

Publication list

Name: **Dimitris Papazoglou**

Publications in refereed journals and proceedings of International Conferences:

A. Until 2004

- **Papers**

1. **D. G. Papazoglou**, V. Papadakis, D. Anglos, "In situ interferometric depth and topography monitoring during LIBS elemental profiling of multi-layer structures", J. Anal. At. Spectrom., **19**, 483 (2004)
2. N. C. Deliolanis, A. G. Apostolidis, E. D. Vanidhis, **D. G. Papazoglou** "Optical Properties of photorefractive phase gratings in sillenite crystals", Phys. Rev. E, **68**, 056602 (2003)
3. I. Zergioti, **D. G. Papazoglou**, A. Karaiskou, C. Fotakis, E. Gamaly, A. Rode, "A comparative schlieren imaging study between ns and sub-ps laser forward transfer of Cr", Appl. Surf. Sci. **208-209**, 177 (2003)
4. E. Majkova, S. Luby, R. Senderak, Y. Chushkin, M. Jergel, I. Zergioti, **D. G. Papazoglou**, A. Manousaki, C. Fotakis, "Sub-ps laser microstructuring of soft X-Ray Mo/Si multilayer gratings", Appl. Phys. A **76**, 763 (2003)
5. **D. G. Papazoglou**, A. Karaiskou, I. Zergioti, C. Fotakis, "Shadowgraphic imaging of the sub-ps Laser Induced Forward Transfer process", Appl. Phys. Lett., **81**, 1594 (2002)
6. **D. G. Papazoglou**, I. Zergioti, N. A. Vainos, C. Fotakis, "Microfabrication of optically active InOx microstructures by ultrashort laser pulses", J. Opt. Adv. Mat. **4**, 809 (2002)
7. N. C. Deliolanis, A. G. Apostolidis, E. D. Vanidhis, **D. G. Papazoglou**, «Photorefractive properties of ($\bar{1}\bar{1}0$) and (111)-cut sillenite crystals when external electric field is applied along optimum diffraction efficiency direction», Appl. Phys. B, **75**, 67 (2002)
8. **D. G. Papazoglou**, M. Loulakis, G. Siganakis, N. A. Vainos, «Holographic read-write projector of video images», Optics. Express, **10**, 280 (2002)
9. I. Zergioti, **D. G. Papazoglou**, A. Karaiskou, N. A. Vainos, C. Fotakis, "Laser microprinting of InOx active optical structures and time resolved imaging of the transfer process", Appl. Surf. Sci., 8125 (2002)
10. V. Marinova, M. Veleva, D. Petrova, I. M. Kourmoulis, **D. G. Papazoglou**, A. G. Apostolidis, E. D. Vanidhis, N. C. Deliolanis "Optical properties of $Bi_{12}SiO_{20}$ single crystals doped with 4d and 5d transition elements", J. App. Phys, **89**, 2686 (2001).
11. G. Koundourakis, C. Rockstuhl, **D. G. Papazoglou**, A. Klini, I. Zergioti, N. A. Vainos and C. Fotakis, "Laser printing of active optical microstructures", Appl. Phys. Lett. **78**, 7, pp. 868-870, (2001)
12. **D. G. Papazoglou**, N. C. Deliolanis, A. G. Apostolidis and E. D. Vanidhis, "Photorefractive Optical Properties of Volume Phase Gratings Induced in Sillenite Crystals, when the Grating Vector Lies on the (111) Plane", Appl. Phys. B **71**, 841 (2000).
13. **D. G. Papazoglou**, A. G. Apostolidis, E. D. Vanidhis, "Diffraction Efficiency as a function of the Grating Vector orientation in Electro-optic and Optically Active Photorefractive Crystals", Ferroelectrics **205**, 87 (1998).
14. **D. G. Papazoglou**, A. G. Apostolidis, E. D. Vanidhis, "Index of refraction, optical activity and electro-optic coefficient of bismuth titanium oxide $Bi_{12}TiO_{20}$ ", Apl. Phys. B **65**, 499 (1997)
15. **D. G. Papazoglou**, A. G. Apostolidis, E. D. Vanidhis, "Measurement of the electro-optic coefficient of $Bi_{12}GeO_{20}$ (BGO), $Bi_{12}TiO_{20}$ (BTO) crystals", Synthetic Metals **83**, 281 (1996)

16. G. Apostolidis, E. D. Vanidhis, **D. G. Papazoglou**, "Efficiency of photorefractive diffraction in electro-optic and optically active sillenite crystals", *Synthetic Metals* **83**, 287 (1996)

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1. Zergioti, I., **Papazoglou, D.G.**, Gamaly, E., Rode, A., Fotakis, C. "Studies on Ultra-short laser micro structuring" (2003) Materials Research Society Symposium - Proceedings, 780, pp. 143-148.
2. **Papazoglou, D.**, Manousaki, A., Zergioti, I., Majkova, E., Luby, S., Fotakis, C., "Ultrafast laser microstructuring for X-ray optics" (2002) Proceedings of SPIE - The International Society for Optical Engineering, 4830, pp. 506-509
3. Zergioti, I., **Papazoglou, D.G.**, Vainos, N.A., Fotakis, C., "Laser microfabrication by ultrashort UV pulses" (2002) Proceedings of SPIE - The International Society for Optical Engineering, 4426, pp. 184-186.

B. 2005-2012

- **Papers**

1. M. Bellec, P. Panagiotopoulos, **D. G. Papazoglou**, N. K. Efremidis, A. Couairon, and S. Tzortzakis, "Observation and optical tailoring of photonic lattice filaments", *Phys. Rev. Lett.* **109**, 113905 (2012)
2. P. Panagiotopoulos, D. Abdollahpour, A. Lotti, A. Couairon, D. Faccio, **D. G. Papazoglou**, and S. Tzortzakis, "Nonlinear propagation dynamics of finite-energy Airy beams," *Physical Review A* **86**, 013842 (2012)
3. N. K. Efremidis, **D. G. Papazoglou**, and S. Tzortzakis, "Linear and nonlinear waves in surface and wedge index potentials," *Opt. Lett.* **37**, 1874 (2012).
4. D. Faccio, G. Tamošauskas, E. Rubino, J. Darginavičius, **D. G. Papazoglou**, S. Tzortzakis, A. Couairon, and A. Dubietis, "Cavitation dynamics and directional microbubble ejection induced by intense femtosecond laser pulses in liquids," *Phys. Rev. E* **86**, 036304 (2012).
5. D. Faccio, E. Rubino, A. Lotti, A. Couairon, A. Dubietis, G. Tamošauskas, **D. G. Papazoglou**, and S. Tzortzakis, "Nonlinear light-matter interaction with femtosecond high-angle Bessel beams," *Physical Review A* **85**, 033829 (2012).
6. Stegeman G., M.G. Kuzyk, **D. G. Papazoglou**, and S. Tzortzakis, "Off-resonance and non-resonant dispersion of Kerr nonlinearity for symmetric molecules", *Opt. Express* **19** (23) 22486-22495 (2011) [Invited]
7. D. Abdollahpour, **D. G. Papazoglou**, and S. Tzortzakis, "Four-dimensional visualization of single and multiple laser filaments using in-line holographic microscopy," *Physical Review A* **84**, 053809 (2011).
8. A. Lotti, D. Faccio, A. Couairon, **D. G. Papazoglou**, P. Panagiotopoulos, D. Abdollahpour, and S. Tzortzakis, "Stationary nonlinear Airy beams," *Physical Review A* **84** (2), 021807 (2011).
9. D. Abdollahpour, S. Suntsov, **D. G. Papazoglou**, and S. Tzortzakis, "Measuring easily electron plasma densities in gases produced by ultrashort lasers and filaments," *Opt. Express* **19** (18), 16866-16871 (2011).
10. **D. G. Papazoglou** and S. Tzortzakis, "Physical mechanisms of fused silica restructuring and densification after femtosecond laser excitation," *Opt. Mater. Express* **1** (4), 625-632 (2011) [Invited]
11. P. Panagiotopoulos, A. Couairon, N.K. Efremidis, **D. G. Papazoglou**, and S. Tzortzakis, "Intense dynamic bullets in a periodic lattice", *Opt. Express* **19**, 10057 (2011)
12. **D. G. Papazoglou**, E. K. Efremidis, D. N. Christodoulides, and S. Tzortzakis, "Observation of abruptly autofocusing waves", *Opt. Lett.* **36**, 1842 (2011)

13. G. Stegeman, **D. G. Papazoglou**, R. Boyd and S. Tzortzakis, "*Nonlinear birefringence due to non-resonant, higher-order Kerr effect in isotropic media.*", Opt. Express **19**, 6387 (2011).
14. P. Panagiotopoulos, N.K. Efremidis, **D.G. Papazoglou**, A. Couairon, and S. Tzortzakis, "*Tailoring the filamentation of intense femtosecond laser pulses with periodic lattices*" Phys. Rev. A **82**, 061803(R) (2010)
15. D. Abdollahpour, S. Suntsov, **D. G. Papazoglou** and S. Tzortzakis, "*Spatiotemporal Airy Light Bullets in the Linear and Nonlinear Regimes*", Phys. Rev. Lett. **105**, 253901 (2010)
16. **D. G. Papazoglou**, S. Suntsov, D. Abdollahpour, and S. Tzortzakis, "*Tunable intense Airy beams and tailored femtosecond laser filaments*", Physical Review A, **81**, 061807(R) (2010)
17. S. Suntsov, D. Abdollahpour, **D. G. Papazoglou**, and S. Tzortzakis, "*Filamentation-induced third-harmonic generation in air via plasma-enhanced third-order susceptibility.*" Physical Review A **81**, 033817 (2010).
18. S. Suntsov, D. Abdollahpour, **D.G. Papazoglou** and S. Tzortzakis "*Femtosecond laser induced plasma diffraction gratings in air as photonic devices for high intensity laser applications*", Appl. Phys. Lett. **94**, 251104 (2009)
19. D. Abdollahpour, P. Panagiotopoulos, M. Turconi, O. Jedrkiewicz, D. Faccio, P. Di Trapani, A. Couairon, **D. G. Papazoglou**, and S. Tzortzakis, "*Long spatio-temporally stationary filaments in air using short pulse UV laser Bessel beams*", Opt. Express **17**, 5052-5057 (2009)
20. S. Suntsov, D. Abdollahpour, **D. G. Papazoglou**, and S. Tzortzakis, "*Efficient third-harmonic generation through tailored IR femtosecond laser pulse filamentation in air*", Opt. Express **17**, 3190-3195 (2009)
21. Drozd V.E., Nikiforova I.O., Bogevoľnov V.B., Yafyasov A.M., Filatova E.O., **Papazoglou D.** "*ALD synthesis of SnSe layers and nanostructures*", J. Phys. D-Appl. Phys. **42**, 125306 (2009)
22. D. Faccio, M. Clerici, A. Averchi, A. Lotti, O. Jedrkiewicz, A. Dubietis, G. Tamosauskas, A. Couairon, F. Bragheri, **D. G. Papazoglou**, S. Tzortzakis, P. Di Trapani, "*Few-cycle laser-pulse collapse in Kerr media: The role of group-velocity dispersion and X-wave formation*", Phys. Rev. A **78**, 033826 (2008).
23. **D. G. Papazoglou**, and S. Tzortzakis, "*In-line holography for the characterization of ultrafast laser filamentation in transparent media*", Appl. Phys. Lett. **93**, 041120 (2008)
24. A. Camposeo, L. Persano, P. Del Carro, **D. G. Papazoglou**, A. Stassinopoulos, D. Anglos, R. Cingolani, and D. Pisignano, "*Longitudinal coherence of organic-based microcavity lasers*", Opt. Express **16**, 10384-10389 (2008)
25. D. Faccio, M. Clerici, A. Averchi, O. Jedrkiewicz, S. Tzortzakis, **D. G. Papazoglou**, F. Bragheri, L. Tartara, A. Trita, S. Henin, I. Cristiani, A. Couairon, and P. Di Trapani, "*Kerr-induced spontaneous Bessel beam formation in the regime of strong two-photon absorption*", Opt. Express **16**, 8213-8218 (2008)
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27. **D. G. Papazoglou**, I. Zergioti , S. Tzortzakis, "*Plasma strings from ultraviolet laser filaments drive permanent structural modifications in fused silica*", Opt. Lett. **32** (14): 2055 (2007).
28. I. Zergioti, K. D. Kyrkis, **D. G. Papazoglou**, S. Tzortzakis, "*Structural modifications in fused silica induced by ultraviolet fs laser filaments*" Appl. Surf. Sci. **253** (19): 7865 (2007)
29. V. Zorba, E. Stratakis, E. Spanakis, **D.G. Papazoglou**, I. Zergioti, P.Tzanetakakis and C.Fotakis, "*Field Emission properties of arrayed and continuous areas of laser fabricated Silicon microstructures*", Journal of Nanoengineering and Nanosystems, **220**, 143-150 (2007).
30. V. M. Papadakis, A. Stassinopoulos, D. Anglos, S. H. Anastasiadis, E. P. Giannelis and **D. G. Papazoglou**, "*Single shot temporal coherence measurements of random lasing media*", J. Opt. Soc. Am. B **24**, 31 (2007)
31. Florakis A, Tsoukalas D, Zergioti I, Giannakopoulos K, Dimitrakis P, **Papazoglou DG**, Bennassayag G, Bourdon H, Halimaoui A, "*Laser annealing of plasma implanted boron for ultra-*

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 33. **D. G. Papazoglou**, M. Loulakis, “*Embedded birefringent computer generated holograms fabricated by femtosecond laser pulses*”, Opt. Lett., **31**, 1441 (2006).
 34. S. Tzortzakis, **D. G. Papazoglou**, I. Zergioti, “*Long-range filamentary propagation of sub-picosecond ultraviolet laser pulses in fused silica*”, Opt. Lett., **31**, 796 (2006).
 35. V. Zorba, P. Tzanetakos, C. Fotakis, E. Stratakis, E. Spanakis, **D. G. Papazoglou**, I. Zergioti, “*Silicon electron emitters fabricated by UV laser pulses*”, Appl. Phys. Lett., **88**, 081103 (2006).
 36. I. Zergioti, A. Karaiskou, **D. G. Papazoglou**, C. Fotakis, E. Kapsetaki, D. Kafetzopoulos, “*Time resolved schlieren study of sub-picosecond and nanosecond laser transfer of biomaterials*”, Appl. Surf. Sci. **247**, 584 (2005)
 37. **D. G. Papazoglou**, I. Zergioti, S. Tzortzakis, G. Sgouros, G. Maravelias, S. Christopoulos, C. Fotakis, “*Sub-picosecond ultraviolet laser filamentation-induced bulk modifications in fused silica*”, Appl. Phys. A. **81**, 241 (2005).
 38. I. Zergioti, A. Karaiskou, **D. G. Papazoglou**, E. Kapsetaki, C. Fotakis, D. Kafetzopoulos, “*Lasers Print Biomaterials*”, Appl. Phys. Lett. **86**, 163902 (2005)

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1. Faccio, D., Tamošauskas, G., Rubino, E., Darginavičius, J., **Papazoglou, D.G.**, Tzortzakis, S., Couairon, A., Dubietis, A. “*Femtosecond laser pulse control of collapsing bubble jets and bubble ejection streams*”, 2012 Conference on Lasers and Electro-Optics, CLEO 2012, art. no. 6327032, .
2. Faccio, D., Rubino, E., Lotti, A., Couairon, A., Dubietis, A., Tamošauskas, G., Ghalandari, M., **Papazoglou, D.G.**, Tzortzakis, S. , “*Towards light-matter interaction at extreme intensities using high-angle Bessel beams*” (2012), Conference on Lasers and Electro-Optics, CLEO 2012, art. no. 6325743
3. Couairon, A., Lotti, A., Panagiotopoulos, P., Abdollahpour, D., Faccio, D., **Papazoglou, D.G.**, Tzortzakis, S., “*Nonlinear propagation and filamentation of intense Airy beams in transparent media*”, (2012) Proceedings of SPIE - The International Society for Optical Engineering, 8434, art. no. 84340S
4. Tzortzakis, S., Abdollahpour, D., **Papazoglou, D.**, Georgiou, S. “*Femtosecond filamentation induced micro- and nano-restructuring in the bulk of dielectrics and polymers*” (2011) Proceedings of SPIE - The International Society for Optical Engineering, 7925, art. no. 79250O
5. Suntsov, S., Abdollahpour, D., **Papazoglou, D.G.**, Tzortzakis, S. “*Femtosecond laser induced plasma diffraction gratings in air*”, (2009) 2009 Conference on Lasers and Electro-Optics and 2009 Conference on Quantum Electronics and Laser Science Conference, CLEO/QELS 2009, art. no. 5225133,
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7. Fotakis, C., Zorba, V., Stratakis, E., Tzanetakos, P., Zergioti, I., **Papazoglou, D.G.**, Filippidis, G., Farsari, M., Pouli, P., Paun, I., Georgiou, S., “*Novel aspects of microprocessing by ultrafast lasers: From electronic to biological and cultural heritage applications*”, (2008) 3rd Pacific International Conference on Applications of Lasers and Optics, PICALO 2008 - Conference Proceedings, pp. 761-766.
8. **Papazoglou, D.G.**, Tzortzakis, S., “*In-line holography for the 3D reconstruction of laser pulse filamentation in transparent media*”, (2008) Conference on Quantum Electronics and Laser Science (QELS) - Technical Digest Series, art. no. 4552871

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10. Stassinopoulos, A., Tsagarakis, E.D., Das, R.N., Anastasiadis, S.H., Giannelis, E.P., **Papazoglou, D.G.**, Anglos, D. “*Random Laser Emission from ZnO Nanocomposite hybrids*”, (2008) Conference on Quantum Electronics and Laser Science (QELS) - Technical Digest Series, art. no. 4552938
11. Averchi, A., Faceio, D., Lotti, A., Di Trapani, P., Couairon, A., **Papazoglou, D.**, Tzortzakis, S. “*Demonstration of spontaneously generated conical waves during ultrashort laser pulse filamentation in air*” (2008) Conference on Quantum Electronics and Laser Science (QELS) - Technical Digest Series, art. no. 4553193,
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13. Stassinopoulos, A., Tsagarakis, E.D., Das, R.N., Anastasiadis, S.H., Giannelis, E.P., **Papazoglou, D.G.**, Anglos, D., “*Random laser action in ZnO nanohybrids*” (2007) Conference on Lasers and Electro-Optics Europe - Technical Digest, art. no. 4386607
14. Majkova, E., Luby, S., Chushkin, Y., Jergel, M., **Papazoglou, D.**, Manousaki, A., Fotakis, C., Zergioti, I., Sobota, J., “*UV sub-ps laser pulse patterning of Mo/Si and W/Si multilayers for soft X-ray gratings*” (2005) Proceedings of SPIE - The International Society for Optical Engineering, 5850, art. no. 34, pp. 264-270.

