

Personal Information

Email: ipavlov@metu.edu.tr

Web: <https://avesis.metu.edu.tr/ipavlov>

Research Areas

Materials Science, Measurement Science, General Laboratory Techniques, and Metrology, Optical Properties, Spectroscopy of Matter

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Time-resolved microscopy of femtosecond laser filaments in fused quartz**
Kadan V., Blonskiy I., Pavlov I.
OPTICS COMMUNICATIONS, vol.505, 2022 (Journal Indexed in SCI)
- II. **Azimuthal and polar anchoring energies of aligning layers structured by nonlinear laser lithography**
Pavlov I., Candemir O., Rybak A., Dobrovolskiy A., Kadan V., Blonskiy I., Lytvyn P., Korchovy A., Tytarenko P., Kazantseva Z., et al.
Liquid Crystals, vol.48, no.1, pp.131-149, 2021 (Journal Indexed in SCI Expanded)
- III. **3D-graphene-laser patterned p-type silicon Schottky diode**
Orhan E. O. , Efil E., Bayram O., Kaymak N., Berberoğlu H., Candemir O., PAVLOV I., Ocak S. B.
Materials Science in Semiconductor Processing, vol.121, 2021 (Journal Indexed in SCI)
- IV. **High power microsecond fiber laser at 1.5 μm**
Pavlova S., Yagci M. E. , Eken S. K. , Tunckol E., Pavlov I.
Optics Express, vol.28, no.12, pp.18368-18375, 2020 (Journal Indexed in SCI Expanded)
- V. **Upconversion fluorescence assisted visualization of femtosecond laser filaments in Er-doped chalcogenide $65\text{GeS}(2)-25\text{Ga}(2)\text{S}(3)-10\text{CsCl}$ glass**
Blonskiy I., Kadan V., Shpotyuk O., Calvez L., Pavlov I., Pavlova S., Dmytruk A., Rybak A., Korenyuk P.
OPTICS AND LASER TECHNOLOGY, vol.119, 2019 (Journal Indexed in SCI)
- VI. **High-quality alignment of nematic liquid crystals using periodic nanostructures created by nonlinear laser lithography**
Pavlov I., Rybak A. S. , Dobrovolskiy A. M. , Kadan V. M. , Blonskiy I. V. , Kazantseva Z. I. , Gvozдовskyy I. A.
JOURNAL OF MOLECULAR LIQUIDS, vol.267, pp.212-221, 2018 (Journal Indexed in SCI)
- VII. **Generation of 2- μJ 410-fs pulses from a single-mode chirped-pulse fiber laser operating at 1550 nm**
Pavlova S., Rezaei H., Pavlov I., Kalaycioglu H., Ilday F. O.
APPLIED PHYSICS B-LASERS AND OPTICS, vol.124, no.10, 2018 (Journal Indexed in SCI)
- VIII. **Spatio-temporal dynamics of femtosecond laser pulses at 1550 nm wavelength in crystal silicon**
Kadan V., Pavlova S., Pavlov I., Rezaei H., Ilday O., Blonskiy I.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.124, no.8, 2018 (Journal Indexed in SCI)
- IX. **NLL-Assisted Multilayer Graphene Patterning**
Kovalska E., Pavlov I., Deminskiy P., Baldycheva A., Ilday F. O. , Kocabas C.
ACS OMEGA, vol.3, no.2, pp.1546-1554, 2018 (Journal Indexed in SCI)
- X. **The alignment of nematic liquid crystal by the Ti layer processed by nonlinear laser lithography**
Pavlov I., Rybak A., Dobrovolskiy A., Kadan V., Blonskiy I., Ilday F. O. , Kazantseva Z., Gvozдовskyy I.

LIQUID CRYSTALS, vol.45, no.9, pp.1265-1271, 2018 (Journal Indexed in SCI)

- XI. **In-chip microstructures and photonic devices fabricated by nonlinear laser lithography deep inside silicon**
Tokel O., Turnali A., Makey G., Elahi P., Colakoglu T., Ergecen E., Yavuz O., Hubner R., Borra M. Z. , Pavlov I., et al.
NATURE PHOTONICS, vol.11, pp.639-646, 2017 (Journal Indexed in SCI)
- XII. **Femtosecond laser written waveguides deep inside silicon**
Pavlov I., Tokel O., Pavlova S., Kadan V., Makey G., Turnali A., Yavuz O., Ilday F. O.
OPTICS LETTERS, vol.42, no.15, pp.3028-3031, 2017 (Journal Indexed in SCI)
- XIII. **Rich complex behaviour of self-assembled nanoparticles far from equilibrium**
Ilday S., Makey G., Akguc G. B. , Yavuz O. N. , Tokel O., Pavlov I., Gulseren O., Ilday F. O.
NATURE COMMUNICATIONS, vol.8, 2017 (Journal Indexed in SCI)
- XIV. **Nano patterning of AISI 316L stainless steel with Nonlinear Laser Lithography: Sliding under dry and oil-lubricated conditions**
Gnilitskiy I., Rotundo F., Martini C., Pavlov I., Ilday S., Vovk E., Ilday F. O. , Orazi L.
TRIBOLOGY INTERNATIONAL, vol.99, pp.67-76, 2016 (Journal Indexed in SCI)
- XV. **Nonlinear laser lithography to control surface properties of stainless steel**
Orazi L., Gnilitskiy I., Pavlov I., Serro A. P. , Ilday S., Ilday F. O.
CIRP ANNALS-MANUFACTURING TECHNOLOGY, vol.64, no.1, pp.193-196, 2015 (Journal Indexed in SCI)
- XVI. **Diffraction-limited, 10-W, 5-ns, 100-kHz, all-fiber laser at 1.55 μm**
Pavlov I., Dulgergil E., Ilbey E., Ilday F. O.
OPTICS LETTERS, vol.39, no.9, pp.2695-2698, 2014 (Journal Indexed in SCI)
- XVII. **Nonlinear laser lithography for indefinitely large-area nanostructuring with femtosecond pulses**
Oktem B., Pavlov I., Ilday S., Kalaycioglu H., Rybak A., Yavas S., Erdogan M., İLDAY F. Ö.
NATURE PHOTONICS, vol.7, no.11, pp.897-901, 2013 (Journal Indexed in SCI)
- XVIII. **High-power high-repetition-rate single-mode Er-Yb-doped fiber laser system**
Pavlov I., Ilbey E., Dulgergil E., Bayri A., İLDAY F. Ö.
OPTICS EXPRESS, vol.20, no.9, 2012 (Journal Indexed in SCI)
- XIX. **Femtosecond filamentation in chalcogenide glasses limited by two-photon absorption**
Blonskiy I., Kadan V., Shpotyuk O., Iovu M., Pavlov I.
OPTICAL MATERIALS, vol.32, no.11, pp.1553-1557, 2010 (Journal Indexed in SCI)

Articles Published in Other Journals

I. ULTRASHORT LIGHT PULSES IN TRANSPARENT SOLIDS: PROPAGATION PECULIARITIES AND PRACTICAL APPLICATIONS

Blonskiy I., Kadan V. M. , Pavlova S., Pavlov I., Shpotyuk O., Khasanov O. K.
UKRAINIAN JOURNAL OF PHYSICS, vol.64, no.6, pp.457-463, 2019 (Journal Indexed in ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Laser Induced Periodic Surface Structured c-Si Solar Cell with more than 16% efficiency**
GOODARZĪ A., Candemir O., Nasser H., Borra M. Z. , Genc E., ÇİFTPINAR E. H. , BEK A., TURAN R., PAVLOV I.
2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021, Munich, Germany, 21 - 25 June 2021, vol.2021-January
- II. **Laser induced periodic surface structured c-Si solar cell with more than 16% efficiency**
GOODARZĪ A., Candemir O., Nasser H., Borra M. Z. , Genc E., ÇİFTPINAR E. H. , BEK A., TURAN R., PAVLOV I.
2021 European Conference on Lasers and Electro-Optics, CLEO/Europe 2021, Virtual, Online, Germany, 21 - 25 June 2021
- III. **The behaviour of neuro-2A cells on silicon substrates with various topographies generated by**

femtosecond laser micromachining

Mingu S., PAVLOV I., SON Ç. D. , BEK A.

7th International Conference on Bioimaging, BIOIMAGING 2020 - Part of 13th International Joint Conference on Biomedical Engineering Systems and Technologies, BIOSTEC 2020, Valletta, Malta, 24 - 26 February 2020, pp.192-199

- IV. **Laser-induced periodic nano-patterning of solar cell surfaces for low-cost and low material loss fabrication of light management interfaces**
PAVLOV I., Çolakoğlu T., genç e., abak m. k. , Nasser H., TURAN R., BEK A.
2019 Annual Nanotechnology Conference, 11 - 13 September 2019
- V. **Evaluation of Cell Response to Femtosecond-Laser Induced Substrate Topography**
Mingu S., İDİKUT F., PAVLOV I., SON Ç. D. , BEK A.
21. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, İstanbul, Turkey, 06 September 2019
- VI. **Liquid crystal alignment on the patterns produced by nonlinear laser lithography**
PAVLOV I., Rybak A., Dobrovolskiy A., Kazantseva Z., BEK A., Candemir O., Gvozдовskyy I.
2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019, Munich, Germany, 23 - 27 June 2019
- VII. **Optical Waveguides Written Deep Inside Silicon by Femtosecond Laser**
Pavlov I., TOKEL O., Pavlova S., Kadan V., Makey G., Turnali A., Colakoglu T., Yavuz O., İLDAY F. Ö.
Conference on Lasers and Electro-Optics Europe / European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, Germany, 25 - 29 June 2017
- VIII. **Laser-slicing of silicon with 3D nonlinear laser lithography**
TOKEL O., Turnali A., Colakoglu T., Ilday S., Borra M. Z. , Pavlov I., BEK A., TURAN R., İLDAY F. Ö.
Conference on Lasers and Electro-Optics Europe / European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, Germany, 25 - 29 June 2017
- IX. **Nonlinear Laser Lithography for Photonic Texturing of Si Solar Cells**
pavlov i., çolakoğlu t., es f., BEK A., TURAN R., GNİLİTSKY İ., İLDAY Ö.
cleo europe 2015, Munich, Germany, 21 - 25 June 2015

Citations

Total Citations (WOS):455

h-index (WOS):10