

Meir Orenstein

List of Publications by Year in descending order

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257101

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264894

42
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127
all docs

127
docs citations

127
times ranked

2156
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological optical differentiator. Nature Communications, 2021, 12, 680.	5.8	94
2	Interaction of two-dimensional atomic lattices with a single surface plasmon polariton. Physical Review A, 2021, 103, .	1.0	2
3	Photonic Chern insulators from two-dimensional atomic lattices interacting with a single surface plasmon polariton. Physical Review B, 2021, 103, .	1.1	3
4	Theory for Twisted Bilayer Photonic Crystal Slabs. Physical Review Letters, 2021, 126, 136101.	2.9	72
5	Functional Meta Lenses for Compound Plasmonic Vortex Field Generation and Control. Nano Letters, 2021, 21, 3941-3946.	4.5	23
6	Deep-Subwavelength Thermal Switch via Resonant Coupling in Monolayer Hexagonal Boron Nitride. Physical Review Applied, 2021, 15, .	1.5	15
7	Orbital angular momentum multiplication in plasmonic vortex cavities. Science Advances, 2021, 7, .	4.7	21
8	Structured 3D linear space-time light bullets by nonlocal nanophotonics. Light: Science and Applications, 2021, 10, 160.	7.7	37
9	Adaptive four-level modeling of laser cooling of solids. Applied Physics Letters, 2021, 119, 181107.	1.5	2
10	Thermodynamics of Light Management in Near-Field Thermophotovoltaics. Physical Review Applied, 2021, 16, .	1.5	13
11	Universal Behavior of the Scattering Matrix Near Thresholds in Photonics. Physical Review Letters, 2021, 127, 277401.	2.9	1
12	PT -Symmetric Topological Edge-Gain Effect. Physical Review Letters, 2020, 125, 033603.	2.9	34
13	Two-level quantum system as a macroscopic scatterer for ultraconfined two-dimensional photonic modes. Physical Review A, 2020, 102, .	1.0	7
14	Inverse Design of Lightweight Broadband Reflector for Relativistic Lightsail Propulsion. ACS Photonics, 2020, 7, 2350-2355.	3.2	54
15	Nonreciprocal radiative heat transfer between two planar bodies. Physical Review B, 2020, 101, .	1.1	23
16	Novel Ultra Localized and Dense Nitrogen Delta-Doping in Diamond for Advanced Quantum Sensing. Nano Letters, 2020, 20, 3192-3198.	4.5	16
17	Enhanced Quantum Nano-Sources Based on Silicon-Vacancy Centers in Epitaxially Grown Diamond Nano-Pyramids. , 2019, , .		0
18	Mixing the Light Spin with Plasmon Orbit by Nonlinear Light-Matter Interaction in Gold. Physical Review X, 2019, 9, .	2.8	27

#	ARTICLE	IF	CITATIONS
19	Design and implementation of bound-to-quasibound GaN/AlGaIn photovoltaic quantum well infrared photodetectors operating in the short wavelength infrared range at room temperature. Journal of Applied Physics, 2019, 125, 174505.	1.1	10
20	Mid-Infrared GaN/AlGaIn Quantum Cascade Detector Grown on Silicon. IEEE Electron Device Letters, 2019, 40, 263-266.	2.2	9
21	Deterministic Arrays of Epitaxially Grown Diamond Nanopyramids with Embedded Silicon Vacancy Centers. Advanced Optical Materials, 2019, 7, 1800715.	3.6	20
22	Dynamics of Decelerating Plasmonic Vortex Cavities. , 2019, , .		0
23	GaN/AlGaIn Photovoltaic Quantum Well Infrared Photodetector at 2.3 μ m. , 2018, , .		0
24	Control of semiconductor emitter frequency by increasing polariton momenta. Nature Photonics, 2018, 12, 423-429.	15.6	32
25	Revealing the subfemtosecond dynamics of orbital angular momentum in nanoplasmonic vortices. Science, 2017, 355, 1187-1191.	6.0	217
26	Short-range surface plasmonics: Localized electron emission dynamics from a 60-nm spot on an atomically flat single-crystalline gold surface. Science Advances, 2017, 3, e1700721.	4.7	77
27	Epitaxial Nanoflag Photonics: Semiconductor Nanoemitters Grown with Their Nanoantennas. Nano Letters, 2017, 17, 6011-6017.	4.5	7
28	Doubly Resonant Nanoantennas on Diamond for Spatial Addressing of Spin States. Nano Letters, 2017, 17, 4217-4222.	4.5	7
29	Linearly dichroic plasmonic lens and hetero-chiral structures. Optics Express, 2016, 24, 2436.	1.7	7
30	Plasmonic "templar cross" antennas for subwavelength addressing of spin states in diamonds. , 2016, , .		0
31	Perfect lensing with lossy metamaterials: Maintaining a singular focus by avoiding feedback. , 2016, , .		1
32	Epitaxial indium phosphide nanoflag optical antennas: Directional and polarized emission and absorption. , 2016, , .		0
33	Responsivity enhancement of MIS photodetectors on SOI substrates by plasmonic nanoantennas. , 2016, , .		1
34	Spin-patterned plasmonics: towards optical access to topological-insulator surface states. Optics Express, 2015, 23, 32759.	1.7	21
35	Perfect Lensing by a Single Interface: Defying Loss and Bandwidth Limitations of Metamaterials. Physical Review Letters, 2015, 115, 195504.	2.9	29
36	Metafocusing by a Metaspiral Plasmonic Lens. Nano Letters, 2015, 15, 5739-5743.	4.5	97

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37	Spontaneous locking of optical vortices in coupled semiconductor lasers. Physical Review A, 2014, 90, .	1.0	5
38	Charge-Discharge Digital/Analog Microring Modulator With No Intrinsic Speed Limitation. IEEE Photonics Technology Letters, 2014, 26, 1522-1525.	1.3	3
39	Sub-100 nm Focusing of Short Wavelength Plasmons in Homogeneous 2D Space. Nano Letters, 2014, 14, 5598-5602.	4.5	36
40	Symmetry breaking in plasmonic waveguides with metal nonlinearities. , 2011, , .		0
41	Antibunched statistics of heralded photon states. , 2009, , .		0
42	Source of photons entangled with photon-holes. , 2009, , .		0
43	Electrically induced two-photon transparency in semiconductors. , 2009, , .		0
44	Mutually Unbiased Bases in 4, 8, and 16 Dimensions Generated by Means of Controlled-Phase Gates With Application to Entangled-Photon QKD Protocols. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1713-1723.	1.9	4
45	Ponderomotive force - the fundamental nonlinearity in plasmonics. , 2009, , .		0
46	Enhanced resolution and high aspect-ratio semiconductor nanopatterning by metal overcoating. Applied Physics Letters, 2009, 94, 063103.	1.5	3
47	Multichip Differential Phase-Shift-Keyed Transmission Over (Non)Linear Optical Channels. Journal of Lightwave Technology, 2009, , .	2.7	0
48	Observation of two-photon emission from semiconductors. Nature Photonics, 2008, 2, 238-241.	15.6	123
49	Metal-free quantum-based metamaterial for surface plasmon polariton guiding with amplification. Journal of Applied Physics, 2008, 104, 063513.	1.1	19
50	Multimode Fiber as Random Code Generator Application to Massively Parallel MIMO Transmission. Journal of Lightwave Technology, 2008, 26, 882-890.	2.7	7
51	Performance of High-Bitrate Multiple-Output Links Over Multimode Fiber With Intermodal Dispersion. Journal of Lightwave Technology, 2008, 26, 2192-2201.	2.7	5
52	Phasematching in semiconductor nonlinear optics by linear long-period gratings. Applied Physics Letters, 2008, 92, 181110.	1.5	12
53	Nonlinear compression towards few-cycle pulses in two-photon semiconductor amplifiers. , 2008, , .		0
54	Forerunners and turbulent propagation in plasmonic waveguides. , 2008, , .		0

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55	Experimental observation of spontaneous two-photon emission from semiconductors. , 2007, , .		0
56	Nonlinear Surface Plasmon Polaritons and the Ponderomotive Force. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
57	Coupling of nano-stripe and nano-slot plasmonic waveguides. , 2007, , .		0
58	Interband Second-Order Susceptibility Enhancement in Strained GaInP/AlGaInP Quantum Wells. , 2007, , .		0
59	Semiconductor Devices Based on Two-Photon Emission. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
60	Enhanced Aspect Ratio of Focused Ion Beam Nanopatterning Technique in Semiconductors. , 2007, , .		0
61	Photon emission by photon model for spontaneous frequency conversion in dispersive dielectric microcavities. , 2007, , .		0
62	High Quality 3D Virtual Nanocavity by Fringing Near-Fields of a Plasmonic Cylinder. , 2007, , .		0
63	Multichip Differential Phase-Shift-Keyed Transmission Over (Non)Linear Optical Channels. Journal of Lightwave Technology, 2007, 25, 1431-1440.	2.7	3
64	Data Parallelization by Optical MIMO Transmission Over Multimode Fiber With Intermodal Coupling. Journal of Lightwave Technology, 2007, 25, 1503-1514.	2.7	29
65	Parallel Optical Interconnects Over Multimode Waveguides Using Mutually Coherent Channels and Direct Detection. Journal of Lightwave Technology, 2007, 25, 3126-3131.	2.7	12
66	Enhanced Self-Coherent Optical Decision-Feedback-Aided Detection of Multi-Symbol M-DPSK/PolSK in particular 8-DPSK/BPolSK at 40 Gbps. , 2007, , .		7
67	Balanced Versus Single-Ended Detection of DPSK: Degraded Advantage Due to Fiber Nonlinearities. IEEE Photonics Technology Letters, 2007, 19, 164-166.	1.3	13
68	Repetition rate enhancement and mode shaping in dual-cavity stretched pulse fiber laser. IEEE Photonics Technology Letters, 2006, 18, 920-922.	1.3	0
69	Parallel optical interconnects over multimode waveguides. Journal of Lightwave Technology, 2006, 24, 380-386.	2.7	31
70	Integrated-optical realizations of quantum key distribution over maximally unbiased bases. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 897-913.	1.9	2
71	Optical DPASK and DQPSK: a comparative analysis for linear and nonlinear transmission. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 581-588.	1.9	4
72	Nano-scale plasmon-soliton, , 2006, , .		0

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73	Perfect 4-way Plasmon Splitting in Cross Gap Waveguides Intersection. , 2006, , .		2
74	W-shaped Plasmon Waveguide for Silicon based Plasmonic Modulator. , 2006, , .		2
75	Multi-Chip Detection of Optical Differential Phase-Shift Keying and Complexity Reduction by Interferometric Decision Feedback. , 2006, , .		6
76	On-Demand Photon-Number State Generation via Cavity Parametric Down Conversion. , 2006, , .		0
77	Efficient coupling of nano-plasmonics to micro-photonic circuitry. , 2005, , .		8
78	Bit error rate estimation of DPSK modulated fiber-optic systems using multicanonical Monte-Carlo simulations. , 2005, , .		0
79	Optical unidirectional devices by complex spatial single sideband perturbation. IEEE Journal of Quantum Electronics, 2005, 41, 1013-1023.	1.0	14
80	2D photonic band gap cavities embedded in a plasmonic gap structure- zero modal volume?. , 2005, , .		3
81	Parallel optical interconnects over multimode waveguides using modal diversity. , 2005, , .		0
82	Optimal optical power for DPASK over a nonlinear fiber-optic channel. , 2005, , .		0
83	Bit-error rate of optical DPSK in fiber systems by multicanonical Monte Carlo Simulations. IEEE Photonics Technology Letters, 2005, 17, 1355-1357.	1.3	29
84	Filterless "Add" multiplexer based on novel complex gratings assisted coupler. IEEE Photonics Technology Letters, 2005, 17, 1450-1452.	1.3	5
85	Nonlinear Phase Noise in Phase-Modulated WDM Fiber-Optic Communications. IEEE Photonics Technology Letters, 2004, 16, 1307-1309.	1.3	29
86	Self oscillation at millimeter-wave frequencies and modulation using optoelectronic mixing in a two-heterojunction bipolar photo-transistors configuration. IEEE Photonics Technology Letters, 2001, 13, 67-69.	1.3	5
87	Non-evanescent adiabatic directional coupler. IEEE Journal of Quantum Electronics, 2001, 37, 1321-1328.	1.0	31
88	Optoelectronic generation and modulation of millimeter waves in a single InP-GaNAs photo heterojunction bipolar transistor. IEEE Photonics Technology Letters, 2000, 12, 1240-1242.	1.3	4
89	Disk and ring microcavity lasers and their concentric coupling. IEEE Journal of Quantum Electronics, 1999, 35, 737-744.	1.0	21
90	Optical Vortices Crystals: Spontaneous Generation in Nonlinear Semiconductor Microcavities. Science, 1999, 285, 230-233.	6.0	145

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91	Mode-coupling effects on the small-signal modulation of multitransverse-mode vertical-cavity semiconductor lasers. IEEE Journal of Quantum Electronics, 1999, 35, 944-954.	1.0	40
92	Self-stabilization of dense soliton trains in a passively mode-locked ring laser. IEEE Journal of Quantum Electronics, 1999, 35, 977-982.	1.0	16
93	Supermodes of hermite tapered arrays of vertical-cavity semiconductor lasers. IEEE Journal of Quantum Electronics, 1999, 35, 1062-1066.	1.0	9
94	On the extraction of linear and nonlinear physical parameters in nonideal diodes. Journal of Applied Physics, 1999, 85, 6873-6883.	1.1	73
95	HBT optoelectronic mixer at microwave frequencies: modeling and experimental characterization. Journal of Lightwave Technology, 1999, 17, 1423-1428.	2.7	14
96	Strained InGaAs-GaAs single-quantum-well lasers coupled to n-type δ -doping-improved static and dynamic performance. IEEE Journal of Quantum Electronics, 1998, 34, 1690-1697.	1.0	13
97	Intermediate-mode-assisted optical directional couplers via embedded periodic structure. IEEE Journal of Quantum Electronics, 1998, 34, 1772-1781.	1.0	21
98	Small-signal modulation of multitransverse modes vertical-cavity surface-emitting semiconductor lasers. IEEE Photonics Technology Letters, 1998, 10, 757-759.	1.3	30
99	Limits of the modulation response of a single-mode proton implanted VCSEL. IEEE Photonics Technology Letters, 1998, 10, 760-762.	1.3	29
100	Near-field scanning optical microscopy studies of V-grooved quantum wire lasers. Applied Physics Letters, 1998, 73, 1619-1621.	1.5	12
101	Electrical characteristics of metal-dielectric-metal and metal-dielectric-semiconductor structures based on electron beam evaporated Y2O3, Ta2O5 and Al2O3 thin film. Journal of Applied Physics, 1998, 84, 6747-6752.	1.1	78
102	n-type delta doped strained quantum well lasers for improved modulation bandwidth. Applied Physics Letters, 1997, 70, 1787-1789.	1.5	5
103	Multimode effects on the evolution and long-term stability of a passively mode-locked laser under pulsed injection locking. IEEE Journal of Quantum Electronics, 1997, 33, 710-718.	1.0	4
104	Calculation of light distribution in optical devices by a global solution of an inhomogeneous scalar wave equation. IEEE Journal of Quantum Electronics, 1997, 33, 1236-1244.	1.0	6
105	Injection locking of a passively mode-locked laser. IEEE Journal of Quantum Electronics, 1996, 32, 155-160.	1.0	20
106	Noise in pulsed injection locking of a passively modelocked laser. IEEE Journal of Quantum Electronics, 1996, 32, 796-801.	1.0	6
107	Nonlinear on-switching of high spatial frequency patterns in ring vertical cavity surface emitting lasers. , 0, , .		0
108	Coupling mechanism of two dimensional reflectivity modulated vertical cavity semiconductor laser arrays. , 0, , .		3

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109	Dynamics of injection locking of mode locked semiconductor lasers. , 0, , .		0
110	Noise reduction and pulse evolution of high repetition rate passively mode locked Er doped fiber lasers by harmonic injection locking. , 0, , .		0
111	From vertical to in-plane emission of circular VCSELs. , 0, , .		0
112	Two simultaneous wavelength and ultrahigh repetition rate operation of a harmonically injection locked diode laser. , 0, , .		0
113	Modulation characteristics and harmonic distortion of VCSEL arrays and multi transverse mode VCSELs. , 0, , .		1
114	Improved modulation bandwidth of strained quantum well lasers by coupled with n-type $\hat{\Gamma}$ -doped layer. , 0, , .		0
115	Spatial soliton arrays in a ring shaped complex nonlinear medium. , 0, , .		0
116	Interactions of coherent or incoherent spatial soliton pairs in the vicinity of a non-linear interface. , 0, , .		0
117	Spontaneous vortice arrays formation in broad area vertical cavity semiconductor lasers. , 0, , .		0
118	Optoelectronic mixing in a self oscillating InP/GaInAs photo-heterojunction bipolar transistor. , 0, , .		3
119	Multistable emission of vortex beams from VCSEL arrays. , 0, , .		0
120	Experimental demonstration and modelling of optoelectronic mixing and digital modulation in a single InP photo heterojunction bipolar transistor. , 0, , .		3
121	A two heterojunction bipolar photo-transistor configuration for millimeter wave generation and modulation. , 0, , .		0
122	Supermodes with angular momentum from coherent VCSEL arrays-emergence and stability. , 0, , .		0
123	Timing extraction using direct optical injection locking of a relaxation oscillator based on an InP/InGaP/InGaAs resonant tunnel diode. , 0, , .		0
124	Understanding nonlinear phase noise in optical DPSK systems. , 0, , .		4