

# Michael Rosenbluh

## List of Publications by Year in descending order

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163  
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citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of surface relief gratings in As <sub>20</sub> Se <sub>80</sub> amorphous chalcogenide films under laser illumination. Journal of Non-Crystalline Solids, 2022, 588, 121611.	3.1	2
2	Enhancement of photon detection in superconducting nanowire single photon detector exposed to oscillating magnetic field. Applied Physics Letters, 2021, 118, .	3.3	3
3	Augmenting the Sensing Performance of Entangled Photon Pairs through Asymmetry. Physical Review Letters, 2021, 127, 173603.	7.8	9
4	Broadband complex two-mode quadratures for quantum optics. Optics Express, 2021, 29, 41282.	3.4	5
5	Laser Recording in Chalcogenide Glass Films: Driving Forces and Kinetics of the Mass Transfer. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000523.	1.8	2
6	Effect of radiation damage on the quantum optical properties of nitrogen vacancies in diamond. Diamond and Related Materials, 2020, 109, 108049.	3.9	1
7	Squeezing-enhanced Raman spectroscopy. Npj Quantum Information, 2019, 5, .	6.7	25
8	Embedding information in physically generated random bit sequences while maintaining certified randomness. Europhysics Letters, 2019, 127, 60003.	2.0	0
9	Eight-Channel Silicon-Photonic Wavelength Division Multiplexer With 17 GHz Spacing. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-10.	2.9	28
10	Lifting the bandwidth limit of optical homodyne measurement with broadband parametric amplification. Nature Communications, 2018, 9, 609.	12.8	66
11	Silicon-Photonic Dense 8-Channel Multiplexer Using Auto-Regressive Moving-Average Filters. , 2018, , .		2
12	Ultra-broadband homodyne-detection for parallel processing of quantum-information. , 2017, , .		0
13	Ultra-Broadband Homodyne-Detection for Parallel Processing of Quantum-Information. , 2017, , .		0
14	Ripples in amorphous chalcogenide films under homogeneous laser illumination. Materials Letters, 2016, 183, 156-160.	2.6	9
15	Optical Homodyne with Optical Bandwidth. , 2016, , .		0
16	Large one-time photo-induced tuning of directional couplers in chalcogenide-on-silicon platform. Optics Express, 2015, 23, 28234.	3.4	11
17	Photo-induced trimming of chalcogenide-on-silicon photonic integrated circuits. , 2015, , .		1
18	Chaos synchronization in networks of semiconductor superlattices. Europhysics Letters, 2015, 112, 30007.	2.0	12

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19	Classical-to-Quantum Transition with Broadband Four-Wave Mixing. Physical Review Letters, 2015, 114, 063902.	7.8	33
20	Degenerate two- and three-level systems in presence of longitudinal and transverse magnetic fields. Proceedings of SPIE, 2015, , .	0.8	0
21	Photo-Induced Tuning of Chalcogenide-on-Silicon Photonic Integrated Circuits. , 2015, , .		0
22	Optical hyperpolarization and NMR detection of $^{129}\text{Xe}$ on a microfluidic chip. Nature Communications, 2014, 5, 3908.	12.8	58
23	Large photo-induced index variations in chalcogenide-on-silicon waveguides. Optics Letters, 2014, 39, 5905.	3.3	13
24	Quantum Effects in Four-Wave Mixing: Collapse and Revival of Bi-Photon Interference. , 2014, , .		0
25	Coherent-population-trapping transients induced by a modulated transverse magnetic field. Physical Review A, 2013, 88, .	2.5	15
26	Degenerate two-level system in the presence of a transverse magnetic field. Physical Review A, 2013, 87, .	2.5	38
27	Coupled lasers: phase versus chaos synchronization. Optics Letters, 2013, 38, 4174.	3.3	6
28	Fast Physical Random-Number Generation Based on Room-Temperature Chaotic Oscillations in Weakly Coupled Superlattices. Physical Review Letters, 2013, 111, 044102.	7.8	63
29	Observing the Transition from Classical to Quantum Photon Correlation in Four Wave Mixing. , 2013, , .		0
30	Dual-channel spectrally encoded endoscopic probe. Biomedical Optics Express, 2012, 3, 1855.	2.9	9
31	Phase transition in crowd synchrony of delay-coupled multilayer laser networks. Optics Express, 2012, 20, 19683.	3.4	5
32	Two-photon correlation of broadband-amplified spontaneous four-wave mixing. Physical Review A, 2012, 86, .	2.5	7
33	Synchronization in small networks of time-delay coupled chaotic diode lasers. Optics Express, 2012, 20, 4352.	3.4	48
34	Coherence-population-trapping transients induced by an ac magnetic field. Physical Review A, 2012, 85, .	2.5	11
35	Mid-infrared luminescence properties of Dy-doped silver halide crystals. Applied Optics, 2011, 50, 1625.	2.1	9
36	Propagation of Gaussian beam in an absorbing waveguide. Optics Communications, 2011, 284, 5212-5217.	2.1	2

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37	Photo-induced mass transfer in metal nanocluster doped glasses under continuous wave laser irradiation. Journal of Applied Physics, 2011, 109, 084304.	2.5	1
38	Controlling the optical spectra of gold nano-islands by changing the aspect ratio and the inter-island distance: theory and experiment. European Physical Journal B, 2011, 81, 85-93.	1.5	7
39	Towards the generation of random bits at terahertz rates based on a chaotic semiconductor laser. Journal of Physics: Conference Series, 2010, 233, 012002.	0.4	3
40	Controlling the optical spectra of gold nano-islands by changing the aspect ratio and the inter-islands distance: theory and experiment. Proceedings of SPIE, 2010, , .	0.8	0
41	Manipulating the transparency and other optical properties of metamaterials by applying a magnetic field. Physica B: Condensed Matter, 2010, 405, 2938-2942.	2.7	2
42	Polarizing and spectrally selective photonic device based upon dielectric nanorods. Microelectronic Engineering, 2010, 87, 1319-1322.	2.4	2
43	An optical ultrafast random bit generator. Nature Photonics, 2010, 4, 58-61.	31.4	413
44	Breathing dynamics of an asymmetric Gaussian beam propagating in a saturable absorbing medium. Physical Review A, 2010, 82, .	2.5	5
45	Propagation of an asymmetric Gaussian beam in a nonlinear absorbing medium. Physical Review A, 2010, 81, .	2.5	10
46	Publisher's Note: Zero Lag Synchronization of Chaotic Systems with Time Delayed Couplings [Phys. Rev. Lett. 104 (2010)]. Physical Review Letters, 2010, 104, .	7.8	0
47	Controlling the light transmission through periodic and random metamaterials by applying a magnetic field and by changing the nano-structures shapes. Proceedings of SPIE, 2010, , .	0.8	0
48	Zero Lag Synchronization of Chaotic Systems with Time Delayed Couplings. Physical Review Letters, 2010, 104, 114102.	7.8	67
49	Synchronization of random bit generators based on coupled chaotic lasers and application to cryptography. Optics Express, 2010, 18, 18292.	3.4	59
50	Behavior of the relaxation oscillation frequency in vertical cavity surface-emitting laser with external feedback. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2482.	2.1	3
51	Ultrahigh-Speed Random Number Generation Based on a Chaotic Semiconductor Laser. Physical Review Letters, 2009, 103, 024102.	7.8	327
52	Manipulating the optical transparency of anisotropic metamaterials with magnetic field and liquid crystals: influence of the nanostructures shape. Proceedings of SPIE, 2009, , .	0.8	1
53	SERS as a probe for adsorbate orientation on silver nanoclusters. Journal of Raman Spectroscopy, 2009, 40, 1572-1577.	2.5	38
54	Surface enhanced Raman spectroscopy of aromatic compounds on silver nanoclusters. Surface Science, 2009, 603, 788-793.	1.9	40

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55	Narrow gated Raman and luminescence of explosives. Journal of Luminescence, 2009, 129, 979-983.	3.1	27
56	Surface-enhanced Raman spectroscopy as a probe for orientation of pyridine compounds on colloidal surfaces. Journal of Molecular Structure, 2009, 935, 92-96.	3.6	30
57	Throwing Dice Really Fast. Optics and Photonics News, 2009, 20, 34.	0.5	4
58	Enhancement in microwave modulation efficiency of vertical cavity surface-emitting laser by optical feedback. , 2009, , .		0
59	Silicon on insulator photo-activated modulator. Microelectronics Journal, 2008, 39, 1429-1432.	2.0	10
60	CW laser discoloration of X-ray irradiated silver doped silicate glasses. Optical Materials, 2008, 30, 1715-1722.	3.6	6
61	Absolute Raman cross-sections of some explosives: Trend to UV. Optical Materials, 2008, 30, 1747-1754.	3.6	68
62	Phase synchronization in mutually coupled chaotic diode lasers. Physical Review E, 2008, 78, 025204.	2.1	19
63	Multiple Stages in the Aging of a Physical Polymer Gel. Macromolecules, 2008, 41, 3983-3994.	4.8	30
64	Enhancement in microwave modulation efficiency of vertical cavity surface-emitting laser by optical feedback. Applied Physics Letters, 2008, 92, 221113.	3.3	11
65	Surface enhanced Raman spectroscopy of aromatic compounds on silver nanoclusters. , 2008, , .		0
66	Synchronized optical spiking. , 2008, , .		0
67	Spiking optical patterns and synchronization. Physical Review E, 2007, 76, 046207.	2.1	23
68	Synchronization of Mutually Coupled Chaotic Lasers in the Presence of a Shutter. Physical Review Letters, 2007, 98, 154101.	7.8	28
69	Spatially Periodic Formation of Nanoparticles in Metal-Doped Glasses. Defect and Diffusion Forum, 2007, 263, 57-62.	0.4	1
70	<title>Pump-probe spectroscopy in degenerate two-level atoms with arbitrarily strong fields</title>. , 2007, , .		1
71	Formation of nanoclusters through silver reduction in glasses: The model. Journal of Non-Crystalline Solids, 2007, 353, 2263-2271.	3.1	41
72	Formation of nanoclusters in silver-doped glasses in wet atmosphere. Journal of Physics: Conference Series, 2007, 61, 508-512.	0.4	19

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73	Sub-Doppler and sub-natural narrowing of an absorption line. Optics Communications, 2007, 280, 374-378.	2.1	24
74	Public-channel cryptography based on mutual chaos pass filters. Physical Review E, 2006, 74, 046201.	2.1	62
75	Periodic lines and holes produced in thin Au films by pulsed laser irradiation. Journal of Applied Physics, 2006, 100, 044317.	2.5	28
76	Stable isochronal synchronization of mutually coupled chaotic lasers. Physical Review E, 2006, 73, 066214.	2.1	115
77	Differentially detected coherent population trapping resonances excited by orthogonally polarized laser fields. Optics Express, 2006, 14, 6588.	3.4	30
78	Synchronization of mutually versus unidirectionally coupled chaotic semiconductor lasers. Optics Communications, 2006, 267, 464-468.	2.1	48
79	Synthesis of fine powders of KTP-group compounds of stoichiometric composition. Powder Technology, 2006, 166, 24-29.	4.2	5
80	SERS of ultra-thin rhodamine 6G layers on Ag nanocrystals. , 2006, , .		0
81	Spatial modes in a PCF fiber generated continuum. , 2006, , .		0
82	Sub-Doppler and subnatural narrowing of an absorption line. , 2006, , .		0
83	The influence of nonlinear spectral bandwidth on single longitudinal mode intra-cavity second harmonic generation. Optics Communications, 2005, 248, 241-248.	2.1	20
84	Diffusion of Silver in Silicate Glass and Clustering in Hydrogen Atmosphere. Defect and Diffusion Forum, 2005, 237-240, 689-694.	0.4	7
85	Control of group velocity by phase-changing collisions. Physical Review A, 2005, 72, .	2.5	1
86	Spatial modes in a PCF fiber generated continuum. Optics Express, 2005, 13, 9721.	3.4	25
87	Electromagnetically induced absorption due to transfer of population in degenerate two-level systems. Physical Review A, 2004, 70, .	2.5	29
88	Two- and Three-Dimensional Photonic Crystals Produced by Pulsed Laser Irradiation in Silver-Doped Glass. Solid State Phenomena, 2004, 99-100, 65-72.	0.3	1
89	Effect of thermal expansion on speckle correlation from surface scattering of a transparent dielectric slab. Optical Engineering, 2004, 43, 398.	1.0	1
90	Dynamics of cw intra-cavity second harmonic generation by PPKTP. Optics Communications, 2004, 238, 319-327.	2.1	12

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91	Atomic four-level systems. Physical Review A, 2004, 69, .	2.5	76
92	Dynamics of cw intra-cavity second harmonic generation by PPKTP. Optics Communications, 2004, 238, 319-319.	2.1	0
93	Sub-Doppler and subnatural narrowing of an absorption line induced by interacting dark resonances in a tripod system. Physical Review A, 2004, 69, .	2.5	71
94	Microfabrication of structures by laser light in metal-doped glasses. Optical Materials, 2003, 24, 401-410.	3.6	15
95	Electromagnetically induced absorption due to transfer of coherence and to transfer of population. Physical Review A, 2003, 67, .	2.5	138
96	Pulse picking by phase-coherent additive pulse generation in an external cavity. Optics Letters, 2003, 28, 2396.	3.3	25
97	Mass Transfer in Optical Nanocomposites Induced by Pulsed Laser Irradiation. Solid State Phenomena, 2003, 94, 105-114.	0.3	6
98	Fabrication of microlenses in Ag-doped glasses by a focused continuous wave laser beam. Journal of Applied Physics, 2003, 93, 2343-2348.	2.5	31
99	Switching from positive to negative dispersion in transparent degenerate and near-degenerate systems. Physical Review A, 2003, 68, .	2.5	42
100	Electromagnetically induced absorption due to transfer of coherence and to transfer of population. , 2003, , .		0
101	Two- and three-dimensional periodic structures produced by nano-pulsed laser irradiation in Ag-doped glass. , 2003, , .		0
102	Optical recording in silver-doped glasses by a femtosecond laser. Applied Physics Letters, 2003, 83, 554-556.	3.3	6
103	Effects of roughness on the retroreflection from dielectric layers. Waves in Random and Complex Media, 2002, 12, 279-292.	1.5	11
104	Mechanism of microlens formation in quantum dot glasses under continuous-wave laser irradiation. Journal of Applied Physics, 2001, 89, 8273-8278.	2.5	16
105	Elastic Recovery of Gels on Mesoscopic Length Scales. A Photon Correlation Spectroscopy Study. Macromolecules, 2000, 33, 5757-5759.	4.8	6
106	Recording in Quantum Dot Glasses by Pulsed Laser Irradiation. , 2000, , 257-267.		3
107	Injection locking of a diode laser locked to a Zeeman frequency stabilized laser oscillator. Optics Communications, 1999, 170, 269-274.	2.1	7
108	Luminescence from chromium-neodymium-doped lithium niobate. Optical Materials, 1999, 13, 55-61.	3.6	3

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109	Spectroscopy with diode-laser noise. Optics Communications, 1998, 146, 158-162.	2.1	11
110	Interference in light scattering from slightly rough dielectric layers. Optics Letters, 1998, 23, 316.	3.3	6
111	Novel fluorine-phosphate semiconductor doped glasses: Linear and nonlinear optical properties. Journal of Applied Physics, 1997, 81, 6934-6938.	2.5	2
112	Coalescence in Island Metal Films under Laser Pulsed Irradiation. Defect and Diffusion Forum, 1997, 143-147, 1505-1510.	0.4	0
113	Diffusional Growth of Quantum Dots in Thin SiO-Cu Films Irradiated by Laser Pulses. Defect and Diffusion Forum, 1997, 143-147, 1607-1612.	0.4	0
114	Satellite structure in the Na <sup>+</sup> -Xe collisional lineshape observed in four wave mixing. Optics Communications, 1996, 126, 339-347.	2.1	2
115	High optical nonlinearity of CdSxSe1-x microcrystals in fluorine-phosphate glass. Optics Communications, 1996, 132, 307-310.	2.1	18
116	High Intensity Pulse Propagation in the Extreme Sharp-Line Limit. Physical Review Letters, 1996, 77, 5198-5201.	7.8	10
117	Pulsed laser recording of gratings in SiO-Cu quantum dot thin films. Applied Physics Letters, 1996, 69, 3297-3299.	3.3	3
118	Electro-optical structure with high speed and high reflectivity modulation. Applied Physics Letters, 1996, 68, 882-884.	3.3	3
119	FOUR WAVE MIXING OBSERVATION OF A SATELLITE IN THE Na-Xe NON-IMPACT COLLISIONAL LINESHAPE. Journal of Nonlinear Optical Physics and Materials, 1996, 05, 527-542.	1.8	0
120	Coherence-induced population redistribution in optical pumping. Physical Review A, 1995, 52, 3216-3227.	2.5	4
121	Active mode locking of a diode laser by a resonant tunneling diode. Applied Physics Letters, 1994, 64, 3095-3097.	3.3	1
122	Angular intensity and polarization dependence of diffuse transmission through random media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 477.	1.5	18
123	Generation of pulsed squeezed light in a mode-locked optical parametric oscillator. Applied Physics B, Photophysics and Laser Chemistry, 1992, 55, 226-232.	1.5	15
124	Complete atomic orientation via linearly polarized optical pumping. Optics Communications, 1992, 90, 51-56.	2.1	3
125	Time reversal symmetry of multiply scattered speckle patterns. Optics Communications, 1991, 82, 362-369.	2.1	25
126	Squeezed optical solitons. Physical Review Letters, 1991, 66, 153-156.	7.8	270



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127	Reversal of the direction of population transfer between Zeeman sublevels in optical pumping. Physical Review Letters, 1991, 67, 2279-2282.	7.8	11
128	Universal polarization correlations and microstatistics of optical waves in random media. Physical Review B, 1990, 42, 2613-2616.	3.2	57
129	Nonimpact degenerate four-wave mixing in Na perturbed by He. Physical Review A, 1989, 40, 4123-4126.	2.5	1
130	Geometric scaling of the optical memory effect in coherent-wave propagation through random media. Physical Review B, 1989, 39, 12403-12406.	3.2	62
131	Coherence in Random Multiple Scattering: Correlations in the Speckle of Multiply Scattered Light. , 1989, , 187-190.		0
132	Competition between stimulated three-photon scattering and parametric four-wave mixing. Optics Letters, 1988, 13, 215.	3.3	9
133	Polarization dependence of resonance-enhanced three-photon scattering. Optics Letters, 1988, 13, 1005.	3.3	6
134	Multiple conical emissions from a strongly driven atomic system. Journal of the Optical Society of America B: Optical Physics, 1988, 5, 116.	2.1	35
135	Memory Effects in Propagation of Optical Waves through Disordered Media. Physical Review Letters, 1988, 61, 2328-2331.	7.8	612
136	Dynamic multiple scattering: Ballistic photons and the breakdown of the photon-diffusion approximation. Physical Review Letters, 1988, 60, 1130-1133.	7.8	59
137	Coherent Backscattering of Light in a Quasi-Two-Dimensional System. Physical Review Letters, 1988, 61, 1214-1217.	7.8	58
138	Absolute photoionisation cross section of the 113D state of $^4\text{He}$ . Journal of Physics B: Atomic and Molecular Physics, 1987, 20, L121-L125.	1.6	0
139	Time evolution of universal optical fluctuations. Physical Review Letters, 1987, 58, 2754-2757.	7.8	54
140	Dynamic backscattered speckle in multiply scattering fluids. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1987, 56, 705-715.	0.6	4
141	Parametric four-wave mixing processes in sodium vapor. Optics Letters, 1987, 12, 257.	3.3	15
142	Precision determination of the line shape for coherently backscattered light from disordered solids: Comparison of vector and scalar theories. Physical Review A, 1987, 35, 4458-4460.	2.5	42
143	Speckle patterns permit direct observation of phase breaking. Nature, 1987, 326, 778-780.	27.8	23
144	Weak Localization of Light. Springer Series in Optical Sciences, 1987, , 158-160.	0.7	0

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145	Four-Wave Mixing and Stimulated Emission Processes in Strongly Driven Systems. Springer Series in Optical Sciences, 1987, , 284-286.	0.7	0
146	Stimulated excited-state Raman scattering and three-photon scattering in sodium. Optics Letters, 1986, 11, 85.	3.3	12
147	Extraresonances in degenerate four-wave mixing induced by sequential decay. Physical Review A, 1986, 33, 1783-1787.	2.5	14
148	Weak Localization and Light Scattering from Disordered Solids. Physical Review Letters, 1986, 57, 2049-2052.	7.8	229
149	Simultaneous observation of excited-state Raman scattering and resonance-enhanced three-photon scattering. Physical Review A, 1985, 31, 1209-1212.	2.5	13
150	Excited State Raman and Resonance Enhanced Three-Photon Scattering in Sodium. Springer Series in Optical Sciences, 1985, , 229-230.	0.7	0
151	Current regulator for high-power cw gas lasers. Review of Scientific Instruments, 1984, 55, 1448-1451.	1.3	0
152	Far-infrared-laser magnetic-resonance spectroscopy of $^4\text{He}$ S and P states. Optics Letters, 1981, 6, 99.	3.3	8
153	Precision determination of $4S^3P^3$ interval in $\text{He4}$ by laser magnetic resonance. Physical Review A, 1981, 24, 3111-3114.	2.5	3
154	Effects of intense magnetic and motional Stark fields on state mixing and transition line shapes. Physical Review A, 1980, 22, 1041-1049.	2.5	8
155	Laser magnetic resonance spectroscopy of normally forbidden transitions: Electrostatic fine structure of the $n=9, L=1$ $^8\text{He4}$ singlet states. Physical Review A, 1980, 22, 1050-1061.	2.5	13
156	Laser-Driven Forbidden Transitions to High-L States in He. Physical Review Letters, 1979, 42, 172-175.	7.8	8
157	Laser Spectroscopy in Intense Magnetic Fields. Springer Series in Optical Sciences, 1979, , 637-638.	0.7	0
158	Motional-Stark-effect spectroscopy: $7S1^1P1$ energy separation and Zeeman tuning parameters for $\text{He4}$ . Physical Review A, 1978, 18, 1103-1114.	2.5	21
159	Motional-Stark-effect-induced anticrossings. Physical Review A, 1978, 18, 1464-1471.	2.5	6
160	Motional Stark Effect in High Magnetic Fields: A New Technique for Sub-Doppler Spectroscopy. Physical Review Letters, 1977, 39, 874-877.	7.8	18
161	Submillimeter laser wavelength tables. Applied Optics, 1976, 15, 2635.	2.1	88
162	Optical modeling of microwave scattering from objects buried in dielectric media with rough surfaces. , 0, , .		0

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163	Control of group velocity of light by phase-changing collisions. , 0, , .		0