8th International Conference on Photorefractive Effects, Materials and Devices
(July 8-12)

Poster Program

Monday Night (30 Posters)

1. Dynamics

1. Subnanosecond transients in SC field dynamics of CdTe:Ge crystals.
K. Jarasiunas, M. Sudzius, R. Aleksiejunas

2. Resonant excitation of space-charge and photoconductivity waves in semiconductors with shallow energy levels.
Mikhail A. Bryushinin and Igor A. Sokolov

3. Theory of the non-steady-state photoelectromotive force for a two-level model of a photoconductor.
Mikhail A. Bryushinin and Igor A. Sokolov

4. Transient dynamics of hologram formation in BSO crystal occurring in the conditions of induced intrinsic photoconductivity.
A.I. Grachev, A.A. Kamshilin, P.M. Karavaev, V.V. Prokofiev.

5. Photorefractive Response in a Crystal with Three-Valence-States Impurity Centers and Shallow Traps.
Andrey M. Plesovskikh, Stanislav M. Shandarov, and Eugene Yu Ageyev

6. Dynamics of Photoconductivity and the Shallow Traps Parameters in the Sillenite-Structure Crystals.
E.V.Mokrushina, A.A.Petrov, G.Siganakis,and N.A.Vainos

2. Wave-mixing

7. Optical resonator of the Sagnac-type with a photorefractive $Ba_{0.77}Ca_{0.23}TiO_3$ crystal (BCT) as an active medium.
V. Matusevich, A. Kiessling, and R. Kowarschik

8. Active feedback controlled beam-coupling in tin hypothiodiphosphate.
A. Shumelyuk, K. Shcherbin, S. Pavlyjuk, D. Barilov, and G. Brost

9. Light-induced scattering and coherent optical oscillation in photorefractive PPLN:Y:Fe.
M. Goul'kov, O. Shinkarenko, A. Shumelyuk, and S. Odoulov

10. Critical phenomena for feedback assisted phase grating recording.
K. Shcherbin, S. Pavlyuk, and S. Odoulov, K. Ringhofer and V. Kamenov, E. Podivilov and B. Sturman

11. Manipulation of optical patterns by frequency detuning of the pump beams.
M. Schwab, C. Denz, and M. Saffman

12. Energy exchange between light waves on local photorefractive grating in a cubic gyrotropic crystal.
R. V. Litvinov

13. Nonstationary two-wave interaction in a cubic gyrotropic photorefractive crystal with applied ac electric field.
R. V. Litvinov, S. G. Chistyakov and S. M. Shandarov

14. Reflection Holographic Grating in BTO Crystals.
M. Shandarov, Alexey G. Mart'yanov, Eugene Yu. Ageyev, Sergey Yu. Veritennikov, Vitaliy A. Kartashov, and Yuriy F. Kargin

15. Photorefractive response and parametric four-wave proceses in periodically poled lithium niobate.
E. Podivilov and B. Sturman, M. Goul'kov and S. Odoulov, G. Calvo, F. Agullo-Lopez, and M. Carrascosa

16. Nonlinear dynamics of semilinear photorefractive oscillator.
P. Mathey, and S. Odoulov

17. Self-pumped and mutually pumped phase conjugation in pentagon-shaped $BaTiO_3$ crystal with +c-face incident geometry.
Chi Ching Chang, Tzu Chiang Chen, Guang Wei Hu, Hon Fai Yau, Pei Xian Ye

18. Amplification of near-infrared light in a photorefractive ring resonator.
Malgosia Kaczmarek, Roger S. Cudney, Robert W. Eason

19. Time Evolution of Beam Coupling in KnbO3 at Low and High Modulation Depth.
J. Rurik Farías and J. G. Murillo

20. Temporal and Spatial Evolution of Beam Coupling in $Bi1_2SiO_{20}$ under an Applied Electric Field in Two Wave Mixing.
J. G. Murillo

21. Dynamics of the desired output selection in the phase conjugation geometries.
Philip Nikiforov, Ivan Murashko, Vsevolod Petrun'kin, and Igor Vodovatov,

3. Organics

22. Charge carrier trapping in photorefractive polymer.
T. Tsukamoto, K. Matsumoto, A. Hirao, and H. Nishizawa

23. Modeling the Self-Diffraction Holographic Kinetics in Raman-Nath Thin Grating Conditions on Low-Saturated Bacteriorhodopsin Films.
S. Bugaychuk, E. Korchemskaya, N. Burykin

4. Applications

24. Permanent narrow-band reflection holograms for infrared light recorded in $LiNbO_3$:Ti:Cu.
Jörg Hukriede, Detlef Kip, and Eckhard Krätzig

25. Compact photorefractive holographic camera and its applications in interferometry.
Marc P. Georges, Véronique S. Scauflaire, and Ph. C. Lemaire

26. Photorefractive laser beam modulator.
Jayanth Puttappa, Azad Siahmakoun, and J.Chestnut

27. Polarization-independent two-channel MUX/DEMUX using a photorefractive lithium niobate crystal.
Martin Nagel, Azad Siahmakoun, and Jeff Chestnut

28. Two-way picture transferring by means of photorefractive phenomenon.
Jung-Ping Liu, Hsiao-Yi Lee, and Hon-Fai Yau

29. Optical Olfactory Sensor with Holographic Readout.
Dana Anderson and Hongke Ye

30. Implementation of a double phase conjugate mirror in a fiber optic gyroscope.
Sylvie Bernhardt, Philippe Delaye, Jean Thierry Audren, and Gérald Roosen

Tuesday Night (30 Posters)

5. Spatial Solitons

31. All-optical router based on interaction of mutually incoherent solitons.
Detlef Kip, Christian Herden, and Monika Wesner

32. Self-focusing of interference fringes in bismuth titanate oxide crystal.
A.Apolinar-Iribe, N.Korneev, V.Vysloukh and J.J.Sanchez-Mondragon.

33. Effect of a light field structure to characteristics of dark spatial solitons in lithium niobate waveguides.
V.Shandarov, A.Pfarger, and E.Smirnov

34. Distinctions of Bright Spatial Soliton Characteristics in SBN Crystal from Existence Curve Predictions.
V.Shandarov, D.Kip, and M.Wesner

35. Spatial solitons in photorefractive crystals with an alternating electric field.
S.M. Shandarov, M.N.Frolova, M.V.Borodin

6. Multiple Quantum Wells

36. Designing a Broad-Area Optically-Pumped Holographic Vertical Cavity Surface Emitting Laser (HVCSEL).
S.Balasubramanian, M. R. Melloch1, and D. D. Nolte

37. A Novel Approach to Improving the Optical Quality of Reflection Geometry Photorefractive Asymmetric Fabry-Perót Multiple Quantum Well Devices.
W. Headley, D. D. Nolte, and M. R. Melloch

7. Properties of Crystal PRCs

38. Spatial subharmonics in CdTe:Ge.
K. Shcherbin, S. Odoulov, and V. Danilyuk

39. Photorefractive crystal thin plates: structure of photorefractive grating.
Andrey M. Kirillov, Stanislav M. Shandarov, and Nickolay I. Burimov

40. Counter-phase charge gratings in crystals with shallow traps.
Oleg Kobozev, and Alexei A. Kamshilin

41. Magnetic and Optical Anisotropy in Garnets Induced by Linearly Polarized Light.
I.Davidenko, M. Fally, and R. A. Rupp

42. Faraday Rotation in Photorefractive InP:Fe.
Maarij Syed and Azad Siahmakoun

43. An optical method for the determination of the coercive field in ferroelectric crystals.
S. S. Sarvestani, A. Siahmakoun, G. C. Duree, and K. Johnson

44. Photorefractive response of bismuth titanium oxide with applied square-wave electric field at large contrast of interference pattern.
R. V. Litvinov

45. Bridgeman Growth and Electric Breakdown Behavior of Vanadium-Zinc Co-Doped CdTe.
D. Verstraeten, Ph. C. Lemaire, J.C. Launay

46. Multiple Active Levels in $Bi1_2TiO_{20}$ Crystals.
A. A. Freschi, D. A. Donatti, and J. Frejlich

47. Light induced charge transfer in $Sn_2P_2S_6$.
A. Ruediger, O.F. Schirmer, A. Kadashchuk, and A. Grabar

48. Anisotropic impurity and intrinsic centers in CdHgTe:V crystals.
Yu. P. Gnatenko, I.O.Faryna, P.M.Bukivskij, R.V.Gamernyk, P.A.Skubenko, O.A.Shigiltchoff, S.Yu.Paranchych, L.D.Paranchych

8. Adaptive Interferometry

49. Grating Translation Technique for Vectorial Beam Coupling.
G.F. Calvo, F. Agullo-Lopez, M. Carrascosa, B. Sturman, A.A. Kamshilin, and K. Paivasaari

50. Laser ultrasonic detection using anisotropic light diffraction in photorefractive BSO crystal.
S. Stepanov, R. B. Lopez Flores, and P. Rodriguez Montero

51. Improving responsivity of GaAs photo-EMF detectors by application of external DC bias.
S. Stepanov, J. Castillo Mixcoatl, A. Aguirre Lopez, and P. Rodriguez Montero

52. Measurements of the space-charge-field amplitude in photorefractive crystals under external electric field.
K. Paivasaari, N. Nazhestkina, V. V. Prokofiev, A. A. Kamshilin, and T. Jaaskelainen.

53. Germanium doped cadmium telluride crystals for optical sensing.
Erik Raita, Alexei Kamshilin, Oleg Kobozev, and Aleksandr Shumelyuk

54. Self-modulation of speckle patterns in cubic photorefractive crystals.
C. A. Fuentes-Hernández, A. V. Khomenko, and I. Rocha-Mendoza.

9. Optical Storage

55. Nonvolatile hologram storage in near-stoichiometric $LiNbO_3$:Tb,Fe.
Hideki Hatano, Satoru Tanaka, and Takashi Yamaji, Myeongkyu Lee, Shunji Takekawa, and Kenji Kitamura

56. Nonlinear effects in thermal fixing of photorefractive holograms: harmonics and combinational gratings.
J. Limeres, M. Carrascosa E. García de la Cera and L. Arizmendi

57. Encrypted holographic memory using rotationally random phase encoding.
Chi Ching Chang, Guang Wei Hu & Ching Yang Lin, Kendra L. Russell

58. Electrical fixing of photorefractive gratings in SBN:60.
S. S. Sarvestani, A. Siahmakoun, and G. C. Duree, K. Johnson

59. Developing of the thermally fixed holograms in the case of photovoltaic mechanism of recording.
A.I.Grachev and A.V.Chamrai

60. Enhancement of Non-volatile Recording by an External Field in Doubly doped Lithium Niobate.
R. Fujimura, S. Ashihara, O. Matoba, T. Shimura, and K. Kuroda