PUBLICATIONS
MARK CRONIN-GOLOMB
8/23/11

In Press

Invited Papers

1. "Theory and applications of four-wave mixing in photorefractive media", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, IEEE Journ. of Quantum Electron. QE-20, 12 (1984)

2. "Oscillation with photorefractive gain", S.K. Kwong, M. Cronin-Golomb and A. Yariv, IEEE Journ. Quantum Electron. QE-22, 1508 (1986)

3. "Principles and applications of optical phase conjugation in photorefractive materials", K. Kyuma, S.K. Kwong, M. Cronin-Golomb and A. Yariv, Optoelectronics Dev. & Tech. 2, 1 (1987)

Invited Presentations

1. "Theory and experiments of four wave mixing and optical phase conjugation in photorefractive materials", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, J. Opt. Soc. Am. 71, 1563 (1981) Invited paper presented at 1981 Annual Meeting of the Optical Society of America.

2. "Theory and Applications of Self-Pumped Phase Conjugation", M. Cronin-Golomb and A. Yariv, Gordon Research Confrerence on Nonlinear Optics and Lasers, 1983

3. "New applications in photorefractive phase conjugation", M. Cronin-Golomb and A. Yariv, Invited Paper, Proc. SOQUE., Proc. International Conference on Lasers'85, pp27-30 (1986)

4. "Phase conjugate resonators with photorefractive crystals", M. Cronin-Golomb, International School of Materials Science and Technology, Ettore Majorana Centre for Scientific Culture, Erice, Italy 1986

5. "Self-pumped phase conjugation in photorefractive materials", M. Cronin-Golomb, Mini-Symposium on Non-Linear Optical Phase Conjugation, Rank Prize Funds, Broadway, UK (1989)

6. "Nonlinear optics and phase conjugation in photorefractive materials" M. Cronin-Golomb, Eighth American Conference on Crystal Growth, Vail (1990)
7. "Photorefractive nonlinear optics", Summer School on Nonlinear Optics, Prague, (1991)

8. "Coherence, femtosecond pulses, and the photorefractive effect", Second Technion Symposium on Optoelectronics, Technion, Haifa, Israel (1994)

9. "Applications of the photorefractive beam propagation method", Mini-Symposium on Coherent Image Amplification, Rank Prize Funds, Grasmere, UK (1994)

10. "Synchrotron X-ray topography of photorefractive materials", Japan-US Workshop on Functional Fronts in Advanced Ceramics, Tsukuba, Japan (1994)

11. “Photorefractive nonlinear optics: a perspective” International Conference on Optoelectronics, Dehradun, India (1998)

12. “Use of tethering for axial confinement in optical tweezers” M. Cronin-Golomb, SPIE Annual Meeting, Denver, Colorado (2004)

13. “Optical Tweezers and Optofluidics”, Optofluidics: Emerging Applications and Technologies, LEOS Summer Topical Meeting, Quebec, Canada (2006)

14. “Applications of Optical Tweezers to Optofluidics” SPIE Annual Meeting, San Diego, California (2006)

Book Chapters

1. "Optical oscillators with photorefractive gain", M. Cronin-Golomb, S.K. Kwong and A. Yariv, "Electrooptic and photorefractive materials 1986", ed. P. Gunter (Springer Verlag, 1987)

2. "Wave Propagation in Photorefractive Media", J.O. White, S.K. Kwong, M. Cronin-Golomb, B. Fischer and A. Yariv, "Photorefractive materials and their applications", ed P. Gunter and J.-P. Huignard (Springer Verlag 1989)

3. "Self-Pumped Phase Conjugate Mirrors and Other Oscillators", M. Cronin-Golomb, "Phase Conjugation", ed D. Proch and M. Gower (Springer Verlag 1994)

4. "Photorefractive Materials and Devices", M. Klein and M. Cronin-Golomb, "Handbook of Optics", ed M. Bass (McGraw Hill, 1994)

5. "Nonlinear optics basics:Photorefraction", M. Cronin-Golomb and B. Kippelen, “Encyclopedia of Modern Optics” (Elsevier, December 2004)

Reports

1. "Soviet Optical Processing Research", A. VanderLugt, A.E. Attard, M. Cronin-Golomb, R.L. Hartman, J.N. Lee, G.M. Morris, W.T. Rhodes, (Science Applications International Corporation, McLean, VA 1991)

Refereed Papers

1. "Diffraction gratings and solar selective thin film absorbers: an experimental study", M. Golomb, Opt. Commun. 27, 177 (1978)

2. "Amplified reflection, transmission, and oscillation in real time holography", B. Fischer, M. Cronin-Golomb, J.O. White and A. Yariv, Opt. Lett. 6, 519 (1981)

3. "Coherent oscillation by self-induced gratings in the photorefractive crystal $BaTiO_3$", J.O. White, M. Cronin-Golomb, B. Fischer and A. Yariv, Appl. Phys. Lett. 40, 450 (1982)

4. "Amplifying continuous wave phase conjugate mirror with strontium barium niobate ", B. Fischer, M. Cronin-Golomb, J.O. White, A. Yariv and R. Neurgaonkar, Appl. Phys. Lett. 40, 863 (1982)

5. "Exact solution of a nonlinear model of four-wave mixing and phase conjugation", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, Opt. Lett. 7, 313 (1982)

6. "Real time phase conjugate window for one way imaging through an optical distortion", B. Fischer, M. Cronin-Golomb, J.O. White, A. Yariv, Appl. Phys. Lett. 41, 141 (1982)

7. "Laser with dynamic holographic intracavity distortion correction capability", M. Cronin-Golomb, B. Fischer, J. Nilsen, J.O. White and A. Yariv, Appl. Phys. Lett. 41, 219 (1982)

8. "Passive (self-pumped) phase conjugate mirror: Theoretical and experimental investigation", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, Appl. Phys. Lett. 41, 689 (1982)

9. "Passive phase conjugate mirror based on self-induced oscillation in an optical ring cavity", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, Appl. Phys. Lett. 42, 919 (1983)

10. "Multicolor Passive (Self-Pumped) Phase Conjugation", M. Cronin-Golomb, S.K. Kwong and A. Yariv, Appl. Phys. Lett. 44, 727 (1984)

11. "Optical bistability and hysteresis with passive (self-pumped) phase conjugate mirrors", S.K. Kwong M. Cronin-Golomb and A. Yariv, Appl. Phys. Lett. 45, 1016 (1984)

12. "Optical limiters based on the photorefractive effect", M. Cronin-Golomb and A. Yariv., J. Appl. Phys. 57, 4906 (1985)

13. "Non-degenerate optical oscillation in a resonator formed by two phase conjugate mirrors", M. Cronin-Golomb, B. Fischer, S.K. Kwong, J.O. White and A. Yariv, Opt. Lett. 10, 353 (1985)

14. "Experimental studies of phase conjugation with depleted pumps in photorefractive media", S.K. Kwong, Y.H. Chung, M. Cronin-Golomb and A. Yariv, Opt. Lett. 10, 359 (1985)

15. "Canceling beam deflection in an acousto-optic frequency shifter using a self-pumped phase conjugating mirror", M. Cronin-Golomb and D.Z. Anderson, Appl. Phys. Lett. 47, 346 (1985)

16. "Optical path length to frequency converting interferometer using photorefractive oscillation", S.K. Kwong, A. Yariv, M. Cronin-Golomb and I. Ury, Appl. Phys. Lett. 47, 460 (1985)

17."Infrared photorefractive passive phase conjugation with $BaTiO_3$: demonstrations with GaAlAs and 1.09mm Ar^+ lasers", M. Cronin-Golomb, Kam Y. Lau and A. Yariv, Appl. Phys. Lett. 47, 567 (1985)

18. "Vibration resistance, short coherence length operation and mode locked pumping in passive phase conjugate mirrors",
M. Cronin-Golomb, J. Paslaski and A. Yariv, Appl. Phys. Lett. 47, 1131 (1985)

19. "The phase of phase conjugation and its effect in the double phase conjugate resonator", S.K. Kwong, A. Yariv, M. Cronin-Golomb and B. Fischer, J. Opt. Soc. Am. A, 3, 157 (1986)

20. "Nonlinear vectorial two beam coupling and forward four-wave mixing in photorefractive materials", B. Fischer, J.O. White, M. Cronin-Golomb, A. Yariv, Opt. Lett. 11, 239 (1986)

21. "Plane wave theory of nondegenerate oscillation in the linear photorefractive passive phase conjugate mirror", M. Cronin-Golomb and A. Yariv, Opt. Lett. 11, 242 (1986)

22. "Coherent coupling of diode lasers by phase conjugation", M. Cronin-Golomb and A. Yariv, Appl. Phys. Lett. 48, 1240 (1986)

23. "Self-scanning and self-induced distributed feedback in semiconductor lasers with phase conjugate feedback", M. Cronin-Golomb and A. Yariv, Opt. Lett. 11, 455 (1986)

24. "Narrow linewidth single frequency semiconductor laser with a phase conjugate external cavity mirror", K. Vahala, K. Kyuma, A. Yariv, S.K. Kwong, M. Cronin-Golomb and K.Y. Lau, Appl. Phys. Lett. 49, 1563 (1986)

25. "Semi-self-pumped phase conjugate mirrors, M. Cronin-Golomb and A. Yariv, Opt. Lett. 12, 714 (1987)

26. "Image time differentiator using photorefractive two beam coupling", M. Cronin-Golomb, A.M. Biernacki, C. Lin and H. Kong. Opt. Lett. 12, 1029 (1987)

27. "Optical bistability in photorefractive four-wave mixing", K. Shaw and M. Cronin-Golomb, Opt. Commun. 65, 301 (1988), erratum Opt. Commun. 71, 393 (1989)

28. "Photorefractive phase conjugation with orthogonally polarized pumping beams", M. Cronin-Golomb, C. Lin, H. Kong and A.M. Biernacki, Opt. Lett. 13, 324 (1988)

29. "Ring self-pumped phase conjugator using total internal reflection in photorefractive strontium barium niobate", M. Cronin-Golomb and C.D. Brandle, Opt. Lett. 14, 462 (1989).

30. "Self-pumped phase conjugation in InP:Fe" R. Bylsma, A.M. Glass, D.H. Olsen and M. Cronin-Golomb, Appl. Phys. Lett. 54, 1968 (1989).

31. "Dynamically programmable optical interconnect using self-pumped phase conjugation in strontium barium niobate", M. Cronin-Golomb, Appl. Phys. Lett. 54, 2189 (1989)

32. "Stability analysis and temporal behavior of four wave mixing in photorefractive crystals", W. Krolikowski, K.D. Shaw and M. Cronin-Golomb, J. Opt. Soc. Am. B6 1828 (1989).

33. "Achromatic volume holography using dispersive compensation for grating tilt", M. Cronin-Golomb, Opt. Lett. 14, 1297 (1989)

34. "Phase conjugate interferometric measurement of thin film parameters", M. Cronin-Golomb and J. Shamir, Appl. Opt. 28, 5196 (1989)

35. "Stability of multiple solutions in photorefractive four wave mixing with external electric field" K. Shaw and M. Cronin-Golomb, Opt. Commun. 76, 151 (1990)

36. "Photorefractive effect in ferroelectric lead germanate", W. Krolikowski, M. Cronin-Golomb, and B.S. Chen, Appl. Phys. Lett. 57, 7 (1990)

37. "Chaos in single grating single interaction region photorefractive four-wave mixing", W. Krolikowski, M. Belic, M. Cronin-Golomb and A. Bledowski J. Opt. Soc. Am. B7, 1204 (1990).

38. "Ti:Al_2O_3 laser with optical phase conjugated feedback pump", H. Kong, B. Chen and M. Cronin-Golomb, Opt. Commun. 77, 325 (1990)

39. "Almost all photorefractive transmission grating self-pumped phase conjugate mirrors are equivalent", M. Cronin–Golomb, Opt. Lett. 15, 897 (1990)

40. "Gravitationally induced pulsing of a double phase-conjugating resonator with an injected signal", D.Z. Anderson, R. Saxena and M. Cronin-Golomb. Phys. Rev. A 42, 3142 (1990)

41. "Nonlinear optics and phase conjugation in photorefractive materials", M. Cronin-Golomb, Journ. Cryst. Growth 109, 345 (1991)

42. "Noise reduction using adaptive spatial filtering in photorefractive two-beam coupling", J. Khoury, C.L. Woods, M. Cronin-Golomb, Opt. Lett. 16, 747 (1991)

43. "Photorefractive holographic interference novelty filter" J. Khoury, C.L. Woods, M. Cronin-Golomb Opt. Commun. 82, 533 (1991)

44. "Optical bistability in the semilinear phase conjugate mirror", W. Krolikowski, M. Cronin-Golomb, Appl. Phys. B 52, 150 (1991)

45. "Temporal instabilities in externally driven ring phase conjugator" W. Krolikowski, B.S. Chen, M. Cronin-Golomb, J. Opt. Soc. Am. B8, 1445 (1991)

46. "Photorefractive two beam coupling with reduced spatiotemporal coherence" H. Kong, C. Wu, and M. Cronin-Golomb, Opt. Lett. 16, 1183 (1991)

47. "Photorefractive time correlation motion detection", J. Khoury, V. Ryan, C. Woods, M. Cronin-Golomb, Opt. Commun. 85, 5 (1991)

48. "Self-pumped optical phase conjugation with a sodium Raman laser", J. Donoghue, M. Cronin-Golomb, J.S. Kane, P. Hemmer, Opt. Lett. 16, 1313 (1991)

49. "Photorefractive optical lock-in detector" J. Khoury, M. Cronin-Golomb, Opt. Lett. 16, 1442 (1991)

50. "Femtosecond temporal encoding in barium titanate", L.H. Acioli, M. Ulman, E.P. Ippen, J.G. Fujimoto, H. Kong, B.S. Chen, and M. Cronin-Golomb, Opt. Lett. 16, 1984 (1991)

51. "Phase conjugate interferometric analysis of thin films", E. Parshall and M. Cronin-Golomb, Appl. Opt. 30, 5090 (1991)

52. "Experimental study of achromatic volume holography with dispersive compensation in barium titanate", H. Kong, C. Wu, and M. Cronin-Golomb, Opt. Lett. 17, 297 (1992)

53. "Photorefractive wave mixing with finite beams" W. Krolikowski, M. Cronin-Golomb, Opt. Commun. 89, 88 (1992)

54. "Whole beam method for photorefractive nonlinear optics", M. Cronin-Golomb, Opt. Commun. 89, 276 (1992)

55. "Achromatic double phase conjugate mirror", H. Kong, M. Cronin-Golomb and B. Fischer, Opt. Commun. 93, 92 (1992)

56. "Photorefractive two-beam coupling with light of partial spatiotemporal coherence", M. Cronin-Golomb, H. Kong, and W. Krolikowski, J. Opt. Soc. B 9, 1698 (1992)

57. "Photorefractive frequency converter and phase sensitive detector", J. Khoury, V. Ryan, M. Cronin-Golomb, and C.L. Woods, J. Opt. Soc. B 10, 72 (1993)

58. "Analysis of metal clad antiresonant reflecting optical waveguide for polarizer applications", U. Trutschel, M. Cronin-Golomb, G. Fogarty, F. Lederer, M. Abraham, Phot. Tech. Lett. 5, 336 (1993)

59. "Photorefractive quadratic processor for signal recovery from multiplicative complex noise", J. Khoury, A.M. Biernacki, C.L. Woods, and M. Cronin-Golomb, Opt. Eng. 32, 2872 (1993)

60. "Photorefractive deamplification of additive signal-dependent noise", J. Khoury, J. Fu, M. Cronin-Golomb, and C.L. Woods, Opt. Eng. 32, 2877 (1993)

61. "Soliton-like optical switching in circular nonlinear fiber array", W. Krolikowski, U. Trutschel, M. Cronin-Golomb, and C. Schmidt-Hattenberger, Opt. Lett. 19, 320 (1994)

62. "Photorefractive mixing of amplitude-modulated signals", J. Khoury, M. Cronin-Golomb, and C.L. Woods, Opt. Lett. 19, 743 (1994)

63. "Quadratic processing and nonlinear optical phase rectification in noise reduction", J. Khoury, J. Fu, M. Cronin-Golomb, C. Woods, J. Opt. Soc. Am. B11 , 1960 (1994)

64. "Real time holographic frequency division demultiplexing: theoretical aspects", J. Khoury, M. Cronin-Golomb, and C. Woods, Appl. Opt. 33, 5390 (1994)

65. "Photorefractive phase-conjugate technique for measuring surface granularity", J. Khoury, M. Cronin-Golomb, A.M. Biernacki, and C.L. Woods, Appl. Opt. 33, 7655 (1994)

66. "Photorefractive two-beam coupling joint-transform correlator" J. Khoury. M. Cronin-Golomb, P. Gianino, and C. Woods", J. Opt. Soc. Am. B11 , 2167 (1994)

67. "All-optical nonlinear joint transform correlator", J. Khoury, J.S. Kane, G. Asimellis, M. Cronin-Golomb, and C. Woods, Appl. Opt. 33, 8216 (1994)

68. "Grating competition for charge carriers in photorefractive bismuth silicon oxide", J. Khoury, M. Cronin-Golomb, and C. Woods, J. Appl. Phys. 77, 7 (1995)

69. "Efficient self-aligning multi-mode beam coupling into a single mode fiber", M. Snowbell, N. Strasman, B. Fischer, and M. Cronin-Golomb, J. Lightwave Tech. 13, 55 (1995)

70. "A model of amplified scattering in photorefractive media: comparison of theory and experiment", E. Parshall, M. Cronin-Golomb, and R. Barakat, Opt. Lett. 20, 432 (1995)

71. "Efficient, low-intensity optical phase conjugation based on coherent population trapping in sodium, P.R. Hemmer, D.P. Katz, J Donoghue, M. Cronin-Golomb, M.S.Shahriar, and P. Kumar, Opt. Lett. 20, 982 (1995)

72. "Photorefractive two-beam coupling optimal thresholding filter for additive signal dependent noise reduction, J. Fu, J. Khoury, M. Cronin-Golomb, and C.L. Woods, Appl. Opt. 34, 346 (1995)

73. "Effectiveness of laser beam cleanup with photorefractive two beam coupling", Atsushi Takada and M. Cronin-Golomb, Opt. Lett. 20, 1459 (1995)

74. "Photorefractive surface waves", M. Cronin-Golomb, Opt. Lett. 20, 2075 (1995)

75. "Applications of birefringent phase matching for photorefractive devices" M. Cronin-Golomb and M.P. Tarr, Opt. Lett. 20, 2252 (1995)

76. "Epitaxial electro-optical $Sr_xBa_{1-x}Nb_2O_6$ films by single source plasma enhanced metalorganic chemical vapor deposition" L.D. Zhu, J. Zhao, S.B. Kang, Wang, M. Sinclair, D. Dimos, G.D. Fogarty, M. Cronin-Golomb, B. Steiner, P.E. Norris, B. Kear, and B. Gallois, Appl. Phys. Lett. 67, 1836 (1995)

77. Surface-strain effects on photorefractive gratings, G. Fogarty and Mark Cronin-Golomb, Opt. Lett. 20, 2276 (1995)

78. "Analysis of dual discrimination ability of the two-port photorefractive joint transform correlator", G. Asimellis, M. Cronin-Golomb, J. Khoury, J. Kane, and C. Woods, Appl. Opt. 34, 8154 (1995)

79. "High resolution X-ray diffraction imaging of anti-parallel ferroelectric domains in photorefractive barium titanate and strontium barium niobate", G. Fogarty, B. Steiner, M. Cronin-Golomb, U. Laor, M.H. Garrett, J. Martin, and R. Uhrin, Journ. Opt. Soc. Am. B. 13, 2636 (1996)

80. “Self-bending photorefractive solitons”, W. Krolikowski, N. Akhmediev, B. Luther-Davies, M. Cronin-Golomb, Phys. Rev. E. 54, 5761 (1996)

81. “Widely tunable efficient intracavity quasiphase-matched midinfrared generation”, G.Y. Wang, Jing Zhao, Qiushui Chen, M. Cronin-Golomb, Appl. Phys. Lett. 70, 2218 (1997)

82. “Distortion-free gain and noise correlation in sodium vapor with four-wave mixing and coherent population trapping”, T.T. Grove, M.S. Shahriar, P.R. Hemmer, P. Kumar, V.S. Sudarshanam, M. Cronin-Golomb, Opt. Lett. 22, 769 (1997)

83. “Turbulence-aberration correction with high-speed high-gain optical phase conjugation in sodium vapor”, V.S Sudarshanam, M. Cronin-Golomb, P.R. Hemmer, and M.S. Shahriar, Opt. Lett. 22, 1141 (1997)

84. “Fabrication and Optical Characterization of $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ Planar Thin Film Optical Waveguides”, Yalin Lu, S.W. Liu, S.Q. Wang, G.H. Jin, J. Zhao, A.J. Drehman, M. Cronin-Golomb, Appl. Phys. Lett. 72, 2927 (1998)

85. “Fabrication of large-cross-section single-mode reverse-ridge PLZT waveguides”, G.H. Jin, Y.K. Zou, V. Fuflyigin, S.W. Liu, Y.L. Lu, J. Zhao, M. Cronin-Golomb, Microwave and Opt. Tech. Lett. 20, 121 (1999)

86. “ Raman phase conjugate resonator for intracavity aero-optic turbulence aberration correction”, V.S. Sudarshanam, M. Cronin-Golomb, P.R. Hemmer, M.S. Shahriar, Opt. Commun. 160, 283 (1999)

87. “Degenerate four-wave mixing in PLZT poly-crystalline film fabricated by MOCLD” G.H. Jin, F.L. Wang, B. Nemet, H. Jiang, Y.L. Lu, C. Hsu, J. Zhao, and M. Cronin-Golomb, Appl. Phys. Lett. 74, 3116 (1999)

88. “Structural and Electro-Optic Properties in Lead Magnesium Niobate Titanate Thin Films”, Y. L. Lu, B. Gaynor, C. Hsu, G.-H Jin, Mark Cronin-Golomb F. Wang, and J. Zhao S.-Q.Wang, P. Yip, and A.J.Drehman, Appl. Phys. Lett. 74, 3038, (1999)

89. “Photoluminescence in erbium doped $Pb(Mg_{1/3}\ Nb_{2/3}\ )O_3 – PbTiO_3$ thin films”, J. Zheng, Y. Lu, X. Chen, M. Cronin-Golomb, and J. Zhao, Appl. Phys. Lett. 75, 3470 (1999)

90. “PLZT film waveguide Mach-Zehnder electro-optic modulator”, G.H. Jin, Y.K. Zou, V. Fuflyigin, S.W. Liu, Y.L. Lu, J. Zhao, and M. Cronin-Golomb, J. Lightwave Technol. 18, 807 (2000)

91. “Facial frequency manipulation normalizes face discrimination in AD”, A. Cronin-Golomb, M. Cronin-Golomb, T.E. Dunne, A.C. Brown, K. Jain, P.B. Cipolloni, and S.H. Auerbach, Neurology, 54, 2316 (2000)

92. "Surface organization and nanopatterning of collagen by dip-pen nanolithography" DL Wilson, R Martin, S Hong, M Cronin-Golomb, CA Mirkin, DL Kaplan, , PNAS 98, 13660 (2001)

93. Nemet BA, Shabtai Y, Cronin-Golomb M, "Imaging microscopic viscosity with confocal scanning optical tweezers", Opt. Lett. 27, 264 (2002)

94. “Microscopic flow measurements using optically trapped microprobes”, B. Nemet and M. Cronin-Golomb, Opt. Lett. 27, 1357 (2002)

95. “Measuring microscopic viscosity with optical tweezers as a confocal probe”, B. Nemet and M. Cronin-Golomb, Appl. Opt. 42, 1820-1832 (2003)

96. “Cascaded nonlinear difference frequency generation for enhanced terahertz production”, M. Cronin-Golomb, Opt. Lett. 29, 2046-2048 (2004)

97. "Application of optical trapping to beam manipulation in optofluidics" P. Domachuk, M. Cronin-Golomb, B. Eggleton, S. Mutzenich, G. Rosengarten, and A. Mitchell, Opt. Express 13, 7265-7275 (2005) http://www.opticsinfobase.org/abstract.cfm?URI=oe-13-19-7265

98. “Compact resonant integrated microfluidic refractometer” P. Domachuk, I. C. M. Littler, M. Cronin-

Golomb, and B. J. Eggleton, Appl. Phys. Lett. 88, 093513 (2006)

99. "Terahertz parametric generation photonic band gap structure with negligible structural dispersion in the optical range ," Y. Chen, M. Cronin-Golomb, L. Zhang, J. Zhao, and J. Foshee, Opt. Express 14, 1933-1941 (2006) http://www.opticsinfobase.org/abstract.cfm?URI=oe-14-5-1933

100. "Actuation of cantilevers by optical trapping", P. Domachuk, E. Magi, M. Cronin-Golomb, and B.J. Eggleton, Appl. Phys. Lett. 89, 071106 (2006)

101. "Frontiers in microphotonics: tunability and all-optical control", C. Monat, C. Grillet, P. Domachuk, C. Smith, E. Magi, D. J. Moss, H. C. Nguyen, M. Cronin-Golomb, B. J. Eggleton, Laser Phys. Lett. 4, 177 (2007)

102. "Optofluidic sensing and actuation with optical tweezers", P. Domachuk, F.G. Omenetto B. J. Eggleton, M. Cronin-Golomb, Journal of Optics A, invited paper, 9, S129 (2007)

103. "Simple fabrication technique for rapid prototyping of seamless cylindrical microchannels in polymer substrates", H. Perry, C. Greiner, I. Georgakoudi, M. Cronin-Golomb, F.G. Omenetto, Rev. Sci. Inst. 78, 044302 (2007)

104. "Towards an integrated optofluidic diffractive spectrometer", P. Domachuk, H. Perry, M. Cronin-Golomb, F.G. Omenetto, IEEE Phot. Tech. Lett. 19, 21 (2007)

105. "Optofluidics: a novel generation of reconfigurable and adaptive compact architectures", C. Monat, P. Domachuk, C. Grillet, M. Collins, B.J. Eggleton, M. Cronin-Golomb, S. Mutzenich, T. Mahmud, G. Rosengarten, A. Mitchell, Microfluidics and Nanofluidics, 4, 81 (2008)

106. "Bioactive silk protein biomaterial systems for optical devices", B.D. Lawrence, Brian D., M. Cronin-Golomb, I. Georgakoudi, D.L. Kaplan, F.G. Omenetto, Biomacromolecules, 9, 1214 (2008)

107. "On the relationship between artificial Kerr nonlinearities and the photorefractive effect" M. Cronin-Golomb, J. Phys. D: Appl. Phys. 41, 224001 (2008).

108. "Over 4000 nm bandwidth of mid-IR supercontinuum generation in sub-centimeter segments of highly nonlinear tellurite PCFs", P. Domachuk, NA Wolchover, M. Cronin-Golomb, A. Wang, A.K. George, C.M.B. Cordeiro , J.C. Knight, F.G. Omenetto, Opt. Express 16, 7161-7168 (2008).

109. "Effect of hollow-core photonic crystal fiber microstructure on transverse optical trapping", P. Domachuk, M. Cronin-Golomb, F. G. Omenetto Appl. Phys. Lett. 94, 141101 (2009)

110. "Gold nanoparticle-doped biocompatible silk films as a path to implantable thermo-electrically wireless powering devices", H. Tao, S.M. Siebert, M.A. Brenckle, R.D. Averitt, M. Cronin-Golomb, D.L. Kaplan, F.G. Omenetto, Appl. Phys. Lett. 97, 12302 (2010)

111. "Supercontinuum trap stiffness measurement using a confocal approach", Z. Zhang, H.F. Li, P. Li, KB Shi, P. Edwards, F. Omenetto, M. Cronin-Golomb, G.Z. Zhang, ZW Liu, Opt. Express, 18, 26499-26504 (2010)

112. "Osteoblastic differentiation and stress response of human mesenchymal stem cells exposed to alternating current electric fields", M. Hronik-Tupaj, W.L. Rice, M Cronin-Golomb, D.L. Kaplan, I. Georgakoudi, BioMed. Eng. OnLine, 10, 9 (2011)

Patents

"Passive Phase Conjugate Mirror", M. Cronin-Golomb, B. Fischer, J.O. White and A. Yariv, U.S. Patent #4,529,273

"Phase conjugate interferometer for measuring thin film properties", M. Cronin-Golomb and J. Shamir, U.S. Patent #4,979,828

"Achromatic Holography Compensation", M Cronin-Golomb, R. Gonsalves, U.S. Patent #5,018,801

"Photorefractive two-beam coupling nonlinear joint transform correlator", J. Khoury, C.L. Wood, P.D. Gianino, M. Cronin-Golomb, U.S. Patent #5,493,444

“Photorefractive limiting quadratic processor”, J. Khoury, C.L. Wood, P.D. Gianino, M. Cronin-Golomb, Jack Fu, U.S. Patent #5,594,586