Ortwin Hess

List of Publications by Year in Descending Order

223 papers	6,981 citations	41 h-index	77 g-index
291 ext. papers	8,211 ext. citations	6.3 avg, IF	6.09 L-index

#	Paper	IF	Citations
223	Sensitive control of broad-area semiconductor lasers by cavity shape. *APL Photonics*, **2022**, 7, 056106	5.2	0
222	Gate-Tunable Plasmon-Enhanced Photodetection in a Monolayer MoS Phototransistor with Ultrahigh Photoresponsivity. *Nano Letters*, **2021**, 21, 3083-3091	11.5	13
221	Room-temperature plexcitonic strong coupling: Ultrafast dynamics for quantum applications. *Applied Physics Letters*, **2021**, 118, 130501	3.4	4
220	Dielectric Engineering of Hot-Carrier Generation by Quantized Plasmons in Embedded Silver Nanoparticles. *Journal of Physical Chemistry C*, **2021**, 125, 3081-3087	3.8	0
219	Massively parallel ultrafast random bit generation with a chip-scale laser. *Science*, **2021**, 371, 948-952	33.3	18
218	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	11.5	13
217	Controlled Cavity-Free, Single-Photon Emission and Bipartite Entanglement of Near-Field-Excited Quantum Emitters. *Nano Letters*, **2020**, 20, 5830-5836	11.5	3
216	Generation of plasmonic hot carriers from d-bands in metallic nanoparticles. *Journal of Chemical Physics*, **2020**, 152, 104111	3.9	6
215	Nature of topological protection in photonic spin and valley Hall insulators. *Physical Review B*, **2020**, 101,	3.3	18
214	Nanoscopy through a plasmonic nanolens. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 2275-2281	11.5	14
213	Gapless unidirectional photonic transport using all-dielectric kagome lattices. *Physical Review Research*, **2020**, 2,	3.9	19
212	Plasmonic Nanocavity Modes: From Near-Field to Far-Field Radiation. *ACS Photonics*, **2020**, 7, 463-471	6.3	26
211	Electron Beam Interrogation and Control of Ultrafast Plexcitonic Dynamics. *ACS Photonics*, **2020**, 7, 401-410	6.3	5
210	Single plasmon hot carrier generation in metallic nanoparticles. *Communications Physics*, **2019**, 2,	5.4	15
209	Shaping and Storing Magnetic Data Using Pulsed Plasmonic Nanoheating and Spin-Transfer Torque. *ACS Photonics*, **2019**, 6, 1524-1532	6.3	4
208	Nonlocal quantum gain facilitates loss compensation and plasmon amplification in graphene hyperbolic metamaterials. *Physical Review B*, **2019**, 99,	3.3	5
207	Quantum Plasmonic Immunoassay Sensing. *Nano Letters*, **2019**, 19, 5853-5861	11.5	25

206	Tailoring the Third-Order Nonlinear Optical Property of a Hybrid Semiconductor Quantum Dot-Metal Nanoparticle: From Saturable to Fano-Enhanced Absorption. *Journal of Physical Chemistry Letters*, **2019**, 10, 7594-7602	6.4	8
205	Manipulating surface plasmon polaritons with nanostructured TCO metamaterials. *Journal of Electromagnetic Waves and Applications*, **2019**, 33, 493-503	1.3	
204	Disorder in Metamaterials **2019**, 103-130		
203	Active Optical Metamaterials **2019**, 187-261		2
202	Types of Metamaterials **2019**, 1-39		0
201	Electromagnetics of Metamaterials **2019**, 41-73		3
200	Surface Plasmon Polaritons at Metamaterial Interfaces **2019**, 75-102		
199	Metasurfaces **2019**, 131-154		
198	Slow and Stopped Light in Metamaterials **2019**, 155-173		1
197	Metamaterial Cloaking **2019**, 175-186		1
196	Metasurfaces Atop Metamaterials: Surface Morphology Induces Linear Dichroism in Gyroid Optical Metamaterials. *Advanced Materials*, **2019**, 31, e1803478	24	17
195	Near-field strong coupling of single quantum dots. *Science Advances*, **2018**, 4, eaar4906	14.3	117
194	Semiconductor nanostructure quantum ratchet for high efficiency solar cells. *Communications Physics*, **2018**, 1,	5.4	16
193	Strong Coupling and Exceptional Points in Optically Pumped Active Hyperbolic Metamaterials. *ACS Photonics*, **2018**, 5, 2486-2495	6.3	8
192	Polarization and plasmons in hot photoexcited graphene. *Physical Review B*, **2018**, 97,	3.3	3
191	Frequency-domain modelling of gain in pump-probe experiment by an inhomogeneous medium. *Journal of Physics Condensed Matter*, **2018**, 30, 064003	1.8	0
190	Suppressed Quenching and Strong-Coupling of Purcell-Enhanced Single-Molecule Emission in Plasmonic Nanocavities. *ACS Photonics*, **2018**, 5, 186-191	6.3	99
189	Suppressing spatiotemporal lasing instabilities with wave-chaotic microcavities. *Science*, **2018**, 361, 1225-1231	33.3	46

188	Fluorescence enhancement and strong-coupling in faceted plasmonic nanocavities. *EPJ Applied Metamaterials*, **2018**, 5, 6	0.8	9
187	Chiral Light-matter Interaction in Dielectric Photonic Topological Insulators **2018**,		2
186	Mapping Nanoscale Hotspots with Single-Molecule Emitters Assembled into Plasmonic Nanocavities Using DNA Origami. *Nano Letters*, **2018**, 18, 405-411	11.5	97
185	Orbital angular momentum dichroism in nanoantennas. *Communications Physics*, **2018**, 1,	5.4	26
184	Dynamic theory of nanophotonic control of two-dimensional semiconductor nonlinearities. *Physical Review B*, **2018**, 98,	3.3	3
183	Coulomb effects on the photoexcited quantum dynamics of electrons in a plasmonic nanosphere. *Physical Review B*, **2018**, 98,	3.3	2
182	Investigation of Hyperbolic Metamaterials. *Applied Sciences (Switzerland)*, **2018**, 8, 1222	2.6	3
181	New horizons for nanophotonics. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2017**, 375,	3	2
180	Control of terahertz nonlinear transmission with electrically gated graphene metadevices. *Scientific Reports*, **2017**, 7, 42833	4.9	9
179	Reading the Orbital Angular Momentum of Light Using Plasmonic Nanoantennas. *ACS Photonics*, **2017**, 4, 891-896	6.3	25
178	Electrical access to critical coupling of circularly polarized waves in graphene chiral metamaterials. *Science Advances*, **2017**, 3, e1701377	14.3	80
177	Ultraslow waves on the nanoscale. *Science*, **2017**, 358,	33.3	81
176	Combining ε-Near-Zero Behavior and Stopped Light Energy Bands for Ultra-Low Reflection and Reduced Dispersion of Slow Light. *Scientific Reports*, **2017**, 7, 8702	4.9	6
175	Spatiotemporal Dynamics and Control of Strong Coupling in Plasmonic Nanocavities. *ACS Photonics*, **2017**, 4, 2410-2418	6.3	23
174	Experimental demonstration of two-dimensional hybrid waveguide-integrated plasmonic crystals on silicon-on-insulator platform. *APL Photonics*, **2017**, 2, 071302	5.2	2
173	Controlling hybrid-polarization surface plasmon polaritons in dielectric-transparent conducting oxides metamaterials via their effective properties. *Journal of Applied Physics*, **2017**, 122, 193105	2.5	14
172	Group Theoretical Route to Deterministic Weyl Points in Chiral Photonic Lattices. *Physical Review Letters*, **2017**, 119, 227401	7.4	17
171	Surface plasmon polaritons at the interface of two nanowire metamaterials. *Journal of Optics (United Kingdom)*, **2017**, 19, 085101	1.7	15

170	Tunable surface waves at the interface separating different graphene-dielectric composite hyperbolic metamaterials. *Optics Express*, **2017**, 25, 11466-11476	3.3	45
169	Nonequilibrium plasmon emission drives ultrafast carrier relaxation dynamics in photoexcited graphene. *Physical Review B*, **2016**, 93,	3.3	20
168	Dynamical calculation of third-harmonic generation in a semiconductor quantum well. *Physical Review B*, **2016**, 94,	3.3	5
167	Quantum Cascade Photon Ratchets for Intermediate-Band Solar Cells. *IEEE Journal of Photovoltaics*, **2016**, 6, 673-678	3.7	8
166	Single-molecule strong coupling at room temperature in plasmonic nanocavities. *Nature*, **2016**, 535, 127-30	38.4	1009
165	**2016**,		2
164	Subwavelength localization and toroidal dipole moment of spoof surface plasmon polaritons. *Physical Review B*, **2015**, 91,	3.3	58
163	Plasmonic leaky-mode lasing in active semiconductor nanowires. *Laser and Photonics Reviews*, **2015**, 9, 256-262	8.3	17
162	Optical nano-woodpiles: large-area metallic photonic crystals and metamaterials. *Scientific Reports*, **2015**, 5, 8313	4.9	22
161	Quantum plasmonics, gain and spasers: general discussion. *Faraday Discussions*, **2015**, 178, 325-34	3.6	3
160	Ultrafast dynamics of nanoplasmonic stopped-light lasing. *Faraday Discussions*, **2015**, 178, 307-24	3.6	6
159	A highly efficient CMOS nanoplasmonic crystal enhanced slow-wave thermal emitter improves infrared gas-sensing devices. *Scientific Reports*, **2015**, 5, 17451	4.9	25
158	Chiral metamaterials: enhancement and control of optical activity and circular dichroism. *Nano Convergence*, **2015**, 2, 24	9.2	83
157	Nonequilibrium plasmons with gain in graphene. *Physical Review B*, **2015**, 91,	3.3	28
156	Optical activity enhanced by strong inter-molecular coupling in planar chiral metamaterials. *Scientific Reports*, **2014**, 4, 5864	4.9	26
155	Completely stopped and dispersionless light in plasmonic waveguides. *Physical Review Letters*, **2014**, 112, 167401	7.4	38
154	Stopped-light nanolasing in hybrid plasmonic waveguides **2014**,		1
153	Chiral Metafoils for Terahertz Broadband High-Contrast Flexible Circular Polarizers. *Physical Review Applied*, **2014**, 2,	4.3	19

152	Ultrafast plasmonic nanowire lasers near the surface plasmon frequency. *Nature Physics*, **2014**, 10, 870-876	16.2	217
151	Cavity-free plasmonic nanolasing enabled by dispersionless stopped light. *Nature Communications*, **2014**, 5, 4972	17.4	129
150	Ultrafast Nonlinear Response of Gold Gyroid Three-Dimensional Metamaterials. *Physical Review Applied*, **2014**, 2,	4.3	27
149	Active Optical Metamaterials. *Progress in Optics*, **2014**, 59, 1-88	3.4	4
148	Dispersive Media Subcell Averaging in the FDTD Method Using Corrective Surface Currents. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 832-838	4.9	2
147	True stopping of light: a new regime for nanophotonics **2014**,		1
146	Ultrafast ZnO nanowire lasers: nanoplasmonic acceleration of gain dynamics at the surface plasmon polariton frequency **2014**,		2
145	Plasmonic nanogap tilings: light-concentrating surfaces for low-loss photonic integration. *ACS Nano* , **2013**, 7, 7093-100	16.7	9
144	Tunable 3D extended self-assembled gold metamaterials with enhanced light transmission. *Advanced Materials*, **2013**, 25, 2713-6	24	76
143	Physics. Two two-dimensional materials are better than one. *Science*, **2013**, 340, 1298-9	33.3	58
142	Applied physics. Metamaterials with quantum gain. *Science*, **2013**, 339, 654-5	33.3	45
141	Dirac-like plasmons in honeycomb lattices of metallic nanoparticles. *Physical Review Letters*, **2013**, 110, 106801	7.4	103
140	Analytic theory of optical nanoplasmonic metamaterials. *Physical Review B*, **2013**, 87,	3.3	10
139	On the origin of chirality in nanoplasmonic gyroid metamaterials. *Advanced Materials*, **2013**, 25, 612-7	24	66
138	Self-focusing of femtosecond surface plasmon polaritons. *Optics Express*, **2013**, 21, 1121-7	3.3	16
137	Scattering of core-shell nanowires with the interference of electric and magnetic resonances. *Optics Letters*, **2013**, 38, 2621-4	3	64
136	Active nanoplasmonic metamaterials. *Nature Materials*, **2012**, 11, 573-84	27	425
135	Spoof plasmon polaritons in slanted geometries. *Physical Review B*, **2012**, 85,	3.3	48

134	Slow and stopped-light lasing in active plasmonic metamaterials **2012**,		2
133	Coherent amplification and noise in gain-enhanced nanoplasmonic metamaterials: a Maxwell-Bloch Langevin approach. *ACS Nano*, **2012**, 6, 2420-31	16.7	60
132	A tri-helical model for nanoplasmonic gyroid metamaterials. *New Journal of Physics*, **2012**, 14, 083032	2.9	29
131	Extreme control of light in metamaterials: Complete and loss-free stopping of light. *Physica B: Condensed Matter*, **2012**, 407, 4066-4069	2.8	17
130	Dynamic transition from complete population transfer to self-induced transparency. *Physical Review A*, **2012**, 85,	2.6	3
129	Control and dynamic competition of bright and dark lasing states in active nanoplasmonic metamaterials. *Physical Review B*, **2012**, 85,	3.3	21
128	Dynamics of amplification in a nanoplasmonic metamaterial. *Applied Physics A: Materials Science and Processing*, **2012**, 107, 77-82	2.6	0
127	Plasmonic Nanolasers Without Cavity, Threshold and Diffraction Limit using Stopped Light **2012**,		3
126	Comment on "Spaser action, loss compensation, and stability in plasmonic systems with gain". *Physical Review Letters*, **2011**, 107, 259701; discussion 259702	7.4	9
125	Ordering in stretch-tunable polymeric opal fibers. *Optics Express*, **2011**, 19, 3144-54	3.3	61
124	Enhanced Mixing at Low Reynolds Numbers Through Elastic Turbulence. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2011**, 66, 450-456	1.4	
123	Theory of light amplification in active fishnet metamaterials. *Physical Review Letters*, **2011**, 107, 167405	7.4	48
122	Two-dimensional TiO inverse opal with a closed top surface structure for enhanced light extraction from polymer light-emitting diodes. *Advanced Materials*, **2011**, 23, 1846-50	24	42
121	Gain and plasmon dynamics in active negative-index metamaterials. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2011**, 369, 3525-50	3	58
120	Femtosecond nanometer-sized optical solitons. *Physical Review A*, **2011**, 84,	2.6	13
119	The initial flow dynamics of light atoms through carbon nanotubes. *Fluid Dynamics Research*, **2011**, 43, 025507	1.2	3
118	Evanescent gain for slow and stopped light in negative refractive index heterostructures. *Physical Review B*, **2011**, 84,	3.3	17
117	Vibration and orientation of diatomic molecules flowing through small carbon nanotubes. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 8510-6	1.3	1

116	Slow light. *Journal of Optics (United Kingdom)*, **2010**, 12, 100301-100301	1.7	5
115	Trapped Rainbow Storage of Light in Metamaterials. *Advances in Science and Technology*, **2010**, 75, 256-265	0.2	3
114	Negative-permeability electromagnetically induced transparent and magnetically active metamaterials. *Physical Review B*, **2010**, 81,	3.3	33
113	Controllable interaction of counterpropagating solitons in three-level media. *Physical Review A*, **2010**, 82,	2.6	10
112	Low Reynolds number turbulence in nonlinear Maxwell-model fluids. *Physical Review E*, **2010**, 81, 036310	2.4	7
111	Trapped rainbow storage of light in metamaterials **2010**,		2
110	Recent developments in the study of slow light in complex photonic materials **2010**,		2
109	Compensation of Losses in Slow-Light Negative-Index Waveguides By Evanescent Pumping **2010**,		1
108	Overcoming losses with gain in a negative refractive index metamaterial. *Physical Review Letters*, **2010**, 105, 127401	7.4	217
107	Fundamental dynamics of flow through carbon nanotube membranes. *Microfluidics and Nanofluidics* , **2010**, 8, 21-31	2.8	15
106	Temporal solitons in magnetooptic and metamaterial waveguides. *Photonics and Nanostructures - Fundamentals and Applications*, **2010**, 8, 228-243	2.6	27
105	Flow Properties Inferred from Generalized Maxwell Models. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2009**, 64, 81-95	1.4	2
104	Ultralow-loss optical diamagnetism in silver nanoforests. *Journal of Optics*, **2009**, 11, 114026		16
103	Complete bandgap switching in photonic opals. *New Journal of Physics*, **2009**, 11, 073011	2.9	8
102	FDTD analysis of slow light propagation in negative-refractive-index metamaterial waveguides. *Journal of Optics*, **2009**, 11, 114027		20
101	Analysis of linewidth enhancement factor for quantum well structures based on InGaAsN/GaAs material system. *Journal of Applied Physics*, **2009**, 106, 063102	2.5	9
100	Pulse Amplification and Spatio-Spectral Hole-Burning in Inhomogeneously Broadened Quantum-Dot Semiconductor Optical Amplifiers. *IEEE Journal of Quantum Electronics*, **2009**, 45, 21-33	2	15
99	Tsakmakidis et al. reply. *Nature*, **2008**, 455, E11-E12	50.4	24

98	Controlled storage and transfer of photonic space-time quantum-coherence in active quantum dot nanomaterials. *Optics Express*, **2008**, 16, 3744-52	3.3	
97	Transport in open spin chains: A Monte Carlo wave-function approach. *Physical Review B*, **2008**, 77,	3.3	57
96	Complete and robust bandgap switching in double-inverse-opal photonic crystals. *Applied Physics Letters*, **2008**, 92, 011109	3.4	2
95	Shear-induced chaos in nonlinear Maxwell-model fluids. *Physical Review E*, **2008**, 77, 026311	2.4	3
94	A full-time-domain approach to spatio-temporal dynamics of semiconductor lasers. I. Theoretical formulation. *Progress in Quantum Electronics*, **2008**, 32, 159-246	9.1	30
93	A full time-domain approach to spatio-temporal dynamics of semiconductor lasers. II. Spatio-temporal dynamics. *Progress in Quantum Electronics*, **2008**, 32, 247-307	9.1	20
92	QTrapped rainbowQstorage of light in metamaterials. *Nature*, **2007**, 450, 397-401	50.4	587
91	All-optical coherent control of spin dynamics in semiconductor quantum dots. *Optical and Quantum Electronics*, **2007**, 38, 973-979	2.4	0
90	Analysis of nonlinear gain-induced effects on short-pulse amplification in doped fibers by use of an extended power equation. *Optics Letters*, **2007**, 32, 118-20	3	5
89	Dynamic spatiotemporal pulse shaping in two-photon active biomolecular media. *Journal of the Optical Society of America B: Optical Physics*, **2007**, 24, 522	1.7	1
88	Micrometer size polarization independent depletion-type photonic modulator in Silicon On Insulator. *Optics Express*, **2007**, 15, 5879-84	3.3	14
87	Ultrashort-Pulse High-Power ${hbox {Yb}}^{3+}$-Doped Fiber Amplifiers. *IEEE Journal of Quantum Electronics*, **2007**, 43, 824-832	2	8
86	Double-Inverse-Opal Photonic Crystals: The Route to Photonic Bandgap Switching. *Advanced Functional Materials*, **2006**, 16, 885-890	15.6	36
85	Full-wave electromagnetic modelling of an InP/InGaAs travelling-wave heterojunction phototransistor. *Journal Physics D: Applied Physics*, **2006**, 39, 1805-1814	3	2
84	Nonlinear dynamics and self-organization of rotary molecular motor ensembles. *Physical Review E*, **2006**, 73, 051916	2.4	3
83	Single-mode operation in the slow-light regime using oscillatory waves in generalized left-handed heterostructures. *Applied Physics Letters*, **2006**, 89, 201103	3.4	42
82	Surface plasmon polaritons in generalized slab heterostructures with negative permittivity and permeability. *Physical Review B*, **2006**, 73,	3.3	60
81	Spatially resolved femtosecond pump-probe spectroscopy in broad-area semiconductor lasers. *IEEE Journal of Quantum Electronics*, **2006**, 42, 363-371	2	1

80	Dynamic Spatiotemporal Speed Control of Ultrashort Pulses in Quantum-Dot SOAs. *IEEE Journal of Quantum Electronics*, **2006**, 42, 1047-1054	2	16
79	Spectrally Resolved Approach for Modeling Short Pulse Amplification in Er^{3+}-Doped Fibers. *IEEE Photonics Technology Letters*, **2006**, 18, 2227-2229	2.2	3
78	Ultrafast nonlinear dynamics of whispering-gallery mode micro-cavity lasers. *Optics Express*, **2006**, 14, 2744-52	3.3	6
77	Modeling and optimization of high-power Nd/sup 3+/-Yb/sup 3+/ codoped fiber lasers. *Journal of Lightwave Technology*, **2006**, 24, 1601-1609	4	11
76	Transient analysis of short, high-concentration, gain-clamped Er/sup 3+/-Yb/sup 3+/ codoped fiber amplifiers. *Journal of Lightwave Technology*, **2006**, 24, 2190-2198	4	1
75	Coherent generation and control of long lived ultrashort transients in a semiconductor laser **2006**, 6184, 185		
74	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		1
73	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	3.3	4
72	The Early Stages of Quantum Dot Self-Assembly: A Kinetic Monte Carlo Simulation. *Journal of Computational and Theoretical Nanoscience*, **2006**, 3, 696-701	0.3	2
71	Ultrafast gain dynamics in quantum-dot amplifiers: theoretical analysis and experimental investigations. *IEEE Journal of Quantum Electronics*, **2005**, 41, 1115-1123	2	55
70	Systematic modal analysis of 3-D dielectric waveguides using conventional and high accuracy nonstandard FDTD algorithms. *IEEE Photonics Technology Letters*, **2005**, 17, 2598-2600	2.2	3
69	Nano-thermodynamics: On the minimal length scale for the existence of temperature. *Physica E: Low-Dimensional Systems and Nanostructures*, **2005**, 29, 66-73	3	7
68	Spectral Densities and Partition Functions of Modular Quantum ystems as Derived from a Central Limit Theorem. *Journal of Statistical Physics*, **2005**, 119, 1139-1151	1.5	11
67	Controlling the mesoscopic motion of diffusive molecular motors by molecular means. *Nanotechnology*, **2005**, 16, 2651-2656	3.4	
66	Optimization of tapered semiconductor optical amplifiers for picosecond pulse amplification. *Applied Physics Letters*, **2005**, 87, 251106	3.4	1
65	Dynamical model of coherent circularly polarized optical pulse interactions with two-level quantum systems. *Physical Review A*, **2005**, 72,	2.6	13
64	Dynamic amplitude-phase coupling in quantum-dot lasers. *Applied Physics Letters*, **2005**, 86, 203116	3.4	7
63	On Which Length Scales Can Temperature Exist in Quantum Systems?. *Journal of the Physical Society of Japan*, **2005**, 74, 26-29	1.5	1

62	FDTD modelling of velocity mismatch in travelling-wave heterojunction phototransistor. *Electronics Letters*, **2004**, 40, 452	1.1	3
61	Dynamic filamentation and beam quality of quantum-dot lasers. *Applied Physics Letters*, **2004**, 84, 1650-1652	3.4	28
60	Mode-locking in broad-area semiconductor lasers enhanced by picosecond-pulse injection. *IEEE Journal of Selected Topics in Quantum Electronics*, **2004**, 10, 968-973	3.8	10
59	Gaussian Quantum Fluctuations in Interacting Many Particle Systems. *Letters in Mathematical Physics*, **2004**, 68, 103-112	1.2	25
58	Tunable ultra-fast carrier□ight field dynamics of quantum dots. *Applied Physics B: Lasers and Optics*, **2004**, 78, 765-768	1.9	
57	Existence of temperature on the nanoscale. *Physical Review Letters*, **2004**, 93, 080402	7.4	67
56	Local versus global thermal states: correlations and the existence of local temperatures. *Physical Review E*, **2004**, 70, 066148	2.4	26
55	Femtosecond dynamics of active semiconductor waveguides: microscopic analysis and experimental investigations. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 1638	1.7	5
54	Scaling behavior of interactions in a modular quantum system and the existence of local temperature. *Europhysics Letters*, **2004**, 65, 613-619	1.6	8
53	Amplification and wave mixing of induced and spontaneous emission in semiconductor laser amplifiers. *Applied Physics B: Lasers and Optics*, **2003**, 76, 285-288	1.9	
52	High-frequency modulation of segmented-contact semiconductor lasers. *Applied Physics B: Lasers and Optics*, **2003**, 76, 717-720	1.9	0
51	Finite-Difference Time-Domain simulations of photonic crystal defect structures. *Physica Status Solidi A*, **2003**, 197, 605-619		13
50	Spatiotemporal dynamics of optical molecular motors. *Physical Review E*, **2003**, 68, 021914	2.4	1
49	Mesoscopic spatiotemporal theory for quantum-dot lasers. *Physical Review A*, **2002**, 65,	2.6	31
48	Spatially resolved polarization and temperature dynamics in quantum-well vertical-cavity surface emitters: a mesoscopic approach **2002**, 4646, 176		
47	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	1.7	43
46	Fast modulation scheme for a two laterally coupled laser diode array. *Applied Physics Letters*, **2001**, 78, 4097-4099	3.4	2
45	Ultrafast active phase conjugation in broad-area semiconductor laser amplifiers. *Journal of the Optical Society of America B: Optical Physics*, **2001**, 18, 1036	1.7	1

44	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	3.8	16
43	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	2	6
42	Microscopic modelling of ultrafast optical switching in coupled arrays of vertical cavity surface emitting lasers for optical interconnects. *Optics and Laser Technology*, **2000**, 32, 467-471	4.2	0
41	Thermal photon statistics in laser light above threshold. *Physical Review A*, **2000**, 62,	2.6	13
40	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	1.7	9
39	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	1.7	11
38	Microscopic theory of spatiotemporal multiwave mixing in broad-area semiconductor laser amplifiers. *Physical Review A*, **1999**, 60, 5035-5045	2.6	4
37	Quantum Maxwell-Bloch equations for spatially inhomogeneous semiconductor lasers. *Physical Review A*, **1999**, 59, 2342-2358	2.6	25
36	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	2	20
35	Spatial hole-burning effects in the amplified-spontaneous-emission spectrum of the nonlasing supermode in semiconductor laser arrays. *Journal of the Optical Society of America B: Optical Physics* , **1999**, 16, 137	1.7	0
34	Stabilization of chaotic spatiotemporal filamentation in large broad area lasers by spatially structured optical feedback. *Optics Express*, **1999**, 5, 48-54	3.3	35
33	Quantum control of atomic systems by time-resolved homodyne detection of spontaneous emission **1999**, 99-102		
32	Analytical treatment of delayed feedback control. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1998**, 245, 253-258	2.3	10
31	Nonequilibrium spatiotemporal dynamics of the Wigner distributions in broad-area semiconductor lasers. *Physical Review A*, **1998**, 57, 2150-2162	2.6	15
30	Spontaneous-emission spectrum of the nonlasing supermodes in semiconductor laser arrays. *Optics Letters*, **1998**, 23, 391-3	3	4
29	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	1.7	4
28	Quantum control by compensation of quantum fluctuations. *Optics Express*, **1998**, 2, 339-46	3.3	13
27	Spatio-spectral dynamics and spontaneous ultrafast optical switching in VCSEL arrays. *Optics Express*, **1998**, 2, 424-30	3.3	5

26	Dynamic cross-waveguide optical switching with a nonlinear photonic band-gap structure. *Optics Express*, **1998**, 3, 28-34	3.3	25
25	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		18
24	Quantum control of atomic systems by homodyne detection and feedback. *Physical Review A*, **1998**, 57, 4877-4888	2.6	46
23	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	2	2
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