

# Mark Cronin-Golomb

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

126  
papers

4,714  
citations

34  
h-index

66  
g-index

136  
ext. papers

5,265  
ext. citations

2.8  
avg. IF

4.88  
L-index

#	Paper	IF	Citations
126	Controlling Supramolecular Structures of Drugs by Light. <i>Molecular Pharmaceutics</i> , <b>2020</b> , 17, 4704-4708	5.6	2
125	Photo-induced structural modification of silk gels containing azobenzene side groups. <i>Soft Matter</i> , <b>2017</b> , 13, 2903-2906	3.6	10
124	Photoresponsive retinal-modified silk-elastin copolymer. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 3675-9	16.4	21
123	High-resolution nanomechanical analysis of suspended electrospun silk fibers with the torsional harmonic atomic force microscope. <i>Beilstein Journal of Nanotechnology</i> , <b>2013</b> , 4, 243-8	3	9
122	Optically induced birefringence and holography in silk. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2012</b> , 50, 257-262	2.6	18
121	Osteoblastic differentiation and stress response of human mesenchymal stem cells exposed to alternating current electric fields. <i>BioMedical Engineering OnLine</i> , <b>2011</b> , 10, 9	4.1	90
120	Gold nanoparticle-doped biocompatible silk films as a path to implantable thermo-electrically wireless powering devices. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 123702	3.4	21
119	Supercontinuum trap stiffness measurement using a confocal approach. <i>Optics Express</i> , <b>2010</b> , 18, 26499-504	5.9	594
118	Effect of hollow-core photonic crystal fiber microstructure on transverse optical trapping. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 141101	3.4	10
117	Bioactive silk protein biomaterial systems for optical devices. <i>Biomacromolecules</i> , <b>2008</b> , 9, 1214-20	6.9	248
116	On the relationship between artificial Kerr nonlinearities and the photorefractive effect. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 224001	3	3
115	Over 4000 nm bandwidth of mid-IR supercontinuum generation in sub-centimeter segments of highly nonlinear tellurite PCFs. <i>Optics Express</i> , <b>2008</b> , 16, 7161-8	3.3	325
114	Optofluidics: a novel generation of reconfigurable and adaptive compact architectures. <i>Microfluidics and Nanofluidics</i> , <b>2008</b> , 4, 81-95	2.8	65
113	Towards an Integrated Optofluidic Diffractive Spectrometer. <i>IEEE Photonics Technology Letters</i> , <b>2007</b> , 19, 1976-1978	2.2	5
112	Frontiers in microphotronics: tunability and all-optical control. <i>Laser Physics Letters</i> , <b>2007</b> , 4, 177-186	1.5	21
111	Simple fabrication technique for rapid prototyping of seamless cylindrical microchannels in polymer substrates. <i>Review of Scientific Instruments</i> , <b>2007</b> , 78, 044302	1.7	16
110	Optofluidic sensing and actuation with optical tweezers. <i>Journal of Optics</i> , <b>2007</b> , 9, S129-S133		4

109	High nonlinearity glass photonic crystal nanowires. <i>Optics Express</i> , <b>2007</b> , 15, 829-33	3.3	22
108	Applications of optical tweezers to optofluidics <b>2006</b> ,		1
107	Compact resonant integrated microfluidic refractometer. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 093513	3.4	83
106	Actuation of cantilevers by optical trapping. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 071106	3.4	6
105	Terahertz parametric generation photonic band gap structure with negligible structural dispersion in the optical range. <i>Optics Express</i> , <b>2006</b> , 14, 1933-41	3.3	1
104	Application of optical trapping to beam manipulation in optofluidics. <i>Optics Express</i> , <b>2005</b> , 13, 7265-75	3.3	47
103	Cascaded nonlinear difference-frequency generation of enhanced terahertz wave production. <i>Optics Letters</i> , <b>2004</b> , 29, 2046-8	3	46
102	Use of tethering for axial confinement in optical tweezers <b>2004</b> , 5514, 467		1
101	Terahertz wave generation by photonic bandgap materials <b>2004</b> ,		1
100	Measuring microscopic viscosity with optical tweezers as a confocal probe. <i>Applied Optics</i> , <b>2003</b> , 42, 1820-32	3.2	11
99	Surface Organization and Nanopatterning of Collagen by Dip Pen Nanolithography. <i>Microscopy and Microanalysis</i> , <b>2002</b> , 8, 1020-1021	0.5	3
98	Imaging microscopic viscosity with confocal scanning optical tweezers. <i>Optics Letters</i> , <b>2002</b> , 27, 264-6	3	21
97	Microscopic flow measurements with optically trapped microprobes. <i>Optics Letters</i> , <b>2002</b> , 27, 1357-9	3	20
96	Surface organization and nanopatterning of collagen by dip-pen nanolithography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2001</b> , 98, 13660-4	11.5	269
95	PLZT film waveguide Mach-Zehnder electrooptic modulator. <i>Journal of Lightwave Technology</i> , <b>2000</b> , 18, 807-812	4	33
94	Degenerate four-wave mixing in (Pb, La) (Zr, Ti)O <sub>3</sub> polycrystalline film fabricated by metalorganic chemical-liquid deposition. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 3116-3118	3.4	12
93	Photoluminescence in erbium-doped Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> :Er thin films. <i>Applied Physics Letters</i> , <b>1999</b> , 75, 3470-3472	3.4	16
92	Structural and electro-optic properties in lead magnesium niobate titanate thin films. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 3038-3040	3.4	27

91	Raman phase conjugate resonator for intracavity aero-optic turbulence aberration correction. <i>Optics Communications</i> , <b>1999</b> , 160, 283-288	2	1
90	Fabrication of large-cross-section single-mode reverse-ridge PLZT waveguides. <i>Microwave and Optical Technology Letters</i> , <b>1999</b> , 20, 121-124	1.2	
89	Fabrication and optical characterization of Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -PbTiO <sub>3</sub> planar thin film optical waveguides. <i>Applied Physics Letters</i> , <b>1998</b> , 72, 2927-2929	3.4	52
88	Widely tunable efficient intracavity quasiphase-matched midinfrared generation. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 2218-2220	3.4	3
87	Distortion-free gain and noise correlation in sodium vapor with four-wave mixing and coherent population trapping. <i>Optics Letters</i> , <b>1997</b> , 22, 769-71	3	31
86	Turbulence-aberration correction with high-speed high-gain optical phase conjugation in sodium vapor. <i>Optics Letters</i> , <b>1997</b> , 22, 1141-3	3	19
85	Photorefractive Materials, Effects, and Devices. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1996</b> , 13, 2190	1.7	2
84	Antiparallel ferroelectric domains in photorefractive barium titanate and strontium barium niobate observed by high-resolution x-ray diffraction imaging. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1996</b> , 13, 2636	1.7	36
83	Self-bending photorefractive solitons. <i>Physical Review E</i> , <b>1996</b> , 54, 5761-5765	2.4	51
82	Grating competition for charge carriers in photorefractive bismuth silicon oxide. <i>Journal of Applied Physics</i> , <b>1995</b> , 77, 7-10	2.5	6
81	Epitaxial electro-optical SrxBa <sub>1-x</sub> Nb <sub>2</sub> O <sub>6</sub> films by single-source plasma-enhanced metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 1836-1838	3.4	13
80	Model of amplified scattering in photorefractive media: comparison of numerical results and experiment. <i>Optics Letters</i> , <b>1995</b> , 20, 432-4	3	9
79	Efficient low-intensity optical phase conjugation based on coherent population trapping in sodium. <i>Optics Letters</i> , <b>1995</b> , 20, 982	3	302
78	Laser beam cleanup with photorefractive two-beam coupling. <i>Optics Letters</i> , <b>1995</b> , 20, 1459-61	3	5
77	Photorefractive surface waves. <i>Optics Letters</i> , <b>1995</b> , 20, 2075-7	3	72
76	Applications of birefringent phase matching for photorefractive devices. <i>Optics Letters</i> , <b>1995</b> , 20, 2252	3	3
75	Surface-strain effects on photorefractive gratings. <i>Optics Letters</i> , <b>1995</b> , 20, 2276	3	9
74	Photorefractive two-beam coupling optimal thresholding filter for additive signal-dependent noise reduction. <i>Applied Optics</i> , <b>1995</b> , 34, 346-51	1.7	3

73	Analysis of the dual discrimination ability of the two-port photorefractive joint transform correlator. <i>Applied Optics</i> , <b>1995</b> , 34, 8154-66	1.7	7
72	. <i>Journal of Lightwave Technology</i> , <b>1995</b> , 13, 55-61	4	4
71	Solitonlike optical switching in a circular fiber array. <i>Optics Letters</i> , <b>1994</b> , 19, 320-2	3	52
70	Photorefractive mixing of amplitude-modulated signals. <i>Optics Letters</i> , <b>1994</b> , 19, 743-5	3	2
69	Quadratic processing and nonlinear optical phase rectification in noise reduction. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1994</b> , 11, 1960	1.7	10
68	Photorefractive two-beam-coupling nonlinear joint-transform correlator. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1994</b> , 11, 2167	1.7	28
67	Real-time holographic frequency-division demultiplexing: theoretical aspects. <i>Applied Optics</i> , <b>1994</b> , 33, 5390-5	1.7	2
66	All-optical nonlinear joint Fourier transform correlator. <i>Applied Optics</i> , <b>1994</b> , 33, 8216-25	1.7	11
65	. <i>IEEE Photonics Technology Letters</i> , <b>1993</b> , 5, 336-339	2.2	8
64	Photorefractive deamplification of additive signal-dependent noise. <i>Optical Engineering</i> , <b>1993</b> , 32, 2877	1.1	4
63	Photorefractive quadratic processor for signal recovery from multiplicative complex noise. <i>Optical Engineering</i> , <b>1993</b> , 32, 2872	1.1	7
62	Photorefractive frequency converter and phase-sensitive detector. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1993</b> , 10, 72	1.7	16
61	Photorefractive two-beam coupling with light of partial spatiotemporal coherence. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1992</b> , 9, 1698	1.7	14
60	Experimental study of achromatic volume holography with dispersive compensation in barium titanate. <i>Optics Letters</i> , <b>1992</b> , 17, 297-9	3	4
59	Achromatic double phase conjugate mirror. <i>Optics Communications</i> , <b>1992</b> , 93, 92-98	2	4
58	Whole beam method for photorefractive nonlinear optics. <i>Optics Communications</i> , <b>1992</b> , 89, 276-282	2	31
57	Photorefractive wave mixing with finite beams. <i>Optics Communications</i> , <b>1992</b> , 89, 88-98	2	14
56	Photorefractive time correlation motion detection. <i>Optics Communications</i> , <b>1991</b> , 85, 5-9	2	9

55	Photorefractive holographic interference novelty filter. <i>Optics Communications</i> , <b>1991</b> , 82, 533-538	2	12
54	Nonlinear optics and phase conjugation in photorefractive materials. <i>Journal of Crystal Growth</i> , <b>1991</b> , 109, 345-352	1.6	11
53	Optical bistability in the semilinear phase-conjugate mirror. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , <b>1991</b> , 52, 150-153		5
52	Phase-conjugate interferometric analysis of thin films. <i>Applied Optics</i> , <b>1991</b> , 30, 5090-3	1.7	1
51	Noise reduction using adaptive spatial filtering in photorefractive two-beam coupling. <i>Optics Letters</i> , <b>1991</b> , 16, 747-9	3	21
50	Photorefractive two-beam coupling with reduced spatiotemporal coherence. <i>Optics Letters</i> , <b>1991</b> , 16, 1183-5	3	14
49	Self-pumped optical phase conjugation with a sodium Raman laser. <i>Optics Letters</i> , <b>1991</b> , 16, 1313-5	3	9
48	Photorefractive optical lock-in detector. <i>Optics Letters</i> , <b>1991</b> , 16, 1442-4	3	25
47	Femtosecond temporal encoding in barium titanate. <i>Optics Letters</i> , <b>1991</b> , 16, 1984-6	3	44
46	Temporal instabilities in an externally driven ring phase conjugator. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1991</b> , 8, 1455	1.7	10
45	Book Rvw: The Elements of Nonlinear Optics. By P. N. Butcher and D. Cotter.. <i>Optical Engineering</i> , <b>1991</b> , 30, 489	1.1	
44	Ti:Al <sub>2</sub> O <sub>3</sub> laser with phase conjugate feedback of the residual pump. <i>Optics Communications</i> , <b>1990</b> , 77, 325-328	2	1
43	Stability of multiple solutions in photorefractive four-wave mixing with external electrical field. <i>Optics Communications</i> , <b>1990</b> , 76, 151-156	2	9
42	Gravitationally induced pulsing of a resonator with two phase-conjugating mirrors and an injected signal. <i>Physical Review A</i> , <b>1990</b> , 42, 3142-3144	2.6	
41	Almost all transmission grating self-pumped phase-conjugate mirrors are equivalent. <i>Optics Letters</i> , <b>1990</b> , 15, 897-9	3	19
40	Chaos in photorefractive four-wave mixing with a single grating and a single interaction region. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1990</b> , 7, 1204	1.7	42
39	Photorefractive Materials, Effects, and Devices Introduction. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1990</b> , 7, 2242	1.7	5
38	Photorefractive effect in ferroelectric lead germanate. <i>Applied Physics Letters</i> , <b>1990</b> , 57, 7-9	3.4	14

37	Dynamically programmable self-aligning optical interconnect with fan-out and fan-in using self-pumped phase conjugation. <i>Applied Physics Letters</i> , <b>1989</b> , 54, 2189-2191	3.4	19
36	Wave propagation in photorefractive media. <i>Topics in Applied Physics</i> , <b>1989</b> , 101-150	0.5	3
35	Phase conjugate interferometric measurement of thin film parameters. <i>Applied Optics</i> , <b>1989</b> , 28, 5196-7	1.7	3
34	Ring self-pumped phase conjugator using total internal reflection in photorefractive strontium barium niobate. <i>Optics Letters</i> , <b>1989</b> , 14, 462-4	3	19
33	Achromatic volume holography using dispersive compensation for grating tilt. <i>Optics Letters</i> , <b>1989</b> , 14, 1297-9	3	16
32	Stability analysis and temporal behavior of four-wave mixing in photorefractive crystals. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1989</b> , 6, 1828	1.7	25
31	Self-pumped phase conjugation in InP:Fe. <i>Applied Physics Letters</i> , <b>1989</b> , 54, 1968-1970	3.4	24
30	Photorefractive phase conjugation with orthogonally polarized pumping beams. <i>Optics Letters</i> , <b>1988</b> , 13, 324-6	3	25
29	Optical bistability in photorefractive four-wave mixing. <i>Optics Communications</i> , <b>1988</b> , 65, 301-305	2	19
28	Semi-self-pumped phase-conjugate mirrors. <i>Optics Letters</i> , <b>1987</b> , 12, 714-6	3	9
27	Photorefractive time differentiation of coherent optical images. <i>Optics Letters</i> , <b>1987</b> , 12, 1029-31	3	76
26	Coherent coupling of diode lasers by phase conjugation. <i>Applied Physics Letters</i> , <b>1986</b> , 48, 1240-1242	3.4	47
25	Phase of phase conjugation and its effect in the double phase-conjugate resonator. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>1986</b> , 3, 157	1.8	24
24	Nonlinear vectorial two-beam coupling and forward four-wave mixing in photorefractive materials. <i>Optics Letters</i> , <b>1986</b> , 11, 239	3	25
23	Plane-wave theory of nondegenerate oscillation in the linear photorefractive passive phase-conjugate mirror. <i>Optics Letters</i> , <b>1986</b> , 11, 242	3	14
22	Self-induced frequency scanning and distributed Bragg reflection in semiconductor lasers with phase-conjugate feedback. <i>Optics Letters</i> , <b>1986</b> , 11, 455-7	3	37
21	. <i>IEEE Journal of Quantum Electronics</i> , <b>1986</b> , 22, 1508-1523	2	53
20	Narrow linewidth, single frequency semiconductor laser with a phase conjugate external cavity mirror. <i>Applied Physics Letters</i> , <b>1986</b> , 49, 1563-1565	3.4	60

19	Canceling beam deflection in an acousto-optic frequency shifter using a self-pumped phase conjugating mirror. <i>Applied Physics Letters</i> , <b>1985</b> , 47, 346-348	3-4	5
18	Infrared photorefractive passive phase conjugation with BaTiO <sub>3</sub> : Demonstrations with GaAlAs and 1.09- $\mu$ m Ar <sup>+</sup> lasers. <i>Applied Physics Letters</i> , <b>1985</b> , 47, 567-569	3-4	48
17	Conversion of optical path length to frequency by an interferometer using photorefractive oscillation. <i>Applied Physics Letters</i> , <b>1985</b> , 47, 460-462	3-4	21
16	Optical limiters using photorefractive nonlinearities. <i>Journal of Applied Physics</i> , <b>1985</b> , 57, 4906-4910	2-5	66
15	Vibration resistance, short coherence length operation, and mode-locked pumping in passive phase conjugate mirrors. <i>Applied Physics Letters</i> , <b>1985</b> , 47, 1131-1133	3-4	38
14	Nondegenerate optical oscillation in a resonator formed by two phase-conjugate mirrors. <i>Optics Letters</i> , <b>1985</b> , 10, 353-5	3	16
13	Experimental studies of phase conjugation with depleted pumps in photorefractive media. <i>Optics Letters</i> , <b>1985</b> , 10, 359-61	3	10
12	Multicolor passive (self-pumped) phase conjugation. <i>Applied Physics Letters</i> , <b>1984</b> , 44, 727-729	3-4	19
11	Optical bistability and hysteresis with a photorefractive self-pumped phase conjugate mirror. <i>Applied Physics Letters</i> , <b>1984</b> , 45, 1016-1018	3-4	52
10	Theory and applications of four-wave mixing in photorefractive media. <i>IEEE Journal of Quantum Electronics</i> , <b>1984</b> , 20, 12-30	2	520
9	Passive phase conjugate mirror based on self-induced oscillation in an optical ring cavity. <i>Applied Physics Letters</i> , <b>1983</b> , 42, 919-921	3-4	99
8	Passive (self-pumped) phase conjugate mirror: Theoretical and experimental investigation. <i>Applied Physics Letters</i> , <b>1982</b> , 41, 689-691	3-4	82
7	Real-time phase conjugate window for one-way optical field imaging through a distortion. <i>Applied Physics Letters</i> , <b>1982</b> , 41, 141-143	3-4	45
6	Amplifying continuous wave phase conjugate mirror with strontium barium niobate. <i>Applied Physics Letters</i> , <b>1982</b> , 40, 863-865	3-4	67
5	Exact solution of a nonlinear model of four-wave mixing and phase conjugation. <i>Optics Letters</i> , <b>1982</b> , 7, 313-5	3	104
4	Laser with dynamic holographic intracavity distortion correction capability. <i>Applied Physics Letters</i> , <b>1982</b> , 41, 219-220	3-4	55
3	Coherent oscillation by self-induced gratings in the photorefractive crystal BaTiO <sub>3</sub> . <i>Applied Physics Letters</i> , <b>1982</b> , 40, 450-452	3-4	244
2	Amplified reflection, transmission, and self-oscillation in real-time holography. <i>Optics Letters</i> , <b>1981</b> , 6, 519-21	3	140

1 Diffraction gratings and solar selective thin film absorbers: An experimental study. *Optics Communications*, **1978**, 27, 177-180