



Index of Papers Published in 2024

ADDITIVE TECHNOLOGIES

- A. Yu. Kovchik, A. M. Vildanov, N. R. Alymov, S. Yu. Ivanov, R. V. Mendagaliyev.** Application of Residual Deformation Compensation Methods in Direct Laser Deposition of Large-Sized Products No. 5, p. 406

BIOPHOTONICS

- E. N. Baranova, O. V. Shelepova, A. A. Zolotukhina, G. V. Nesterov, K. A. Sudarikov, V. V. Latushkin, A. A. Gulevich.** Application of Optical Methods to Assess Physiological Damage to Wheat Flag Leaves No. 4, p. 320
- O. V. Shelepova, E. N. Baranova, K. A. Sudarikov, L. S. Olekhnovich, L. N. Konovalova, V. V. Latushkin, P. A. Vernik, A. A. Gulevich.** Evaluation of the Use of LED Lighting in Combination with the Use of γ -PGA SAP Peptide on the Growth and Development of Peppermint Plants in a Closed Biosystem No. 6, p. 486
- Yu. N. Kulchin, S. O. Kozhanov, E. P. Subbotin, A. S. Kholin, N. I. Subbotina, A. S. Gomolsky, O. O. Slugina.** Polarization Ellipticity Change of the Red, Green and Blue Ranges of Laser Radiation Transmitted through the Maize Leaves No. 7, p. 570
- V. S. Sukhov, M. M. Borisova-Mubarakshina.** Current Issues of Photobiology and Biophotonics No. 7, p. 580
- M. A. Keldysh, O. N. Chervyakova, O. V. Shelepova, I. V. Mitrofanova, I. V. Petrunya, K. A. Sudarikov, A. A. Gulevich, E. N. Baranova.** Comparative Analysis of Optical Methods for Detection and Identification of Viral Infection During Monitoring of Vegetatively Propagated Lilac Cultivar No. 8, p. 660

BUSINESS PEOPLE

- S. Gorny.** Engineering is a Compromise of Different Points of View ... No. 1, p. 8
- D. Andreev.** LASSARD: Synergy of Resources and Properly Working People No. 3, p. 190
- D. N. Vasilyev.** Accuracy, Speed, Import Substitution No. 4, p. 264
- A. A. Grinev.** Axe With a Golden Blade No. 5, p. 348
- A. M. Tyazhlov.** Unimach Laser Machines: Business Effects for Users No. 6, p. 428

COMPANY PORTRAIT

- A. L. Tsygantsova.** Hidden Goals and Open Principles: the Scientific and Production Center "Lasers and Equipment" Celebrates Its 25 Anniversary No. 1, p. 32

CONFERENCES, EXHIBITIONS, SEMINARS

- N. L. Istomina, L. V. Karyakina.** Domestic Photonics Market No. 3, p. 218
- A. V. Naumov, V. V. Utochnikova.** Achievements and Perspectives of Luminescence at the All-Russian Conference with International Participation LUMOS2024 No. 3, p. 224

N. L. Istomina. New Laser Equipment at the

Metalloobrabotka2024 Exhibition No. 4, p. 270

A. V. Naumov. Achievements and Prospects of Photoelectronics at XXVII International Conference in the Orion Scientific

Production Association No. 4, p. 278

Tasks and Prospects for the Development of Optoelectronics and Photonics Technologies No. 7, p. 510

Laser Systems in Microelectronics: Between West and East No. 7, p. 512

X Forum "Microelectronics 2024": Photoelectronics Achievements and Prospects No. 7, p. 516

A. V. Naumov. Photonics: Refinement Technique No. 8, p. 592

FIBER OPTIC DEVICES & TECHNOLOGIES

- S. B. Bychkov, A. O. Pogonyshhev, S. V. Tikhomirov, V. R. Sumkin.** Methods for Measuring Return Loss in Fiber Optic Lines and Components No. 6, p. 470

GENERAL ISSUES OF THE INDUSTRY.

DEVELOPMENTS. DOCUMENTS

- O. A. Koshkareva.** On the Goal Attainability of the Current Concept of Technological Development No. 1, p. 16
- I. B. Kovsh.** Domestic production of photonics products No. 2, p. 90
- O. A. Koshkareva.** On the Goal Attainability of the Current Concept of Technological Development. Part II No. 2, p. 98

MATERIALS & COATINGS

- M. A. Kudryashov, L. A. Mochalov, Yu. P. Kudryashova, E. A. Slapovskaya, M. A. Vshvtsev, R. N. Kriukov.** The Effect of Substrate Temperature on the Optical Properties of GaSe Thin Films Obtained by PECVD No. 3, p. 246

- D. V. Gorelov, N. M. Somov, I. V. Potapenko, D. V. Novikov, V. V. Amelichev.** Study of the Absorption Spectrum of Surface-Modified Silicon Within the Wavelength Range from 2.5 to 25 μm ... No. 7, p. 536

METATRONICS

- P. P. Maltsev.** Pulsed Optical and X-ray Radiation of Fractals: Review of Hypotheses. Part I. Micro Runaway Breakdown No. 5, p. 358
- P. P. Maltsev.** Pulsed Optical and X-ray Radiation of Fractals: Review of Hypotheses. Part II. Micro-Breakdown of Fractals made of Metamaterials No. 7, p. 522

MICROWAVE PHOTONICS

- M. E. Belkin, E. V. Kuznetsov.** Promising Microwave-Photonics Facilities of Group and Individual Electronic Countermeasures No. 1, p. 48
- A. A. Kokolov, F. I. Sheyerman, L. I. Babak, D. A. Konkin, A. V. Ubaichin, A. S. Koryakovtsev, E. A. Shutov.** Experimental Study and Modeling of High-Frequency Performances of Ge-Photodiode for Microwave Optical Receiver Integrated Circuits No. 3, p. 230

**NEWS**

- Is the Distance from PHOTONICS 2024 to Expoelectronics 2024
So Huge: The Roadmap for the Development of Photonics and
Optoelectronics No. 3, p. 184
- Northwest Center for Additive Technologies No. 3, p. 188
- Session of Section № 12: Ways of photonics development No. 5, p. 354
- Forum "Microelectronics-2024": News of Photonic and
Quantum Technologies No. 6, p. 469
- The First "Additive Forum of the Northern Capital" No. 7, p. 508
- VI Leader Forum "Additive Technologies – the Reality of
Technological Leadership" No. 7, p. 508
- Additive Congress #1 No. 7, p. 509
- International Conference "Physics.SPb/2024" No. 7, p. 549

OPTICAL DEVICES & SYSTEMS

- I. P. Shishkin, A. P. Shkadarevich.** Long-Focal Length
Catadioptric Lenses No. 2, p. 152
- I. P. Shishkin, A. P. Shkadarevich.** Night Vision Lens No. 4, p. 314
- E. V. Vlasov, P. S. Zavyalov, E. S. Zhimuleva.** Design and
Evaluation of High-Resolution Wide-Angle Oculars for a 3D
Multifocal Head-Mounted Display No. 7, p. 564
- A. N. Melnikov.** Controlling Mirror Mutual Arrangement
in Three-Mirror Telescopes Using Computer-Generated
Hologram Optical Elements No. 8, p. 622
- M. A. Zavyalova, P. S. Zavyalov, A. V. Soldatenko.** Confocal
Hyperchromatic Optical System with the Enhanced Energy
Characteristics No. 8, p. 630

OPTICAL-ELECTRONIC SYSTEMS & COMPLEXES

- H. G. Asadov, R. O. Guseinova, A. J. Alieva, D. A. Gumbatov.**
Issues of Empirical Radiometric Calibration of Spectrometric
Equipment Installed on the UAVs No. 1, p. 64
- S. K. Kulov, T. D. Alkatseva, G. V. Fedotova, E. I. Sentsova.**
MCP-PMT – Photon Counting UV-VIS Detectors No. 2, p. 160
- A. O. Sinelnikov, N. V. Tikhmenev, A. A. Ushanov,**
V. M. Medvedev. State-of-the-Art and Development Trends of
Inertial Navigation Systems Based on the Ring Laser Gyroscopes ... No. 6, p. 450

OPTICAL MEASUREMENTS

- M. E. Stepanov, U. A. Khokhryakova, T. V. Egorova,**
K. A. Magaryan, A. V. Naumov. Shedding Light on DNA Origami .. No. 1, p. 72
- M. E. Stepanov, U. A. Khokhryakova, T. V. Egorova,**
K. A. Magaryan, A. V. Naumov. Shedding Light on DNA
Origami: Practice No. 2, p. 166
- D. V. Grigoriev, A. V. Koshurnikov.** Procedure for
Determination of the Electrical and Acoustic Properties of
Frozen Soils During the Defrosting Cycle No. 4, c. 332
- M. E. Stepanov, U. A. Khokhryakova, T. V. Egorova,**
K. A. Magaryan, A. V. Naumov. Shedding Light on DNA
Origami: Applications in Photonics No. 5, p. 398
- D. N. Artemiev, N. V. Latukhina, A. A. Melnikov,**
D. A. Nesterov, M. V. Stepikhova, E. Kh. Khamzin. Structure,

Composition and Luminescent Properties of the Oxidized

- Porous Silicon Doped with Erbium** No. 7, p. 540
- M. E. Stepanov, A. A. Vlasov, P. A. Demina, R. A. Akasov,**
G. Babaeva, V. I. Yusupov, T. V. Egorova, K. R. Karimullin,
A. N. Generalova, A. V. Naumov, E. V. Khaydukov. Intravital
Microscopy – a Window Into the World of Bioprocesses No. 8, p. 640
- S. M. Kuznetsov, V. S. Novikov, D. D. Vasimov,**
P. K. Laptinskaya, V. V. Kuzmin, M. N. Moskovskiy,
E. A. Sagitova. Raman Spectroscopy of Vegetable Oils and
Omega-3 Fish Oil Supplements: Quantitative Analysis No. 8, p. 650

OPTOELECTRONIC INSTRUMENTS & DEVICES

- M. S. Kovalev, I. M. Podlesnykh, K. E. Pevchikh,**
S. I. Kudryashov. Near-Infrared Planar Photonics Based on
Hyperdoped Silicon: Prospects No. 2, p. 136

PHOTONIC INTEGRATED CIRCUITS

- I. A. Kazakov, K. M. Malakhov, E. E. Kovalev, A. A. Mkrtchyan,**
M. S. Mishevskiy, V. V. Svetikov, A. V. Shipulin. Study of
Operational Algorithm for Interrogator with Arrayed Waveguide
Grating on a Photonic Integrated Circuit No. 2, p. 122
- A. E. Gabdrakhmanov, E. N. Rybachek, E. M. Yeganova,**
D. V. Ryazantsev, N. V. Komarova, A. E. Kuznetsov.
Development of Charge Trapping SONOS Memory Cells No. 8, p. 598

QUANTUM TECHNOLOGIES

- D. N. Frolovtsye, A. V. Demin.** Influence of Quantum State
Fidelity of a Single Photon Source on the Bit Error Rate in
Quantum Key Distribution No. 4, p. 282
- A. I. Terekhov.** Bibliometric Analysis of Academic Literature on
Quantum Information Processing No. 4, p. 296
- V. G. Krishtop.** Single-Photon Sources. Review. Part 1 No. 5, p. 376
- V. G. Krishtop.** Single-Photon Sources. Review. Part 2 No. 8, p. 610

TECHNOLOGIES & TECHNOLOGY EQUIPMENT

- A. H. Khisanov, M. V. Nazarenko, S. V. Zaitsev.** Applying
Diamond-like (DLC) Coatings to Optical Parts No. 1, p. 40
- S. V. Burdak, E. M. Zakharevich, V. V. Lapshin,**
M. A. Shavva, R. A. Poshekhanov. Innovative Developments
in the Field of Russian Ultra-precision Machine Tools No. 2, p. 116
- D. O. Chukhlantsev, V. P. Umnov, D. A. Silantieva,**
E. S. Shishkin. Laser Thermohardening and Die Recovery
(Including Large-Sized ones) Using a Mobile Laser Robot No. 3, p. 196
- V. P. Biryukov, Ya. A. Goryunov.** Increasing the Operational
Life of Chisel Steels in the Case of Laser Hardening No. 3, p. 206
- D. V. Zhurba, V. M. Zhurba, V. P. Veiko, A. E. Puisha.**
Investigation of the Process of Laser Descaling
of Rolled Metal No. 6, p. 436
- V. P. Biryukov, V. I. Krivorotov, B. E. Lukanin.** Evaluation
of the Properties of 65G Steel Samples after the Laser
and Conventional Hardening Methods in Relation to the
Operation of Agricultural and Forestry Machines No. 7, p. 550



ТЕХНОСФЕРА
РЕКЛАМНО-ИЗДАТЕЛЬСКИЙ ЦЕНТР

**100% ГАРАНТИЯ
ПОЛУЧЕНИЯ ВСЕХ НОМЕРОВ**



Стоимость 2200 р. за номер
Периодичность: 10 номеров в год
www.electronics.ru



Стоимость 1450 р. за номер
Периодичность: 8 номеров в год
www.photonics.su



Стоимость 1450 р. за номер
Периодичность: 6 номеров в год
www.j-analytics.ru

ПОДПИСКА НА ЖУРНАЛЫ

www.technosphera.ru



Стоимость 1300 р. за номер
Периодичность: 8 номеров в год
www.lastmile.su



Стоимость 1300 р. за номер
Периодичность: 8 номеров в год
www.nanoindustry.su



Стоимость 1800 р. за номер
Периодичность: 4 номера в год
www.stankoinstrument.su