

Uwe Bandelow

List of Publications by Year in descending order

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67
papers

1,381
citations

394421

19
h-index

345221

36
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67
all docs

67
docs citations

67
times ranked

762
citing authors

#	ARTICLE	IF	CITATIONS
1	Unusual scenarios in four-wave-mixing instability. <i>Physical Review A</i> , 2022, 105, .	2.5	1
2	Semiconductor Laser Linewidth Theory Revisited. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6004.	2.5	11
3	Additive splitting methods for parallel solutions of evolution problems. <i>Journal of Computational Physics</i> , 2021, 436, 110320.	3.8	1
4	Stabilization of Optical Pulse Transmission by Exploiting Fiber Nonlinearities. <i>Journal of Lightwave Technology</i> , 2020, 38, 5743-5747.	4.6	3
5	Deterministic Quantum Devices for Optical Quantum Communication. <i>Springer Series in Solid-state Sciences</i> , 2020, , 285-359.	0.3	2
6	Multi-dimensional Modeling and Simulation of Semiconductor Nanophotonic Devices. <i>Springer Series in Solid-state Sciences</i> , 2020, , 241-283.	0.3	1
7	Numerical methods for accurate description of ultrashort pulses in optical fibers. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 67, 391-402.	3.3	7
8	Time-Dependent Simulation of Thermal Lensing in High-Power Broad-Area Semiconductor Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-10.	2.9	11
9	Simulation of quantum dot based single-photon sources using the Schrödinger-Poisson-Drift-Diffusion-Lindblad system. , 2019, , .		1
10	Traveling Wave Analysis of Non-Thermal Far-Field Blooming in High-Power Broad-Area Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2019, 55, 1-7.	1.9	16
11	Efficient coupling of dynamic electro-optical and heat-transport models for high-power broad-area semiconductor lasers. <i>Optical and Quantum Electronics</i> , 2019, 51, 1.	3.3	8
12	Genetically Optimized Photonic Crystal for Spatial Filtering of Reinjection into Broad-Area Diode Lasers. , 2019, , .		0
13	Beam-combining scheme of high-power broad-area semiconductor lasers with Lyot-filtered reinjection: modeling, simulations, and experiments. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 1721.	2.1	4
14	Modeling of current spreading in high-power broad-area lasers and its impact on the lateral far field divergence. , 2018, , .		11
15	Cancellation of Raman self-frequency shift for compression of optical pulses. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	3.3	0
16	Efficient coupling of the inhomogeneous current spreading model to the dynamic electro-optical solver for broad-area edge-emitting semiconductor devices. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	3.3	9
17	Few-cycle solitons that do not want to be too short in duration. , 2017, , .		0
18	Simulation of quantum dot devices by coupling of quantum master equations and semi-classical transport theory. , 2017, , .		0

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19	Asymptotically stable compensation of the soliton self-frequency shift. <i>Optics Letters</i> , 2017, 42, 1416.	3.3	10
20	Modeling and simulation of injection dynamics for quantum dot based single-photon sources. , 2016, , .		2
21	On current injection into single quantum dots through oxide-confined pn-diodes. , 2016, , .		0
22	Efficient Current Injection Into Single Quantum Dots Through Oxide-Confined p-n-Diodes. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 2036-2042.	3.0	19
23	Adiabatic theory of solitons fed by dispersive waves. <i>Physical Review A</i> , 2016, 94, .	2.5	24
24	Numerical optimization of all-optical switching. , 2016, , .		0
25	Efficient all-optical control of solitons. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	3.3	6
26	Modeling and numerical simulation of electrically pumped single-photon emitters. , 2015, , .		2
27	Spectral properties of limiting solitons in optical fibers. <i>Optics Express</i> , 2014, 22, 30251.	3.4	8
28	Recent progress in theory of nonlinear pulse propagation in optical fibers. , 2014, , .		1
29	Ultrashort optical solitons in transparent nonlinear media with arbitrary dispersion. <i>Optical and Quantum Electronics</i> , 2014, 46, 1233-1238.	3.3	10
30	Spatio-temporal pulse propagation in nonlinear dispersive optical media. <i>Optical and Quantum Electronics</i> , 2013, 45, 727-733.	3.3	0
31	Influence of the carrier reservoir dimensionality on electron-electron scattering in quantum dot materials. <i>Physical Review B</i> , 2013, 88, .	3.2	8
32	Ultrashort optical solitons in nonlinear media with arbitrary dispersion. , 2013, , .		0
33	Dynamical regimes of a multistripe laser array with external off-axis feedback. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 1606.	2.1	11
34	Calculation of ultrashort pulse propagation based on rational approximations for medium dispersion. <i>Optical and Quantum Electronics</i> , 2012, 44, 241-246.	3.3	7
35	Numerical simulation of the amplification of picosecond laser pulses in tapered semiconductor amplifiers and comparison with experimental results. <i>Optics Communications</i> , 2012, 285, 2897-2904.	2.1	5
36	Persistence of rogue waves in extended nonlinear Schrödinger equations: Integrable Sasa–Satsuma case. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 1558-1561.	2.1	103

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37	Modeling of quantum dot lasers with microscopic treatment of Coulomb effects. <i>Optical and Quantum Electronics</i> , 2011, 42, 777-783.	3.3	21
38	Rotational symmetry breaking in small-area circular vertical cavity surface emitting lasers. <i>Optics Communications</i> , 2011, 284, 1299-1302.	2.1	5
39	Padé approximant for refractive index and nonlocal envelope equations. <i>Optics Communications</i> , 2010, 283, 480-485.	2.1	28
40	Theory of carrier and photon dynamics in quantum dot light emitters. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 809-828.	1.5	37
41	Dynamical regimes in a monolithic passively mode-locked quantum dot laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 2102.	2.1	30
42	Multi-species modeling of quantum dot lasers with microscopic treatment of coulomb scattering. , 2010, , .		1
43	Improving the stability of distributed-feedback tapered master-oscillator power-amplifiers. <i>Optical and Quantum Electronics</i> , 2009, 41, 531-537.	3.3	9
44	Measurement and Simulation of Distributed-Feedback Tapered Master-Oscillator Power Amplifiers. <i>IEEE Journal of Quantum Electronics</i> , 2009, 45, 609-616.	1.9	77
45	Effects of higher-order dispersion on pulse splitting in the normal dispersion regime. <i>Optical and Quantum Electronics</i> , 2008, 40, 455-460.	3.3	7
46	Mode transitions in distributed-feedback tapered master-oscillator power-amplifier: theory and experiments. <i>Optical and Quantum Electronics</i> , 2008, 40, 1103-1109.	3.3	14
47	On the propagation of vector ultra-short pulses. <i>Journal of Nonlinear Mathematical Physics</i> , 2008, 15, 162.	1.3	69
48	Non-Raman redshift by pulse splitting. , 2007, , .		0
49	Improving the Modulation Bandwidth in Semiconductor Lasers by Passive Feedback. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007, 13, 136-142.	2.9	120
50	Limit for pulse compression by pulse splitting. <i>Optical and Quantum Electronics</i> , 2007, 38, 1167-1172.	3.3	2
51	Model for mode locking in quantum dot lasers. <i>Applied Physics Letters</i> , 2006, 88, 201102.	3.3	69
52	Pulse Splitting by Third-Order Dispersion. , 2006, , .		0
53	Compression Limit by Third-Order Dispersion in the Normal Dispersion Regime. <i>IEEE Photonics Technology Letters</i> , 2006, 18, 2353-2355.	2.5	8
54	Q-switching instability in a mode-locked semiconductor laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 663.	2.1	26

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55	40ÅGHz Mode-Locked Semiconductor Lasers: Theory, Simulations and Experiment. Optical and Quantum Electronics, 2006, 38, 495-512.	3.3	76
56	Experimental investigations on the suppression of Q switching in monolithic 40GHz mode-locked semiconductor lasers. Applied Physics Letters, 2006, 88, 221104.	3.3	15
57	Supercontinuum generation by the modulation instability. Optics Communications, 2005, 244, 181-185.	2.1	108
58	Electronic structure and optoelectronic properties of strained InAsSb [∞] GaSb multiple quantum wells. Applied Physics Letters, 2005, 87, 181911.	3.3	2
59	Simulation of static and dynamic properties of edge-emitting multiple-quantum-well lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 798-806.	2.9	20
60	Frequency regions for forced locking of self-pulsating multi-section DFB lasers. Optics Communications, 1998, 147, 212-218.	2.1	15
61	Dispersive self-Q-switching in self-pulsating DFB lasers. IEEE Journal of Quantum Electronics, 1997, 33, 211-218.	1.9	57
62	Dispersive self-Q-switching in DFB lasers-theory versus experiment. IEEE Journal of Selected Topics in Quantum Electronics, 1997, 3, 270-278.	2.9	39
63	A correct single-mode photon rate equation for multisection lasers. IEEE Photonics Technology Letters, 1996, 8, 614-616.	2.5	18
64	Mechanisms of fast self pulsations in two-section DFB lasers. IEEE Journal of Quantum Electronics, 1996, 32, 69-78.	1.9	111
65	Light propagation in one-dimensional lossless dielectrics: transfer matrix method and coupled mode theory. Optics Communications, 1993, 101, 92-99.	2.1	11
66	Theory of selfpulsations in two-section DFB lasers. IEEE Photonics Technology Letters, 1993, 5, 1176-1179.	2.5	42
67	Calculation of combined lateral and longitudinal spatial hole burning in lambda /4 shifted DFB lasers. IEEE Journal of Quantum Electronics, 1993, 29, 1751-1760.	1.9	42