

# Michael Rosenbluh

## List of Publications by Year in descending order

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163  
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4,533  
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166  
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166  
docs citations

166  
times ranked

2933  
citing authors

#	ARTICLE	IF	CITATIONS
1	Memory Effects in Propagation of Optical Waves through Disordered Media. Physical Review Letters, 1988, 61, 2328-2331.	7.8	612
2	An optical ultrafast random bit generator. Nature Photonics, 2010, 4, 58-61.	31.4	413
3	Ultrahigh-Speed Random Number Generation Based on a Chaotic Semiconductor Laser. Physical Review Letters, 2009, 103, 024102.	7.8	327
4	Squeezed optical solitons. Physical Review Letters, 1991, 66, 153-156.	7.8	270
5	Weak Localization and Light Scattering from Disordered Solids. Physical Review Letters, 1986, 57, 2049-2052.	7.8	229
6	Electromagnetically induced absorption due to transfer of coherence and to transfer of population. Physical Review A, 2003, 67, .	2.5	138
7	Stable isochronal synchronization of mutually coupled chaotic lasers. Physical Review E, 2006, 73, 066214.	2.1	115
8	Submillimeter laser wavelength tables. Applied Optics, 1976, 15, 2635.	2.1	88
9	Atomic four-level systems. Physical Review A, 2004, 69, .	2.5	76
10	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
11	Absolute Raman cross-sections of some explosives: Trend to UV. Optical Materials, 2008, 30, 1747-1754.	3.6	68
12	Zero Lag Synchronization of Chaotic Systems with Time Delayed Couplings. Physical Review Letters, 2010, 104, 114102.	7.8	67
13	Lifting the bandwidth limit of optical homodyne measurement with broadband parametric amplification. Nature Communications, 2018, 9, 609.	12.8	66
14	Fast Physical Random-Number Generation Based on Room-Temperature Chaotic Oscillations in Weakly Coupled Superlattices. Physical Review Letters, 2013, 111, 044102.	7.8	63
15	Geometric scaling of the optical memory effect in coherent-wave propagation through random media. Physical Review B, 1989, 39, 12403-12406.	3.2	62
16	Public-channel cryptography based on mutual chaos pass filters. Physical Review E, 2006, 74, 046201.	2.1	62
17	Dynamic multiple scattering: Ballistic photons and the breakdown of the photon-diffusion approximation. Physical Review Letters, 1988, 60, 1130-1133.	7.8	59
18	Synchronization of random bit generators based on coupled chaotic lasers and application to cryptography. Optics Express, 2010, 18, 18292.	3.4	59

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19	Coherent Backscattering of Light in a Quasi-Two-Dimensional System. <i>Physical Review Letters</i> , 1988, 61, 1214-1217.	7.8	58
20	Optical hyperpolarization and NMR detection of $^{129}\text{Xe}$ on a microfluidic chip. <i>Nature Communications</i> , 2014, 5, 3908.	12.8	58
21	Universal polarization correlations and microstatistics of optical waves in random media. <i>Physical Review B</i> , 1990, 42, 2613-2616.	3.2	57
22	Time evolution of universal optical fluctuations. <i>Physical Review Letters</i> , 1987, 58, 2754-2757.	7.8	54
23	Synchronization of mutually versus unidirectionally coupled chaotic semiconductor lasers. <i>Optics Communications</i> , 2006, 267, 464-468.	2.1	48
24	Synchronization in small networks of time-delay coupled chaotic diode lasers. <i>Optics Express</i> , 2012, 20, 4352.	3.4	48
25	Precision determination of the line shape for coherently backscattered light from disordered solids: Comparison of vector and scalar theories. <i>Physical Review A</i> , 1987, 35, 4458-4460.	2.5	42
26	Switching from positive to negative dispersion in transparent degenerate and near-degenerate systems. <i>Physical Review A</i> , 2003, 68, .	2.5	42
27	Formation of nanoclusters through silver reduction in glasses: The model. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 2263-2271.	3.1	41
28	Surface enhanced Raman spectroscopy of aromatic compounds on silver nanoclusters. <i>Surface Science</i> , 2009, 603, 788-793.	1.9	40
29	SERS as a probe for adsorbate orientation on silver nanoclusters. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 1572-1577.	2.5	38
30	Degenerate two-level system in the presence of a transverse magnetic field. <i>Physical Review A</i> , 2013, 87, .	2.5	38
31	Multiple conical emissions from a strongly driven atomic system. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1988, 5, 116.	2.1	35
32	Classical-to-Quantum Transition with Broadband Four-Wave Mixing. <i>Physical Review Letters</i> , 2015, 114, 063902.	7.8	33
33	Fabrication of microlenses in Ag-doped glasses by a focused continuous wave laser beam. <i>Journal of Applied Physics</i> , 2003, 93, 2343-2348.	2.5	31
34	Differentially detected coherent population trapping resonances excited by orthogonally polarized laser fields. <i>Optics Express</i> , 2006, 14, 6588.	3.4	30
35	Multiple Stages in the Aging of a Physical Polymer Gel. <i>Macromolecules</i> , 2008, 41, 3983-3994.	4.8	30
36	Surface-enhanced Raman spectroscopy as a probe for orientation of pyridine compounds on colloidal surfaces. <i>Journal of Molecular Structure</i> , 2009, 935, 92-96.	3.6	30

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37	Electromagnetically induced absorption due to transfer of population in degenerate two-level systems. <i>Physical Review A</i> , 2004, 70, .	2.5	29
38	Periodic lines and holes produced in thin Au films by pulsed laser irradiation. <i>Journal of Applied Physics</i> , 2006, 100, 044317.	2.5	28
39	Synchronization of Mutually Coupled Chaotic Lasers in the Presence of a Shutter. <i>Physical Review Letters</i> , 2007, 98, 154101.	7.8	28
40	Eight-Channel Silicon-Photonic Wavelength Division Multiplexer With 17 GHz Spacing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-10.	2.9	28
41	Narrow gated Raman and luminescence of explosives. <i>Journal of Luminescence</i> , 2009, 129, 979-983.	3.1	27
42	Time reversal symmetry of multiply scattered speckle patterns. <i>Optics Communications</i> , 1991, 82, 362-369.	2.1	25
43	Pulse picking by phase-coherent additive pulse generation in an external cavity. <i>Optics Letters</i> , 2003, 28, 2396.	3.3	25
44	Spatial modes in a PCF fiber generated continuum. <i>Optics Express</i> , 2005, 13, 9721.	3.4	25
45	Squeezing-enhanced Raman spectroscopy. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	25
46	Sub-Doppler and sub-natural narrowing of an absorption line. <i>Optics Communications</i> , 2007, 280, 374-378.	2.1	24
47	Speckle patterns permit direct observation of phase breaking. <i>Nature</i> , 1987, 326, 778-780.	27.8	23
48	Spiking optical patterns and synchronization. <i>Physical Review E</i> , 2007, 76, 046207.	2.1	23
49	Motional-Stark-effect spectroscopy: $7S1 \rightarrow 9P1$ energy separation and Zeeman tuning parameters for He4. <i>Physical Review A</i> , 1978, 18, 1103-1114.	2.5	21
50	The influence of nonlinear spectral bandwidth on single longitudinal mode intra-cavity second harmonic generation. <i>Optics Communications</i> , 2005, 248, 241-248.	2.1	20
51	Formation of nanoclusters in silver-doped glasses in wet atmosphere. <i>Journal of Physics: Conference Series</i> , 2007, 61, 508-512.	0.4	19
52	Phase synchronization in mutually coupled chaotic diode lasers. <i>Physical Review E</i> , 2008, 78, 025204.	2.1	19
53	Motional Stark Effect in High Magnetic Fields: A New Technique for Sub-Doppler Spectroscopy. <i>Physical Review Letters</i> , 1977, 39, 874-877.	7.8	18
54	Angular intensity and polarization dependence of diffuse transmission through random media. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1993, 10, 477.	1.5	18

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55	High optical nonlinearity of CdSxSe1-x microcrystals in fluorine-phosphate glass. Optics Communications, 1996, 132, 307-310.	2.1	18
56	Mechanism of microlens formation in quantum dot glasses under continuous-wave laser irradiation. Journal of Applied Physics, 2001, 89, 8273-8278.	2.5	16
57	Parametric four-wave mixing processes in sodium vapor. Optics Letters, 1987, 12, 257.	3.3	15
58	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
59	Microfabrication of structures by laser light in metal-doped glasses. Optical Materials, 2003, 24, 401-410.	3.6	15
60	Coherent-population-trapping transients induced by a modulated transverse magnetic field. Physical Review A, 2013, 88, .	2.5	15
61	Extraresonances in degenerate four-wave mixing induced by sequential decay. Physical Review A, 1986, 33, 1783-1787.	2.5	14
62	Laser magnetic resonance spectroscopy of normally forbidden transitions: Electrostatic fine structure of the $n=9, L=1$ $^8\text{He}$ singlet states. Physical Review A, 1980, 22, 1050-1061.	2.5	13
63	Simultaneous observation of excited-state Raman scattering and resonance-enhanced three-photon scattering. Physical Review A, 1985, 31, 1209-1212.	2.5	13
64	Large photo-induced index variations in chalcogenide-on-silicon waveguides. Optics Letters, 2014, 39, 5905.	3.3	13
65	Stimulated excited-state Raman scattering and three-photon scattering in sodium. Optics Letters, 1986, 11, 85.	3.3	12
66	Dynamics of cw intra-cavity second harmonic generation by PPKTP. Optics Communications, 2004, 238, 319-327.	2.1	12
67	Chaos synchronization in networks of semiconductor superlattices. Europhysics Letters, 2015, 112, 30007.	2.0	12
68	Reversal of the direction of population transfer between Zeeman sublevels in optical pumping. Physical Review Letters, 1991, 67, 2279-2282.	7.8	11
69	Spectroscopy with diode-laser noise. Optics Communications, 1998, 146, 158-162.	2.1	11
70	Enhancement in microwave modulation efficiency of vertical cavity surface-emitting laser by optical feedback. Applied Physics Letters, 2008, 92, 221113.	3.3	11
71	Coherence-population-trapping transients induced by an ac magnetic field. Physical Review A, 2012, 85, .	2.5	11
72	Large one-time photo-induced tuning of directional couplers in chalcogenide-on-silicon platform. Optics Express, 2015, 23, 28234.	3.4	11

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73	Effects of roughness on the retroreflection from dielectric layers. Waves in Random and Complex Media, 2002, 12, 279-292.	1.5	11
74	High Intensity Pulse Propagation in the Extreme Sharp-Line Limit. Physical Review Letters, 1996, 77, 5198-5201.	7.8	10
75	Silicon on insulator photo-activated modulator. Microelectronics Journal, 2008, 39, 1429-1432.	2.0	10
76	Propagation of an asymmetric Gaussian beam in a nonlinear absorbing medium. Physical Review A, 2010, 81, .	2.5	10
77	Competition between stimulated three-photon scattering and parametric four-wave mixing. Optics Letters, 1988, 13, 215.	3.3	9
78	Mid-infrared luminescence properties of Dy-doped silver halide crystals. Applied Optics, 2011, 50, 1625.	2.1	9
79	Dual-channel spectrally encoded endoscopic probe. Biomedical Optics Express, 2012, 3, 1855.	2.9	9
80	Ripples in amorphous chalcogenide films under homogeneous laser illumination. Materials Letters, 2016, 183, 156-160.	2.6	9
81	Augmenting the Sensing Performance of Entangled Photon Pairs through Asymmetry. Physical Review Letters, 2021, 127, 173603.	7.8	9
82	Laser-Driven Forbidden Transitions to High-LStates in He. Physical Review Letters, 1979, 42, 172-175.	7.8	8
83	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
84	Far-infrared-laser magnetic-resonance spectroscopy of $^4\text{He}$ S and P states. Optics Letters, 1981, 6, 99.	3.3	8
85	Injection locking of a diode laser locked to a Zeeman frequency stabilized laser oscillator. Optics Communications, 1999, 170, 269-274.	2.1	7
86	Diffusion of Silver in Silicate Glass and Clustering in Hydrogen Atmosphere. Defect and Diffusion Forum, 2005, 237-240, 689-694.	0.4	7
87	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
88	Two-photon correlation of broadband-amplified spontaneous four-wave mixing. Physical Review A, 2012, 86, .	2.5	7
89	Motional-Stark-effect-induced anticrossings. Physical Review A, 1978, 18, 1464-1471.	2.5	6
90	Polarization dependence of resonance-enhanced three-photon scattering. Optics Letters, 1988, 13, 1005.	3.3	6

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91	Interference in light scattering from slightly rough dielectric layers. <i>Optics Letters</i> , 1998, 23, 316.	3.3	6
92	Elastic Recovery of Gels on Mesoscopic Length Scales. A Photon Correlation Spectroscopy Study. <i>Macromolecules</i> , 2000, 33, 5757-5759.	4.8	6
93	Mass Transfer in Optical Nanocomposites Induced by Pulsed Laser Irradiation. <i>Solid State Phenomena</i> , 2003, 94, 105-114.	0.3	6
94	Optical recording in silver-doped glasses by a femtosecond laser. <i>Applied Physics Letters</i> , 2003, 83, 554-556.	3.3	6
95	CW laser discoloration of X-ray irradiated silver doped silicate glasses. <i>Optical Materials</i> , 2008, 30, 1715-1722.	3.6	6
96	Coupled lasers: phase versus chaos synchronization. <i>Optics Letters</i> , 2013, 38, 4174.	3.3	6
97	Synthesis of fine powders of KTP-group compounds of stoichiometric composition. <i>Powder Technology</i> , 2006, 166, 24-29.	4.2	5
98	Breathing dynamics of an asymmetric Gaussian beam propagating in a saturable absorbing medium. <i>Physical Review A</i> , 2010, 82, .	2.5	5
99	Phase transition in crowd synchrony of delay-coupled multilayer laser networks. <i>Optics Express</i> , 2012, 20, 19683.	3.4	5
100	Broadband complex two-mode quadratures for quantum optics. <i>Optics Express</i> , 2021, 29, 41282.	3.4	5
101	Dynamic backscattered speckle in multiply scattering fluids. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1987, 56, 705-715.	0.6	4
102	Coherence-induced population redistribution in optical pumping. <i>Physical Review A</i> , 1995, 52, 3216-3227.	2.5	4
103	Throwing Dice Really Fast. <i>Optics and Photonics News</i> , 2009, 20, 34.	0.5	4
104	Precision determination of $4S_{3/2}^{\sim}P_3$ interval in $He^4$ by laser magnetic resonance. <i>Physical Review A</i> , 1981, 24, 3111-3114.	2.5	3
105	Complete atomic orientation via linearly polarized optical pumping. <i>Optics Communications</i> , 1992, 90, 51-56.	2.1	3
106	Pulsed laser recording of gratings in $SiO_2/Cu$ quantum dot thin films. <i>Applied Physics Letters</i> , 1996, 69, 3297-3299.	3.3	3
107	Electro-optical structure with high speed and high reflectivity modulation. <i>Applied Physics Letters</i> , 1996, 68, 882-884.	3.3	3
108	Luminescence from chromium-neodymium-doped lithium niobate. <i>Optical Materials</i> , 1999, 13, 55-61.	3.6	3

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109	Towards the generation of random bits at terahertz rates based on a chaotic semiconductor laser. <i>Journal of Physics: Conference Series</i> , 2010, 233, 012002.	0.4	3
110	Behavior of the relaxation oscillation frequency in vertical cavity surface-emitting laser with external feedback. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 2482.	2.1	3
111	Enhancement of photon detection in superconducting nanowire single photon detector exposed to oscillating magnetic field. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	3
112	Recording in Quantum Dot Glasses by Pulsed Laser Irradiation. , 2000, , 257-267.		3
113	Satellite structure in the Na <sup>+</sup> -Xe collisional lineshape observed in four wave mixing. <i>Optics Communications</i> , 1996, 126, 339-347.	2.1	2
114	Novel fluorine-phosphate semiconductor doped glasses: Linear and nonlinear optical properties. <i>Journal of Applied Physics</i> , 1997, 81, 6934-6938.	2.5	2
115	Manipulating the transparency and other optical properties of metamaterials by applying a magnetic field. <i>Physica B: Condensed Matter</i> , 2010, 405, 2938-2942.	2.7	2
116	Polarizing and spectrally selective photonic device based upon dielectric nanorods. <i>Microelectronic Engineering</i> , 2010, 87, 1319-1322.	2.4	2
117	Propagation of Gaussian beam in an absorbing waveguide. <i>Optics Communications</i> , 2011, 284, 5212-5217.	2.1	2
118	Silicon-Photonic Dense 8-Channel Multiplexer Using Auto-Regressive Moving-Average Filters. , 2018, , .		2
119	Laser Recording in Chalcogenide Glass Films: Driving Forces and Kinetics of the Mass Transfer. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000523.	1.8	2
120	Evolution of surface relief gratings in As <sub>20</sub> Se <sub>80</sub> amorphous chalcogenide films under laser illumination. <i>Journal of Non-Crystalline Solids</i> , 2022, 588, 121611.	3.1	2
121	Nonimpact degenerate four-wave mixing in Na perturbed by He. <i>Physical Review A</i> , 1989, 40, 4123-4126.	2.5	1
122	Active mode locking of a diode laser by a resonant tunneling diode. <i>Applied Physics Letters</i> , 1994, 64, 3095-3097.	3.3	1
123	Two- and Three-Dimensional Photonic Crystals Produced by Pulsed Laser Irradiation in Silver-Doped Glass. <i>Solid State Phenomena</i> , 2004, 99-100, 65-72.	0.3	1
124	Effect of thermal expansion on speckle correlation from surface scattering of a transparent dielectric slab. <i>Optical Engineering</i> , 2004, 43, 398.	1.0	1
125	Control of group velocity by phase-changing collisions. <i>Physical Review A</i> , 2005, 72, .	2.5	1
126	Spatially Periodic Formation of Nanoparticles in Metal-Doped Glasses. <i>Defect and Diffusion Forum</i> , 2007, 263, 57-62.	0.4	1



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127	<title>Pump-probe spectroscopy in degenerate two-level atoms with arbitrarily strong fields</title>. , 2007, , .		1
128	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
129	Photo-induced mass transfer in metal nanocluster doped glasses under continuous wave laser irradiation. Journal of Applied Physics, 2011, 109, 084304.	2.5	1
130	Photo-induced trimming of chalcogenide-on-silicon photonic integrated circuits. , 2015, , .		1
131	Effect of radiation damage on the quantum optical properties of nitrogen vacancies in diamond. Diamond and Related Materials, 2020, 109, 108049.	3.9	1
132	Current regulator for high-power cw gas lasers. Review of Scientific Instruments, 1984, 55, 1448-1451.	1.3	0
133	Absolute photoionisation cross section of the 113D state of 4He. Journal of Physics B: Atomic and Molecular Physics, 1987, 20, L121-L125.	1.6	0
134	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
135	Coalescence in Island Metal Films under Laser Pulsed Irradiation. Defect and Diffusion Forum, 1997, 143-147, 1505-1510.	0.4	0
136	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
137	Optical modeling of microwave scattering from objects buried in dielectric media with rough surfaces. , 0, , .		0
138	Electromagnetically induced absorption due to transfer of coherence and to transfer of population. , 2003, , .		0
139	Two- and three-dimensional periodic structures produced by nano-pulsed laser irradiation in Ag-doped glass. , 2003, , .		0
140	Dynamics of cw intra-cavity second harmonic generation by PPKTP. Optics Communications, 2004, 238, 319-319.	2.1	0
141	Control of group velocity of light by phase-changing collisions. , 0, , .		0
142	SERS of ultra-thin rhodamine 6G layers on Ag nanocrystals. , 2006, , .		0
143	Spatial modes in a PCF fiber generated continuum. , 2006, , .		0
144	Sub-Doppler and subnatural narrowing of an absorption line. , 2006, , .		0

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145	Surface enhanced Raman spectroscopy of aromatic compounds on silver nanoclusters. , 2008, , .		0
146	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
147	Publisher's Note: Zero Lag Synchronization of Chaotic Systems with Time Delayed Couplings [Phys. Rev. Lett. <b>104</b> , 114102 (2010)]. Physical Review Letters, 2010, 104, .	7.8	0
148	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
149	Degenerate two- and three-level systems in presence of longitudinal and transverse magnetic fields. Proceedings of SPIE, 2015, , .	0.8	0
150	Ultra-broadband homodyne-detection for parallel processing of quantum-information. , 2017, , .		0
151	Embedding information in physically generated random bit sequences while maintaining certified randomness. Europhysics Letters, 2019, 127, 60003.	2.0	0
152	Synchronized optical spiking. , 2008, , .		0
153	Enhancement in microwave modulation efficiency of vertical cavity surface-emitting laser by optical feedback. , 2009, , .		0
154	Observing the Transition from Classical to Quantum Photon Correlation in Four Wave Mixing. , 2013, , .		0
155	Quantum Effects in Four-Wave Mixing: Collapse and Revival of Bi-Photon Interference. , 2014, , .		0
156	Laser Spectroscopy in Intense Magnetic Fields. Springer Series in Optical Sciences, 1979, , 637-638.	0.7	0
157	Excited State Raman and Resonance Enhanced Three-Photon Scattering in Sodium. Springer Series in Optical Sciences, 1985, , 229-230.	0.7	0
158	Weak Localization of Light. Springer Series in Optical Sciences, 1987, , 158-160.	0.7	0
159	Four-Wave Mixing and Stimulated Emission Processes in Strongly Driven Systems. Springer Series in Optical Sciences, 1987, , 284-286.	0.7	0
160	Coherence in Random Multiple Scattering: Correlations in the Speckle of Multiply Scattered Light. , 1989, , 187-190.		0
161	Photo-Induced Tuning of Chalcogenide-on-Silicon Photonic Integrated Circuits. , 2015, , .		0
162	Optical Homodyne with Optical Bandwidth. , 2016, , .		0

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163	Ultra-Broadband Homodyne-Detection for Parallel Processing of Quantum-Information. , 2017, , .		0