

LIST of Scientific Papers by Nikolay L. KAZANSKIY

1. Kazanskii N.L. Correction of focuser phase function by computer-experimental methods // Computer Optics. 1989, Vol. 1, No. 1. - P.69-73.
2. Diffraction calculation for an optical element which focuses into a ring / Golub M.A., Kazanskii N.L., Sisakyan I.N., Soifer V.A., and Kharitonov S.I. // Optoelectronics, Instrumentation and Data Processing, 1987, № 6, pp.7-14.
3. Computational experiment with plane optical elements / Golub M.A., Kazanskii N.L., Sisakyan I.N., Soifer V.A. // Optoelectronics, Instrumentation and Data Processing. – 1988. - № 1. - pp. 78-89.
4. Golub M.A., Karpeev S.V., Kazanskii N.L., Mirzov A.V., Sisakyan I.N., Soifer V.A., and Uvarov G.V. Spatial phase filters matched to transverse modes // Soviet Journal of Quantum Electronics, 1988, Vol.18, № 3, pp. 392-393.
5. Synthesis of optical antennae / Golub M.A., Kazanskiy N.L., Prokhorov A.M., Sisakyan I.N., Soifer V.A. // Computer Optics. - 1989. - Vol.1, № 1. - P.25-28 (Pergamon Press).
6. Diffraction calculation of the field intensity near the focal line of a focuser / Golub M.A., Kazanskii N.L., Sisakyan I.N., Soifer V.A., and Kharitonov S.I. // Optics and Spectroscopy, OSA, 1989. - Vol.67, № 6. - pp. 814-815.
7. Synthesis of standards for control of off-axis segments of aspherical surfaces / Golub M.A., Kazanskii N.L., Sisakyan I.N., and Soifer V.A. // Optics and Spectroscopy, OSA, 1990, Vol.68, № 2, pp. 2691-272.
Golub, M. A.; Kazansky, N. L.; Sisakyan, I. N.; Soifer, V.A. Synthesis of etalons for the control of aspherical-surface off-axis segments // Optika I Spektroskopiya, 1990, Vol. 68(2). P. 461-466.
8. Kazansky N.L. Numerical experiment with a Fresnel lens // Computer Optics, 1990. - Vol.2, № 1. - P.17-21.
9. Wavefronts forming by computer-generated optical elements / Golub M.A., Kazanskiy N.L., Sisakyan I.N., Soifer V.A. // Proceedings of SPIE - The International Society for Optical Engineering. - 1990. - Vol.1183. - P.727-750. doi: 10.1117/12.963891.
10. Computer generated optical elements for optical testing / Golub M.A., Kazanskiy N.L., Sisakyan I.N., Soifer V.A. // International conference "Optics in Complex Systems" 15-th Congress of ICO, Proceeding of SPIE, 1990, vol.1319, pp.635-636.
11. Kazanskii N. L., Semenov A. S. Fourth Workshop on Computer Optics, Tigliatti, February 19–24, 1990 // Soviet Journal of Quantum Electronics, 1990, Vol.20, № 12, pp. 1534-1539. <https://doi.org/10.1070/QE1990v020n12ABEH007681>.
12. Multilevel Fresnel lens / Golub M.A., Kazanskiy N.L., Sisakyan I.N., Soifer V.A., Uspleniev G.V., Yakunenkova D.M. // Journal of Technical Physics. - 1991. - Vol. 61, № 4. - P. 195-197 (in Russian).
13. Focusators for laser-branding / Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Usplenjev G.V. // Optics and Lasers in Engineering. - 1991. - Vol.15, № 5. - P.311-322. DOI: 10.1016/0143-8166(91)90018-O.
14. Computational experiment for computer generated optical elements / Golub M.A., Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Orlova N.G., Sisakian I.N., Soifer V.A. // Proceedings SPIE. - 1991. - Vol.1500. - P.194-206. DOI: 10.1117/12.46829.

15. Focuser at letters diffraction design / Golub M.A., Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Sisakian I.N., Soifer V.A. // Proceedings SPIE. - 1991. - Vol.1500. - P.211-221. DOI: 10.1117/12.46831.
16. Computational experiment for focuser investigation / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Soifer V.A. // Proceedings of The 1992 Harbin International Conference on Electronics and Computers (HICEC'92). - 1992. - P.667-669.
17. Computer generated diffractive multi-focal lens / Golub M.A., Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Soifer V.A. // Journal of Modern Optics. - 1992. - Vol.39, № 6. - P.1245-1251. DOI: 10.1080/713823549.
18. Diffraction investigation of focuser into straight-line segment / Soifer V.A., Doskolovich L.L., Golub M.A., Kazanskiy N.L. // Proceedings SPIE. - 1992. - Vol.1718 "Workshop on Digital Holography". - P.33-44.
19. Focuser of near-infrared laser radiation / Golub M.A., Doskolovich L.L., Kazanskiy N.L., Klimov I.V., Soifer V.A., Usplenjev G.V., Tsvetkov V.B., Scherbakov I.A. // Technical Physics Letters. - 1992. - Vol.18, Issue 15. - P. 488-488.
20. Diffraction approach to the synthesis of multifunctional phase elements / Golub M.A., Doskolovich L.L., Kazanskii N.L., Soifer V.A., Kharitonov S.I. // Optics and Spectroscopy, 1992, Vol. 73, No 1, pp. 111-113. (OSA, ISSN 0030-400X, CODEN OPSUA3). Golub M.A.; Doskolovich L.L.; Kazansky N.L., Soifer V.A., Kharitonov S.I. Diffraction approach to the synthesis of multifunctional phase elements // Optika I Spektroskopiya. – 1992. – Vol. 73, №1. – P. 191–195.
21. Special diffractive lenses / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Soifer V.A., Usplenjev G.V. // Proceedings of SPIE. - 1993. -Vol.1780. - P.393-402.
22. Diffractive optical elements for laser processing / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Soifer V.A., Usplenjev G.V. // Proceedings of SPIE. - 1993. - Vol.1983 "ICO-16". - Part 2. - P.647-648.
23. Diffraction investigation of focuser into plane area / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Kharitonov S.I., Soifer V.A. // Proceedings of SPIE. - 1993. - Vol.1983 "ICO-16". - Part 2. - P. 656-657.
24. Multifocal and combined diffractive elements (Invited Paper) / Soifer V.A., Doskolovich L.L., Golub M.A., Kazanskiy N.L., Kharitonov S.I., Perlo P. // Proceedings of SPIE. - 1993. - Vol.1992 "Miniature and Micro-Optics and Micromechanics". - P.226-234.
25. Doskolovich L.L., Kazanskiy N.L., Soifer V.A. Computation of two-order focuser // Autometriya. - 1993, № 1. - P.58-63 (in Russian).
26. Kazanskiy N.L., Kotlyar V.V., Soifer V.A. Computer-aided design of diffractive optical elements // Optical Engineering, 1994. - Vol. 33, № 10. - P. 3156-3166. doi: 10.1117/12.178898.
27. Kazanskiy N.L., Soifer V.A. Diffraction investigation of geometric-optical focuser into segment // Optik - International Journal for Light and Electron Optics. - 1994. - Vol.96, № 4. - P.158-162.
28. Soifer V.A., Doskolovich L.L., Kazanskiy N.L. Multifocal diffractive elements // Optical Engineering. - 1994. - Vol. 33, № 11. - P.3610-3615. DOI: 10.1117/12.179890.
29. Gradient method for multiorders binary gratings design / Doskolovich L.L., Kazanskiy N.L., Perlo P., Repetto P., Soifer V.A. // Proceedings of the 5th International Workshop on Digital Image Processing and Computer Graphics "Image Processing and Computer Optics", August 22-26, 1994. - Samara: SSAU, 1994. - P. 63-64.

30. Quick-DOE: software on diffractive optics / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Khramov A.G., Pavelyev V.S., Seraphimovich P.G., Soifer V.A., Volotovsky S.G. // Proceedings of the 5th International Workshop on Digital Image Processing and Computer Graphics "Image Processing and Computer Optics", August 22-26, 1994. - Samara: SSAU, 1994. - P. 65-66.
31. Kazanskiy N.L., Kharitonov S.I., Soifer V.A. Pseudogeometrical optical approach for calculation of the light fields // Proceedings of the 5th International Workshop on Digital Image Processing and Computer Graphics "Image Processing and Computer Optics", August 22-26, 1994. - Samara: SSAU, 1994. - P. 67-68.
32. Bifocal artificial crystalline lens with additional diffractive microrelief / Danilov V.A., Doskolovich L.L., Ershov V.N., Kazanskiy N.L., Moiseyev O.Yu., Sisakian I.N., Soifer V.A., Usplenjev G.V., Volkov A.V. // Proceedings of the 5th International Workshop on Digital Image Processing and Computer Graphics "Image Processing and Computer Optics", August 22-26, 1994. - Samara: SSAU, 1994. - P.79.
33. A hybrid method for calculating DOEs focusing into radial focal domains / Soifer V.A., Doskolovich L.L., Kazanskiy N.L., Pavelyev V.S. // Program and Abstracts of The 9th Meeting on Optical Engineering in Israel, Tel-Aviv Hilton, Israel, 24-26 October 1994, pp.42-43.
34. Doskolovich L.L., Kazanskiy N.L., Soifer V.A. Comparative analysis of different focusators focusing into a segment // Optics and Laser Technology. - 1995. - Vol.27, № 4. - P.207-213. DOI: 10.1016/0030-3992(95)93746-e.
35. A method for estimating the DOE's energy efficiency / Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Tzaregorodzev A.Ye. // Optics and Laser Technology. - 1995. - Vol.27, № 4. - P.219-221. doi: 10.1016/0030-3992(95)93748-G.
36. Analysis of quasiperiodic and geometric optical solutions of the problem of focusing into an axial segment / Doskolovich L.L., Kazanskiy N.L., Soifer V.A., Tzaregorodtzev A.Ye. // Optik - International Journal for Light and Electron Optics. - 1995. - Vol.101, № 2. - P. 37-41.
37. Introduction to the volume / Kazanskiy N.L., Merzlyakov N.S., Soifer V.A., Wenger E. // Proceedings of SPIE. - 1995. - Vol.2363 "Image Processing and Computer Optics (DIP-94)". - P.IX-XI.
38. Software on diffractive optics and computer generated holograms / Doskolovich L.L., Golub M.A., Kazanskiy N.L., Khramov A.G., Pavelyev V.S., Seraphimovich P.G., Soifer V.A., Volotovskiy S.G. // Proceedings of SPIE. - 1995. - Vol.2363 "Image Processing and Computer Optics (DIP-94)". - P.278-284. DOI:10.1117/12.199645.
39. Kazanskiy N.L., Kharitonov S.I., Soifer V.A. A calculation of the field formed by a focusator illuminated by Gaussian-Hermite beams // Proceedings of SPIE. - 1995. - Vol.2363 "Image Processing and Computer Optics (DIP-94)". - P.285-289.
40. A hybrid method for calculating DOEs focusing into radial focal domains / Soifer V.A., Doskolovich L.L., Kazanskiy N.L., Pavelyev V.S. // Proceedings of SPIE. - 1995. - Vol.2426 "The 9th Meeting on Optical Engineering in Israel". - P.358-365.
41. The 5th International Workshop on Digital Image Processing and Computer Graphics "Image Processing and Computer Optics" / Kazanskiy N.L., Merzlyakov N.S., Sergeev V.V., Soifer V.A. // Pattern Recognition and Image Analysis, 1995, № 2, pp.325-329.
42. Direct two-dimensional calculation of binary DOEs using a non-binary series expression approach / Doskolovich L.L., Kazanskiy N.L., Perlo P., Repetto P., Soifer V. A. // International Journal of Optoelectronics, 1996, Vol. 10; No 4, pp. 243-249.

43. A method of designing diffractive optical elements focusing into plane areas / Doskolovich L.L., Kazansky N.L., Kharitonov S.I., Soifer V.A. // Journal of Modern Optics, 1996, vol.43, № 7, pp.1423-1433. DOI: 10.1080/09500349608232815.
44. Kazanskiy N.L., Kharitonov S.I., Soifer V.A. Application of a pseudogeometrical optical approach for calculation of the field formed by a focusator // Optics & Laser Technology, 1996, vol.28, № 4, pp.297-300. DOI: 10.1016/0030-3992(95)00103-4.
45. Soifer V.A., Kazanskiy N.L., Kharitonov S.I. Synthesis of a Binary DOE Focusing into an Arbitrary Curve, Using the Electromagnetic Approximation // Optics and Lasers in Engineering, 1998, vol.29, №№ 4-5, pp. 237-247.
46. A Method for the Diffractive Microrelief Formation Using the Layered Photoresist Growth / Volkov A.V., Kazanskiy N.L., Moiseev O.Yu., Soifer V.A. // Optics and Lasers in Engineering, 1998, Vol. 29, №№ 4-5, pp. 281-288. DOI: 10.1016/s0143-8166(97)00116-4.
47. Computation of the electromagnetic field in longitudinally regular structure / Kazanskiy N.L., Podlipnov G.A., Rakhaev A.A., Sosnin M.L. // Optical Memory & Neural Networks, 2000, vol. 9, № 1, pp. 23-29.
48. Studies of diamond diffractive cylindrical lens / Kazanskiy N.L., Pavelyev V.S., Soifer V.A., Kononenko V.V., Konov V.I., Pimenov S.M., Prokhorov A.M. // Optical Memory & Neural Networks, 2000, vol. 9, № 1, pp. 57-62.
49. Kazanskiy N.L., Kharitonov S.I., Soifer V.A. Simulation of DOE-aided focusing devices // Optical Memory & Neural Networks, 2000, vol. 9, № 3, pp. 191-200.
50. Investigation of Lighting Devices Based on Diffractive Optical Elements / Kazanskiy N.L., Kharitonov S.I., Soifer V.A., Volkov A.V. // Optical Memory & Neural Networks, 2000, vol. 9, № 4, pp. 301-312.
51. Kazanskiy N.L., Uspleniev G.V., Volkov A.V. Fabricating and testing diffractive optical elements focusing into a ring and into a twin-spot // Proceedings of SPIE, 2000, Vol. 4316, pp. 193-199. DOI: 10.1117/12.407678.
52. Kazanskii N.L., Khmelev R.V. Algorithms of Searching for a Standard on Binary Images // Pattern Recognition and Image Analysis, Vol. 11, № 1, 2001, p.187-188.
53. Volkov A.V., Kazanskii N.L., Usplen'ev G.V. Automation of the Physical Experiment in Computer Optics // Pattern Recognition and Image Analysis, Vol. 11, № 2, 2001, p.469-470.
54. Modern Information Technologies in Computer Optics / S.G. Volotovskii, N.L. Kazanskii, P. G. Serafimovich, S. N. Khonina // Pattern Recognition and Image Analysis, Vol. 11, № 2, 2001, p.471-473.
55. Volotovskii S. G., Kazanskii N. L., Khonina S. N. Analysis and Development of the Methods for Calculating Eigenvalues of Prolate Spheroidal Functions of Zero Order // Pattern Recognition and Image Analysis, Vol. 11, № 2, 2001, p.473-476.
56. Volotovskii S.G., Kazanskii N.L., Khonina S.N. Analysis and Development of the Methods for Calculating Eigenvalues of Prolate Spheroidal Functions of Zero Order // Pattern Recognition and Image Analysis, Vol. 11, No. 3, 2001, p.633-648.
57. Technology of DOE Fabrication / Golovashkin D.L., Kazanskiy N.L., Soifer V.A., Pavelyev V.S., Solovyev V.S., Uspleniev G.V., and Volkov A.V. // In the book "Methods for Computer Design of Diffractive Optical Elements" edited by Victor A. Soifer. A Wiley Interscience Publication. John Wiley & Sons, Inc., 2002, pp.267-345.
58. Doskolovich L.L., Kazanskiy N.L., and Soifer V.A. DOE for Focusing the Laser Light // In the book "Methods for Computer Design of Diffractive Optical Elements" edited

- by Victor A. Soifer. A Wiley Interscience Publication. John Wiley & Sons, Inc., 2002, pp.347-443.
- 59. Kazanskiy N.L., Kotlyar V.V., and Soifer V.A. Wave Front Correction // In the book "Methods for Computer Design of Diffractive Optical Elements" edited by Victor A. Soifer. A Wiley Interscience Publication. John Wiley & Sons, Inc., 2002, pp.607-649.
 - 60. Kazanskiy N.L. DOE-based Lighting Devices // In the book "Methods for Computer Design of Diffractive Optical Elements" edited by Victor A. Soifer. A Wiley Interscience Publication. John Wiley & Sons, Inc., 2002, pp.651-671.
 - 61. Volkov A.V., Kazansky N.L., Solovjev V.S. Checking the refractive index change in liquid photopolymerizable compositions // Proceedings of SPIE, 2002, vol. 4680 "Laser for Measurement and Information Transfer", pp.214-219.
 - 62. Distributed software for parallel calculation of diffractive optical elements on web-server and cluster / Volotovskiy S.G., Kazanskiy N.L., Seraphimovich P.G., Kharitonov S.I. // Proceedings of the IASTED International Conference "Automation, Control, and Information Technology" (Novosibirsk, Russia, June 10-13, 2002), ACTA Press, 2002, pp. 69-72.
 - 63. Dry Etching of Polycrystalline Diamond Films / Volkov A.V., Kazansky N.L., Kostyuk G.F., Pavelyev V.S. // Optical Memory & Neural Networks (Information Optics), 2002, vol. 11, № 2, pp.135-137.
 - 64. Kazanskiy N., Kolpakov V. Simulation of technological process by etching of microstructures in high-voltage gas discharge plasma // Abstracts of International Conference "Micro- and nano-electronics – 2003", October, 6th – 10th, 2003, Moscow-Zvenigorod, P1-53.
 - 65. A DOE to form a line-shaped directivity diagram / Doskolovich L.L., Kazanskiy N.L., Soifer V.A., Kharitonov S.I., Perlo P. // Journal of Modern Optics, 2004, Vol. 51, № 13, pp. 1999-2005. DOI:10.1080/09500340408232507.
 - 66. Kazanskiy N.L., Kolpakov V.A. Simulation of technological process by etching of microstructures in high-voltage gas discharge plasma // Proceedings of SPIE, 2004, Vol. 5401 "Micro- and Nano-electronics 2003, Kamil A. Valiev; Alexander A. Orlikovsky, Editors", pp.648-654.
 - 67. Kazanskii N.L., Kolpakov V.A. and Kolpakov A.I. Anisotropic Etching of SiO₂ in High-Voltage Gas-Discharge Plasmas // Russian Microelectronics, 2004, Vol. 3, No 3, pp. 169-182. DOI: 10.1023/B:RUMI.0000026175.29416.eb.
 - 68. Design of DOEs for multiwavelength demultiplexing and spatial focusing / Doskolovich L.L., Soifer V.A., Kazanskiy N.L., Perlo P.P., Repetto P. // Proceedings of SPIE, Vol. 5485 "Optical Technologies for Communications", 2004, pp.98-106.
 - 69. Golovashkin D.L., Kazansky N.L., Safina V.N. Using the Finite-Difference Method for Solving the Problem of H-Wave Diffraction with Two-Dimensional Dielectric Gratings // Optical Memory & Neural Networks (Information Optics), 2004, Vol. 13, № 1, pp.55-62.
 - 70. Volotovsky S., Kazansky N., Popov S., Khmelyoff R. Machine vision system for oil tank wagons registration // Proceedings of 7th Int. Conf. on Pattern recognition and Image analysis, PRIA-7-2004, 18-23 October, St.Petersburg, vol.2, p.559-561 (2004).
 - 71. Design of DOEs for wavelength division and focusing / Doskolovich L.L., Kazanskiy N.L., Soifer V.A., Perlo P., Repetto P. // Journal of Modern Optics, 2005, Vol. 52, № 6, pp. 917-926. DOI:10.1080/09500340512331313953.

72. Volotovskii S.G., Kazanskii N.L., Popov S.B., Khmelev R.V. Machine Vision System for Registration of Oil Tank Wagons // Pattern Recognition and Image Analysis, Vol. 15, No. 2, 2005, p.461-463.
73. Designing reflectors to generate a line-shaped directivity diagram / Doskolovich L.L., Kazanskiy N.L., Kharitonov S.I., Perlo P., Bernard S. // Journal of Modern Optics, 2005, Vol. 52, № 11, pp. 1529-1536. DOI:10.1080/09500340500058082.
74. Studies of Color Separation Gratings / Doskolovich L.L., Kazanskiy N.L., Petrova O.I., Tyavin E.V. // Optical Memory & Neural Networks (Information Optics), 2004, vol. 13, № 3, pp.129-134.
75. High-effective fiber sensors based on transversal mode selection / Karpeev S.V., Pavelyev V.S., Khonina S.N., Kazanskiy N.L. // Proceedings of SPIE, 2005, Vol. 5854 "Optical Technologies for Telecommunications, Vladimir A. Andreev; Vladimir A. Burdin; Albert H. Sultanov, Editors", pp.163-169.
76. Synthesis of Diamond Diffractive Optical Elements for IR Laser Beam Focusing / Pavelyev V.S., Soifer V.A., Kazanskiy N.L., Volkov A.V., Kostyuk G.F., Kononenko V.V., Konov V.I., Pimenov S.M., Komlenok M.S., Duparre M., Luedge B., Berger M. // Proceedings of SPIE, Vol. 5965 "Optical Fabrication, Testing and Metrology II", 2005, pp.59650M-1-59650M-11.
77. Doskolovich L.L., Kazanskiy N.L., Tyavin E.V. Designing Binary Diffraction Gratings with Etching Wedge // Optical Memory & Neural Networks (Information Optics), 2005, vol. 14, № 2, pp. 91-96.
78. Kazanskiy N.L., Solovyov V.S., Volkov A.V. Orientating Liquid Crystals Using Surface-Directed Structures // Optical Memory & Neural Networks (Information Optics), 2005, vol. 14, № 2, pp.123-128.
79. Numerical and Experimental Studies of Dispersionless Multimode Beams Generated Using a DOE / Borodin S.A., Karpeev S.V., Kazanskiy N.L., Pavelyev V.S., Volkov A.V., Palagushkin A.N., Prokopenko S.A., Sergeev A.P., Arlamenko A.N. // Optical Memory & Neural Networks (Information Optics), 2005, vol. 14, № 2, pp.136-141.
80. Kazanskiy N.L., Kolpakov V.A., Kolpakov A.I. Studies on a Mechanism of Catalytic Mask Generation in Irradiation of an Al-Si Structure with High-Voltage Gas-Discharge Particles // Optical Memory & Neural Networks (Information Optics), 2005, Vol. 14, № 3, pp.151-160.
81. Steplike Fiber Modes Excitement with Binary Phase DOEs / Karpeev S.V., Kazanskiy N.L., Pavelyev V.S., Duparre M., Luedge B., Schroeter S. // Optical Memory & Neural Networks (Information Optics), 2005, vol. 14, № 4, pp.223-228.
82. Doskolovich L.L., Kazanskiy N.L., Tyavin E.V. Design and studies of color separation diffraction grating // Proc. of ICO Topical Meeting on Optoinformatics/Information Photonics, Sanct-Peterburg, 2006, pp. 180-182.
83. Kazanskiy N.L., Kolpakov V.A., Kritchevskiy S.V. Simulating the process of dielectric substrate surface cleaning in high-voltage gas discharge plasma // Proceedings of SPIE, 2006, Vol. 6260 "Micro- and Nanoelectronics 2005, Kamil A. Valiev; Alexander A. Orlikovsky, Editors".
84. Synthesis and investigation of diamond diffractive optical elements / V.S. Pavelyev; V.A. Soifer; N.L. Kazanskiy; D.L. Golovashkin; A.V. Volkov; G.F. Kostyuk; V.V. Kononenko; V.I. Konov; S.M. Pimenov; M.S. Komlenok; M.R. Duparré; B. Luedge // Proceedings of SPIE, 2006, Vol. 6290 "Laser Beam Shaping VII, art. no. 62900B. DOI: 10.1117/12.682129.

85. Realization and characterization of diffraction microrelief fabricated on the end faces of halogenide IR waveguide / Borodin S.A., Golovashkin D.L., Karpeev S.V., Kazanskiy N.L., Pavelyev V.S., Volkov A.V., Yakunenkova D.M., Kononenko V.V., Artyushenko V.G., Sakharova T.V., Kashin V.V. // Optical Memory & Neural Networks (Information Optics), 2006, vol. 15, № 3, pp. 135-140.
86. Kazanskiy N.L., Kolpakov V.A. Studies into mechanisms of generating a low-temperature plasma in high-voltage gas discharge // Optical Memory & Neural Networks (Information Optics), 2006, vol. 15, № 4, p.163-169.
87. Design and investigation of colour separation diffraction gratings / Doskolovich L.L., Kazanskiy N.L., Repetto P., Tyavin Ye.V. // Journal of Optics A: Pure and Applied Optics, 2007, Vol. 9, pp. 123-127.
88. Golovashkin D.L., Kazanskii N.L. Incident Wave Source Conditions for the Finite-Difference Time-Domain Method: Two-Dimensional Formulation // Optoelectronics, Instrumentation and Data Processing, 2007, Vol. 43, № 6, pp. 547-555. DOI: 10.3103/S8756699007060088.
89. Doskolovich L.L., Kazanskiy N.L., Bernard S. Designing a mirror to form a line-shaped directivity diagram // Journal of Modern Optics, 2007, Vol. 54, № 4, pp. 589 - 597. DOI:10.1080/0950034060102186.
90. Fibre sensors based on transverse mode selection / Karpeev S.V., Pavelyev V.S., Khonina S.N., Kazanskiy N.L., Gavrilov A.V., Eropolov V.A. // Journal of Modern Optics, 2007, Vol. 54, № 6, pp. 833 - 844. DOI:10.1080/09500340601066125.
91. Formation of diffractive microrelief on diamond film surface / Pavelyev V.S., Borodin S.A., Kazanskiy N.L., Kostyuk G.F., Volkov A.V. // Optics & Laser Technology, 2007, vol.39, № 6, pp.1234-1238. DOI: 10.1016/j.optlastec.2006.08.004.
92. Design and investigation of color separation diffraction gratings / Doskolovich L.L., Kazanskiy N.L., Khonina S.N., Skidanov R.V., Heikkila N., Siitonens S., and Turunen J. // Applied Optics, 2007, Vol. 46, No 15, pp. 2825-2830. DOI: 10.1364/AO.46.002825.
93. "Methods for Computer Design of Diffractive Optical Elements" edited by V.A. Soifer / Doskolovich L.L., Golovashkin D.L., Kazanskiy N.L., Khonina S.N., Kotlyar V.V., Pavelyev V.S., Skidanov R.V., Soifer V.A., Solovyev V.S., Uspleniyev G.V., and Volkov A.V. // Tianjin Science & Technology Press, Tianjin, 2007, 570 p. (in Chinese).
94. Kazanskiy N.L. Software and devices for solving diffractive optics problems (invited paper) // Proceedings of the International Sino-Russia Seminar on Diffractive Optics, Edited by Optoelectronic Topical Committee of China Aerospace Society, 2007, Xi'an, China, pp. 107-120 (in Chinese).
95. Research of Resonance Effects in TEM-Cell / Rakhaeva E.A., Kazansky N.L., Podlipnov G.A., Rakhaev A.A., Suhov V.V., Sarzhin M.A. // Proceedings of the 7-th International Symposium on Electromagnetic Compatibility and Electromagnetic Ecology, June 26-27, 2007, Saint-Petersburg, Article number 4371659, pp. 104-106. DOI: 10.1109/EMCECO.2007.4371659.
96. Temperature Measurement of a Surface Exposed to a Low-Temperature Plasma Flux / Kazanskii N.L., Kolpakov V.A., Kolpakov A.I., Paranin V.D. // Technical Physics, 2007, Vol. 52, No. 12, pp. 1552-1556. DOI: 10.1134/S1063784207120043.
97. Information technology of remotely sensed optical image analysis on the basis of multiscale conceptions integration / J.B. Azimov; V.K. Bagmanov; N.K. Bakirov; L.L. Doskolovich; S.V. Dyblenko; S.K. Formanov; V.A. Fursov; K. Janschek; N.L. Kazanskiy; S.N. Khonina; A.E. Kisseelev; O.S. Sharipov; A.N. Startsev; A.H. Sultanov; V.V. Tchernykh; J. Turunen // Proceedings of SPIE, 2007, vol. 6605 "Optical Technol-

- ogies for Telecommunications 2006, Vladimir A. Andreev; Vladimir A. Burdin; Albert H. Sultanov, Editors".
- 98. Selective excitation of step-index fiber modes / A.V. Gavrilov; S.V. Karpeev; N.L. Kazanskiy; V.S. Pavelyev; M. Duparré; B. Luedge; S. Schroeter // Proceedings of SPIE, 2007, vol. 6605 "Optical Technologies for Telecommunications 2006, Vladimir A. Andreev; Vladimir A. Burdin; Albert H. Sultanov, Editors".
 - 99. Interaction of Dielectric Substrates in the Course of Tribometric Assessment of the Surface Cleanliness / N.L. Kazanskiy, S.V. Karpeev, V.A. Kolpakov, S.V. Krichevsky, N.A. Ivliev // Optical Memory & Neural Networks (Information Optics), 2008, Vol. 17, № 1, pp. 37-42.
 - 100. The method of thin metal films adhesion increasing for the lowered dimensions structures / N. L. Kazanskiy, V. A. Kolpakov, V. D. Paranin, M. S. Polikarpov // Proceedings of SPIE, 2008, Vol. 7025, Micro- and Nanoelectronics 2007, 70250H. doi: 10.1117/12.802364.
 - 101. Parameter Optimization of a Tribometric Device for Rapid Assessment of Substrate Surface Cleanliness / N.L. Kazanskiy, V.A. Kolpakov, A.I. Kolpakov, S.V. Krichevsky, N.A. Ivliev, M.V. Desjatov // Optical Memory & Neural Networks (Information Optics), 2008, Vol. 17, № 2, pp. 167-172. DOI: 10.3103/S1060992X08020112.
 - 102. SCATT: software to model scatterometry using the rigorous electromagnetic theory / S. Babin, L. Doskolovich, Y. Ishibashi, A. Ivanchikov, N. Kazanskiy, I. Kadomin, T. Mikami and Y. Yamazaki // Proc. SPIE, Vol. 7272, 72723X (2009); DOI: 10.1117/12.816904.
 - 103. Borodin S. A., Volkov A. V., and Kazanskii N. L. Device for analyzing nanoroughness and contamination on a substrate from the dynamic state of a liquid drop deposited on its surface // Journal of Optical Technology, Vol. 76, Iss. 7, pp. 408–412 (2009). DOI: 10.1364/JOT.76.000408.
 - 104. Golovashkin D.L. and Kazanskiy N.L. Mesh Domain Decomposition in the Finite-Difference Solution of Maxwell's Equations // Optical Memory & Neural Networks (Information Optics), 2009, Vol. 18, № 3, pp. 203-211. DOI: 10.3103/S1060992X09030102.
 - 105. Kazanskii N.L. and Kolpakov V.A. Effect of Bulk Modification of Polymers in a Directional Low-Temperature Plasma Flow // Technical Physics, 2009, Vol. 54, No. 9, pp. 1284-1289. DOI: 10.1134/S1063784209090060.
 - 106. Relaxation of supramolecular structures in polydimethylsiloxane films / Solovjev V.S., Volovkin B.O., Volkov A.V., and Kazansky N.L. // Mendeleev Communications, 2009, Vol. 19, No 6, pp. 342-343. DOI: 10.1016/j.mencom.2009.11.017.
 - 107. Kazansky N.L., Popov S.B. Machine vision system for determining the number of gel particles in a polymer solution // Computer Optics. – 2009. – Vol. 33, № 3. – P. 325–331.
 - 108. Bezus E.A., Doskolovich L.L., Kazanskiy N.L., Soifer V.A. and Kharitonov S.I. Design of diffractive lenses for focusing surface plasmons // Journal of Optics, Vol. 12, No 1, January 2010, 015001 (7pp). DOI: 10.1088/2040-8978/12/1/015001.
 - 109. Kazanskiy N.L. and Popov S.B. Machine Vision System for Singularity Detection in Monitoring the Long Process // Optical Memory and Neural Networks (Information Optics), 2010, Vol. 19, No. 1, pp. 23–30. DOI: 10.3103/S1060992X10010042.
 - 110. Kazanskiy N.L., Serafimovich P.G., and Khonina S.N. Harnessing the Guided-Mode Resonance to Design Nanooptical Transmission Spectral Filters // Optical Memory and

- Neural Networks (Information Optics), 2010, Vol. 19, No. 4, pp. 318-324. DOI: 10.3103/S1060992X10040090.
111. Bykov D.A., Doskolovich L.L., Soifer V.A., and Kazanskiy N.L. Extraordinary Magneto-Optical Effect of a Change in the Phase of Diffraction Orders in Dielectric Diffraction Gratings // Journal of Experimental and Theoretical Physics, 2010, Vol. 111, No. 6, pp. 967-974. DOI: 10.1134/S1063776110120095.
 112. Bezus E.A., Doskolovich L.L., Kazanskiy N.L. Evanescent-wave interferometric nanoscale photolithography using guided-mode resonant gratings // Microelectronic Engineering, 2011, Vol. 88, № 2, pp. 170-174. DOI: 10.1016/j.mee.2010.10.006.
 113. Khonina S.N., Kazanskiy N.L., Volotovsky S.G. Influence of Vortex Transmission Phase Function on Intensity Distribution in the Focal Area of High-Aperture Focusing System // Optical Memory and Neural Networks (Information Optics), 2011, Vol. 20, No. 1, pp. 23–42. DOI: 10.3103/S1060992X11010024.
 114. Moiseev M.A., Doskolovich L.L., Kazanskiy N.L. Design of high-efficient freeform LED lens for illumination of elongated rectangular regions // Optics Express, 9 May 2011, Vol. 19, No. S3, pp. A225-A233. DOI: 10.1364/OE.19.00A225.
 115. Golovashkin D.L. and Kasanskiy N.L. Solving Diffractive Optics Problem using Graphics Processing Units // Optical Memory and Neural Networks (Information Optics), 2011, Vol. 20, No. 2, pp. 85–89. DOI: 10.3103/S1060992X11020019.
 116. Izotov P.Yu., Kazanskiy N.L., Golovashkin D.L., and Sukhanov S.V. CUDA-Enable Implementation of a Neural Network Algorithm for Handwritten Digit Recognition // Optical Memory and Neural Networks (Information Optics), 2011, Vol. 20, No. 2, pp. 98–106. DOI: 10.3103/S1060992X11020032.
 117. Bezus E.A., Doskolovich L.L., and Kazanskiy N.L. Scattering suppression in plasmonic optics using a simple two-layer dielectric structure // Applied Physics Letters, 3 June 2011, Vol. 98, № 22, 221108 (3 pp.). DOI: 10.1063/1.3597620.
 118. Bezus E.A., Doskolovich L.L., and Kazanskiy N.L. Interference pattern formation in evanescent electromagnetic waves using waveguide diffraction gratings // Quantum Electronics, 2011, Vol. 41, No. 8, pp. 759-764. DOI: 10.1070/QE2011v04n08ABEH014500.
 119. Khonina S.N., Kazanskiy N.L., Volotovsky S.G. Vortex phase transmission function as a factor to reduce the focal spot of high-aperture focusing system // Journal of Modern Optics, 2011, Vol. 58, Issue 9, pp. 748–760. DOI: 10.1080/09500340.2011.568710.
 120. Kazanskiy N.L., Murzin S.P., Osetrov Ye.L., Tregub V.I. Synthesis of nanoporous structures in metallic materials under laser action // Optics and Lasers in Engineering, 2011, Vol. 49, No. 11, pp. 1264-1267. DOI: 10.1016/j.optlaseng.2011.07.001.
 121. Khonina S.N., Kazanskii N.L., Ustinov A.V. and Volotovskii S.G. The lensacon: nonparaxial effects // Journal of Optical Technology, 2011, Vol. 78, No 11, pp. 724-729. DOI: 10.1364/JOT.78.000724.
 122. Abul'khanov S.R., Kazanskii N.L., Doskolovich L.L., Kazakova O.Y. Manufacture of diffractive optical elements by cutting on numerically controlled machine tools // Russian Engineering Research, 2011. Vol. 31. № 12, pp. 1268-1272. DOI: 10.3103/S1068798X11120033.
 123. Bezus E.A., Doskolovich L.L., Kazanskiy N.L. Insulator-insulator-metal plasmonic waveguide for parasitic scattering suppression in plasmonic optics // Bulletin of the Russian Academy of Sciences: Physics, 2011, Vol. 75. № 12, pp. 1573-1575.

124. Bezus E.A., Doskolovich L.L., Kazanskiy N.L., Soifer V.A. Scattering in elements of plasmon optics suppressed by two-layer dielectric structures // Technical Physics Letters, 2011. Vol. 37. № 12, pp. 1091-1095. DOI: 10.1134/S1063785011120030.
125. Kazanskiy N.L., Skidanov R.V. Diffractive beam splitter // Computer Optics, 2011, 35 (3), pp. 329-335.
126. Nikolay Kazanskiy and Vsevolod Kolpakov "Temperature Measurement of a Surface Exposed to a Plasma Flux Generated Outside the Electrode Gap" // In book "Heat Transfer - Engineering Applications" Edited by Vyacheslav S. Vikhrenko, 2011, Publisher: InTech, Croatia, ISBN 978-953-307-361-3, pp. 87-118.
127. Khonina S.N., Kazanskiy N.L., Soifer V.A. Optical Vortices in a Fiber: Mode Division Multiplexing and Multimode Self-Imaging // In book "Recent Progress in Optical Fiber Research" Edited by: Moh. Yasin, Sulaiman W. Harun and Hamzah Arof, 2012, Publisher: InTech, Croatia, ISBN 978-953-307-823-6, pp. 327-352.
128. Kazanskiy N.L., Kharitonov S.I. Transmission of the space-limited broadband symmetrical radial pulses focused through a thin film // Computer Optics, 2012, Vol. 36, № 1, pp. 4-13.
129. Kazanskiy N.L., Khonina S.N., Kharitonov S.I. The perturbation theory for Schrodinger equation in the periodic environment in momentum representation // Computer Optics, 2012, Vol. 36, № 1, pp. 21-26.
130. Khonina S.N., Volotovsky S.G., Kharitonov S.I., Kazanskiy N.L. Calculation of the power spectrum of complex low-dimensional heterostructures in the presence of electric field // Computer Optics, 2012, Vol. 36, № 1, pp. 27-33.
131. Kazanskiy N.L., Serafimovich P.G., Khonina S.N. Enhancement of spatial modal overlap for photonic crystal nanocavities // Computer Optics, 2012, Vol. 36, № 2, pp. 199-204.
132. Solovjev V.S., Kazanskiy N.L., Volkov A.V., Volodkin B.O., Starojilov A.E. Experimental verification of the mechanism of mass transfer in liquid photopolymerizable compositions using Fourier-transform infrared-spectroscopy // Computer Optics, 2012, Vol. 36, № 2, pp. 235-241.
133. Kazanskiy N.L., Popov S.B. Distributed storage and parallel processing for large-size optical images // Proceedings of SPIE, 2012, Vol.8410, Art. No. 84100I, DOI: 10.1117/12.928441.
134. Kazanskiy N.L., Popov S.B. The distributed vision system of the registration of the railway train // Computer Optics, 2012, Vol. 36, № 3, pp. 419-428.
135. Kazanskiy N. L. Research & Education Center of Diffractive Optics // Proceedings of SPIE, 2012, Vol.8410, 84100R. DOI: 10.1117/12.923233.
136. Kazanskiy N., Skidanov R. Binary beam splitter // Applied Optics, 2012, Vol. 51, No. 14, pp. 2672-2677. DOI: 10.1364/AO.51.002672.
137. Kazanskiy N.L. and Serafimovich P.G. Cloud Computing for Rigorous Coupled-Wave Analysis // Advances in Optical Technologies, 2012, Vol. 2012, Article ID 398341, 7 pages. DOI: 10.1155/2012/398341.
138. Kazanskiy N.L., Serafimovich P.G., Khonina S.N. Use of photonic crystal resonators for differentiation of optical impulses in time // Computer Optics, 2012, Vol. 36, № 4, pp. 474-478.
139. Kazanskiy N.L., Kharitonov S.I., Khonina S.N. Joint solution of the Klein-Gordon and Maxwell's equations // Computer Optics, 2012, Vol. 36, № 4, pp. 518-526.
140. Design of LED optics with two aspherical surfaces and the highest efficiency / Mikhail A. Moiseev, Sergey V. Kravchenko, Leonid L. Doskolovich, Nikolay L. Kazanskiy //

Proceedings of SPIE, 2012, Vol. 8550, Optical Systems Design 2012, 85502N; doi: 10.1117/12.977846.

141. Zherdev D.A., Kazanskiy N.L., Fursov V.A., Kharitonov S.I. Electromagnetic field scattering simulation from anthropogenic objects on underlying surface // Computer Optics, 2013, Vol. 37, № 1, pp. 91-98.
142. Lyubopytov V.S., Tlyavlin A.Z., Sultanov A.Kh., Bagmanov V.Kh., Khonina S.N., Karpeev S.V., Kazanskiy N.L. Mathematical model of completely optical system for detection of mode propagation parameters in an optical fiber with few-mode operation for adaptive compensation of mode coupling // Computer Optics, 2013, Vol. 37, № 3, pp. 352-359.
143. Kazanskiy N.L., Serafimovich P.G., and Khonina S.N. Use of photonic crystal cavities for temporal differentiation of optical signals // Optics Letters, 2013, Vol. 38, No. 7, pp. 1149–1151. DOI: 10.1364/OL.38.001149.
144. Kazanskiy Nikolay L., Kolpakov Vsevolod A., Kolpakov Anatoly I., Ivliev Nikolay A., Krichevsky Sergey V. Device for Checking the Surface Finish of Substrates by Tribometry Method // Friction and Wear Research (FWR), April 2013, Vol. 1, No. 1, pp. 10-14.
145. Kazanskiy N.L., Serafimovich P.G. Cloud Computing for Nanophotonic Simulations // Lecture Notes in Computer Science, 2013, Vol. 7715, pp. 54-67. DOI: 10.1007/978-3-642-38250-5_7.
146. Khonina S.N., Volotovsky S.G., Kharitonov S.I., Kazanskiy N.L. Calculating the Energy Spectrum of Complex Low-Dimensional Heterostructures in the Electric Field // TheScientificWorldJournal, 2013, Vol. 2013, Article ID 807462, 7 pages, DOI: 10.1155/2013/807462.
147. Serafimovich P.G., Kazanskiy N.L., Khonina S.N. Two-component cavity based on a regular photonic crystal nanobeam // Applied Optics, 2013, Vol. 52, No. 23, pp.5830-5834. DOI: 10.1364/AO.52.005830.
148. Aslanov Emil R., Doskolovich Leonid L., Moiseev Mikhail A., Bezus Evgeni A., and Kazanskiy Nikolay L. Design of an optical element forming an axial line segment for efficient LED lighting systems // Optics Express, 2013, Vol. 21, Iss. 23, pp. 28651–28656. DOI: 10.1364/OE.21.028651.
149. Khonina S.N.; Savelyev D.A.; Kazansky N.L., and Soifer V.A. Singular phase elements as detectors for different polarizations // Proceedings SPIE, Vol. 9066, Eleventh International Conference on Correlation Optics, 90660A (December 17, 2013); doi:10.1117/12.2049001; <http://dx.doi.org/10.1117/12.2049001>.
150. Kazanskiy N.L., Kolpakov V.A., Podlipnov V.V. Gas discharge devices generating the directed fluxes of off-electrode plasma // Vacuum, 2014, Vol. 101, pp. 291–297. DOI: 10.1016/j.vacuum.2013.09.014.
151. Kazanskiy N.L., Serafimovich P.G. Using photonic crystal nanobeam cavities for integration of optical signal // Computer Optics, 2014, Vol. 38, № 2, pp. 181-187.
152. Dmitriev A.Yu., Doskolovich D.L., Doskolovich L.L., Kazanskiy N.L. Analytic design of refractive optical elements generating one-parameter directivity diagram // Computer Optics, 2014, Vol. 38, № 2, pp. 207-212.
153. Kazanskiy N.L., Kharitonov S.I., Khonina S.N., Volotovskiy S.G., Strelkov Yu.S. Simulation of hyperspectrometer on spectral linear variable filters // Computer Optics, 2014, Vol. 38, № 2, pp. 256-270.

154. Kazanskiy N.L., Kharitonov S.I., Karsakov A.V., Khonina S.N. Modeling action of a hyperspectrometer based on the Offner scheme within geometric optics // Computer Optics, 2014, Vol. 38, № 2, pp. 271-280.
155. Zimichev E.A., Kazanskiy N.L., Serafimovich P.G. Spectral-spatial classification with k-means++ particional clustering // Computer Optics, 2014, Vol. 38, № 2, pp. 281-286.
156. Serafimovich P.G., Kazanskiy N.L., Khonina S.N. Sandwich-typed resonator cavity based on a regular photonic crystal nanobeam // Journal of Physics: Conference Series, 2014, Vol. 490, pp. 012167 (7 pp.), doi:10.1088/1742-6596/490/1/012167.
157. Bezus Evgeni A., Doskolovich Leonid L., and Kazanskiy Nikolay L. Low-scattering surface plasmon refraction with isotropic materials // Optics Express. – 2014. – Vol. 22, Iss. 11, pp. 13547–13554. doi: 10.1364/OE.22.013547.
158. Kazanskiy Nikolay L. and Serafimovich Pavel G. Coupled-resonator optical waveguides for temporal integration of optical signals // Optics Express. – 2014. – Vol. 22, Iss. 11, pp. 14004–14013. doi: 10.1364/OE.22.014004.
159. Kazanskii N.L., Khonina S.N., Skidanov R.V., Morozov A.A., Kharitonov S.I., Volotovskiy S.G. Formation of images using multilevel diffractive lens // Computer Optics, 2014, Vol. 38, № 3, pp. 425-434.
160. Zherdev D.A., Kazanskiy N.L., Fursov V.A. Object recognition by the radar signatures of electromagnetic field scattering on base of support subspaces method // Computer Optics, 2014, Vol. 38, № 3, pp. 503-510.
161. Doskolovich Leonid L., Dmitriev Anton Yu., Moiseev Mikhail A., and Kazanskiy Nikolay L. Analytical design of refractive optical elements generating one-parameter intensity distributions // Journal of the Optical Society of America A, November 2014, Vol. 31, No. 11, pp. 2538–2544. doi: 10.1364/JOSAA.31.002538.
162. Kazanskiy N.L., Kharitonov S.I., Khonina S.N. Simulation of a hyperspectrometer based on linear spectral filters using vector Bessel beams // Computer Optics, 2014, Vol. 38, № 4, pp. 770-776.
163. Kazanskiy N.L., Protsenko V.I., Serafimovich P.G. Comparison of system performance for streaming data analysis in image processing tasks by sliding window // Computer Optics, 2014, Vol. 38, № 4, pp. 804-810.
164. Volkov A.V., Kazanskiy N.L., Moiseev O.Yu., Poletayev S.D. Thermal Oxidative Degradation of Molybdenum Films under Laser Ablation // Technical Physics, 2015, Vol. 60, No. 2, pp. 265-269. ISSN 1063-7842. DOI: 10.1134/S1063784215020255.
165. Kazanskiy N.L., Kharitonov S.I., Doskolovich L.L., Pavelyev A.V. Modeling the performance of a spaceborne hyperspectrometer based on the Offner scheme // Computer Optics, 2015, Vol. 39, № 1, pp. 70-76. DOI: 10.18287/0134-2452-2015-39-1-70-76.
166. Porfiriev A.P., Degtyarev S.A., Khonina S.N., Kazanskiy N.L. Chromatics Aberrations of Diffractive Elements in Pulsed Laser Beams Formation // Proceedings of the International Conference on Applied Physics, Simulation and Computers (APSAC 2015), Vienna, Austria, March 15-17, 2015. ISBN: 978-1-61804-286-6. P. 50-53.
167. Savelyev D.A., Kazanskiy N.L., Khonina S.N. Detection Singular Polarization State by Multi-Order Diffractive Optical Element // Proceedings of the International Conference on Applied Physics, Simulation and Computers (APSAC 2015), Vienna, Austria, March 15-17, 2015. ISBN: 978-1-61804-286-6. P. 87-91.
168. Kazanskiy N.L., Serafimovich P.G. Photonic Crystal Cavities for Optical Signal Processing // Proceedings of the International Conference on Applied Physics, Simula-

- tion and Computers (APSAC 2015), Vienna, Austria, March 15-17, 2015. ISBN: 978-1-61804-286-6. P. 134-139.
169. Kazanskiy N.L., Popov S.B. Integrated Design Technology for Computer Vision Systems in Railway Transportation // Pattern Recognition and Image Analysis, 2015, Vol. 25, No. 2, pp. 215-219. DOI: 10.1134/S1054661815020133.
170. Degtyarev Sergey A.; Khonina Svetlana N.; Ustinov Andrew V.; Kazanskiy Nicolay L. Lightning-rod effect near sharp dielectric structures // Proceedings of SPIE, Vol. 9533, Optical Technologies for Telecommunications 2014, 95330A (25 March 2015); doi: 10.1117/12.2180353 (6 p.).
171. Kazanskiy Nikolay L.; Serafimovich Pavel G.; Zimichev Evgeniy A. Spectral-spatial classification of hyperspectral images with k-means++ partitional clustering // Proceedings of SPIE, Vol. 9533, Optical Technologies for Telecommunications 2014, 95330M (25 March 2015); doi: 10.1117/12.2180543 (9 p.).
172. Kazanskiy N.L.; Kharitonov S. I.; Khonina S. N.; Volotovskiy S. G. Simulation of spectral filters used in hyperspectrometer by decomposition on vector Bessel modes // Proceedings of SPIE, Vol. 9533, Optical Technologies for Telecommunications 2014, 95330L (25 March 2015); doi: 10.1117/12.2183429 (7 p.).
173. Egorov A.V., Kazanskiy N.L., Serafimovich P.G. Using coupled photonic crystal cavities for increasing of sensor sensitivity // Computer Optics, 2015, Vol. 39, № 2, pp. 158-162. DOI: 10.18287/0134-2452-2015-39-2-158-162.
174. Zherdev D.A., Kazanskiy N.L., Fursov V.A. Object recognition in radar images using conjugation indices and support subspaces // Computer Optics, 2015, Vol. 39, № 2, pp. 255-264.
175. Khonina Svetlana N., Savelyev Dmitry A., and Kazanskiy Nikolay L. Vortex phase elements as detectors of polarization state // Optics Express, 2015, Vol. 23, No. 14, pp. 17845-17859. doi: 10.1364/OE.23.017845.
176. Doskolovich L.L., Moiseev M.A., Kazanskiy N.L. On using a supporting quadric method to design diffractive optical elements // Computer Optics, 2015, Vol. 39, № 3, pp. 339-346.
177. Serafimovich P.G., Kazanskiy N.L. Compact Multichannel Spectrometer Based on the Array of Two-Component Photonic Crystal Cavities // Pattern Recognition and Image Analysis, 2015, Vol. 25, No. 3, pp. 526–531.
178. Design method for automotive high-beam LED optics / Egor V. Byzov, Mikhail A. Moiseev, Leonid L. Doskolovich, Nikolay L. Kazanskiy // Proceedings of SPIE, 2015, Vol. 9629, Optical Systems Design 2015: Illumination Optics IV, 96290I; doi: 10.1117/12.2191510.
179. Kharitonov S.I., Volotovskiy S.G., Khonina S.N., Kazanskiy N.L. A differential method for calculating X-ray diffraction on crystals: scalar theory // Computer Optics, 2015, Vol. 39, № 4, pp. 469-479. DOI: 10.18287/0134-2452-2015-39-4-469-479.
180. Protsenko V.I., Kazanskiy N.L., Serafimovich P.G. Real-time analysis of parameters of multiple object detection systems // Computer Optics, 2015, Vol. 39, № 4, pp. 582-591. DOI: 10.18287/0134-2452-2015-39-4-582-591.
181. Kazanskiy N.L. Asymptotic research in computer optics // Proceedings of Information Technology and Nanotechnology Conference (ITNT-2015), CEUR Workshop Proceedings, 2015; Vol. 1490, pp. 151-161. DOI: 10.18287/1613-0073-2015-1490-151-161.
182. Serafimovich P.G., Kazanskiy N.L. Active photonic crystal cavities for optical signal integration // Optical Memory and Neural Networks (Information Optics), 2015, Vol. 24, Issue 4, pp 260-271. DOI: 10.3103/S1060992X15040050.

183. Doskolovich L.L.; Borisova K.V.; Moiseev M.A.; Kazanskiy N.L. Design of mirrors for generating prescribed continuous illuminance distributions on the basis of the supporting quadric method // Applied Optics, February 2016, Vol. 55, No. 4, pp. 687-695. doi: 10.1364/AO.55.000687.
184. Kazanskiy N. L., Moiseev O. Yu., and Poletayev S. D. Microprofile Formation by Thermal Oxidation of Molybdenum Films // Technical Physics Letters, 2016, Vol. 42, No. 2, pp. 164-166. DOI: 10.1134/S1063785016020085.
185. Khonina Svetlana N., Savelyev Dmitry A., and Kazanskiy Nikolay L. Analysis of polarization states at sharp focusing // Optik - International Journal for Light and Electron Optics, 2016, Vol. 127, Issue 6, pp. 3372–3378. doi: 10.1016/j.ijleo.2015.12.108.
186. Egorov A. V., Kazanskiy N. L., and Serafimovich P. G. Application of Photonic-Crystal Coupled Cavities for Increase in Sensitivity of Optical Sensor // Optical Memory and Neural Networks (Information Optics), 2016, Vol. 25, No. 1, pp. 25-31. DOI: 10.3103/S1060992X16010033.
187. Nanocrystalline silicon thin films and grating structures for solar cells / Sucheta Juneja, Selvakumar Sudhakar, Svetlana N. Khonina, Roman V. Skidanov, Alexey P. Porfirev, Oleg Y. Moishev, Nikolay L. Kazanskiy, Sushil Kumar // Proceedings of SPIE, 2016, Vol. 9807, Optical Technologies for Telecommunications 2015, 98070F; doi: 10.1117/12.2232326.
188. Layered lens with a linear dependence of the refractive index change / Dmitry A. Savelyev, Andrey V. Ustinov, Svetlana N. Khonina, Nikolay L. Kazanskiy // Proceedings of SPIE, 2016, Vol. 9807, Optical Technologies for Telecommunications 2015, 98070P; doi: 10.1117/12.2234404.
189. Converter of laser beams with circular polarization to cylindrical vector beams based on anisotropic crystals / Vyacheslav D. Paranin, Sergey V. Karpeev, Nikolay L. Kazanskiy, Andrey P. Krasnov // Proceedings of SPIE, 2016, Vol. 9807, Optical Technologies for Telecommunications 2015, 98070R; doi: 10.1117/12.2234831.
190. Calculating x-ray diffraction on crystals by means of the differential method / Sergey I. Kharitonov, Nikolay L. Kazansky, Sergey G. Volotovskiy, Svetlana N. Khonina // Proceedings of SPIE, 2016, Vol. 9807, Optical Technologies for Telecommunications 2015, 98070V (March 26, 2016); doi: 10.1117/12.2234054.
191. Performance analysis of sliding window filtering of two dimensional signals based on stream data processing systems / Nikolay Kazanskiy, Vladimir Protsenko, Pavel Serafimovich // Proceedings of SPIE, 2016, Vol. 9807, Optical Technologies for Telecommunications 2015, 98070Z; doi: 10.1117/12.2231384.
192. Design of diffractive micro-patterns with weak wavelength dependence / Sergey A. Degtyarev, Alexey P. Porfirev, Svetlana N. Khonina, Nikolay L. Kazanskiy // Proceedings of SPIE, 2016, Vol. 9917, Saratov Fall Meeting 2015: Third International Symposium on Optics and Biophotonics and Seventh Finnish-Russian Photonics and Laser Symposium (PALS), 99172U; doi:10.1117/12.2224453.
193. Kharitonov S.I., Kazanskiy N.L., Doskolovich L.L., Strelkov Y.S. Modeling the reflection of the electromagnetic waves at a diffraction grating generated on a curved surface // Computer Optics, 2016, Vol. 40, № 2, pp. 194-202.
194. Kazanskiy N.L., Stepanenko I.S., Khaimovich A.I., Kravchenko S.V., Byzov E.V., Moiseev M.A. Injectional multilens molding parameters optimization // Computer Optics, 2016, Vol. 40, № 2, pp. 203-214. DOI: 10.18287/2412-6179-2016-40-2-203-214.
195. Volkov A. V., Kazanskiy N. L., Moiseev O. Yu., Paranin V. D., Poletayev S. D., and Chistyakov I. V. Specific Features of the Laser Irradiation of Thin Molybdenum Films

// Technical Physics, 2016, Vol. 61, No. 4, pp. 579-583. ISSN 1063-7842. DOI: 10.1134/S1063784216040241.

196. Doskolovich Leonid L., Bezus Evgeni A., Moiseev Mikhail A., Bykov Dmitry A., and Kazanskiy Nikolay L. Analytical source-target mapping method for the design of freeform mirrors generating prescribed 2D intensity distributions // Optics Express, Vol. 24, Issue 10, pp. 10962-10971 (2016). doi: 10.1364/OE.24.010962.
197. Serafimovich Pavel G. & Kazanskiy Nikolay L. Optical modulator based on coupled photonic crystal cavities // Journal of Modern Optics, 2016, Vol. 63, Issue 13, pages 1233-1238. DOI: 10.1080/09500340.2015.1135258.
198. Serafimovich PG, Stepikhova MV, Kazanskiy NL, Gusev SA, Egorov AV, Skorokhodov EV, Krasilnik ZF. On a silicon-based photonic-crystal cavity for the near-IR region: Numerical simulation and formation technology // Semiconductors, 2016; 50(8): 1112-1116. DOI: 10.1134/S1063782616080212.
199. Doskolovich Leonid L., Andreev Evgeniy S., Kharitonov Sergey I., and Kazansky Nikolay L. Reconstruction of an optical surface from a given source-target map // Journal of the Optical Society of America A, Vol. 33, Issue 8, pp. 1504-1508 (2016). DOI: 10.1364/JOSAA.33.001504.
200. Verma, P., Zaman Khan, K., Khonina, S.N., Kazanskiy, N.L., Gopal, R. Ultraviolet-LIGA-based fabrication and characterization of a nonresonant drive-mode vibratory gyro/accelerometer // Journal of Micro/Nanolithography, MEMS, and MOEMS, 2016, 15(3): 035001. DOI: 10.1117/1.JMM.15.3.035001.
201. Protsenko V.I., Seraphimovich P.G., Popov S.B., Kazanskiy N.L. Firmware and hardware infrastructure for data stream processing // CEUR Workshop Proceedings, 2016; Vol. 1638. P. 782-787. DOI: 10.18287/1613-0073-2016-1638-782-787.
202. Kazanskiy N.L., Poletayev S.D. Numerical Simulation of the Ablation of Thin Molybdenum Films under Laser Irradiation // Technical Physics, 2016, Vol. 61, No. 9, pp. 1279-1285. ISSN 1063-7842. DOI: 10.1134/S1063784216090127.
203. Juneja S., Poletayev S.D., Fomchenkov S., Khonina S.N., Skidanov R.V., Kazanskiy N.L. Reactive ion etching of indium-tin oxide films by CCl₄-based Inductivity Coupled Plasma // Journal of Physics: Conference Series, 2016, Vol. 741 (1), 012105 (5 pp.). DOI: 10.1088/1742-6596/741/1/012105.
204. Fomchenkov S.A., Butt M.A., Podlipnov V.V., Poletaev S.D., Skidanov R.V., Kazanskiy N.L. E-beam lithography exposure conditions for the fabrication of RGB filter based on metal/dielectric subwavelength grating // Journal of Physics: Conference Series, 2016, Vol. 741 (1), 012150 (4 pp.). DOI: 10.1088/1742-6596/741/1/012150.
205. Verma, P., Butt, M.A., Khonina, S.N., Kazanskiy, N.L., Khan, K.Z., Gopal, R. Acceleration characterization of dual purpose gyro/accelerometer device using MS3110 differential capacitive read out IC // 2016 International Conference on Microelectronics, Computing and Communication, MicroCom 2016; Durgapur; India; 23-25 January 2016; IEEE Publisher: 25 July 2016, Article number 7522428. DOI: 10.1109/MicroCom.2016.7522428.
206. Butt, M.A., Verma, P., Rasshchepkina, N.A., Soloviev, V.S., Kazanskiy, N.L., Skidanov, R.V., Khonina, S.N., Poletaev, S.D., Podlipnov, V.V., Fomchenkov, S.A., Timoshenkov, S.P., Timoshenkov, A.S., Vinogradov, A.I. Fabrication of silicon slanted grating by using modified thermal deposition technique to enhance fiber-to-chip coupling // 2016 International Conference on Microelectronics, Computing and Communication, MicroCom 2016; Durgapur; India; 23-25 January 2016; IEEE Publisher: 25 July 2016, Article number 7522501. DOI: 10.1109/MicroCom.2016.7522501.

207. Kharitonov, S.I., Doskolovich, L.L., Kazanskiy, N.L. Solving the inverse problem of focusing laser radiation in a plane region using geometrical optics // Computer Optics, 2016, Vol. 40 (4), pp. 439-450. DOI: 10.18287/2412-6179-2016-40-4-439-450.
208. Fursov Vladimir, Zherdev Denis, and Kazanskiy Nikolay. Support subspaces method for synthetic aperture radar automatic target recognition // International Journal of Advanced Robotic Systems, 2016, Vol. 13, Iss. 5, 1729881416664848, pp. 1-11. DOI: 10.1177/1729881416664848.
209. Podlipnov V.V., Kolpakov V.A., Kazanskiy N.L. Etching silicon dioxide in outside electrode plasma using chrome mask // Computer Optics, 2016, Vol. 40 (6), pp. 830-836.
210. Kazanskiy N.L. Editorial: Advances of the journal of *Computer Optics* // Computer Optics, 2017, Vol. 41 (1), pp. 139-141.
211. Nikonorov, A., Petrov, M., Yakimov, P., Blank, V., Karpeev, S., Skidanov, R., Kazanskiy, N. Evaluating imaging quality of the offner hyperspectrometer // 9th IAPR Workshop on Pattern Recognition in Remote Sensing, PRRS 2016. 28 February 2017, Article number 7867020. DOI: 10.1109/PRRS.2016.7867020.
212. Kazanskiy Nikolay L., Kolpakov Vsevolod A. Optical Materials: Microstructuring Surfaces with Off-Electrode Plasma. – CRC Press, Taylor & Francis Group, 2017, 212 p. ISBN 978-1-1381-9728-2 - CAT# K31257. <https://www.crcpress.com/Optical-Materials-Microstructuring-Surfaces-with-Off-Electrode-Plasma/Kazanskiy-Kolpakov/p/book/9781138197282>.
213. Butt M.A., Fomchenkov S.A., Kazanskiy N.L., Ullah A., Ali R.Z., Habib M. Infrared reflective coatings for building and automobile glass windows for heat protection // Proc. SPIE, 2017, Vol. 10342, Optical Technologies for Telecommunications 2016, 103420O (April 6, 2017); doi: 10.1117/12.2270646. <http://dx.doi.org/10.1117/12.2270646>.
214. Murzin Serguei P., Kazanskiy Nikolay L. Determination the allowable error to adjustment of a diffractive optical element and the accuracy demanded to set the parameters of the focused beam // Proc. SPIE, 2017, Vol. 10342, Optical Technologies for Telecommunications 2016, 103420S (April 6, 2017); doi: 10.1117/12.2270705. <http://dx.doi.org/10.1117/12.2270705>.
215. Serafimovich Pavel G., Kazanskiy Nikolay L. Simulation of temporal integration of optical signals with photonic crystal nanobeam cavities // Proc. SPIE, 2017, Vol. 10342, Optical Technologies for Telecommunications 2016, 103420T (April 6, 2017); doi: 10.1117/12.2270753. <http://dx.doi.org/10.1117/12.2270753>.
216. Kharitonov S.I., Doskolovich L.L., Kazanskiy N.L. Asymptotic methods of solving problems of diffraction by non-periodic structures // Computer Optics, 2017, Vol. 41 (2), pp. 160-168.
217. Nikonorov A., Petrov M., Bibikov S., Yuzifovich Y., Yakimov P., Kazanskiy N., Skidanov R., Fursov V. Comparative evaluation of deblurring techniques for Fresnel lens computational imaging // Proceedings - International Conference on Pattern Recognition, Article number 7899729, pp. 775-780 (2017). DOI: 10.1109/ICPR.2016.7899729.
218. Butt M.A., Degtyarev S.A., Khonina S.N., Kazanskiy N.L. An evanescent field absorption gas sensor at mid-IR 3.39 μm wavelength // Journal of Modern Optics, 2017, Vol. 64, Iss. 18, pp. 1892-1897. DOI: 10.1080/09500340.2017.1325947.

219. Rastorguev A.A., Kharitonov S.I., Kazanskiy N.L. Modeling the illuminance distribution in the detection plane of a spaceborne Offner hyperspectrometer // Computer Optics, 2017, Vol. 41 (3), pp. 399-405.
220. Murzin S.P., Kazanskiy N.L., Liedl G., Otto A., Bielak R. Laser beam shaping for modification of materials with ferritic-martensitic structure // Procedia Engineering, 2017, Vol. 201, pp. 164-168. DOI: 10.1016/j.proeng.2017.09.592.
221. Kazanskiy N.L., Kuznetsov M.G. The necessary bound of rectangle's square for packing into this any system of five and more than five finite quantity squares with total area 1 // Procedia Engineering, 2017, Vol. 201, pp. 801-805. DOI: 10.1016/j.proeng.2017.09.601.
222. Kazanskiy N.L., Protsenko V.I., Serafimovich P.G. Performance analysis of real-time face detection system based on stream data mining frameworks // Procedia Engineering, 2017, Vol. 201, pp. 806-816. DOI: 10.1016/j.proeng.2017.09.602.
223. Kazanskiy N.L. Efficiency of deep integration between a research university and an academic institute // Procedia Engineering, 2017, Vol. 201, pp. 817-831. DOI: 10.1016/j.proeng.2017.09.604.
224. Kazanskiy N.L., Kolpakov V.A., Krichevskiy S.V., Ivliev N.A., Markushin M.A. A Gas-Discharge Plasma Focuser // Instruments and Experimental Techniques, 2017, Vol. 60, No. 5, pp. 748–751. DOI: 10.1134/S0020441217040157.
225. Fursov V., Minaev E., Zherdev D., Kazanskiy N. Support subspaces method for recognition of the synthetic aperture radar images using fractal compression // International Journal of Advanced Robotic Systems, 2017, Vol. 14, Iss. 5, pp. 1-8. DOI: 10.1177/1729881417733952.
226. Kazanskiy N.L., Kolpakov V.A., Krichevskiy S.V., and Podlipnov V.V. Simulations of Dynamic Resistive Evaporation in a Vacuum // Technical Physics, 2017, Vol. 62, No. 10, pp. 1490–1495. DOI: 10.1134/S1063784217100140.
227. Slesarev O., Bayricov I., Trunin D., Abul'khanov S., Kazanskiy N. Influence of data visualization of temporomandibular joint on the formation of clinical groups // RAD Conference Proceedings, 2017, Vol. 2, pp. 212–216. DOI: 10.21175/RadProc.2017.43.
228. Kazanskiy N.L., Khonina S.N. Nonparaxial Effects in Lensacon Optical Systems // Optoelectronics, Instrumentation and Data Processing, 2017, Vol. 53, No. 5, pp. 484–493. DOI: 10.3103/S8756699017050089.
229. Ivliev N. A., Kolpakov V. A., Krichevskii S. V., and Kazanskiy N. L. Determination of Concentration of Organic Contaminants on a Silicon Dioxide Surface by Tribometry // Measurement Techniques, 2017, Vol. 60 (9), pp. 869-873. DOI 10.1007/s11018-017-1285-1.
230. Abulkhanov S.R., Kazanskiy N.L., Strelkov Yu.S. Numerical simulation of vibration-related deformation of a railway locomotive headlight: visualization of the results // Scientific Visualization, 2017, Vol. 9 (5), pp. 19-37. DOI: 10.26583/sv.9.5.02.
231. Nikonorov A.V., Petrov M.V., Bibikov S.A., Kutikova V.V., Morozov A.A., Kazanskiy N.L. Image restoration in diffractive optical systems using deep learning and deconvolution // Computer Optics, 2017, Vol. 41 (6), pp. 875-887.
232. Smelkina N.A., Kosarev R.N., Nikonorov A.V., Bairikov I.M., Ryabov K.N., Avdeev A.V., Kazanskiy N.L. Reconstruction of anatomical structures using statistical shape modeling // Computer Optics, 2017, Vol. 41 (6), pp. 897-904. DOI: 10.18287/2412-6179-2017-41-6-897-904.

233. Butt M.A., Khonina S.N., Kazanskiy N.L. Silicon on silicon dioxide slot waveguide evanescent field gas absorption sensor // Journal of Modern Optics, 2018, Vol. 65 (2), pp. 174-178. DOI: 10.1080/09500340.2017.1382596.
234. Murzin Serguei P. and Kazanskiy Nikolay L. Softening of Low-alloyed Titanium Billets with Laser Annealing // IOP Conference Series: Materials Science and Engineering, 2018, Vol. 302, Art. No. 012070. doi: 10.1088/1757-899X/302/1/012070.
235. Abul'khanov S. R. and Kazanskiy N. L. Information Pattern in Imaging of a Rough Surface // IOP Conference Series: Materials Science and Engineering, 2018, Vol. 302, Art. No. 012068. doi:10.1088/1757-899X/302/1/012068.
236. Butt M.A., Khonina S.N., Kazanskiy N.L. Hybrid plasmonic waveguide-assisted Metal–Insulator–Metal ring resonator for refractive index sensing // Journal of Modern Optics, 2018, Vol. 65, No. 9, pp. 1135-1140. DOI: 10.1080/09500340.2018.1427290.
237. Doskolovich L.L., Bezus E.A., Kazanskiy N.L. Multifocal spectral diffractive lens // Computer Optics, 2018, Vol. 42 (2), pp. 219-226. DOI: 10.18287/2412-6179-2018-42-2-219-226.
238. Butt M.A., Khonina S.N., Kazanskiy N.L. Modelling of Rib channel waveguides based on silicon-on-sapphire at $4.67\text{ }\mu\text{m}$ wavelength for evanescent field gas absorption sensor // Optik, 2018, Vol. 168, pp. 692-697. DOI: 10.1016/j.jleo.2018.04.134.
239. Kazanskiy N.L., Morozov A.A., Nikonorov A.V., Petrov M.V., Podlipnov V.V., Skidanov R.V., Fursov V.A. Experimental study of optical characteristics of a satellite-based Offner hyperspectrometer // Proc. SPIE, 2018, Vol. 10774, Art. No. 1077411; doi: 10.1117/12.2318853.
240. Kazanskiy N. L. Modeling diffractive optics elements and devices // Proc. SPIE, 2018, Vol. 10774, Art. No. 107740O; doi: 10.1117/12.2319264.
241. Kharitonov S. I., Kazanskiy N. L., Gornostay A. V., Strelkov Yu. S. Modeling the reflection of electromagnetic waves at diffraction gratings applied on a freeform surfaces // Proc. SPIE, 2018, Vol. 10774, Art. No. 107740F; doi: 10.1117/12.2315797.
242. Kirilenko M. S., Khonina S. N., Kazanskiy N. L. Simulation of vortex laser beams superposition propagation through a random optical environment // Proc. SPIE, 2018, Vol. 10774, Art. No. 1077409; doi: 10.1117/12.2318465.
243. Murzin S. P., Kazanskiy N. L. Laser beam shaping with purposefully changing of spatial power distribution // Proc. SPIE, 2018, Vol. 10774, Art. No. 107740Q; doi: 10.1117/12.2317480.
244. Rastorguev A.A., Kharitonov S.I., Kazanskiy N.L. Modeling of arrangement tolerances for the optical elements in a spaceborne Offner imaging hyperspectrometer // Computer Optics, 2018, Vol. 42 (3), pp. 424-431. DOI: 10.18287/2412-6179-2018-42-3-424-431.
245. Mingazov AA, Bykov DA, Doskolovich LL, Kazanskiy NL. Variational interpretation of the eikonal calculation problem from the condition of generating a prescribed irradiance distribution // Computer Optics, 2018, Vol. 42(4), pp. 568-573. DOI: 10.18287/2412-6179-2018-42-4-568-573.
246. Kazanskiy NL, Kharitonov SI, Kozlova IN, Moiseev MA. The connection between the phase problem in optics, focusing of radiation, and the Monge–Kantorovich problem // Computer Optics, 2018, Vol. 42(4), pp. 574-587. DOI: 10.18287/2412-6179-2018-42-4-574-587.
247. Nikonorov A.V., Petrov M.V., Bibikov S.A., Yakimov P.Y., Kutikova V.V., Yuzifovich Y.V., Morozov A.A., Skidanov R.V., Kazanskiy N.L. Toward Ultralightweight Remote Sensing With Harmonic Lenses and Convolutional Neural

- Networks // IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, Vol. 11, Iss. 9, pp. 3338-3348. DOI: 10.1109/JSTARS.2018.2856538.
248. Bibikov S.A., Kazanskiy N.L., Fursov V.A. Vegetation type recognition in hyperspectral images using a conjugacy indicator // Computer Optics, 2018, Vol. 42(5), pp. 846-854. DOI: 10.18287/2412-6179-2018-42-5-846-854.
249. Baum O.I., Omelchenko A.I., Kasyanenko E.M., Skidanov R.V., Kazanskiy N.L., Sobol E.N., Bolshunov A.V., Sipliv V.I., Osipyan G.A., Gamidov A.A., Avetisov S.E. New biophotonics methods for improving efficiency and safety of laser modification of the fibrous tunic of the eye // Vestnik Oftalmologii, 2018, Vol. 134(5), pp. 4-14. DOI: 10.17116/oftalma20181340514.
250. Butt M.A., Khonina S.N., Kazanskiy N.L. Compact design of a polarization beam splitter based on silicon-on-insulator platform // Laser Physics, 2018, Vol. 28, No. 11, Art. No. 116202 (5pp). DOI: 10.1088/1555-6611/aadf18.
251. Bykov Dmitry A., Doskolovich Leonid L., Mingazov Albert A., Bezus Evgeni A., and Kazanskiy Nikolay L. Linear assignment problem in the design of freeform refractive optical elements generating prescribed irradiance distributions // Optics Express, 2018, Vol. 26(21), pp. 27812-27825. DOI: 10.1364/OE.26.027812.
252. Nikonorov A.V., Petrov M.V., Bibikov S.A., Yakimov P.Y., Kutikova V.V., Morozov A.A., Skidanov R.V., Kazanskiy N.L. Deep Learning-Based Enhancement of Hyperspectral Images Using Simulated Ground Truth // IEEE Xplore, 2018, Proc. 2018 10th IAPR Workshop on Pattern Recognition in Remote Sensing (PRRS), Beijing, China, 19-20 Aug. 2018. DOI: 10.1109/PRRS.2018.8486408.
253. Doskolovich Leonid L., Bykov Dmitry A., Andreeva Kseniya V., and Kazanskiy Nikolay L. Design of an axisymmetrical refractive optical element generating required illuminance distribution and wavefront // Journal of the Optical Society of America A, 2018, Vol. 35, Iss. 11, pp. 1949-1953. DOI: 10.1364/JOSAA.35.001949.
254. Rastorguev A.A., Kharitonov S.I., Kazanskiy N.L. Estimation of permissible technological errors in the arrangement of optical elements for the hyperspectrometer according to the Offner's scheme // Journal of Physics: Conference Series, 2018, Vol. 1096, Art. No. 012016. DOI: 10.1088/1742-6596/1096/1/012016. (8p.)
255. Kazanskiy N.L., Abulkhanov S.R., Goryainov D.S., Strelkov Yu.S. Analysis of structural features of a LED searchlight // Journal of Physics: Conference Series, 2018, Vol. 1096, Art. No. 012073. DOI: 0.1088/1742-6596/1096/1/012073. (8p.)
256. Kharitonov SI, Volotovsky SG, Khonina SN, Kazanskiy NL. Propagation of electromagnetic pulses and calculation of dynamic invariants in a waveguide with a convex shell // Computer Optics, 2018, Vol. 42(6), pp. 947-958. DOI: 10.18287/2412-6179-2018-42-6-947-958.
257. Butt M.A., Khonina S.N., Kazanskiy N.L. Highly sensitive refractive index sensor based on hybrid plasmonic waveguide microring resonator // Waves in Random and Complex Media, 2019, <https://doi.org/10.1080/17455030.2018.1506191>.
258. Butt M.A., Khonina S.N., Kazanskiy N.L. Metal-insulator-metal nano square ring resonator for gas sensing applications // Waves in Random and Complex Media, Published online: 17 Jan 2019, <https://doi.org/10.1080/17455030.2019.1568609>.