

Michelle L Povinelli

List of Publications by Year in descending order

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69
papers

3,117
citations

236833

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182361

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g-index

70
all docs

70
docs citations

70
times ranked

3341
citing authors

#	ARTICLE	IF	CITATIONS
1	Coupled metamaterial optical resonators for infrared emissivity spectrum modulation. Optics Express, 2021, 29, 5840.	1.7	9
2	Gold-black phosphorus nanostructured absorbers for efficient light trapping in the mid-infrared. Optics Express, 2020, 28, 19562.	1.7	10
3	High temperature, experimental thermal memory based on optical resonances in photonic crystal slabs. APL Photonics, 2019, 4, .	3.0	15
4	Tunable, polarization-sensitive, dual guided-resonance modes in photonic crystals. Optics Express, 2019, 27, 17658.	1.7	1
5	On-chip manipulation of local heating and nanoparticle motion. , 2017, , .		0
6	Enhanced and preferential optical trapping in a slot-graphite photonic crystal. , 2017, , .		0
7	Enhanced and selective optical trapping in a slot-graphite photonic crystal. Optics Express, 2016, 24, 23271.	1.7	14
8	Near-Field, On-Chip Optical Brownian Ratchets. Nano Letters, 2016, 16, 5261-5266.	4.5	45
9	Thermal heating in GaAs nanowire solar cells. , 2015, , .		0
10	Observation of Asymmetric Nanoscale Optical Cavity in GaAs Nanosheets. ACS Photonics, 2015, 2, 1124-1128.	3.2	7
11	Optical Epitaxial Growth of Gold Nanoparticle Arrays. Nano Letters, 2015, 15, 5841-5845.	4.5	22
12	Photonic surfaces for designable nonlinear power shaping. Applied Physics Letters, 2015, 106, 061110.	1.5	3
13	Tandem Solar Cells Using GaAs Nanowires on Si: Design, Fabrication, and Observation of Voltage Addition. Nano Letters, 2015, 15, 7217-7224.	4.5	114
14	Solar heating of GaAs nanowire solar cells. Optics Express, 2015, 23, A1363.	1.7	22
15	Sudden, Laser-Induced Heating through Silicon Nanopatterning. ACS Photonics, 2015, 2, 1681-1685.	3.2	7
16	Photonic surfaces for designable nonlinear power shaping. , 2015, , .		0
17	Strong Interaction between Gold Particles in Light-assisted Templated Self-Assembly. , 2015, , .		0
18	Optical Trapping, Stretching, and Self-Assembly for Biological Measurements. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
19	Design of Passivation Layers on Axial Junction GaAs Nanowire Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1511-1517.	1.5	15
20	Carrier dynamics and doping profiles in GaAs nanosheets. Nano Research, 2014, 7, 163-170.	5.8	14
21	GaAs Nanowire Array Solar Cells with Axial p-n Junctions. Nano Letters, 2014, 14, 3293-3303.	4.5	168
22	Light-Assisted, Templated Self-Assembly of Gold Nanoparticle Chains. Nano Letters, 2014, 14, 5184-5188.	4.5	33
23	The dynamics of giant unilamellar vesicle oxidation probed by morphological transitions. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2615-2624.	1.4	59
24	Enhanced Fabry-Perot resonance in GaAs nanowires through local field enhancement and surface passivation. Nano Research, 2014, 7, 1146-1153.	5.8	17
25	Light-assisted Templated Self-Assembly of a Gold Nanoparticle Array. , 2014, , .		0
26	Light-Assisted, Templated Self-Assembly Using a Photonic-Crystal Slab. Nano Letters, 2013, 13, 2290-2294.	4.5	65
27	Experimental broadband absorption enhancement in silicon nanohole structures with optimized complex unit cells. Optics Express, 2013, 21, A872.	1.7	46
28	Design and optical characterization of high-Q guided-resonance modes in the slot-graphite photonic crystal lattice. Optics Express, 2013, 21, 30975.	1.7	6
29	Fabrication of transferrable, fully suspended silicon photonic crystal nanomembranes exhibiting vivid structural color and high-Q guided resonance. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 050606.	0.6	11
30	Experimental broadband absorption enhancement in silicon nanohole structures with optimized complex unit cells. , 2013, , .		0
31	Optical trapping via guided resonance modes in a Slot-Suzuki-phase photonic crystal lattice. Optics Express, 2012, 20, 6816.	1.7	25
32	Effect of aperiodicity on the broadband reflection of silicon nanorod structures for photovoltaics. Optics Express, 2012, 20, A125.	1.7	34
33	Optical trapping of metal-dielectric nanoparticle clusters near photonic crystal microcavities. Optics Letters, 2012, 37, 3690.	1.7	12
34	Electrical and Optical Characterization of Surface Passivation in GaAs Nanowires. Nano Letters, 2012, 12, 4484-4489.	4.5	183
35	Limiting efficiencies of tandem solar cells consisting of III-V nanowire arrays on silicon. Journal of Applied Physics, 2012, 112, .	1.1	58
36	Broadband absorption of semiconductor nanowire arrays for photovoltaic applications. Journal of Optics (United Kingdom), 2012, 14, 024004.	1.0	87

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37	Toward Optimized Light Utilization in Nanowire Arrays Using Scalable Nanosphere Lithography and Selected Area Growth. Nano Letters, 2012, 12, 2839-2845.	4.5	80
38	Applications of optomechanical effects for on-chip manipulation of light signals. Current Opinion in Solid State and Materials Science, 2012, 16, 82-90.	5.6	24
39	Design and Modeling of Nanowire-array Solar Cells. , 2012, , .		0
40	Applications of computational nanophotonics in photonic circuits, self assembly, and solar energy. , 2011, , .		0
41	Optimal design of aperiodic, vertical silicon nanowire structures for photovoltaics. Optics Express, 2011, 19, A1148.	1.7	90
42	Mechanical Kerr nonlinearities due to bipolar optical forces between deformable silicon waveguides. Optics Express, 2011, 19, 10102.	1.7	37
43	Light-assisted templated self assembly using photonic crystal slabs. Optics Express, 2011, 19, 11422.	1.7	24
44	Experimental demonstration of two methods for controlling the group delay in a system with photonic-crystal resonators coupled to a waveguide. Optics Letters, 2011, 36, 1482.	1.7	34
45	Detailed balance limit of silicon nanowire and nanohole array solar cells. Proceedings of SPIE, 2011, , .	0.8	6
46	Optimal design of aperiodic, vertical silicon nanowire structures for photovoltaics. , 2011, , .		1
47	Optimal design of aperiodic, vertical silicon nanowire structures for photovoltaics. , 2011, , .		1
48	Optimization of Broadband Absorption in Semiconductor Nanowire Arrays for Photovoltaic Applications. , 2011, , .		1
49	Effect of periodicity on optical forces between a one-dimensional periodic photonic crystal waveguide and an underlying substrate. Applied Physics Letters, 2010, 97, .	1.5	18
50	Enhancing optical switching with coherent control. Applied Physics Letters, 2010, 96, 231108.	1.5	26
51	Tuning the coherent interaction in an on-chip photonic-crystal waveguide-resonator system. Applied Physics Letters, 2010, 97, 101102.	1.5	49
52	Optical absorption enhancement in silicon nanowire and nanohole arrays for photovoltaic applications. , 2010, , .		9
53	The effect of plasmonic particles on solar absorption in vertically aligned silicon nanowire arrays. Applied Physics Letters, 2010, 97, 071110.	1.5	35
54	Experimental demonstration of an all-optical analogue to the superradiance effect in an on-chip photonic crystal resonator system. Physical Review B, 2010, 81, .	1.1	41

#	ARTICLE	IF	CITATIONS
55	Slow and Stopped Light in Coupled Resonator Systems. Springer Series in Optical Sciences, 2010, , 165-180.	0.5	1
56	Optical absorption enhancement in silicon nanowire and nanohole arrays for photovoltaic application. , 2010, , .		1
57	Theoretical investigation of attractive optical force in periodically-patterned silicon waveguides. , 2010, , .		0
58	Positive and Negative Mechanical Kerr Nonlinearities in Periodically-patterned Silicon Waveguides. , 2010, , .		0
59	Capturing light pulses into a pair of coupled photonic crystal cavities. Applied Physics Letters, 2009, 94, 231109.	1.5	7
60	Overcoming gain-bandwidth product constraint in slow light Raman amplification with the use of light-stopping schemes. Applied Physics Letters, 2009, 95, .	1.5	4
61	Large tuning of birefringence in two strip silicon waveguides via optomechanical motion. Optics Express, 2009, 17, 17818.	1.7	22
62	Optical absorption enhancement in silicon nanowire arrays with a large lattice constant for photovoltaic applications. Optics Express, 2009, 17, 19371.	1.7	412
63	Large tuning of birefringence in two strip silicon waveguides via optomechanical motion. , 2009, , .		1
64	Aligning microcavity resonances in silicon photonic-crystal slabs using laser-pumped thermal tuning. Applied Physics Letters, 2008, 92, 103114.	1.5	37
65	Experimental realization of an on-chip all-optical analogue to electromagnetically induced transparency. , 2006, , .		1
66	Advances in Theory of Photonic Crystals. Journal of Lightwave Technology, 2006, 24, 4493-4501.	2.7	43
67	Variable speed limit. Nature Physics, 2006, 2, 735-736.	6.5	8
68	Experimental Realization of an On-Chip All-Optical Analogue to Electromagnetically Induced Transparency. Physical Review Letters, 2006, 96, 123901.	2.9	626
69	Evanescent-wave bonding between optical waveguides. Optics Letters, 2005, 30, 3042.	1.7	374