Ortwin Hess

List of Publications by Year
in descending order

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291 papers	9,222 citations	50244 46 h-index	46771 89 g-index
291 all docs	291 docs citations	291 times ranked	8416 citing authors

#	Article	IF	Citations
1	Single-molecule strong coupling at room temperature in plasmonic nanocavities. Nature, 2016, 535, 127-130.	13.7	1,391
2	â€˜Trapped rainbowâ€™ storage of light in metamaterials. Nature, 2007, 450, 397-401.	13.7	763
3	Active nanoplasmonic metamaterials. Nature Materials, 2012, 11, 573-584.	13.3	502
4	Rheological and small angle neutron scattering investigation of shearâ€induced particle structures of Rheology, 1992, 36, 743-787.	1.3	276
5	Ultrafast plasmonic nanowire lasers near the surface plasmon frequency. Nature Physics, 2014, 10, 870-876.	6.5	262
6	Overcoming Losses with Gain in a Negative Refractive Index Metamaterial. Physical Review Letters, 2010, 105, 127401.	2.9	251
7	Near-field strong coupling of single quantum dots. Science Advances, 2018, 4, eaar4906.	4.7	175
8	Cavity-free plasmonic nanolasing enabled by dispersionless stopped light. Nature Communications, 2014, 5, 4972.	5.8	146
9	Suppressed Quenching and Strong-Coupling of Purcell-Enhanced Single-Molecule Emission in Plasmonic Nanocavities. ACS Photonics, 2018, 5, 186-191.	3.2	137
10	Chiral metamaterials: enhancement and control of optical activity and circular dichroism. Nano Convergence, 2015, 2, 24.	6.3	126
11	Mapping Nanoscale Hotspots with Single-Molecule Emitters Assembled into Plasmonic Nanocavities Using DNA Origami. Nano Letters, 2018, 18, 405-411.	4.5	126
12	Complex spatio-temporal dynamics in the near-field of a broad-area semiconductor laser. Europhysics Letters, 1996, 35, 579-584.	0.7	119
13	Dirac-like Plasmons in Honeycomb Lattices of Metallic Nanoparticles. Physical Review Letters, 2013, 110, 106801.	2.9	115
14	Electrical access to critical coupling of circularly polarized waves in graphene chiral metamaterials. Science Advances, 2017, 3, e1701377.	4.7	113
15	Maxwell-Bloch equations for spatially inhomogeneous semiconductor lasers. I. Theoretical formulation. Physical Review A, 1996, 54, 3347-3359.	1.0	111
16	Ultraslow waves on the nanoscale. Science, 2017, 358, .	6.0	107
17	High-Dimensional Chaotic Dynamics of an External Cavity Semiconductor Laser. Physical Review Letters, 1994, 73, 2188-2191.	2.9	102
18	Filamentation and beam propagation in broad-area semiconductor lasers. IEEE Journal of Quantum Electronics, 1995, 31, 35-43.	1.0	92

#	Article	IF	Citations
19	On the Origin of Chirality in Nanoplasmonic Gyroid Metamaterials. Advanced Materials, 2013, 25, 612-617.	11.1	82
20	Tunable 3D Extended Selfâ€Assembled Gold Metamaterials with Enhanced Light Transmission. Advanced Materials, 2013, 25, 2713-2716.	11.1	80
21	Coherent Amplification and Noise in Gain-Enhanced Nanoplasmonic Metamaterials: A Maxwell-Bloch Langevin Approach. ACS Nano, 2012, 6, 2420-2431.	7.3	79
22	Surface plasmon polaritons in generalized slab heterostructures with negative permittivity and permeability. Physical Review B, 2006, 73, .	1.1	78
23	Subwavelength localization and toroidal dipole moment of spoof surface plasmon polaritons. Physical Review B, 2015, 91, .	1.1	78
24	Existence of Temperature on the Nanoscale. Physical Review Letters, 2004, 93, 080402.	2.9	77
25	Suppressing spatiotemporal lasing instabilities with wave-chaotic microcavities. Science, 2018, 361, 1225-1231.	6.0	77
26	Scattering of core-shell nanowires with the interference of electric and magnetic resonances. Optics Letters, 2013, 38, 2621.	1.7	75
27	Ordering in stretch-tunable polymeric opal fibers. Optics Express, 2011, 19, 3144.	1.7	73
28	Two Two-Dimensional Materials Are Better than One. Science, 2013, 340, 1298-1299.	6.0	70
29	Gate-Tunable Plasmon-Enhanced Photodetection in a Monolayer MoS₂ Phototransistor with Ultrahigh Photoresponsivity. Nano Letters, 2021, 21, 3083-3091.	4.5	68
30	Gain and plasmon dynamics in active negative-index metamaterials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 3525-3550.	1.6	67
31	Tunable surface waves at the interface separating different graphene-dielectric composite hyperbolic metamaterials. Optics Express, 2017, 25, 11466.	1.7	66
32	Massively parallel ultrafast random bit generation with a chip-scale laser. Science, 2021, 371, 948-952.	6.0	64
33	Ultrafast gain dynamics in quantum-dot amplifiers: theoretical analysis and experimental investigations. IEEE Journal of Quantum Electronics, 2005, 41, 1115-1123.	1.0	63
34	Spoof plasmon polaritons in slanted geometries. Physical Review B, 2012, 85, .	1.1	62
35	Transport in open spin chains: A Monte Carlo wave-function approach. Physical Review B, 2008, 77, .	1.1	61
36	Single-mode operation in the slow-light regime using oscillatory waves in generalized left-handed heterostructures. Applied Physics Letters, 2006, 89, 201103.	1.5	60

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37	Metamaterials with Quantum Gain. Science, 2013, 339, 654-655.	6.0	59
38	Controlling delay-induced chaotic behavior of a semiconductor laser with optical feedback. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 216, 97-105.	0.9	58
39	Completely Stopped and Dispersionless Light in Plasmonic Waveguides. Physical Review Letters, 2014, 112, 167401.	2.9	58
40	Theory of Light Amplification in Active Fishnet Metamaterials. Physical Review Letters, 2011, 107, 167405.	2.9	55
41	Quantum Plasmonic Immunoassay Sensing. Nano Letters, 2019, 19, 5853-5861.	4.5	55
42	Maxwell-Bloch equations for spatially inhomogeneous semiconductor lasers. II. Spatiotemporal dynamics. Physical Review A, 1996, 54, 3360-3368.	1.0	53
43	Quantum control of atomic systems by homodyne detection and feedback. Physical Review A, 1998, 57, 4877-4888.	1.0	53
44	Modified spontaneous-emission rate in an inverted-opal structure with complete photonic bandgap. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 3013.	0.9	53
45	Plasmonic Nanocavity Modes: From Near-Field to Far-Field Radiation. ACS Photonics, 2020, 7, 463-471.	3.2	53
46	Spatio-temporal dynamics of semiconductor lasers: Theory, modelling and analysis. Progress in Quantum Electronics, 1996, 20, 85-179.	3.5	52
47	TwoâEDimensional TiO₂ Inverse Opal with a Closed Top Surface Structure for Enhanced Light Extraction from Polymer LightâEEmitting Diodes. Advanced Materials, 2011, 23, 1846-1850.	11.1	45
48	Orbital angular momentum dichroism in nanoantennas. Communications Physics, 2018, 1, .	2.0	45
49	Dynamic filamentation and beam quality of quantum-dot lasers. Applied Physics Letters, 2004, 84, 1650-1652.	1.5	44
50	Stabilization of chaotic spatiotemporal filamentation in large broad area lasers by spatially structured optical feedback. Optics Express, 1999, 5, 48.	1.7	43
51	Negative-permeability electromagnetically induced transparent and magnetically active metamaterials. Physical Review B, 2010, 81, .	1.1	43
52	A highly efficient CMOS nanoplasmonic crystal enhanced slow-wave thermal emitter improves infrared gas-sensing devices. Scientific Reports, 2015, 5, 17451.	1.6	43
53	Gapless unidirectional photonic transport using all-dielectric kagome lattices. Physical Review Research, 2020, 2, .	1.3	41
54	Stabilization of spatiotemporally chaotic semiconductor laser arrays by means of delayed optical feedback. Physical Review E, 1997, 56, 3868-3875.	0.8	40

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55	Double-Inverse-Opal Photonic Crystals: The Route to Photonic Bandgap Switching. Advanced Functional Materials, 2006, 16, 885-890.	7.8	40
56	Mesoscopic spatiotemporal theory for quantum-dot lasers. Physical Review A, 2002, 65, .	1.0	39
57	Temporal solitons in magnetooptic and metamaterial waveguides. Photonics and Nanostructures - Fundamentals and Applications, 2010, 8, 228-243.	1.0	39
58	Spatio-temporal dynamics in twin-stripe semiconductor lasers. Physica D: Nonlinear Phenomena, 1994, 70, 165-177.	1.3	38
59	Ultrafast Nonlinear Response of Gold Gyroid Three-Dimensional Metamaterials. Physical Review Applied, 2014, 2, .	1.5	37
60	Nonequilibrium plasmons with gain in graphene. Physical Review B, 2015, 91, .	1.1	36
61	A tri-helical model for nanoplasmonic gyroid metamaterials. New Journal of Physics, 2012, 14, 083032.	1.2	35
62	Reading the Orbital Angular Momentum of Light Using Plasmonic Nanoantennas. ACS Photonics, 2017, 4, 891-896.	3.2	35
63	Dynamic cross-waveguide optical switching with a nonlinear photonic band-gap structure. Optics Express, 1998, 3, 28.	1.7	34
64	A full-time-domain approach to spatio-temporal dynamics of semiconductor lasers. I. Theoretical formulation. Progress in Quantum Electronics, 2008, 32, 159-246.	3.5	34
65	Optical Activity Enhanced by Strong Inter-molecular Coupling in Planar Chiral Metamaterials. Scientific Reports, 2014, 4, 5864.	1.6	33
66	Spatiotemporal Dynamics and Control of Strong Coupling in Plasmonic Nanocavities. ACS Photonics, 2017, 4, 2410-2418.	3.2	32
67	Gaussian Quantum Fluctuations in Interacting Many Particle Systems. Letters in Mathematical Physics, 2004, 68, 103-112.	0.5	31
68	Nature of topological protection in photonic spin and valley Hall insulators. Physical Review B, 2020, 101, .	1.1	30
69	Nonlinear fluid behavior: from shear thinning to shear thickening. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 517-540.	1.2	29
70	Spatio-temporal complexity in multi-stripe and broad-area semiconductor lasers. Chaos, Solitons and Fractals, 1994, 4, 1597-1618.	2.5	29
71	Injection-induced bifurcations of transverse spatiotemporal patterns in semiconductor laser arrays. Physical Review E, 1995, 52, 1571-1578.	0.8	29
72	Quantum noise and polarization fluctuations in vertical-cavity surface-emitting lasers. Physical Review A, 1997, 56, 868-876.	1.0	29

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73	Quantum Maxwell-Bloch equations for spatially inhomogeneous semiconductor lasers. Physical Review A, 1999, 59, 2342-2358.	1.0	29
74	Local versus global thermal states: Correlations and the existence of local temperatures. Physical Review E, 2004, 70, 066148.	0.8	29
75	FDTD analysis of slow light propagation in negative-refractive-index metamaterial waveguides. Journal of Optics, 2009, 11, 114027.	1.5	29
76	Nonequilibrium plasmon emission drives ultrafast carrier relaxation dynamics in photoexcited graphene. Physical Review B, 2016, 93, .	1.1	29
77	Group Theoretical Route to Deterministic Weyl Points in Chiral Photonic Lattices. Physical Review Letters, 2017, 119, 227401.	2.9	28
78	Single plasmon hot carrier generation in metallic nanoparticles. Communications Physics, 2019, 2, .	2.0	28
79	Tsakmakidis et al. reply. Nature, 2008, 455, E11-E12.	13.7	27
80	Control and dynamic competition of bright and dark lasing states in active nanoplasmonic metamaterials. Physical Review B, 2012, 85, .	1.1	27
81	Cascaded nanooptics to probe microsecond atomic-scale phenomena. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14819-14826.	3.3	27
82	Extreme control of light in metamaterials: Complete and loss-free stopping of light. Physica B: Condensed Matter, 2012, 407, 4066-4069.	1.3	26
83	Chiral Metafoils for Terahertz Broadband High-Contrast Flexible Circular Polarizers. Physical Review Applied, 2014, 2, .	1.5	25
84	Shear-induced anisotropy of the structure of dense fluids. Physica B: Condensed Matter, 1989, 156-157, 505-507.	1.3	24
85	Spatio-temporal dynamics of multi-stripe semiconductor lasers with delayed optical feedback. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 222, 67-75.	0.9	24
86	Analysis of the dynamic behavior and short-pulse modulation scheme for laterally coupled diode lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 192-200.	1.9	24
87	Optical nano-woodpiles: large-area metallic photonic crystals and metamaterials. Scientific Reports, 2015, 5, 8313.	1.6	24
88	Metasurfaces Atop Metamaterials: Surface Morphology Induces Linear Dichroism in Gyroid Optical Metamaterials. Advanced Materials, 2019, 31, 1803478.	11.1	24
89	Nanoscopy through a plasmonic nanolens. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2275-2281.	3.3	24
90	Modeling of the performance of high-power diode amplifier systems with an optothermal microscopic spatio-temporal theory. IEEE Journal of Quantum Electronics, 1999, 35, 320-331.	1.0	23

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91	Evanescent gain for slow and stopped light in negative refractive index heterostructures. Physical Review B, 2011, 84, .	1.1	23
92	Investigation of Hyperbolic Metamaterials. Applied Sciences (Switzerland), 2018, 8, 1222.	1.3	23
93	Polarization fluctuations in vertical-cavity surface-emitting lasers: a key to the mechanism behind polarization stability. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1998, 10, 87-96.	1.0	22
94	Micrometer size polarization independent depletion-type photonic modulator in Silicon On Insulator. Optics Express, 2007, 15, 5879.	1.7	22
95	A full time-domain approach to spatio-temporal dynamics of semiconductor lasers. II. Spatio-temporal dynamics. Progress in Quantum Electronics, 2008, 32, 247-307.	3.5	22
96	Semiconductor nanostructure quantum ratchet for high efficiency solar cells. Communications Physics, 2018, 1, .	2.0	22
97	Pulse Amplification and Spatio-Spectral Hole-Burning in Inhomogeneously Broadened Quantum-Dot Semiconductor Optical Amplifiers. IEEE Journal of Quantum Electronics, 2009, 45, 21-33.	1.0	21
98	Room-temperature plexcitonic strong coupling: Ultrafast dynamics for quantum applications. Applied Physics Letters, 2021, 118, .	1.5	21
99	Ultralow-loss optical diamagnetism in silver nanoforests. Journal of Optics, 2009, 11, 114026.	1.5	20
100	Self-focusing of femtosecond surface plasmon polaritons. Optics Express, 2013, 21, 1121.	1.7	20
101	Surface plasmon polaritons at the interface of two nanowire metamaterials. Journal of Optics (United Kingdom), 2017, 19, 085101.	1.0	20
102	Dynamic Spatiotemporal Speed Control of Ultrashort Pulses in Quantum-Dot SOAs. IEEE Journal of Quantum Electronics, 2006, 42, 1047-1054.	1.0	19
103	Controlling hybrid-polarization surface plasmon polaritons in dielectric-transparent conducting oxides metamaterials via their effective properties. Journal of Applied Physics, 2017, 122, .	1.1	19
104	Nonequilibrium spatiotemporal dynamics of the Wigner distributions in broad-area semiconductor lasers. Physical Review A, 1998, 57, 2150-2162.	1.0	18
105	Dynamical model of coherent circularly polarized optical pulse interactions with two-level quantum systems. Physical Review A, 2005, 72, .	1.0	18
106	Fundamental dynamics of flow through carbon nanotube membranes. Microfluidics and Nanofluidics, 2010, 8, 21-31.	1.0	18
107	Tailoring the Third-Order Nonlinear Optical Property of a Hybrid Semiconductor Quantum Dotâ€“Metal Nanoparticle: From Saturable to Fano-Enhanced Absorption. Journal of Physical Chemistry Letters, 2019, 10, 7594-7602.	2.1	18
108	Spectral Densities and Partition Functions of Modular Quantum ystems as Derived from a Central Limit Theorem. Journal of Statistical Physics, 2005, 119, 1139-1151.	0.5	17

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109	Plasmonic leaky-mode lasing in active semiconductor nanowires. Laser and Photonics Reviews, 2015, 9, 256-262.	4.4	17
110	Thermal photon statistics in laser light above threshold. Physical Review A, 2000, 62, .	1.0	16
111	Eigenmodes of the dynamically coupled twin-stripe semiconductor laser. Physical Review A, 1994, 50, 787-792.	1.0	15
112	Quantum control by compensation of quantum fluctuations. Optics Express, 1998, 2, 339.	1.7	15
113	Finite-Difference Time-Domain simulations of photonic crystal defect structures. Physica Status Solidi A, 2003, 197, 605-619.	1.7	15
114	Controlled Cavity-Free, Single-Photon Emission and Bipartite Entanglement of Near-Field-Excited Quantum Emitters. Nano Letters, 2020, 20, 5830-5836.	4.5	14
115	Generation of plasmonic hot carriers from d-bands in metallic nanoparticles. Journal of Chemical Physics, 2020, 152, 104111.	1.2	14
116	Running transverse waves in optical phase conjugation. Physical Review A, 1996, 53, 4519-4527.	1.0	13
117	Coexistence of thermal noise and squeezing in the intensity fluctuations of small laser diodes. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1926.	0.9	13
118	Modeling and optimization of high-power Nd/sup 3+/-Yb/sup 3+/ codoped fiber lasers. Journal of Lightwave Technology, 2006, 24, 1601-1609.	2.7	13
119	Femtosecond nanometer-sized optical solitons. Physical Review A, 2011, 84, .	1.0	13
120	Analytic theory of optical nanoplasmonic metamaterials. Physical Review B, 2013, 87, .	1.1	13
121	Spatio-temporal dynamics of light amplification and amplified spontaneous emission in high-power tapered semiconductor laser amplifiers. IEEE Journal of Quantum Electronics, 2001, 37, 1345-1355.	1.0	12
122	Controllable interaction of counterpropagating solitons in three-level media. Physical Review A, 2010, 82, .	1.0	12
123	Plasmonic Nanogap Tilings: Light-Concentrating Surfaces for Low-Loss Photonic Integration. ACS Nano, 2013, 7, 7093-7100.	7.3	12
124	Fluorescence enhancement and strong-coupling in faceted plasmonic nanocavities. EPJ Applied Metamaterials, 2018, 5, 6.	0.8	12
125	Analytical treatment of delayed feedback control. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 245, 253-258.	0.9	11
126	Saturation behavior and self-phase modulation of picosecond pulses in single-stripe and tapered semiconductor laser amplifiers. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1452.	0.9	11

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127	Mode-Locking in Broad-Area Semiconductor Lasers Enhanced by Picosecond-Pulse Injection. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 968-973.	1.9	11
128	Nano-thermodynamics: On the minimal length scale for the existence of temperature. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 66-73.	1.3	11
129	Analysis of linewidth enhancement factor for quantum well structures based on InGaAsN/GaAs material system. Journal of Applied Physics, 2009, 106, 063102.	1.1	11
130	Comment on â€œSpaser Action, Loss Compensation, and Stability in Plasmonic Systems with Gainâ€• Physical Review Letters, 2011, 107, 259701; discussion 259702.	2.9	11
131	Ultrafast dynamics of nanoplasmonic stopped-light lasing. Faraday Discussions, 2015, 178, 307-324.	1.6	11
132	Quantum Cascade Photon Ratchets for Intermediate-Band Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 673-678.	1.5	11
133	Bifurcations of a three-torus in a twin-stripe semiconductor laser model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 194, 289-294.	0.9	10
134	Dynamic amplitude-phase coupling in quantum-dot lasers. Applied Physics Letters, 2005, 86, 203116.	1.5	10
135	Control of terahertz nonlinear transmission with electrically gated graphene metadevices. Scientific Reports, 2017, 7, 42833.	1.6	10
136	Fast modulation scheme for a two laterally coupled laser diode array. Applied Physics Letters, 2001, 78, 4097-4099.	1.5	9
137	Ultrafast nonlinear dynamics of whispering-gallery mode micro-cavity lasers. Optics Express, 2006, 14, 2744.	1.7	9
138	Ultrashort-Pulse High-Power ${hbox {Yb}}^{3+}$-Doped Fiber Amplifiers. IEEE Journal of Quantum Electronics, 2007, 43, 824-832.	1.0	9
139	Complete bandgap switching in photonic opals. New Journal of Physics, 2009, 11, 073011.	1.2	9
140	Combining Îµ-Near-Zero Behavior and Stopped Light Energy Bands for Ultra-Low Reflection and Reduced Dispersion of Slow Light. Scientific Reports, 2017, 7, 8702.	1.6	9
141	Strong Coupling and Exceptional Points in Optically Pumped Active Hyperbolic Metamaterials. ACS Photonics, 2018, 5, 2486-2495.	3.2	9
142	Shaping and Storing Magnetic Data Using Pulsed Plasmonic Nanoheating and Spin-Transfer Torque. ACS Photonics, 2019, 6, 1524-1532.	3.2	9
143	Femtosecond dynamics of active semiconductor waveguides: microscopic analysis and experimental investigations. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1638.	0.9	8
144	Scaling behavior of interactions in a modular quantum system and the existence of local temperature. Europhysics Letters, 2004, 65, 613-619.	0.7	8

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145	Nonlocal quantum gain facilitates loss compensation and plasmon amplification in graphene hyperbolic metamaterials. Physical Review B, 2019, 99, .	1.1	8
146	Sensitive control of broad-area semiconductor lasers by cavity shape. APL Photonics, 2022, 7, .	3.0	8
147	Dispersive optical bistability in a nonlinear interference filter using an intracavity nematic liquid crystal film with hybrid molecular alignment. Optics Communications, 1991, 82, 526-532.	1.0	7
148	Systematic modal analysis of 3-D dielectric waveguides using conventional and high accuracy nonstandard FDTD algorithms. IEEE Photonics Technology Letters, 2005, 17, 2598-2600.	1.3	7
149	Farewell to Flatland. Nature, 2008, 455, 299-300.	13.7	7
150	Low Reynolds number turbulence in nonlinear Maxwell-model fluids. Physical Review E, 2010, 81, 036310.	0.8	7
151	Dispersive Media Subcell Averaging in the FDTD Method Using Corrective Surface Currents. IEEE Transactions on Antennas and Propagation, 2014, 62, 832-838.	3.1	7
152	Dynamical calculation of third-harmonic generation in a semiconductor quantum well. Physical Review B, 2016, 94, .	1.1	7
153	Polarization and plasmons in hot photoexcited graphene. Physical Review B, 2018, 97, .	1.1	7
154	Near-Field Generation and Control of Ultrafast, Multipartite Entanglement for Quantum Nanoplasmonic Networks. Nano Letters, 2022, 22, 2801-2808.	4.5	7
155	Spatio-spectral dynamics and spontaneous ultrafast optical switching in VCSEL arrays. Optics Express, 1998, 2, 424.	1.7	6
156	Slow light. Journal of Optics (United Kingdom), 2010, 12, 100301-100301.	1.0	6
157	Active Optical Metamaterials. Progress in Optics, 2014, 59, 1-88.	0.4	6
158	Electron Beam Interrogation and Control of Ultrafast Plexcitonic Dynamics. ACS Photonics, 2020, 7, 401-410.	3.2	6
159	Control of Plexcitonic Strong Coupling via Substrateâ€Mediated Hotspot Nanoengineering. Advanced Optical Materials, 2022, 10, .	3.6	6
160	Spontaneous-emission spectrum of the nonlasing supermodes in semiconductor laser arrays. Optics Letters, 1998, 23, 391.	1.7	5
161	Pulse trapping and nonequilibrium spatiotemporal wave mixing in broad-area semiconductor lasers. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2861.	0.9	5
162	Microscopic theory of spatiotemporal multiwave mixing in broad-area semiconductor laser amplifiers. Physical Review A, 1999, 60, 5035-5045.	1.0	5

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163	Propagating Spatial Optical Solitons In Semiconductor Lasers. Optics and Photonics News, 1999, 10, 26.	0.4	5
164	Analysis of nonlinear gain-induced effects on short-pulse amplification in doped fibers by use of an extended power equation. Optics Letters, 2007, 32, 118.	1.7	5
165	Watch your back. Nature, 2008, 451, 27-27.	13.7	5
166	Slow light in metamaterial heterostructures. Proceedings of SPIE, 2008, , .	0.8	5
167	Trapped Rainbow Storage of Light in Metamaterials. Advances in Science and Technology, 0, , .	0.2	5
168	Dielectric Engineering of Hot-Carrier Generation by Quantized Plasmons in Embedded Silver Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 3081-3087.	1.5	5
169	The split-density model: a unified description of polarization and array dynamics for vertical-cavity surface-emitting lasers. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1997, 9, 749-763.	1.0	4
170	Spin-dependent dynamics of ultrafast polarised optical pulse propagation in coherent semiconductor quantum systems. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2414-2418.	0.8	4
171	From shear-thickening and periodic flow behavior to rheo-chaos in nonlinear Maxwell-model fluids. Physica A: Statistical Mechanics and Its Applications, 2006, 366, 31-54.	1.2	4
172	Complete and robust bandgap switching in double-inverse-opal photonic crystals. Applied Physics Letters, 2008, 92, 011109.	1.5	4
173	Recent developments in the study of slow light in complex photonic materials. , 2010, , .		4
174	Quantum plasmonics, gain and spasers: general discussion. Faraday Discussions, 2015, 178, 325-334.	1.6	4
175	Electromagnetics of Metamaterials. , 2019, , 41-73.		4
176	Single quantum emitter Dicke enhancement. Physical Review Research, 2021, 3, .	1.3	4
177	Spatiotemporal dynamics of optical molecular motors. Physical Review E, 2003, 68, 021914.	0.8	3
178	FDTD modelling of velocity mismatch in travelling-wave heterojunction phototransistor. Electronics Letters, 2004, 40, 452.	0.5	3
179	Spectrally Resolved Approach for Modeling Short Pulse Amplification in Er^{3+}-Doped Fibers. IEEE Photonics Technology Letters, 2006, 18, 2227-2229.	1.3	3
180	Nonlinear dynamics and self-organization of rotary molecular motor ensembles. Physical Review E, 2006, 73, 051916.	0.8	3

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181	Shear-induced chaos in nonlinear Maxwell-model fluids. Physical Review E, 2008, 77, 026311.	0.8	3
182	The initial flow dynamics of light atoms through carbon nanotubes. Fluid Dynamics Research, 2011, 43, 025507.	0.6	3
183	Plasmonic Nanolasers Without Cavity, Threshold and Diffraction Limit using Stopped Light. , 2012, , .		3
184	Dynamic transition from complete population transfer to self-induced transparency. Physical Review A, 2012, 85, .	1.0	3
185	New horizons for nanophotonics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160380.	1.6	3
186	Dynamic theory of nanophotonic control of two-dimensional semiconductor nonlinearities. Physical Review B, 2018, 98, .	1.1	3
187	Coulomb effects on the photoexcited quantum dynamics of electrons in a plasmonic nanosphere. Physical Review B, 2018, 98, .	1.1	3
188	Stopping light in metamaterials: the trapped rainbow. SPIE Newsroom, 2008, , .	0.1	3
189	Spatio-Temporal Dynamics in Semiconductor Lasers with Delayed Optical Feedback. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 951-963.	0.7	2
190	Ultrafast active phase conjugation in broad-area semiconductor laser amplifiers. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 1036.	0.9	2
191	Experimental and theoretical study of the frequency response of laterally coupled diode lasers. , 2002, , .		2
192	The Early Stages of Quantum Dot Self-Assembly: A Kinetic Monte Carlo Simulation. Journal of Computational and Theoretical Nanoscience, 2006, 3, 696-701.	0.4	2
193	Full-wave electromagnetic modelling of an InP/InGaAs travelling-wave heterojunction phototransistor. Journal Physics D: Applied Physics, 2006, 39, 1805-1814.	1.3	2
194	All-optical coherent control of spin dynamics in semiconductor quantum dots. Optical and Quantum Electronics, 2007, 38, 973-979.	1.5	2
195	Slow and stopped light in metamaterials. , 2008, , .		2
196	Slow and stopped light in metamaterials: the trapped rainbow. , 2008, , .		2
197	Flow Properties Inferred from Generalized Maxwell Models. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2009, 64, 81-95.	0.7	2
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