

Chad A Husko

List of Publications by Year in descending order

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61
papers

1,714
citations

331259

21
h-index

377514

34
g-index

62
all docs

62
docs citations

62
times ranked

2094
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase-shifted Bragg gratings in a foundry silicon nitride platform. OSA Continuum, 2021, 4, 933.	1.8	3
2	Mechanochemical conversion kinetics of red to black phosphorus and scaling parameters for high volume synthesis. Npj 2D Materials and Applications, 2020, 4, .	3.9	7
3	Physical origin of higher-order soliton fission in nanophotonic semiconductor waveguides. Scientific Reports, 2018, 8, 17177.	1.6	7
4	Silicon-Phosphorene Nanocavity-Enhanced Optical Emission at Telecommunications Wavelengths. Nano Letters, 2018, 18, 6515-6520.	4.5	23
5	Cross-phase modulation-induced spectral broadening in silicon waveguides. Optics Express, 2016, 24, 443.	1.7	7
6	Phase-Sensitive Amplification in Silicon and Chalcogenide Waveguides. , 2016, , .		0
7	Free-carrier-induced soliton fission unveiled by in situ measurements in nanophotonic waveguides. Nature Communications, 2016, 7, 11332.	5.8	17
8	Stable aqueous dispersions of optically and electronically active phosphorene. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11688-11693.	3.3	206
9	Soliton dynamics in semiconductor photonic crystals. , 2016, , .		2
10	Pure-quartic solitons. Nature Communications, 2016, 7, 10427.	5.8	160
11	Solitary pulses in nanophotonic waveguides. , 2016, , .		0
12	Soliton dynamics in integrated photonic chips. , 2016, , .		0
13	Giant anomalous self-steepening in photonic crystal waveguides. Physical Review A, 2015, 92, .	1.0	13
14	Analysis of soliton fission induced by free-carriers. , 2015, , .		0
15	Nonlinear silicon photonics analyzed with the moment method. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 218.	0.9	21
16	Non-degenerate two-photon absorption in silicon waveguides: analytical and experimental study. Optics Express, 2015, 23, 17101.	1.7	23
17	Cross Nonlinear Absorption in Silicon Waveguides. , 2015, , .		0
18	Nonlinear Silicon Photonics and the Moment Method. , 2015, , .		0

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19	Pure-Quartic Solitons: the Interaction of Fourth Order Dispersion and Self Phase Modulation. , 2015, , .		0
20	Non-degenerate Two-photon Absorption in Silicon Waveguides. , 2015, , .		0
21	Cross-absorption as a limit to heralded silicon photon pair sources. Proceedings of SPIE, 2014, , .	0.8	0
22	Pump-degenerate phase-sensitive amplification in chalcogenide waveguides. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 780.	0.9	19
23	Controlling free-carrier temporal effects in silicon by dispersion engineering. Optica, 2014, 1, 299.	4.8	27
24	Nonlinear Photonics: Quantum State Generation and Manipulation. , 2014, , .		1
25	Phase-sensitive amplification in silicon photonic crystal waveguides. Optics Letters, 2014, 39, 363.	1.7	46
26	Energy efficient nanophotonics: Engineered light-matter interaction in sub-wavelength structures. Optics Communications, 2014, 314, 1-2.	1.0	0
27	Phase-resolved observations of optical pulse propagation in chip-scale silicon nanowires. Applied Physics Letters, 2013, 103, 021103.	1.5	9
28	Soliton dynamics in the multiphoton plasma regime. Scientific Reports, 2013, 3, .	1.6	60
29	Multi-photon absorption limits to heralded single photon sources. Scientific Reports, 2013, 3, 3087.	1.6	63
30	Heralded single-photon source in a III-V photonic crystal. Optics Letters, 2013, 38, 649.	1.7	34
31	Energy efficient nonlinear optics in silicon: are slow-light structures more efficient than nanowires?. Optics Letters, 2012, 37, 2991.	1.7	3
32	Energy efficient all-optical signal processing in SOI: nanowires or slow-light structures?. Proceedings of SPIE, 2012, , .	0.8	0
33	Slow-light dispersion engineering of photonic crystal waveguides using selective microfluidic infiltration. Optics Letters, 2012, 37, 4215.	1.7	26
34	Nonlinear optics in photonic crystal nanostructures. , 2012, , .		0
35	Ultra-Compact High Fidelity Heralded Single Photon Source in a III-V Photonic Crystal. , 2012, , .		0
36	Energy efficient nonlinear optics in silicon: are slow-light structures more efficient than nanowires?. , 2012, , .		1

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37	All-optical XOR logic gate for 40Gb/s DPSK signals via FWM in a silicon nanowire. Optics Express, 2011, 19, 20364.	1.7	91
38	Ultracompact all-optical XOR logic gate in a slow-light silicon photonic crystal waveguide. Optics Express, 2011, 19, 20681.	1.7	73
39	Effect of multiphoton absorption and free carriers in slow-light photonic crystal waveguides. Optics Letters, 2011, 36, 2239.	1.7	25
40	Advances in III-V based photonic crystals for integrated optical processing. Proceedings of SPIE, 2010, , .	0.8	2
41	Temporal solitons and pulse compression in photonic crystal waveguides. Nature Photonics, 2010, 4, 862-868.	15.6	196
42	Deterministic tuning of slow-light in photonic-crystal waveguides through the C and L bands by atomic layer deposition. Applied Physics Letters, 2010, 96, .	1.5	15
43	Observation of Soliton Pulse Compression in Photonic Crystal Waveguides. , 2010, , .		3
44	High quality GaInP nonlinear photonic crystals with minimized nonlinear absorption. Applied Physics Letters, 2009, 95, .	1.5	68
45	Non-trivial scaling of self-phase modulation and three-photon absorption in III-V photonic crystal waveguides. Optics Express, 2009, 17, 22442.	1.7	59
46	Interplay of plasma-induced and fast thermal nonlinearities in a GaAs-based photonic crystal nanocavity. Physical Review A, 2009, 79, .	1.0	44
47	Ultrafast all-optical modulation in GaAs photonic crystal cavities. Applied Physics Letters, 2009, 94, .	1.5	202
48	Pulse Compression and Slow-Light Enhanced Three-Photon Absorption in GaInP Photonic Crystal Waveguides. , 2009, , .		0
49	Digital deterministic control of slow light in photonic crystal waveguide membranes through atomic layer deposition. , 2009, , .		0
50	Ultrafast All-Optical Modulation in GaAs Photonic Crystal Cavities. , 2009, , .		0
51	Digital resonance tuning of high-Q/ ∞ > silicon photonic crystal nanocavities by atomic layer deposition. , 2008, , .		0
52	Observations of whispering gallery modes in asymmetric optical resonators with rational caustics. , 2007, , .		0
53	Observations of interior whispering gallery modes in asymmetric optical resonators with rational caustics. Applied Physics Letters, 2007, 91, 181101.	1.5	19
54	Coupled-Mode Theory Analysis of Optical Bistability involving Fano Resonances in High-Q/ ∞ > Silicon Photonic Crystal Nanocavities. , 2007, , .		0

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55	Digital resonance tuning of high-Q/Vm silicon photonic crystal nanocavities by atomic layer deposition. Applied Physics Letters, 2007, 91, 161114.	1.5	38
56	Observation of femtojoule optical bistability involving Fano resonances in high-Q/Vm silicon photonic crystal nanocavities. Applied Physics Letters, 2007, 91, .	1.5	86
57	Coupled-mode theory analysis of optical bistability involving Fano resonances in high-Q/Vm silicon photonic crystal nanocavities. , 2007, , .		0
58	Photonic crystals and silicon photonics. , 2006, , .		0
59	Negative refraction and nonlinearities in photonic bandgap nanostructures. , 2006, , .		2
60	Ultrafast all-optical bistability in AlGaAs photonic crystals. , 2006, , .		0
61	Mechanochemistry of Phosphorus and Arsenic Alloys for Visible and Infrared Photonics. Advanced Photonics Research, 0, , 2200038.	1.7	0