Nikolaos A. Vainos

Publications - May 2009

1. Peer reviewed archival journals

1. **N. A. Vainos** and R. W. Eason
   "Real-time edge enhancement for active spatial filtering via five wave mixing in photorefractive BSO"
   Opt. Commun. **59**, 167 (1986).

2. N**. A. Vainos** and R. W. Eason
   "Spatially multiplexed phase conjugate imaging and processing in photorefractive BSO"
   Opt. Commun. **62**, 311 (1987).

3. **N. A. Vainos**, J. A. Khoury and R. W. Eason
   "Real-time parallel optical logic in photorefractive bismuth silicon oxide"
   Opt. Letts **13**, 503 (1988)

4. R. W. Eason and **N. A. Vainos**
   "Photoconductive enhancement of DFWM reflectivity in BSO"
   J. Mod. Opt., **35**, 491 (1988).

5. **N. A. Vainos** and R. W. Eason
   "Strictly real-time image differentiation in BSO"
   J. Mod. Opt., **35**, 505 (1988)

6. **N. A. Vainos**
   "Real-time optical Wiener-Kolmogorov and novelty filtering with phase conjugation"
   Opt. Letts, **19**, 128 (1989).

7. **N. A. Vainos**, S. L. Clapham and R. W. Eason
   "Multiplexed permanent and real time holographic recording in photorefractive BSO"
   Appl. Opt. **28**, 4381 (1989).

8. **N. A. Vainos**, S. L. Clapham and R. W. Eason
   "Applications of multiplexed real time and permanent holographic recording in photorefractive BSO"
   Appl. Opt. **28**, 4386 (1989).

9. **N. A. Vainos** and M. C. Gower
   "High Fidelity image amplification and phase conjugation in photorefractive $Bi_{12}SiO_{20}$".
   Opt. Letts. **16**, 363 (1991).

10. **N. A. Vainos** and M. C. Gower
"High-Fidelity phase conjugation and real-time orthoscopic 3-D image projection in $BaTiO_3$"
J. Opt. Soc. Am. **B**, **8**, 2355 (1991)

11. S. L. Clapham, R. W. Eason and **N. A. Vainos**
"Spatial light modulation via enhanced diffraction efficiency of photochromic gratings in photorefractive BSO"
Opt. Commun., **74**, 290 (1990)

12. K. Youden, R. W. Eason, M. C. Gower and **N. A. Vainos**
"Epitaxial Growth of Bi_{12} GeO_{20} thin-film optical waveguides using excimer laser ablation"
Appl. Phys. Lett., **59**, 1929 (1991)

13. **N. A. Vainos**, S. Mailis and M. C. Gower
"Pulsed amplification of CW signal fields in photorefractive $BaTiO_3$"
Appl. Phys. Lett., **60**, 1529 (1992)

14. P. M. Jeffrey, S. L. Clapham, R. W. Eason, D. A. Fish, A. K. Powell, T. J. Hall and **N. A. Vainos**
"Mechanism of photorefractive enhancement of photochromic gratings in BSO-experimental results and phenomenological modelling"
Opt. Commun., **98**, 357 (1993)

15. S. Mailis and **N. A. Vainos**
"Photorefractive adaptive transmission system"
Appl. Opt., **32**, 7285 (1993)

16. S. Mailis, L. Boutsikaris and **N. A. Vainos**
"Multiplexed Static and dynamic photorefraction on in Bi_{12} SiO_{20} crystals at 780nm"
J. Opt. Soc. Am. **B11**, 1996 (1994)

17. D.S. Gill, R.W. Eason, C. Zaldo, H.N. Rutt and **N.A. Vainos**
"Characterization of Ga-La-S chalcogenide glass thin optical waveguides fabricated by pulsed laser deposition",
J. Non. Cryst. Solids **191**, 321 (1995)

18. S. Mailis, L. Boutsikaris and **N. A. Vainos (INVITED)**
"Photorefraction at 780 nm in $Bi_{12}SiO_{20}$: Effects and Applications"
Asian Journal of Physics, **4**, 31-44 (1995)

19. **N. A. Vainos**, S. Mailis, S. Pissadakis, L. Boutsikaris, P. Dainty, Ph. Parmitter and T.J. Hall
"Excimer laser use for microetching computer-generated holographic structures"

Appl. Opt. **35**, 6304 (1996)

20. S. Mailis, L. Boutsikaris, **N. A. Vainos**, C. Xirouhaki, G. Vasiliou, N. Garawal, G. Kyriakidis and H. Fritzsche
"Holographic recording in indium oxide (InO_x) and indium tin oxide (In_2O_3:Sn) thin films"
Appl. Phys. Lett. **69**, 2459 (1996).

21. S. Mailis, L. Boutsikaris, **N. A. Vainos**, C. Xirouhaki, G. Vasiliou, N. Garawal, G. Kyriakidis and H. Fritzsche **(INVITED)**
"Dynamic holography in indium oxide and indium in oxide thin films"
Optical Memory and Neural Networks **5**, (3), 191 (1996)

22. **N. A. Vainos**, S. Mailis, S. Pissadakis, L. Boutsikaris, P. Dainty, Ph. Parmitter and T.J. Hall **(INVITED)**
"Fabrication of surface relief microstructures for optical interconnects by excimer laser microetching"
Optical Memory and Neural Networks **5**, (4), 271 (1996)

23. C.L. Bonner, A.A. Anderson, R.W. Eason, D.P. Shepherd, D.S. Gill, C. Grivas and **N. A. Vainos**
"Performance of a low loss pulsed Laser Deposited Nd:$Gd_3Ga_5O_{12}$ waveguide Laser at 1.06μm and 0.94 μm"
Opt. Letts. **22**, (13) 988 (1997)

24. A. A. Anderson, R. W. Eason, L. M. B. Hickey, M Jelinek, Ch. Grivas, D. S. Gill and **N. A. Vainos**
"Ti:Sapphire planar waveguide laser grown by pulsed laser deposition"
Opt. Letts. **22**, (20),1556 (1997)

25. L. Boutsikaris, S. Mailis and **N. A. Vainos**
"Determination of the photorefractive parameters of $Bi_{12}SiO_{20}$ by study of the dynamic behavior of complementary gratings"
J. Opt. Soc. Am. **B 15** (3), 1042 (1998)

26. A.A. Anderson, C.L. Bonner, D.P. Shepherd, R.W. Eason, Chr. Grivas, D.S. Gill and **N. A. Vainos**
"Low loss (0.5 dB/cm) Nd: $Gd_3Ga_5O_{12}$ waveguide layers grown by pulsed laser deposition"
Opt. Commun. **144**, 183 (1997)

27. I. Zergioti, S. Mailis, **N. A. Vainos**, C. Fotakis, S. Chen and C. P. Grigoropoulos
"Microdeposition of metals by femtosecond excimer laser"
Appl. Surf. Science, **127-129**, 601-605(1998)

28. Ch. Grivas, S. Mailis, L Boutsikaris, D S Gill, **N. A. Vainos**, and P. J. Chandler,

"Growth and performance of pulsed laser deposited indium oxide thin-film holographic recorders"
Laser Physics **8**, (1) 326 (1998)

29. I. Zergioti, S Mailis, **N. A. Vainos**, C P Grigoropoulos and C Fotakis,
"Direct Microdeposition of Diffractive Structures Using Femtosecond Excimer Laser"
Laser Physics, **8**, (1) 313 (1998)

30. **N. A. Vainos**, Ch. Grivas, C. Fotakis, R W Eason, A. A. Anderson, D. S. Gill, D. P. Shepherd, M Jelinek, J. Lancock, and J. Sonsky,
"Planar Waveguides of Ti:Sapphire, Nd:GGG and Nd:YAG grown by pulsed laser deposition"
Appl. Surf. Science, **129**, 514 (1998)

31. C. Grivas, D.S. Gill, S. Mailis, L. Boutsikaris and **N. A. Vainos**
"Indium oxide thin-film holographic recorders grown via excimer laser reactive sputtering"
Appl. Phys. **A 66**, (2) 201(1998)

32. I. Zergioti, S. Mailis, **N. A. Vainos**, P. Papakonstantinou, C. Kalpouzos, C. P. Grigoropoulos, and C. Fotakis,
"Microdeposition of metal and oxide structures using ultrashort laser pulses",
Appl. Phys. **A 66**, (5), 579 (1998).

33. K. Moschovis, E. Gagaoudakis, E. Chatzitheodoridis, G Kiriakidis, S. Mailis, E. Tzamali, **N. A. Vainos** and H Fritzsche,
"Study of the ambient optical recording dynamics on sputtered indium oxide thin films"
Appl. Phys. **A 66**, (6), 651-4 (1998)

34. S. Mailis, A. A. Anderson, S. J. Barrington, W.S. Brocklesby, R. Greef, H. N. Rutt, R.W. Eason, **N. A. Vainos**, and Chr. Grivas
"Photosensitivity of lead germanate glass waveguides grown by pulsed laser deposition".
Opt. Letts, **23,** (22), pp1751-1754 (1998)

35. S. Mailis, Chr. Riziotis, Ji Wang, E. Taylor, A.A. Anderson, S. J. Barrington, H. N. Rutt, R.W. Eason, **N. A. Vainos** and Chr. Grivas.
"Growth and Characterization of pulsed laser deposited lead-germanate glass optical waveguides"
Opt. Materials **12**, 27-33 (1999)

36. S. Mailis, I. Zergioti, G. Koundourakis, A Ikiades, A. Patentalaki, P. Papakonstantinou,
N. A. Vainos and C. Fotakis

"Etching and printing of diffractive optical microstructures by femtosecond excimer laser"
Appl. Opt. **38**, 2301-2308 (1999)

37. I. Zergioti, S. Mailis, **N. A. Vainos**, A. Ikiades, C. P. Grigoropoulos, C. Fotakis
"Microprinting and microetching of diffractive structures using ultrashort pulses"
Appl. Surf. Science, **138-139**, 82-86(1999)

38. S. Pissadakis, S. Mailis, L. Reekie, J.S. Wilkinson, R.W. Eason, **N. A. Vainos**, K. Moschovis and G. Kiriakidis,
"Permanent holographic recording in indium oxide thin films using 193nm excimer laser radiation"
Appl. Phys. **A 69**, 333 (1999)

39. P. Papakonstantinou, **N. A. Vainos** and C. Fotakis,
"Microbfabrication by UV femtosecond laser ablation of Pt, Cr and indium oxide thin films",
Appl. Surf. Science **151**, 159 (1999)

40. S. Mailis, L Reekie, S. Pissadakis, S J Barrington, R W Eason, **N A Vainos**, C. Grivas
"Large photoinduced refractive index changes in pulsed laser deposited lead germanate glass waveguides with controllable refractive index sign change"
Appl. Phys. A. **69**, (7) S671-4 (1999)

41. P.A. Atanasov, R. I Tomov, J. Perriere, R.W. Eason**, N. A Vainos**, A. Klini, A. Zherikhin, E. Millon,
"Growth of Nd: potassium gadolinium tungstate thin-film waveguides by pulsed laser deposition"
Appl. Phys. Lett. **76**, 2490 (2000)

42. G. Koundourakis, C Rockstuhl, D. Papazoglou, A. Klini, I. Zergioti, **N. A. Vainos** and
C. Fotakis
"Laser printing of active optical microstructures"
Appl. Phys. Lett. **78**, 868(2001)

43. C. Ristoscu, E. Gyorgy, I. Mihailescu, A. Klini, **N.A. Vainos**, C. Fotakis, C. Ghica, G. Schmeder, J. Faerber
"Pulsed laser deposition of aluminum nitride thin layers from AlN targets: the roles of laser pulsed duration and gas pressure"
J. Appl. Phys. **90**, 456-461 (2001)

44. I. Zergioti, D. G. Papazoglou, A. Karaiskou, **N. A. Vainos** and C. Fotakis
"Laser microprinting of InO_x active optical structures and time resolved imaging of the transfer process"

Appl. Surf Science in press 2002

45. D. Papazoglou, M Loukakis, G Siganakis, and **N. A. Vainos**
"Holographic read-write projector of video images"
Optics Express, **10,** 280 (2002)

46. C Grivas, S Mailis, R W Eason, E Tzamali and **N A Vainos**
"Holographic recording mechanisms of gratings in indium oxide films using 325 nm helium-cadmium irradiation"
Appl. Phys. **A 74**, 457-465 (2002)

47. R Sigel, G Fytas, **N Vainos**, S Pispas and G Hadjichristides,
"Pattern formation in homogeneous polymer solutions induced by a continuous wave visible laser"
SCIENCE **297**, 67 (2002)

48. M. Bryushinin, G B Dubrovskii, A A Petrov, I A Sokolov, **N A Vainos** and C Kalpouzos
"Nonstationary photovoltage induced in tin disulfide crystals under strong surface excitation"
Phys. of Solid State, **44**, 1203-1205 (2002)

49. D.G. Papazoglou, I. Zergioti, **N.A. Vainos**, and C. Fotakis
"Microfabrication of optically active InOx microstructures by ultrashort laser pulses"
J. Optoelectronics & Adv. Mat. **4**, 809-812 (2002)

50. **N. A. Vainos**, A. Tsigara , J. Manasis, A. Giannoudakos, G. Mousdis, N. Vakakis, M. Kompitsas, A. Klini, and F. Roubani-Kalantzopoulou
"Metal/metal-oxide/metal etalon structures grown by pulsed laser deposition"
Appl. Phys A **79**, 1395-7 (2004)

51. A. Tsigara, L. Velli, A. Giannoudakos, C.P.E. Varsamis, M. Kompitsas, **N. A. Vainos** and E.I. Kamitsos
"Pulsed laser deposited lead-germanate glass systems"
Appl. Phys A **79**, 1319-21(2004)

52. I. M. Kourmoulis, G. Asimellis, A. G. Apostolidis, and E. D. Vanidhis, N. C. Deliolanis, and **N. A. Vainos**,
"Direct measurement of the dispersion of the electrogyration coefficient of photorefractive $Bi_{12}GeO_{20}$ crystals",
J Appl. Phys. **97**, 023531 (2005) (published on-line December 27, 2004)

53 G. Manasis, A. Tsigara, A. Giannoudakos, G. Anyfantis, K. Gatsouli, G. Mousdis, S. Pispas, N. Madamopoulos and **N. Vainos,**
"Cobalt chloride based nanocomposite humidity sensors,"

Glass Technology **46,** no2, 171(2005)

54 A. Gatsouli, A. Pispas, G. Mousdis, and **N. Vainos**, P. Aloukos, E. Xenogiannopoulou, and S. Couris,
"Fullerenes-Organic glassy polymer composites: Synthesis and Nonlinear Optical Properties",
Glass Technology **46**, no2, 62 (2005)

55 Benoit Loppinet, Elvira Somma, **Nikos Vainos,** and George Fytas,
"Reversible Holographic Grating Formation in Polymer Solutions",
J. Am. Chem. Soc., **127,** 9678-9679 (2005)

56 T. Mazingue, L. Escoubas, L. Spalluto, F. Flory, G. Socol, C. Ristoscu, E. Axente, S. Grigorescu, I. N. Mihailescu, **N. A. Vainos,**
"Nanostructured ZnO coatings grown by pulsed laser deposition for optical gas sensing of butane", Journal of Applied Physics, **98**, 074312 (2005).

57 M. Konstantaki, S. Pissadakis, S. Pispas, N. Madamopoulos, and **N. Vainos,**
"Optical fiber long-period grating humidity sensor with poly(ethylene oxide)/cobalt chloride coating",
Applied Optics, 45, pp. 4567-4571 (2006)

58 N.C. Deliolanis, E.D.Vanidis, and **N.A.Vainos,**
"Dispersion of electrogyration in sillenite crystals",
Applied Physics B: Lasers and Optics **85** (4), pp. 591-596 (2006)

59 A. Tsigara, G. Mountrichas, K. Gatsouli, A. Nichelatti, S. Pispas, N. Madamopoulos, **N. A. Vainos,** H. Du and F. Roubani-Kalantzopoulou,
"Hybrid polymer/cobalt chloride humidity sensors based on optical diffraction",
Sensors and Actuators B, **120,** 481 (2007)

60 Costas Iliopoulos, Dimitris Athanasiou, Stelios Couris, Anastasia Meristoudi, **Nikos Vainos**, Stergios Pispas,
"Nonlinear optical properties of Au nanoclusters encapsulated into hybrid block copolymer micelles"
Physica Status Solidi, Physica Status Solidi (a); 205, 2635 (2008)
DOI: 10.1002/pssa.200780179

61 A. Meristoudi, S. Pispas, and **N. Vainos,**
"Self-Assembly in Solutions of Block and Random Copolymers During Metal Nanoparticle Formation",
Journal of Polymer Science: Part B: Polymer Physics; 46, 1515 (2008)
DOI: 10.1002/polb.21487

62 A. Meristoudi, L. Athanasekos , M. Vasileiadis , S. Pispas, G. Mousdis , E. Karoutsos , D. Alexandropoulos, H. Du, A. Tsigara, K. Kibasi, A. Perrone and **N. A. Vainos** "Nanocomposite hybrid photonic media for remote point sensors" J. Opt. A: Pure & Appl. 11, 034005 (2009) DOI:10.1088/1464-4258/11/3/034005

63 D. Alexandropoulos, J. Scheuer, and **N. A. Vainos** "Spectral Properties of Active Racetrack Semiconductor Structures with Intra-cavity Reflections" IEEE Selected Topics in Quantum Elec. In press 2009

2 Conferences and other events [1]

2.1 Invited talks in international conferences

1 **N. A. Vainos** "Photorefractive Materials in Information Processing" Proc. Symposium of Nonlinear Optical Phase Conjugation, The Rank Prize Funds, Broadway, Worcs, UK, 1989.

2 **N. A. Vainos** "Ultraviolet laser radiation: high intensity for optics fabrication and low intensity for dynamic holography" International Symposium on Holographic Information Storage, Athens, May 1996.

3 **N. A. Vainos** "Dynamic holography: Applications in Information Processing" European Conference on Lasers and Electro-Optics, Proc. CLEO-Europe'96, Hamburg, Sept. 1996.

4 C. Fotakis, V. Zafiropulos, Y. Zergioti, D. Anglos, C. Balas and **N. A. Vainos** "Laser Technology in art Conservation" OSA Annual Meeting, Paper TuKK6, Rochester, Oct. 1996.

5 C. Fotakis and **N. A. Vainos** "Current Aspects of Laser-Matter Interactions" CERN, Technical Training Programme on Laser Techniques, Development and Application, Geneva, Oct. 8, 1996.

6 S. Georgiou, C Fotakis, D Anglos, V Zafiropoulos, I Zergioti, and **N. A. Vainos** "Laser Technology in Art Conservation"

[1] **Not including presentations in the frame of networks and funded projects**

4th International Conference on Laser Ablation COLA'97, Monterey, Ca., USA, July 1997

7 **N.A. Vainos**
"Laser based materials growth and processing at FORTH"
International School on Quantum Electronics: "Excimer lasers in fusion research and industrial applications", Ettore Majorana Culture Center, Erice, Sicily, Italy, Nov 29-Dec. 4, 1997

8 P. Papakonstantinou, I. Zergioti, S. Mailis, A. Ikiades, C. Kalpouzos and **N. A. Vainos**
"Femtosecond laser microprinting of metal and oxide structures"
CLEO/EUROPE-EQEC '98, paper CThA4, Glasgow, Scotland UK, 14-18 September 1998.

9 **N. A. Vainos**
"Laser materials processing for optoelectronics and information systems"
NATO Advanced Research Workshop on "Unconventional optical elements for information storage, processing and communications", Jerusalem, Israel, October 1998.

10 **N. Vainos**
"Laser-baser materials growth and microfabrication"
CAS 2000 INT. SEMICONDUCTOR CONF. Sinaia, Romania, Oct. 10-14, 2000

11 **N.A. Vainos**
"Light-activated laser-grown microstructures"
International Workshop on Electronic Material Nanostructures, Warsaw, Sept 20-23, 2001

12 **N. Vainos**
Round Table on THz Technologies.
CAS 2000 International Semiconductor Conference, Sinaia, Romania, Oct. 5-9, 2002

13 **N. A. Vainos (PLENARY)**
"Laser grown photonic structures"
International Conference ROMOPTO 2003, Costanza Romania, Sept 2003

14 A. Tsigara, L. Athanasekos, G. Manasis, G. Mousdis, S. Pispas and **N.A. Vainos,**
"Inorganic and hybrid polymer-inorganic nanostructured materials, for optical physicochemical sensing applications",
8th International Conference "Micro- to Nano-Photonics" ROMOPTO 2006, Sibiu, Romania, August 28-31, 2006

2.2 Invited talks in other scientific events

15 **N. A. Vainos**
"Photorefraction and its application to all-optical information processing and communications"
Invited Seminar, Electronics Laboratory, Dept. of Electronic Engineering, University of Kent at Canterbury, UK, April 1987.

16. **N. A. Vainos**
"Some applications of the photorefractive phase conjugation"
University Seminar, University of Essex, UK, November 1987.

17. **N. A. Vainos**
"New materials and methods for optoelectronics in information systems"
Invited Lecture, Colorado State University, Fort Collins, October 21, 1997

18. **N. A. Vainos**
"Laser materials Processing"
International Colloquia, Institute of Materials, Universidad La Habana, Cuba, July 1998

19. **N. A. Vainos**
"Passive and active photonic structures grown by use of lasers"
Invited Seminar, University of Athens, Department of Chemistry, 20 January 2003

20. **N. A. Vainos**
"Glass: from free space optics to waveguiding"
Hellenic Ceramic Society Symposium, National Technical Universuty of Athens, 13 June 2003

21. **N. A. Vainos**
"Laser materials growth and microrfabrication"
Invited Research Seminar, University of Lecce, Dept. of Physics, Lecce, Italy, April 2006

22. **N. A. Vainos (PLENARY)**
"Light and matter: from Macrocosmos to Nanocosmos"
1st Scientific Congress on *"Education-Development-Production"*, Amfissa, Greece, April 2008

2.3 Regular presentations in international conferences

1. R.W. Eason and **N. A. Vainos**
"Photoconductive enhancement of DFWM reflectivity in BSO"

Proc. 8th Quantum Electronics Conf. QE-8 Conference paper 112P, St. Andrews, Scotland, UK, 1987.

2. **N. A. Vainos** and R. W. Eason
"Photorefractive logic in BSO and its future prospects"
Proc. 8th Quantum Electronics Conf. QE-8 Conference, paper 135, St. Andrews, Scotland, UK, 1987.

3. **N. A. Vainos** and R. W. Eason
"Strictly real-time image differentiation in BSO"
Proc. 8th Quantum Electronics Conf. QE-8 Conference, paper PD3, St. Andrews, Scotland, UK, 1987.

4. **N. A. Vainos** and R. W. Eason
"Phase matching effects in multiplexed holograms in BSO applied to all-optical logic"
Proc. European Conference on Optical Systems and Appls., OPTICS-ECOOSA, Birmingham, UK, 1988.

5. **N. A. Vainos**, S. L. Clapham, and R. W. Eason
"Application of real-time and permanent storage in BSO"
SUSSP-NATO Advanced Study Institute, Edinburgh, Scotland UK, August 1988.

6. **N. A. Vainos**
"Wiener-Kolmogorov and Novelty filters"
SUSSP-NATO Advanced Study Institute, Edinburgh, Scotland UK, August 1988.

7. S. L. Clapham, R. W. Eason, and **N. A. Vainos**
"Multiplexed storage of permanent and real-time holograms in photorefractive BSO"
Proc. IEE Electronics Division Colloquium, London, UK, Nov. 1988.

8. S. L. Clapham, R. W. Eason and **N. A. Vainos**
"The multiplexed storage of permanent and real-time holograms in photorefractive BSO for use in image processing and spatial light modulation"
Proc. Quantum Electronics Conf. QE-9 Conference, Paper 56P, Oxford, UK, 1989

9. **N. A. Vainos** and M. C. Gower
"Dynamic imaging with photorefractive crystals and holograms"
Proc. Quantum Electronics Conf. QE-9 Conference, Paper 57P, Oxford UK, 1989.

10. **N. A. Vainos** and M. C. Gower
"High-Fidelity dynamic imaging with photorefractive materials"
OSA-SFO Topical meeting on Photorefractive Materials, Effects and Devices II, Aussois France, January 1990.

11. M. C. Gower and **N. A. Vainos**
"Thin epitaxial films of photorefractive materials"
OSA-SFO Topical meeting on Photorefractive Materials, Effects and Devices II, Aussois France, January 1990.

12. S. L. Clapham, R. W. Eason and **N. A. Vainos**
"Multiplexed permanent and real-time holography and applications"
OSA-SFO Topical meeting o Photorefractive Materials, Effects and Devices II, Aussois France, January 1990.

13. S. L. Clapham, R.W. Eason and **N.A. Vainos**
"Multiplexed storage of permanent and real time holograms in photorefractive BSO for use in image processing and spatial light modulation"
Proc. CLEO/IQEC '90, Paper CTuL5, Anaheim, California, USA, 1990.

14. S. Mailis and **N. A. Vainos**
"Photorefractive adaptive transmission system"
Proc. 4th Inter. Confer. on Holographic Systems, Components & Applics., Neuchatel, Switzerland, Sept. 1993

15. S. Mailis and **N. A. Vainos**
"Multiplexed dynamic and static holography at 780nm in BSO"
Proc. 4th Inter. Confer. on Holographic Systems, Components & Applics., Neuchatel, Switzerland, Sept. 1993

16. **N. A. Vainos**, S. Mailis, S Pissadakis, P Dainty and T. J Hall
"Excimer Laser Micromachining: Materials Reference Library and Microetching of Computer Generated Holographic Optical Interconnect Structures"
Proc. 4th Inter. Confer. on Holographic Systems, Components & Applics., Neuchatel, Switzerland, Sept. 1993

17. **N.A. Vainos** and S. Mailis, S. Pissadakis, N. Madamopoulos, L. Boutsikaris, G. Patrinos and A. Petrakis
"Excimer laser microetching: microoptics & computer generated holography"
NATO ASI on EXCIMER LASERS: The tools, fundamental processes and applications. ELOUNDA, CRETE, GREECE, Sept. 6-17, 1993.

18. L. Boutsikaris, S. Mailis, N. Manamopoulos, S. Pissadakis, A. Petrakis, **N.A. Vainos**, P. Dainty, P. Parmitter and T.J. Hall
"Computer generated holographic diffractive structures fabricated by direct excimer laser microetching".
Photonics West '95 Conf. on Laser Induced Thin Film Processing San Jose, CA, USA.1995.

18. S. Mailis, L. Boutsikaris, and **N. A. Vainos**
"Computer generated holography for security encoding of precious items",

Int. Conf on Laser in Art Conservation LACONA'95, Heraklion, Sept. 1995.

19. A.A. Anderson, C.L. Bonner, R.W. Eason, D.P. Shepherd, D.S. Gill, C. Grivas and **N.A. Vainos**
"A Low Loss Waveguide Laser Grown by Pulsed Laser Deposition"
Proc CLEO'97, paper CWQ1., 1997

20. A. A. Anderson, L. M.B. Hickey, R. W. Eason, C. Grivas, D.S. Gill, **N. A. Vainos** and M. Jelinek
"A Ti: Sapphire planar waveguide laser fabricated by pulsed laser deposition"
Proc. CLEO '97, post-deadline paper presented.

21. V. Tornari, V. Zafiropulos, **N. A. Vainos** and C. Fotakis,
"Investigation on growth and deterioration of defects in Byzantine icons by means of holographic interferometry",
LACONA II, 2nd International Conference on Lasers in Art Conservation-Liverpool, UK April 1997.

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"Microdeposition of metals by femtosecond excimer laser"
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