Uwe Bandelow

List of Publications by Year
in descending order

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		394421	345221
67	1,381	19	36
papers	citations	h-index	g-index

67	67	67	762
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Improving the Modulation Bandwidth in Semiconductor Lasers by Passive Feedback. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 136-142.	2.9	120
2	Mechanisms of fast self pulsations in two-section DFB lasers. IEEE Journal of Quantum Electronics, 1996, 32, 69-78.	1.9	111
3	Supercontinuum generation by the modulation instability. Optics Communications, 2005, 244, 181-185.	2.1	108
4	Persistence of rogue waves in extended nonlinear SchrÃ¶dinger equations: Integrable Sasaâ€“Satsuma case. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1558-1561.	2.1	103
5	Measurement and Simulation of Distributed-Feedback Tapered Master-Oscillator Power Amplifiers. IEEE Journal of Quantum Electronics, 2009, 45, 609-616.	1.9	77
6	40ÂGHz Mode-Locked Semiconductor Lasers: Theory, Simulations and Experiment. Optical and Quantum Electronics, 2006, 38, 495-512.	3.3	76
7	Model for mode locking in quantum dot lasers. Applied Physics Letters, 2006, 88, 201102.	3.3	69
8	On the propagation of vector ultra-short pulses. Journal of Nonlinear Mathematical Physics, 2008, 15, 162.	1.3	69
9	Dispersive self-Q-switching in self-pulsating DFB lasers. IEEE Journal of Quantum Electronics, 1997, 33, 211-218.	1.9	57
10	Theory of selfpulsations in two-section DFB lasers. IEEE Photonics Technology Letters, 1993, 5, 1176-1179.	2.5	42
11	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
12	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
13	Theory of carrier and photon dynamics in quantum dot light emitters. Physica Status Solidi (B): Basic Research, 2010, 247, 809-828.	1.5	37
14	Dynamical regimes in a monolithic passively mode-locked quantum dot laser. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2102.	2.1	30
15	PadÃ© approximant for refractive index and nonlocal envelope equations. Optics Communications, 2010, 283, 480-485.	2.1	28
16	Q-switching instability in a mode-locked semiconductor laser. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 663.	2.1	26
17	Adiabatic theory of solitons fed by dispersive waves. Physical Review A, 2016, 94, .	2.5	24
18	Modeling of quantum dot lasers with microscopic treatment of Coulomb effects. Optical and Quantum Electronics, 2011, 42, 777-783.	3.3	21

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19	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
20	Efficient Current Injection Into Single Quantum Dots Through Oxide-Confined p-n-Diodes. IEEE Transactions on Electron Devices, 2016, 63, 2036-2042.	3.0	19
21	A correct single-mode photon rate equation for multisection lasers. IEEE Photonics Technology Letters, 1996, 8, 614-616.	2.5	18
22	Traveling Wave Analysis of Non-Thermal Far-Field Blooming in High-Power Broad-Area Lasers. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.9	16
23	Frequency regions for forced locking of self-pulsating multi-section DFB lasers. Optics Communications, 1998, 147, 212-218.	2.1	15
24	Experimental investigations on the suppression of Q switching in monolithic 40GHz mode-locked semiconductor lasers. Applied Physics Letters, 2006, 88, 221104.	3.3	15
25	Mode transitions in distributed-feedback tapered master-oscillator power-amplifier: theory and experiments. Optical and Quantum Electronics, 2008, 40, 1103-1109.	3.3	14
26	Light propogation in one-dimensional lossless dielectrica: transfer matrix method and coupled mode theory. Optics Communications, 1993, 101, 92-99.	2.1	11
27	Dynamical regimes of a multistripe laser array with external off-axis feedback. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1606.	2.1	11
28	Time-Dependent Simulation of Thermal Lensing in High-Power Broad-Area Semiconductor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-10.	2.9	11
29	Semiconductor Laser Linewidth Theory Revisited. Applied Sciences (Switzerland), 2021, 11, 6004.	2.5	11
30	Modeling of current spreading in high-power broad-area lasers and its impact on the lateral far field divergence. , 2018, , .		11
31	Ultrashort optical solitons in transparent nonlinear media with arbitrary dispersion. Optical and Quantum Electronics, 2014, 46, 1233-1238.	3.3	10
32	Asymptotically stable compensation of the soliton self-frequency shift. Optics Letters, 2017, 42, 1416.	3.3	10
33	Improving the stability of distributed-feedback tapered master-oscillator power-amplifiers. Optical and Quantum Electronics, 2009, 41, 531-537.	3.3	9
34	Efficient coupling of the inhomogeneous current spreading model to the dynamic electro-optical solver for broad-area edge-emitting semiconductor devices. Optical and Quantum Electronics, 2017, 49, 1.	3.3	9
35	Compression Limit by Third-Order Dispersion in the Normal Dispersion Regime. IEEE Photonics Technology Letters, 2006, 18, 2353-2355.	2.5	8
36	Influence of the carrier reservoir dimensionality on electron-electron scattering in quantum dot materials. Physical Review B, 2013, 88, .	3.2	8

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37	Spectral properties of limiting solitons in optical fibers. Optics Express, 2014, 22, 30251.	3.4	8
38	Efficient coupling of dynamic electro-optical and heat-transport models for high-power broad-area semiconductor lasers. Optical and Quantum Electronics, 2019, 51, 1.	3.3	8
39	Effects of higher-order dispersion on pulse splitting in the normal dispersion regime. Optical and Quantum Electronics, 2008, 40, 455-460.	3.3	7
40	Calculation of ultrashort pulse propagation based on rational approximations for medium dispersion. Optical and Quantum Electronics, 2012, 44, 241-246.	3.3	7
41	Numerical methods for accurate description of ultrashort pulses in optical fibers. Communications in Nonlinear Science and Numerical Simulation, 2019, 67, 391-402.	3.3	7
42	Efficient all-optical control of solitons. Optical and Quantum Electronics, 2016, 48, 1.	3.3	6
43	Rotational symmetry breaking in small-area circular vertical cavity surface emitting lasers. Optics Communications, 2011, 284, 1299-1302.	2.1	5
44	Numerical simulation of the amplification of picosecond laser pulses in tapered semiconductor amplifiers and comparison with experimental results. Optics Communications, 2012, 285, 2897-2904.	2.1	5
45	Beam-combining scheme of high-power broad-area semiconductor lasers with Lyot-filtered reinjection: modeling, simulations, and experiments. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1721.	2.1	4
46	Stabilization of Optical Pulse Transmission by Exploiting Fiber Nonlinearities. Journal of Lightwave Technology, 2020, 38, 5743-5747.	4.6	3
47	Electronic structure and optoelectronic properties of strained InAsSbâˆ•GaSb multiple quantum wells. Applied Physics Letters, 2005, 87, 181911.	3.3	2
48	Limit for pulse compression by pulse splitting. Optical and Quantum Electronics, 2007, 38, 1167-1172.	3.3	2
49	Modeling and numerical simulation of electrically pumped single-photon emitters. , 2015, , .		2
50	Modeling and simulation of injection dynamics for quantum dot based single-photon sources. , 2016, , .		2
51	Deterministic Quantum Devices for Optical Quantum Communication. Springer Series in Solid-state Sciences, 2020, , 285-359.	0.3	2
52	Multi-species modeling of quantum dot lasers with microscopic treatment of coulomb scattering. , 2010, , .		1
53	Recent progress in theory of nonlinear pulse propagation in optical fibers. , 2014, , .		1
54	Simulation of quantum dot based single-photon sources using the SchrÃ¶dinger-Poisson-Drift-Diffusion-Lindblad system. , 2019, , .		1

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55	Additive splitting methods for parallel solutions of evolution problems. Journal of Computational Physics, 2021, 436, 110320.	3.8	1
56	Multi-dimensional Modeling and Simulation of Semiconductor Nanophotonic Devices. Springer Series in Solid-state Sciences, 2020, , 241-283.	0.3	1
57	Unusual scenarios in four-wave-mixing instability. Physical Review A, 2022, 105, .	2.5	1
58	Pulse Splitting by Third-Order Dispersion. , 2006, , .		0
59	Non-Raman redshift by pulse splitting. , 2007, , .		0
60	Spatio-temporal pulse propagation in nonlinear dispersive optical media. Optical and Quantum Electronics, 2013, 45, 727-733.	3.3	0
61	Ultrashort optical solitons in nonlinear media with arbitrary dispersion. , 2013, , .		0
62	On current injection into single quantum dots through oxide-confined pn-diodes. , 2016, , .		0
63	Numerical optimization of all-optical switching. , 2016, , .		0
64	Cancellation of Raman self-frequency shift for compression of optical pulses. Optical and Quantum Electronics, 2017, 49, 1.	3.3	0
65	Few-cycle solitons that do not want to be too short in duration. , 2017, , .		0
66	Simulation of quantum dot devices by coupling of quantum master equations and semi-classical transport theory. , 2017, , .		0
67	Genetically Optimized Photonic Crystal for Spatial Filtering of Reinjection into Broad-Area Diode Lasers. , 2019, , .		0