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Referências bibliográficas

ABE, M. et. al. Electro-optic switch constructed with a poled silica - based waveguide on a Si substrate. **Electronics Letters**, v.32, n.10, p. 893-894, maio 1996.

AGRAWAL, G. P. **Nonlinear Fiber Optics**. 1.ed. San Diego: Academic press, 1989. 335p.

ALLEY, T G.; BRUECK, S. R. J.; WIEDENBECK, M. Secondary ion mass espectrometry study of space-charge formation in thermally poled fused silica, **Journal of Applied Physics**, v.86, n.12, p. 6634-6640, dezembro 1999.

ALLEY, T. G.; BRUECK, S. R. J. Visualization of the nonlinear optical space - charge region of bulk, thermally - poled fused - silica glass. **Optics Letters**, v.23, n.15, p. 1170-1172, agosto 1998.

ALLEY, T. G.; BRUECK, S.R.J.; MYERS, R. A. Space charge dynamics in thermally poled fused silica. **Journal of Non Crystalline Solids**, v.242, n.2-3, p. 165-176, julho 1998.

BLAZKIEWICZ, et al. Modification of thermal poling evolution using novel twin-hole fibers. **Journal of Ligth Wave Technology**, v.19, n.8, p. 1149-1154, agosto 2001.

BORN, M.; WOLF, E. **Principles of Optics**. 7.ed. New York: Pergamon Press, 2003. 952p.

BOYD, R. W. **Nonlinear Optics**. 1.ed. California: Academic Press, 1992. 435p.

BUTCHER, P. N.; COTTER, D. **The elements of nonlinear Optics**. 1.ed. New York: Cambridge University Press, 1990. 336p.

CARLSON, D. E. Ion depletion of glasses at a blocking anode: I. Theory and experimental results for alkali silicate glass, **Journal of the American Ceramic Society-Carlson**. v.57, n.7, p. 291-294, julho 1974.

CARLSON, D. E.; HANG, K. W.; STOCKDALE, G. F. Electrode polarization in alkali - containing glasses. **Journal of the American Ceramic Society**, v. 55, n.7, p. 337-341, janeiro 1972

CHATELLUS, H. G.; MONTANT, S.; FREYSZ, E. Nondestructive method for Characterization of the second-order nonlinear profile and distribution in thermally poled fused silica. **Optics Letters**. v.25, n.23, p.1723-1725, dezembro 2000.

CHEN et al. Creation of second-order nonlinearity and quasi-phase-matched second-harmonic generation in Ge-implanted fused silica planar waveguide. **Applied Physics Letters**. v.86, n.081107, p.1-3, fevereiro 2005.

CORBARI et al. Ultraviolet poling of pure fused silica by high-intensity femtosecond radiation. **Applied Physics Letters**, v.86, n.071106, p. 149902, março 2005.

DEPARIS, O.; MEZZAPES, F. P.; CORBARI, C.; KAZANSKY, P. G. e SAKAGUCHI, K. Aceito para publicação em **Journal of Scientific Instruments JNCS**, 2005.

DRAGOMIR, et al. Two-photon absorption properties of commercial fused silica and germanosilicate glass at 264 nm. **Applied Physics Letters**. v.80, n.7, p. 1114-1116, fevereiro 2002.

FACCIO, D.; PRUNERI, V. e KAZANSKY, P. G. Noncollinear Maker's Fringe measurements of second - order nonlinear optical layers. **Optics Letters**, v.25, n. 18, p. 1376-1278, setembro 2000.

FACCIO. D.; PRUNERI, V.; KAZANSKY, P. G. Dynamics of the second - order nonlinearity in thermally poled silica glass. **Applied Physics Letters**. v.79, n.17, p. 2687-2689, outubro 2001.

FOKINE, M. et al. Integrated fiber Mach Zehnder interferometer for electro-optic switching. **Optics Letters**, v.27, n,18, p. 1643, 2002.

FRANCO, C. F.et al. Measurement of depletion region width in poled sílica. **Applied Optics**, v. 44, n.27, p. 1-3, setembro 2005.

FRANKEN, P.A.; HILL, A. E.; PETERS. C. W.; WEINREICH, G. Generation de optical harmonics. **Physical Review Letters**, v.7, n.4, p. 118-119, agosto 1961.

FUJIWARA, T. et al. Electro-optic modulation in germanosilicate fibre with UV-excited poling. **Electronics Letters**, v.31, n.7, p. 573-575, março 1995.

FUJIWARA. T. et al. UV - Poled sílica glass. In: Bragg Grating, Photosensitivity, and Poling in Glass: Fibers and waveguides (BGPP). 1997. Williamsburg, Virginia. **Technical Digest**. Washington, DC, USA: Optical Society of América (OSA), 2003. P. 290-292, 1997.

GARCIA, F. C.; VOGELAAR, L.; KASHYAP, Raman. Poling of a channel waveguide. **Optics Express**. v.11, n.23, p. 3041-3047, novembro 2003.

GARCIA, Fátima C. **Polarização Eletrotérmica de vidros, fibras ópticas e guias de ondas planares**. Rio de Janeiro, 2000. 155p. Dissertação (Doutorado em física)- Departamento de Física, Pontifícia Universidade Católica.

HENRY, L. J. Correlation of GeE' defect sites with second-harmonic generation in poled high-water fused silica. **Optics Letters**, v.20, n.15, p. 1592-1594, agosto 1995.

IKUSHIMA, A. J.; FUJIWARA, T.; SAITO, K. Silica glass: a material for photonics. **Applied Physics Letters**, v.88, n.3, p. 1201-1213, agosto 2000.

KASHYAP, R. et al. Phase - matched second - harmonic generation by periodic poling of fused sílica. **Applied Physics Letters**, v.64, n.11, p.1332-1334, março 1994.

KASHYAP, Raman. **Fiber Bragg Grattings**. San Diego: Academic Press, 1999. 458 p.

KAZANSKY, P. G. e RUSSEL, P. St. J. Thermally poled glass: frozen-in electric field or oriented dipoles?. **Optics Communications**, v.110, n.5-6, p. 611-614, setembro 1994.

KAZANSKY, P. G. et al Thermally poled silica glass: Laser induced pressure pulse probe of charge distribution. **Applied Physics Letters**, v.68, n.2 B, p. 269-271, janeiro 1996.

KAZANSKY, P. G.; KAMAL, A.; RUSSELL, P. St. J. High second-order nonlinearities induced in lead silicate glass by electron-beam irradiation. **Optics Letters**, v.18, n.9, p. 693 - 696, maio 1993.

KUDLINSKI A. et al. Complete characterization of the nonlinear spatial distribution induced in poled silica glass with a submicron resolution. **Applied Physics Letters**, v.83, n.17, p. 3623-3625, outubro 2003.

KUDLINSKI, A.; MARTINELLI, G.; QUIQUEMPOIS, Y. Time evolution of second-order nonlinear profiles induced within thermally poled silica samples. **Optics Letters**, v.30, n.9, p. 1039-1041, maio 2005.

LESCHE, et al. Etching of sílica glass under electric fields. **Physics Review letters**, v.78, n.11, p. 2172-2175, março 1997.

LEMAIRE, P. J. et. al. High pressure H₂ loading as a technique for achieving ultrahigh UV photosensitivity and thermal sensitivity in GeO₂ doped optical fibres. **Electronics Letters**, v.29, n.13, p.1191-1193, Juno 1993.

LEVINE, B. F.; BETHEA C. G. Second and third order hyperpolarizabilities of organic molecules. **Journal of Chemical Physics**, v.63, n.6, p. 2666-2682, 1975.

LIU, A. C. **Poled Sílica: Material and device Characterization**. Califórnia, 1999. 179p. Dissertação (Doutorado de Filosofia) - Departamento de Ingenieria Elétrica, Stanford University.

LIU, A.C. et al. Improved nonlinear coefficient (0.7 pm/V) in silica thermally poled at high voltage and temperature. **Electronics Letters**, v.36, n.6, p. 555-556, 2000.

LONG, X.C.; Myers, R. A.; BRUECK, S. R. J. Measurement of linear electro-optic effect in temperature / electric-field poled optical fibers. **Electronics Letters**, v.30, n.25, 2162-2163, dezembro 1994.

LONG, X.C.; MYERS, R. A.; S. R. J. BRUECK, S. R. J. A poled electrooptic fiber. **Photonics Technology Letters, IEEE**, v.8, n.2, p.227-229, fevereiro 1996.

MAKER, P. D. et al. Effects of dispersion and focusing on the production of optical harmonics. **Physics Review Letters**. v.8, n.21, p. 21-22, janeiro 1962.

MARGULIS, W.; LAURELL, F. Interferometric study of poled glass under etching. **Optics Letters**, v.21, n.21, p.1786-1788, novembro 1996.

MOREIRA, M. F. **Caracterização Espacial de χ^2 Induzido em Vidros**, Rio de Janeiro, 2000. Dissertação (Mestrado em Física) - Instituto de Física, Universidade Federal do Rio de Janeiro (UFRJ).

MORTAZAVI, MA. et al. Second-harmonic generation and absorption studies of polymer-dye films oriented by corona onset poling at elevated temperatures. **Journal Optical Society of America B**, v.6, p.733, 1989.

MORTIMORE, D. B. Fiber loop reflectors. **Journal of Lightwave Technology**, v.6, n.7, 1988.

MUKHERJEE, M.; MYERS, R.A.; BRUECK, S. R. J. Dynamics of second-harmonic generation in fused sílica. **Journal of the Optical Society of America B**, v.11, n.4, p. 665-669, abril 1994.

MYERS, R. A. et al. Temporal and spectral studies of large $\chi^{(2)}$ in fused silica. In: Photosensitivity and Self-Organization in Optical Fibers and Waveguides. 1993, Québec, Canada. **Proceedings Reprint**. Washington, USA.: The International Society for Optical Engineering - SPIE, p. 2-10, 1993.

MYERS, R. A.; MUKHERJEE, N. and BRUECK, S. R. J. Large second-order nonlinearity in poled fused sílica. **Optics Letters**, v.16, n.22, p. 1732-1734, novembro 1991.

MYRÉN, N.; MARGULIS W. Wide wedge - shaped depletion region in thermally poled fiber with alloy elctrodes. **Optics Express**, v.12, n.25, p. 6093-6098, decembro 2004.

NASU, H. et al. Influence of the OH content on second harmonic generation from electrically polarized SiO₂ glasses. Jpn. **Journal Applied Physi**, v.32, n.3B, p. L406-L407 parte 2, março 1993.

OKADA A. et al. Phase matched second harmonic generation in novel corona poled glass waveguides. **Applied Physics Letters**, v.60, n.23, p. 2853-2855, março 1992.

OTHONOS, A.; KALLI, K. **Fiber Bragg Gratings: Fundamentals and Applications in Telecommunications and Sensing**. 1.ed. Boston: Artech House 1999. 406p.

ÖSTERBERG, U.; MARGULIS, W. Dye laser pumped by Nd:YAG laser pulses frequency doubled in glass optical fiber. **Optics Letters**, v.11, n.8, p. 516-518, agosto 1986.

PEREUR, D. et al. Absolute Measurement of the second-order nonlinearity profile in poled silica. **Optics Letters**, v.23, n.8, p. 558-590, abril 1998.

PROCTOR, T. M.; SUTTON, P.M. Static space charge distribution with a single mobile charge carrier. **Journal Chemical Physics**, v.30, n.1, p. 212-220, 1959.

PRUNERI, V. et al. Thermal poling of silica in air and under vacuum: The influence of charge transport on second harmonic generation. **Applied Physics Letters**, v.74, n.17, p. 2423-2425, abril 1999.

QIU, M. et al. The thickness evolution of the second - order nonlinear layer in thermally poled fused silica. **Optics communications**, v.189, n.1-3, p. 161-166, março 2001.

QIU, M.; PI, F.; ORRIOLS, G. The role of lead component in second - harmonic generation in lead silica by electron-beam irradiation. **Applied Physics Letters**, v.73, n.21, p. 3040-3042, novembro 1998.

QUINTERO, G. A. et al. Comparison of characterization techniques and the effect of surface condition in poled sílica., in: Bragg Gratings, Photosensitivity, and Poling in Glass Waveguides (BGPP). 2003. Monterey. **Technical Digest**, Washington, DC- USA: Optical Society of América (OSA), 2003.

QUIQUEMPOIS Y.; GODBOUT, N.; LACROIX, S. Model of charge migration during thermal poling in silica glasses: Evidence of a voltage threshold for the

onset of a second-order nonlinearity. **Physical Review A**, v.65, n.043816, p. 1-14, abril 2002.

QUIQUEMPOIS, Y.; KUDLINSKI, A.; MARTINELLI, G.; CARVALHO, I. C. S; GOUVÊA, M. P. P.; QUINTERO, G. A.; MARGULIS, W. Time evolution of the nonlinear profile during thermal annealing of poled infrasil samples. Bragg Grating, Photosensitivity, and Poling in Glass Waveguides (BGPP). 2005, Sidney. **Technical Digest**. Washington, DC - USA: Optical Society of América (OSA), 2005.

QUIQUEMPOIS, Y. et al. Nonlinear distribution reconstruction in poled silica glasses with a sub-micron resolution. Bragg Grating, Photosensitivity, and Poling in Glass Waveguides (BGPP), 2003, Monterey - USA. **Technical Digest**, Washington, DC-USA: Optical Society of América (OSA), 2003. P. 256

QUIQUEMPOIS, Y. et al. Thermal poling in silica glasses: evidence of a voltage threshold. In: Bragg Grating, Photosensitivity, and Poling in Glass Waveguides (BGPP), 2001, Stresa-Itália **Technical Digest**. Washington, DC - USA: Optical Society of América (OSA), 2003. P. - , 2001.

QUIQUEMPOIS, Y. **Création et caractérisation d'une susceptibilité non-linéaire d'ordre deux dans les verres massifs et dans les fibres optiques à base de silice**. Lille, 1999. 315p. Disertação (Doutorado em Física especialidade Lasers Molécules et Rayonnement atmosphérique), Université des Sciences et Technologies de Lille.

SHEN, Y. R. **The Principles of Nonlinear Optics**. 1.ed. New York: John Wiley & Sons, 1984. 555p.

TAKEBE, H. et al. Effect of poling conditions on second - harmonic generation in fused silica. **Optics Letters**, v.21, n.7, p. 468, abril 1996.

TRIQUES, et al. Time evolution of depletion region in poled silica. **Applied Physics Letters**, v.82, n.18, p. 1-3, maio 2003.

TRIQUES, A. L. C. et al. Recording Bragg Gratings in twin-hole fiber containing electrodes. In : XXVI ENFMC, 26. 2003, Caxambu. **Anais de óptica**, Brasil: SBF, 2003. P.

TRIQUES, A. L. C. et al. Depletion region in thermally poled fused silica. **Applied Physics Letters**, v.76, n.18, p. 2496 –2498, maio 2000.

VALENTE, D. C. et al. Sagnac interferometer as a variable optical attenuator. In : XXVI ENFMC, 26. 2003, Caxambu. **Anais de óptica**, Brasil: SBF, 2003. P.

WONG, D. et al. **Trends in Optics and Photonics**, v.29, p. 278, 1998.

WONG, D. et al. Frozen-in electrical field in thermally poled fibers. **Optical Fiber Technology**, v.5, n.2, p. 235-241, abril 1999.

XU, W. et al. Evidence of space charge effects in thermal poling. **Photonics Technology Letters. IEEE**, v.11, n.10, p. 1265-1267, outubro 1999.