Jeremy N Munday

List of Publications by Year
in descending order

112 papers	6,333 citations	100601 38 h-index	73587 79 g-index
119 all docs	119 docs citations	119 times ranked	9243 citing authors

#	Article	IF	Citations
1	Highly switchable absorption in a metal hydride device using a near-zero-index substrate. Optics Express, 2022, 30, 21977.	1.7	1
2	Engineering Casimir interactions with epsilon-near-zero materials. Physical Review A, 2022, 105, .	1.0	5
3	Photonic materials for interstellar solar sailing. Optica, 2021, 8, 722.	4.8	37
4	Structural and Optical Properties of Nonstoichiometric Titanium Hydride, Vanadium Hydride and Zirconium Hydride as Hot Carrier Solar Cell Absorbers. , 2021, , .		0
5	Waterâ€Induced and Wavelengthâ€Dependent Light Absorption and Emission Dynamics in Tripleâ€Cation Halide Perovskites. Advanced Optical Materials, 2021, 9, 2100710.	3.6	0
6	Nighttime Photovoltaic Cells: Electrical Power Generation by Optically Coupling with Deep Space. ACS Photonics, 2020, 7, 1-9.	3.2	48
7	Emergent Opportunities with Metallic Alloys: From Material Design to Optical Devices. Advanced Optical Materials, 2020, 8, 2001082.	3.6	10
8	Metallic Alloys: Emergent Opportunities with Metallic Alloys: From Material Design to Optical Devices (Advanced Optical Materials 23/2020). Advanced Optical Materials, 2020, 8, 2070091.	3.6	1
9	Enhanced near-Infrared Photoresponse from Nanoscale Ag-Au Alloyed Films. ACS Photonics, 2020, 7, 1689-1698.	3.2	14
10	Correlated Electrical and Chemical Nanoscale Properties in Potassiumâ€Passivated, Tripleâ€Cation Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000515.	1.9	4
11	Measuring the effect of electrostatic patch potentials in Casimir force experiments. Physical Review Research, 2020, 2, .	1.3	17
12	Control of hot-carrier relaxation time in Au-Ag thin films through alloying. Optics Express, 2020, 28, 33528.	1.7	3
13	Surface plasmon assisted control of hot-electron relaxation time. Optica, 2020, 7, 608.	4.8	11
14	Recent progress in engineering the Casimir effectÂâ€" applications to nanophotonics, nanomechanics, and chemistry. Nanophotonics, 2020, 10, 523-536.	2.9	52
15	Sensitivity and accuracy of Casimir force measurements in air. Physical Review A, 2019, 100, .	1.0	7
16	Tackling Climate Change through Radiative Cooling. Joule, 2019, 3, 2057-2060.	11.7	70
17	Optoelectronic Devices on Index-near-Zero Substrates. ACS Photonics, 2019, 6, 2238-2244.	3.2	15
18	The Effects of Incident Photon Energy on the Time-Dependent Voltage Response of Lead Halide Perovskites. Chemistry of Materials, 2019, 31, 8969-8976.	3.2	10

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19	A new twist on the quantum vacuum. Physics Today, 2019, 72, 74-75.	0.3	3
20	Revisiting the cold case of cold fusion. Nature, 2019, 570, 45-51.	13.7	48
21	Near-perfect absorption throughout the visible using ultra-thin metal films on index-near-zero substrates [Invited]. Optical Materials Express, 2019, 9, 330.	1.6	22
22	Interfacial Defect-Mediated Near-Infrared Silicon Photodetection with Metal Oxides. ACS Applied Materials & Interfaces, 2019, 11, 47516-47524.	4.0	4
23	In Situ Optical and Stress Characterization of Alloyed Pd_{<i>x</i>}Au_{1â€“<i>x</i>} Hydrides. ACS Applied Materials & Interfaces, 2019, 11, 45057-45067.	4.0	17
24	Cesium-Incorporated Triple Cation Perovskites Deliver Fully Reversible and Stable Nanoscale Voltage Response. ACS Nano, 2019, 13, 1538-1546.	7.3	21
25	Measurement of the Casimir Force between Two Spheres. Physical Review Letters, 2018, 120, 040401.	2.9	64
26	Active Control of Photon Recycling for Tunable Optoelectronic Materials. Advanced Optical Materials, 2018, 6, 1701323.	3.6	6
27	Near-IR Imaging Based on Hot Carrier Generation in Nanometer-Scale Optical Coatings. ACS Photonics, 2018, 5, 306-311.	3.2	29
28	Measurement of wavelength-dependent radiation pressure from photon reflection and absorption due to thin film interference. Scientific Reports, 2018, 8, 15930.	1.6	8
29	Measurement of the Casimir torque. Nature, 2018, 564, 386-389.	13.7	72
30	Dynamic Optical Properties of Metal Hydrides. ACS Photonics, 2018, 5, 4677-4686.	3.2	99
31	Apparatus for combined nanoscale gravimetric, stress, and thermal measurements. Review of Scientific Instruments, 2018, 89, 085106.	0.6	4
32	Multiscale Functional Imaging of Interfaces through Atomic Force Microscopy Using Harmonic Mixing. ACS Applied Materials & Interfaces, 2018, 10, 28850-28859.	4.0	13
33	Hot carrier effects in novel ultrathin metal films. , 2018, , .		0
34	Aluminum-based hot carrier plasmonics. Applied Physics Letters, 2017, 110, .	1.5	30
35	Real-Time Nanoscale Open-Circuit Voltage Dynamics of Perovskite Solar Cells. Nano Letters, 2017, 17, 2554-2560.	4.5	111
36	Conditions for repulsive Casimir forces between identical birefringent materials. Physical Review A, 2017, 95, .	1.0	17

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37	Controllable Propulsion by Light: Steering a Solar Sail via Tunable Radiation Pressure. Advanced Optical Materials, 2017, 5, 1600668.	3.6	12
38	Effect of lateral tip motion on multifrequency atomic force microscopy. Applied Physics Letters, 2017, 111, 043105.	1.5	8
39	Casimir-Lifshitz Torque Enhancement by Retardation and Intervening Dielectrics. Physical Review Letters, 2017, 119, 183001.	2.9	17
40	Electrically Controllable Light Trapping for Self-Powered Switchable Solar Windows. ACS Photonics, 2017, 4, 1-7.	3.2	77
41	Resonant and non-resonant dielectric coatings for high efficiency solar cells. , 2017, , .		0
42	A generalized approach to modeling absorption and photocurrent in solar cells with light scattering structures. Journal of Applied Physics, 2016, 120, 165304.	1.1	2
43	Using simulations to guide experiments. , 2016, , .		0
44	Experimental demonstration and modeling of the internal light scattering profile within solar cells due to random dielectric scatterers. Journal of Applied Physics, 2016, 119, 023104.	1.1	4
45	Radiative cooling of a GaAs solar cell to improve power conversion efficiency. , 2016, , .		4
46	Mapping V<inf>oc</inf> in polycrystalline solar cells with nanoscale spatial resolution. , 2016, , .		0
47	Nanophotonic resonators for InP solar cells. Optics Express, 2016, 24, A925.	1.7	18
48	Design concepts for hot carrier-based detectors and energy converters in the near ultraviolet and infrared. Journal of Photonics for Energy, 2016, 6, 042510.	0.8	5
49	Demonstration of Resonance Coupling in Scalable Dielectric Microresonator Coatings for Photovoltaics. ACS Applied Materials & Interfaces, 2016, 8, 24536-24542.	4.0	23
50	Fast, high-resolution surface potential measurements in air with heterodyne Kelvin probe force microscopy. Nanotechnology, 2016, 27, 245705.	1.3	60
51	Mid-infrared time-resolved photoconduction in black phosphorus. 2D Materials, 2016, 3, 041006.	2.0	52
52	A highly sensitive, highly transparent, gel-gated MoS₂ phototransistor on biodegradable nanopaper. Nanoscale, 2016, 8, 14237-14242.	2.8	38
53	Special Section Guest Editorial: Hot Carrier Energy Harvesting and Conversion. Journal of Photonics for Energy, 2016, 6, 042501.	0.8	0
54	Materials for hot carrier plasmonics [Invited]. Optical Materials Express, 2015, 5, 2501.	1.6	66

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55	The generalized Shockley-Queisser limit for nanostructured solar cells. Scientific Reports, 2015, 5, 13536.	1.6	107
56	Nanoimaging of Openâ€Circuit Voltage in Photovoltaic Devices. Advanced Energy Materials, 2015, 5, 1501142.	10.2	79
57	Photonic Crystal Devices for Energy Applications. , 2015, , .		0
58	The effect of patch potentials in Casimir force measurements determined by heterodyne Kelvin probe force microscopy. Journal of Physics Condensed Matter, 2015, 27, 214012.	0.7	42
59	Improved voltage response in IIIâ€"V solar cells based on engineered spontaneous emission. , 2015, , .		0
60	A novel method for mapping open-circuit voltage in solar cells with nanoscale resolution (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
61	Advanced Broadband Antireflection Coatings Based on Cellulose Microfiber Paper. IEEE Journal of Photovoltaics, 2015, 5, 577-583.	1.5	19
62	Rotation of a liquid crystal by the Casimir torque. Physical Review A, 2015, 91, .	1.0	27
63	Improving photovoltaic performance through radiative cooling in both terrestrial and extraterrestrial environments. Optics Express, 2015, 23, A1120.	1.7	85
64	Quantitative measurement of radiation pressure on a microcantilever in ambient environment. Applied Physics Letters, 2015, 106, 091107.	1.5	36
65	Surface/Interface Effects on High-Performance Thin-Film All-Solid-State Li-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 26007-26011.	4.0	26
66	Hot electron detectors and energy conversion in the UV and IR. Proceedings of SPIE, 2015, , .	0.8	1
67	Angle-Independent Hot Carrier Generation and Collection Using Transparent Conducting Oxides. Nano Letters, 2015, 15, 147-152.	4.5	56
68	Advanced Anti-Reflection Coatings Based on Nano- and Micro-Structures. , 2014, , .		1
69	Paperâ€Based Antiâ€Reflection Coatings for Photovoltaics. Advanced Energy Materials, 2014, 4, 1301804.	10.2	62
70	Photonics and Plasmonics for Enhanced Photovoltaic Performance. Lecture Notes in Nanoscale Science and Technology, 2014, , 349-382.	0.4	4
71	Silver nanowire transparent conducting paper-based electrode with high optical haze. Journal of Materials Chemistry C, 2014, 2, 1248-1254.	2.7	131
72	Novel Nanostructured Paper with Ultrahigh Transparency and Ultrahigh Haze for Solar Cells. Nano Letters, 2014, 14, 765-773.	4.5	419

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73	Assessing local voltage in CIGS solar cells by nanoscale resolved Kelvin Probe Force Microscopy and sub-micron photoluminescence. , 2014, , .		2
74	Light trapping in a polymer solar cell by tailored quantum dot emission. Optics Express, 2014, 22, A259.	1.7	11
75	Solar Cells: Paperâ€Based Antiâ€Reflection Coatings for Photovoltaics (Adv. Energy Mater. 9/2014). Advanced Energy Materials, 2014, 4, .	10.2	3
76	Approaching the limits of transparency and conductivity in graphitic materials through lithium intercalation. Nature Communications, 2014, 5, 4224.	5.8	213
77	Designing Photonic Materials for Effective Bandgap Modification and Optical Concentration in Photovoltaics. IEEE Journal of Photovoltaics, 2014, 4, 233-236.	1.5	7
78	Towards an optimized all lattice-matched InAlAs/InGaAsP/InGaAs multijunction solar cell with efficiency >50%. Applied Physics Letters, 2013, 102, .	1.5	91
79	Optical haze of transparent and conductive silver nanowire films. Nano Research, 2013, 6, 461-468.	5.8	173
80	Designing photonic materials for effective bandgap modification and optical concentration in photovoltaics. , 2013, , .		0
81	Designing photonic materials for effective bandgap modification and optical concentration in photovoltaics. , 2013, , .		0
82	Light Trapping Principles and Limits for Photovoltaics. , 2013, , .		0
83	Light trapping beyond the 4<i>n</i>2 limit in thin waveguides. Applied Physics Letters, 2012, 100, .	1.5	38
84	Designing photonic materials for effective bandgap modification and optical concentration in photovoltaics. , 2012, , .		0
85	Gallium Arsenide Solar Cell Absorption Enhancement Using Whispering Gallery Modes of Dielectric Nanospheres. IEEE Journal of Photovoltaics, 2012, 2, 123-128.	1.5	84
86	Designing photonic materials for effective bandgap modification and optical concentration in photovoltaics. , 2012, , .		0
87	Biological Templates for Antireflective Current Collectors for Photoelectrochemical Cell Applications. Nano Letters, 2012, 12, 6005-6011.	4.5	74
88	The effect of photonic bandgap materials on the Shockley-Queisser limit. Journal of Applied Physics, 2012, 112, .	1.1	50
89	Solar Cell Light Trapping beyond the Ray Optic Limit. Nano Letters, 2012, 12, 214-218.	4.5	298
90	Large Integrated Absorption Enhancement in Plasmonic Solar Cells by Combining Metallic Gratings and Antireflection Coatings. Nano Letters, 2011, 11, 2195-2201.	4.5	330

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91	Light Absorption Enhancement in Thinâ€Film Solar Cells Using Whispering Gallery Modes in Dielectric Nanospheres. Advanced Materials, 2011, 23, 1272-1276.	11.1	329
92	Attractive and Repulsive Casimirâ€"Lifshitz Forces, QED Torques, and Applications to Nanomachines. Lecture Notes in Physics, 2011, , 249-286.	0.3	2
93	Design Considerations for Plasmonic Photovoltaics. Advanced Materials, 2010, 22, 4794-4808.	11.1	645
94	REPULSIVE CASIMIR AND VAN DER WAALS FORCES: FROM MEASUREMENTS TO FUTURE TECHNOLOGIES. International Journal of Modern Physics A, 2010, 25, 2252-2259.	0.5	15
95	Measured long-range repulsive Casimirâ€"Lifshitz forces. Nature, 2009, 457, 170-173.	13.7	577
96	How much can guided modes enhance absorption in thin solar cells?. Optics Express, 2009, 17, 20975.	1.7	112
97	Measurements of the Casimir-Lifshitz force in fluids: The effect of electrostatic forces and Debye screening. Physical Review A, 2008, 78, .	1.0	76
98	Reply to â€œComment on â€˜Precision measurement of the Casimir-Lifshitz force in a fluidâ€™â€‰â€• Physical Review A, 2008, 77, .	1.0	37
99	Stable Suspension and Dispersion-Induced Transitions from Repulsive Casimir Forces Between Fluid-Separated Eccentric Cylinders. Physical Review Letters, 2008, 101, 190404.	2.9	35
100	Precision measurement of the Casimir-Lifshitz force in a fluid. Physical Review A, 2007, 75, .	1.0	101
101	Casimir Forces and Quantum Electrodynamical Torques: Physics and Nanomechanics. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 400-414.	1.9	219
102	Observation of negative group delays within a coaxial photonic crystal using an impulse response method. Optics Communications, 2007, 273, 32-36.	1.0	39
103	Quantum fluctuations in the presence of thin metallic films and anisotropic materials. Journal of Physics A, 2006, 39, 6445-6454.	1.6	13
104	Quantum electrodynamical torques in the presence of Brownian motion. New Journal of Physics, 2006, 8, 244-244.	1.2	32
105	The design of long range quantum electrodynamical forces and torques between macroscopic bodies. Solid State Communications, 2005, 135, 618-626.	0.9	28
106	Torque on birefringent plates induced by quantum fluctuations. Physical Review A, 2005, 71, .	1.0	119
107	Publisher's Note: Torque on birefringent plates induced by quantum fluctuations [Phys. Rev. A71, 042102 (2005)]. Physical Review A, 2005, 71, .	1.0	3
108	Superluminal time advance of a complex audio signal. Applied Physics Letters, 2004, 85, 503-505.	1.5	57

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109	Slow electromagnetic pulse propagation through a narrow transmission band in a coaxial photonic crystal. Applied Physics Letters, 2003, 83, 1053-1055.	1.5	29
110	Band gaps and defect modes in periodically structured waveguides. Journal of the Acoustical Society of America, 2002, 112, 1353-1358.	0.5	80
111	Negative group velocity pulse tunneling through a coaxial photonic crystal. Applied Physics Letters, 2002, 81, 2127-2129.	1.5	33
112	Achieving Scalable Nearâ€Zeroâ€Index Materials. Advanced Photonics Research, 0, , 2200109.	1.7	2