	Nanostructured biomimetic moth-eye arrays in silicon by nanoimprint lithography. , 2009, , .		17
45	Single step deposition method for nearly stoichiometric CuInSe ₂ thin films. <i>Thin Solid Films</i> , 2011, 519, 3107-3112.	0.8	17
46	Electron beam pumping of CdZnSe quantum well laser structures using a variable energy electron beam. <i>Journal of Crystal Growth</i> , 1996, 159, 618-622.	0.7	16
47	A detailed study of p-n junction solar cells by means of collection efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2007, 91, 160-166.	3.0	16
48	Self-Organized Growth of II-VI Wide Bandgap Quantum Dot Structures. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 202, 827-833.	0.7	15
49	Efficient light harvesting in hybrid quantum dot-interdigitated back contact solar cells via resonant energy transfer and luminescent downshifting. <i>Nanoscale</i> , 2019, 11, 18837-18844.	2.8	15
50	Metal-Organic-Frameworks: Low Temperature Gas Sensing and Air Quality Monitoring. <i>Chemosensors</i> , 2021, 9, 316.	1.8	13
51	Nonreciprocal diffraction through dielectric gratings with two-dimensional chirality. <i>Physical Review A</i> , 2008, 77, .	1.0	12
52	Planar chiral meta-materials for photonic devices. <i>Journal of Materials Science: Materials in Electronics</i> , 2003, 14, 393-395.	1.1	10
53	(Dark Line Defects, Bright Line Lasers) Microscopic Studies of Single-shot Lasing in CdSe Quantum Wells. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 187, 451-456.	0.7	9
54	Design of a 3¼m pixel linear CMOS sensor for earth observation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 512, 350-357.	0.7	8

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55	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
56	Selective epitaxial growth using dichlorosilane and silane by low pressure chemical vapor deposition. Microelectronic Engineering, 2004, 73-74, 514-518.	1.1	7
57	Evaluating the accuracy of point spread function deconvolutions applied to luminescence images. , 2016, , .		7
58	A new polarimeter based on optical non-reciprocity in gratings with two-dimensional chirality. Applied Physics B: Lasers and Optics, 2010, 99, 679-693.	1.1	6
59	A high PSRR capacitor-less on-chip low dropout voltage regulator. , 2010, , .		6
60	Title is missing!. Journal of Materials Science: Materials in Electronics, 2003, 14, 323-327.	1.1	5
61	Nanofabrication with the Helium Ion Microscope. Materials Research Society Symposia Proceedings, 2012, 1412, 43.	0.1	4
62	Surface Morphology of Transparent Conductive ZnO Film Grown by DC Sputtering Method. Advanced Materials Research, 0, 894, 403-407.	0.3	4
63	<title>Layered chiral metallic meta-materials</title>. , 2002, , .		3
64	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
65	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
66	Lateral SiGe heterojunction bipolar transistor by confined selective epitaxial growth: simulation and material growth. Microelectronic Engineering, 2004, 73-74, 508-513.	1.1	2
67	A new analytical model for predicting SWCNT band-gap from geometrical properties. , 2008, , .		2
68	Broadband plasmonic couplers for light trapping and waveguiding. , 2010, , .		2
69	Tunable Low-loss Plasmonic Mirror for Diffuse Optical Scattering. Applied Physics Express, 2012, 5, 125205.	1.1	2
70	Helium ion microscopy and energy selective scanning electron microscopy – two advanced microscopy techniques with complementary applications. Journal of Physics: Conference Series, 2014, 522, 012049.	0.3	2
71	Spectral response of steady-state photoluminescence from GaAs _{1-x} P _x layers grown on a SiGe/Si system. Applied Physics Letters, 2017, 111, .	1.5	2
72	Integrated Simulator and Hardware Platform for Dynamic Photovoltaic Array Optimization and Testing. Journal of Nanoelectronics and Optoelectronics, 2015, 10, 104-113.	0.1	2

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73	Quantifying and Improving Student Engagement with Remotely Accessible Laboratory Project Hardware (RALPH). , 2020, , .		2
74	Overexcited CdSe quantum well lasers. Journal of Crystal Growth, 1996, 159, 684-688.	0.7	1
75	ZnSe heteroepitaxy on GaAs (110) substrate. Journal of Electronic Materials, 1998, 27, 85-88.	1.0	1
76	Raman study of the strain and H ₂ preconditioning effect on self-assembled Ge island on Si (001). Journal of Materials Science: Materials in Electronics, 2005, 16, 469-474.	1.1	1
77	Double-polysilicon self-aligned lateral bipolar transistors. Journal of Materials Science: Materials in Electronics, 2008, 19, 183-187.	1.1	1
78	Simulation platform for dynamic photovoltaic arrays. , 2013, , .		1
79	Moth-Eye Antireflective Structures. , 2016, , 2275-2285.		1
80	Mie resonators as rearside light trapping structures in planar crystalline silicon solar cells. , 2018, , .		1
81	Molecular dynamic simulation on temperature evolution of SiC under directional microwave radiation. Journal of Physics Condensed Matter, 2022, 34, 195701.	0.7	1
82	Room-temperature green luminescence and lasing of thin CdS films on glass formed by pulsed laser-deposition. , 0, , .		0
83	Confined epitaxial growth by low-pressure chemical vapor deposition. Journal of Materials Science: Materials in Electronics, 2003, 14, 257-260.	1.1	0
84	Planar chiral meta-materials: controlling the polarization state of light in the far- and near- field. , 0, , .		0
85	Broken time-reversal and electromagnetic anyon quasiparticles in 2D chiral plasmon nanostructures. , 2004, , IThB4.		0
86	Influence of H ₂ 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
87	Plasmonic and biomimetic light-trapping for photovoltaics. Proceedings of SPIE, 2009, , .	0.8	0
88	A moth-eye bio-inspired approach to planar isotropic diffraction. Materials Research Society Symposia Proceedings, 2010, 1272, 1.	0.1	0
89	Characterization of experimental textured ZnO:Al films for thin film solar cell applications and comparison with commercial and plasmonic alternatives. , 2010, , .		0
90	A high PSRR low dropout voltage regulator with fast settling response. , 2010, , .		0

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91	Silicon electro-optic switch based on n-ZnO/p-Si heterojunction structure. , 2011, , .		0
92	Tuning Light Scattering by Periodic Metal Nanoparticle Arrays for Solar Cell Applications. Materials Research Society Symposia Proceedings, 2012, 1391, 65.	0.1	0
93	Compact Fabry-Perot electro-optic switch based on n-ZnO/p-Si heterojunction structure. , 2012, , .		0
94	Downscaled graphene nanodevices: Fabrication and ab initio study. , 2012, , .		0
95	Fabrication and ab initio study of downscaled graphene nanoelectronic devices. , 2012, , .		0
96	The alternating current dynamic photovoltaic array. , 2013, , .		0
97	Nanosphere lithography for improved absorption in thin crystalline silicon solar cells. , 2015, , .		0
98	Telecommunications Engineering at Macquarie Univerity: Modernisation and Vision. , 2018, , .		0
99	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
100	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
101	Moth-Eye Antireflective Structures. , 2015, , 1-11.		0