

Mark Cronin-Golomb

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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 | Theory and applications of four-wave mixing in photorefractive media. <i>IEEE Journal of Quantum Electronics</i> , 1984 , 20, 12-30 | 2 | 520 |
| 125 | Over 4000 nm bandwidth of mid-IR supercontinuum generation in sub-centimeter segments of highly nonlinear tellurite PCFs. <i>Optics Express</i> , 2008 , 16, 7161-8 | 3.3 | 325 |
| 124 | Efficient low-intensity optical phase conjugation based on coherent population trapping in sodium. <i>Optics Letters</i> , 1995 , 20, 982 | 3 | 302 |
| 123 | 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> , 2001 , 98, 13660-4 | 11.5 | 269 |
| 122 | Bioactive silk protein biomaterial systems for optical devices. <i>Biomacromolecules</i> , 2008 , 9, 1214-20 | 6.9 | 248 |
| 121 | Coherent oscillation by self-induced gratings in the photorefractive crystal BaTiO ₃ . <i>Applied Physics Letters</i> , 1982 , 40, 450-452 | 3.4 | 244 |
| 120 | Amplified reflection, transmission, and self-oscillation in real-time holography. <i>Optics Letters</i> , 1981 , 6, 519-21 | 3 | 140 |
| 119 | Exact solution of a nonlinear model of four-wave mixing and phase conjugation. <i>Optics Letters</i> , 1982 , 7, 313-5 | 3 | 104 |
| 118 | Passive phase conjugate mirror based on self-induced oscillation in an optical ring cavity. <i>Applied Physics Letters</i> , 1983 , 42, 919-921 | 3.4 | 99 |
| 117 | Osteoblastic differentiation and stress response of human mesenchymal stem cells exposed to alternating current electric fields. <i>BioMedical Engineering OnLine</i> , 2011 , 10, 9 | 4.1 | 90 |
| 116 | Compact resonant integrated microfluidic refractometer. <i>Applied Physics Letters</i> , 2006 , 88, 093513 | 3.4 | 83 |
| 115 | Passive (self-pumped) phase conjugate mirror: Theoretical and experimental investigation. <i>Applied Physics Letters</i> , 1982 , 41, 689-691 | 3.4 | 82 |
| 114 | Photorefractive time differentiation of coherent optical images. <i>Optics Letters</i> , 1987 , 12, 1029-31 | 3 | 76 |
| 113 | Photorefractive surface waves. <i>Optics Letters</i> , 1995 , 20, 2075-7 | 3 | 72 |
| 112 | Amplifying continuous wave phase conjugate mirror with strontium barium niobate. <i>Applied Physics Letters</i> , 1982 , 40, 863-865 | 3.4 | 67 |
| 111 | Optical limiters using photorefractive nonlinearities. <i>Journal of Applied Physics</i> , 1985 , 57, 4906-4910 | 2.5 | 66 |
| 110 | Optofluidics: a novel generation of reconfigurable and adaptive compact architectures. <i>Microfluidics and Nanofluidics</i> , 2008 , 4, 81-95 | 2.8 | 65 |

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| 109 | Narrow linewidth, single frequency semiconductor laser with a phase conjugate external cavity mirror. <i>Applied Physics Letters</i> , 1986 , 49, 1563-1565 | 3-4 | 60 |
| 108 | Laser with dynamic holographic intracavity distortion correction capability. <i>Applied Physics Letters</i> , 1982 , 41, 219-220 | 3-4 | 55 |
| 107 | . <i>IEEE Journal of Quantum Electronics</i> , 1986 , 22, 1508-1523 | 2 | 53 |
| 106 | Fabrication and optical characterization of Pb(Mg _{1/3} Nb _{2/3})O ₃ -PbTiO ₃ planar thin film optical waveguides. <i>Applied Physics Letters</i> , 1998 , 72, 2927-2929 | 3-4 | 52 |
| 105 | Solitonlike optical switching in a circular fiber array. <i>Optics Letters</i> , 1994 , 19, 320-2 | 3 | 52 |
| 104 | Optical bistability and hysteresis with a photorefractive self-pumped phase conjugate mirror. <i>Applied Physics Letters</i> , 1984 , 45, 1016-1018 | 3-4 | 52 |
| 103 | Self-bending photorefractive solitons. <i>Physical Review E</i> , 1996 , 54, 5761-5765 | 2-4 | 51 |
| 102 | Infrared photorefractive passive phase conjugation with BaTiO ₃ : Demonstrations with GaAlAs and 1.09- μ m Ar ⁺ lasers. <i>Applied Physics Letters</i> , 1985 , 47, 567-569 | 3-4 | 48 |
| 101 | Application of optical trapping to beam manipulation in optofluidics. <i>Optics Express</i> , 2005 , 13, 7265-75 | 3-3 | 47 |
| 100 | Coherent coupling of diode lasers by phase conjugation. <i>Applied Physics Letters</i> , 1986 , 48, 1240-1242 | 3-4 | 47 |
| 99 | Cascaded nonlinear difference-frequency generation of enhanced terahertz wave production. <i>Optics Letters</i> , 2004 , 29, 2046-8 | 3 | 46 |
| 98 | Real-time phase conjugate window for one-way optical field imaging through a distortion. <i>Applied Physics Letters</i> , 1982 , 41, 141-143 | 3-4 | 45 |
| 97 | Femtosecond temporal encoding in barium titanate. <i>Optics Letters</i> , 1991 , 16, 1984-6 | 3 | 44 |
| 96 | 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> , 1990 , 7, 1204 | 1-7 | 42 |
| 95 | Vibration resistance, short coherence length operation, and mode-locked pumping in passive phase conjugate mirrors. <i>Applied Physics Letters</i> , 1985 , 47, 1131-1133 | 3-4 | 38 |
| 94 | Self-induced frequency scanning and distributed Bragg reflection in semiconductor lasers with phase-conjugate feedback. <i>Optics Letters</i> , 1986 , 11, 455-7 | 3 | 37 |
| 93 | 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> , 1996 , 13, 2636 | 1-7 | 36 |
| 92 | PLZT film waveguide Mach-Zehnder electrooptic modulator. <i>Journal of Lightwave Technology</i> , 2000 , 18, 807-812 | 4 | 33 |

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| 91 | Distortion-free gain and noise correlation in sodium vapor with four-wave mixing and coherent population trapping. <i>Optics Letters</i> , 1997 , 22, 769-71 | 3 | 31 |
| 90 | Whole beam method for photorefractive nonlinear optics. <i>Optics Communications</i> , 1992 , 89, 276-282 | 2 | 31 |
| 89 | Photorefractive two-beam-coupling nonlinear joint-transform correlator. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1994 , 11, 2167 | 1.7 | 28 |
| 88 | Structural and electro-optic properties in lead magnesium niobate titanate thin films. <i>Applied Physics Letters</i> , 1999 , 74, 3038-3040 | 3.4 | 27 |
| 87 | Stability analysis and temporal behavior of four-wave mixing in photorefractive crystals. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1989 , 6, 1828 | 1.7 | 25 |
| 86 | Photorefractive optical lock-in detector. <i>Optics Letters</i> , 1991 , 16, 1442-4 | 3 | 25 |
| 85 | Photorefractive phase conjugation with orthogonally polarized pumping beams. <i>Optics Letters</i> , 1988 , 13, 324-6 | 3 | 25 |
| 84 | Nonlinear vectorial two-beam coupling and forward four-wave mixing in photorefractive materials. <i>Optics Letters</i> , 1986 , 11, 239 | 3 | 25 |
| 83 | Self-pumped phase conjugation in InP:Fe. <i>Applied Physics Letters</i> , 1989 , 54, 1968-1970 | 3.4 | 24 |
| 82 | 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> , 1986 , 3, 157 | 1.8 | 24 |
| 81 | High nonlinearity glass photonic crystal nanowires. <i>Optics Express</i> , 2007 , 15, 829-33 | 3.3 | 22 |
| 80 | Photoresponsive retinal-modified silk-elastin copolymer. <i>Journal of the American Chemical Society</i> , 2013 , 135, 3675-9 | 16.4 | 21 |
| 79 | Gold nanoparticle-doped biocompatible silk films as a path to implantable thermo-electrically wireless powering devices. <i>Applied Physics Letters</i> , 2010 , 97, 123702 | 3.4 | 21 |
| 78 | Frontiers in microphotonics: tunability and all-optical control. <i>Laser Physics Letters</i> , 2007 , 4, 177-186 | 1.5 | 21 |
| 77 | Imaging microscopic viscosity with confocal scanning optical tweezers. <i>Optics Letters</i> , 2002 , 27, 264-6 | 3 | 21 |
| 76 | Noise reduction using adaptive spatial filtering in photorefractive two-beam coupling. <i>Optics Letters</i> , 1991 , 16, 747-9 | 3 | 21 |
| 75 | Conversion of optical path length to frequency by an interferometer using photorefractive oscillation. <i>Applied Physics Letters</i> , 1985 , 47, 460-462 | 3.4 | 21 |
| 74 | Microscopic flow measurements with optically trapped microprobes. <i>Optics Letters</i> , 2002 , 27, 1357-9 | 3 | 20 |

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| 73 | Turbulence-aberration correction with high-speed high-gain optical phase conjugation in sodium vapor. <i>Optics Letters</i> , 1997 , 22, 1141-3 | 3 | 19 |
| 72 | Dynamically programmable self-aligning optical interconnect with fan-out and fan-in using self-pumped phase conjugation. <i>Applied Physics Letters</i> , 1989 , 54, 2189-2191 | 3-4 | 19 |
| 71 | Ring self-pumped phase conjugator using total internal reflection in photorefractive strontium barium niobate. <i>Optics Letters</i> , 1989 , 14, 462-4 | 3 | 19 |
| 70 | Almost all transmission grating self-pumped phase-conjugate mirrors are equivalent. <i>Optics Letters</i> , 1990 , 15, 897-9 | 3 | 19 |
| 69 | Optical bistability in photorefractive four-wave mixing. <i>Optics Communications</i> , 1988 , 65, 301-305 | 2 | 19 |
| 68 | Multicolor passive (self-pumped) phase conjugation. <i>Applied Physics Letters</i> , 1984 , 44, 727-729 | 3-4 | 19 |
| 67 | Optically induced birefringence and holography in silk. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012 , 50, 257-262 | 2.6 | 18 |
| 66 | Simple fabrication technique for rapid prototyping of seamless cylindrical microchannels in polymer substrates. <i>Review of Scientific Instruments</i> , 2007 , 78, 044302 | 1.7 | 16 |
| 65 | Photoluminescence in erbium-doped $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3/\text{PbTiO}_3$ thin films. <i>Applied Physics Letters</i> , 1999 , 75, 3470-3472 | 3-4 | 16 |
| 64 | Photorefractive frequency converter and phase-sensitive detector. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1993 , 10, 72 | 1.7 | 16 |
| 63 | Achromatic volume holography using dispersive compensation for grating tilt. <i>Optics Letters</i> , 1989 , 14, 1297-9 | 3 | 16 |
| 62 | Nondegenerate optical oscillation in a resonator formed by two phase-conjugate mirrors. <i>Optics Letters</i> , 1985 , 10, 353-5 | 3 | 16 |
| 61 | Photorefractive two-beam coupling with light of partial spatiotemporal coherence. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1992 , 9, 1698 | 1.7 | 14 |
| 60 | Photorefractive wave mixing with finite beams. <i>Optics Communications</i> , 1992 , 89, 88-98 | 2 | 14 |
| 59 | Photorefractive effect in ferroelectric lead germanate. <i>Applied Physics Letters</i> , 1990 , 57, 7-9 | 3-4 | 14 |
| 58 | Photorefractive two-beam coupling with reduced spatiotemporal coherence. <i>Optics Letters</i> , 1991 , 16, 1183-5 | 3 | 14 |
| 57 | Plane-wave theory of nondegenerate oscillation in the linear photorefractive passive phase-conjugate mirror. <i>Optics Letters</i> , 1986 , 11, 242 | 3 | 14 |
| 56 | Epitaxial electro-optical $\text{Sr}_x\text{Ba}_{1-x}\text{Nb}_2\text{O}_6$ films by single-source plasma-enhanced metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , 1995 , 67, 1836-1838 | 3-4 | 13 |

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| 55 | Degenerate four-wave mixing in (Pb, La) (Zr, Ti)O ₃ polycrystalline film fabricated by metalorganic chemical-liquid deposition. <i>Applied Physics Letters</i> , 1999 , 74, 3116-3118 | 3.4 | 12 |
| 54 | Photorefractive holographic interference novelty filter. <i>Optics Communications</i> , 1991 , 82, 533-538 | 2 | 12 |
| 53 | Measuring microscopic viscosity with optical tweezers as a confocal probe. <i>Applied Optics</i> , 2003 , 42, 1820-1832 | 3.2 | 11 |
| 52 | All-optical nonlinear joint Fourier transform correlator. <i>Applied Optics</i> , 1994 , 33, 8216-25 | 1.7 | 11 |
| 51 | Nonlinear optics and phase conjugation in photorefractive materials. <i>Journal of Crystal Growth</i> , 1991 , 109, 345-352 | 1.6 | 11 |
| 50 | Photo-induced structural modification of silk gels containing azobenzene side groups. <i>Soft Matter</i> , 2017 , 13, 2903-2906 | 3.6 | 10 |
| 49 | Effect of hollow-core photonic crystal fiber microstructure on transverse optical trapping. <i>Applied Physics Letters</i> , 2009 , 94, 141101 | 3.4 | 10 |
| 48 | Quadratic processing and nonlinear optical phase rectification in noise reduction. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1994 , 11, 1960 | 1.7 | 10 |
| 47 | Temporal instabilities in an externally driven ring phase conjugator. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1991 , 8, 1455 | 1.7 | 10 |
| 46 | Experimental studies of phase conjugation with depleted pumps in photorefractive media. <i>Optics Letters</i> , 1985 , 10, 359-61 | 3 | 10 |
| 45 | Diffraction gratings and solar selective thin film absorbers: An experimental study. <i>Optics Communications</i> , 1978 , 27, 177-180 | 2 | 10 |
| 44 | High-resolution nanomechanical analysis of suspended electrospun silk fibers with the torsional harmonic atomic force microscope. <i>Beilstein Journal of Nanotechnology</i> , 2013 , 4, 243-8 | 3 | 9 |
| 43 | Model of amplified scattering in photorefractive media: comparison of numerical results and experiment. <i>Optics Letters</i> , 1995 , 20, 432-4 | 3 | 9 |
| 42 | Surface-strain effects on photorefractive gratings. <i>Optics Letters</i> , 1995 , 20, 2276 | 3 | 9 |
| 41 | Photorefractive time correlation motion detection. <i>Optics Communications</i> , 1991 , 85, 5-9 | 2 | 9 |
| 40 | Stability of multiple solutions in photorefractive four-wave mixing with external electrical field. <i>Optics Communications</i> , 1990 , 76, 151-156 | 2 | 9 |
| 39 | Self-pumped optical phase conjugation with a sodium Raman laser. <i>Optics Letters</i> , 1991 , 16, 1313-5 | 3 | 9 |
| 38 | Semi-self-pumped phase-conjugate mirrors. <i>Optics Letters</i> , 1987 , 12, 714-6 | 3 | 9 |

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| 37 | . <i>IEEE Photonics Technology Letters</i> , 1993 , 5, 336-339 | 2.2 | 8 |
| 36 | Analysis of the dual discrimination ability of the two-port photorefractive joint transform correlator. <i>Applied Optics</i> , 1995 , 34, 8154-66 | 1.7 | 7 |
| 35 | Photorefractive quadratic processor for signal recovery from multiplicative complex noise. <i>Optical Engineering</i> , 1993 , 32, 2872 | 1.1 | 7 |
| 34 | Actuation of cantilevers by optical trapping. <i>Applied Physics Letters</i> , 2006 , 89, 071106 | 3.4 | 6 |
| 33 | Grating competition for charge carriers in photorefractive bismuth silicon oxide. <i>Journal of Applied Physics</i> , 1995 , 77, 7-10 | 2.5 | 6 |
| 32 | Towards an Integrated Optofluidic Diffractive Spectrometer. <i>IEEE Photonics Technology Letters</i> , 2007 , 19, 1976-1978 | 2.2 | 5 |
| 31 | Laser beam cleanup with photorefractive two-beam coupling. <i>Optics Letters</i> , 1995 , 20, 1459-61 | 3 | 5 |
| 30 | Optical bistability in the semilinear phase-conjugate mirror. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1991 , 52, 150-153 | | 5 |
| 29 | Photorefractive Materials, Effects, and Devices Introduction. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1990 , 7, 2242 | 1.7 | 5 |
| 28 | Canceling beam deflection in an acousto-optic frequency shifter using a self-pumped phase conjugating mirror. <i>Applied Physics Letters</i> , 1985 , 47, 346-348 | 3.4 | 5 |
| 27 | Optofluidic sensing and actuation with optical tweezers. <i>Journal of Optics</i> , 2007 , 9, S129-S133 | | 4 |
| 26 | . <i>Journal of Lightwave Technology</i> , 1995 , 13, 55-61 | 4 | 4 |
| 25 | Photorefractive deamplification of additive signal-dependent noise. <i>Optical Engineering</i> , 1993 , 32, 2877 | 1.1 | 4 |
| 24 | Experimental study of achromatic volume holography with dispersive compensation in barium titanate. <i>Optics Letters</i> , 1992 , 17, 297-9 | 3 | 4 |
| 23 | Achromatic double phase conjugate mirror. <i>Optics Communications</i> , 1992 , 93, 92-98 | 2 | 4 |
| 22 | Widely tunable efficient intracavity quasiphase-matched midinfrared generation. <i>Applied Physics Letters</i> , 1997 , 70, 2218-2220 | 3.4 | 3 |
| 21 | On the relationship between artificial Kerr nonlinearities and the photorefractive effect. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 224001 | 3 | 3 |
| 20 | Surface Organization and Nanopatterning of Collagen by Dip Pen Nanolithography. <i>Microscopy and Microanalysis</i> , 2002 , 8, 1020-1021 | 0.5 | 3 |

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| 19 | Applications of birefringent phase matching for photorefractive devices. <i>Optics Letters</i> , 1995 , 20, 2252 | 3 | 3 |
| 18 | Photorefractive two-beam coupling optimal thresholding filter for additive signal-dependent noise reduction. <i>Applied Optics</i> , 1995 , 34, 346-51 | 1.7 | 3 |
| 17 | Wave propagation in photorefractive media. <i>Topics in Applied Physics</i> , 1989 , 101-150 | 0.5 | 3 |
| 16 | Phase conjugate interferometric measurement of thin film parameters. <i>Applied Optics</i> , 1989 , 28, 5196-7 | 1.7 | 3 |
| 15 | Photorefractive Materials, Effects, and Devices. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1996 , 13, 2190 | 1.7 | 2 |
| 14 | Photorefractive mixing of amplitude-modulated signals. <i>Optics Letters</i> , 1994 , 19, 743-5 | 3 | 2 |
| 13 | Real-time holographic frequency-division demultiplexing: theoretical aspects. <i>Applied Optics</i> , 1994 , 33, 5390-5 | 1.7 | 2 |
| 12 | Controlling Supramolecular Structures of Drugs by Light. <i>Molecular Pharmaceutics</i> , 2020 , 17, 4704-4708 | 5.6 | 2 |
| 11 | Applications of optical tweezers to optofluidics 2006 , | | 1 |
| 10 | Terahertz parametric generation photonic band gap structure with negligible structural dispersion in the optical range. <i>Optics Express</i> , 2006 , 14, 1933-41 | 3.3 | 1 |
| 9 | Use of tethering for axial confinement in optical tweezers 2004 , 5514, 467 | | 1 |
| 8 | Terahertz wave generation by photonic bandgap materials 2004 , | | 1 |
| 7 | Raman phase conjugate resonator for intracavity aero-optic turbulence aberration correction. <i>Optics Communications</i> , 1999 , 160, 283-288 | 2 | 1 |
| 6 | Ti:Al ₂ O ₃ laser with phase conjugate feedback of the residual pump. <i>Optics Communications</i> , 1990 , 77, 325-328 | 2 | 1 |
| 5 | Phase-conjugate interferometric analysis of thin films. <i>Applied Optics</i> , 1991 , 30, 5090-3 | 1.7 | 1 |
| 4 | Supercontinuum trap stiffness measurement using a confocal approach. <i>Optics Express</i> , 2010 , 18, 26499-504 | 3.9 | |
| 3 | Fabrication of large-cross-section single-mode reverse-ridge PLZT waveguides. <i>Microwave and Optical Technology Letters</i> , 1999 , 20, 121-124 | 1.2 | |
| 2 | Gravitationally induced pulsing of a resonator with two phase-conjugating mirrors and an injected signal. <i>Physical Review A</i> , 1990 , 42, 3142-3144 | 2.6 | |

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