

სამეცნიერო ნაშრომები (36 პუბლიკაცია):

სამეცნიერო სტატიები სავრთავთრისო რევენგირებად გამომცემლობაში: 21 (ჟურნალის სტატიები და პროსიდინგები)

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- 2019: Ziyuan Zhou, Yubing Guo, Hao Yu, Miao Jiang, Taras Turiv, **Irakli Chaganava**, Oleg D. Lavrentovich, Qi-Huo Wei. [impact factor 0.50]
“Liquid crystal Pancharatnam-Berry optical elements”, Proc. SPIE **Liquid Crystals XXIII**, Vol. 11092, 0D (2019)
- 2019: **Irakli Chaganava**, Barbara Kilosanidze, Irine Kobulashvili. [impact factor 0.50]
“The resemblance of polarization spectra of polymers between photo- and mechanically- induced microstrains”, Proc. SPIE **Optical Manipulation and Structured Materials**, Vol. 11141, P-18 (2019)
- 2019: Greta Babakhanova, Hao Yu, **Irakli Chaganava**, Qi-Huo Wei, Paul Shiller, Oleg D. Lavrentovich. [impact factor 8.69]
“Controlled Placement of Microparticles at the Water–Liquid Crystal Elastomer Interface”, **ACS Applied Materials & Interfaces**, Vol. 11, Issue 16, 15007-15013 (2019)
- 2019: **Irakli Chaganava**, Irine Kobulashvili, Sakinah Mohd Alauddin, Nurul Fadhilah Kamalul Aripin, Alfonso Martinez-Felipe. [impact factor 0.50]
“Light-inducing birefringence of organic photoanisotropic materials integrated via covalent bonds”, Proc. SPIE **Organic Photonic Materials and Devices XXI**, Vol. 10915, 17 (2019)
- 2018: Miao Jiang, Hao Yu, Xiayu Feng, Yubing Guo, **Irakli Chaganava**, Taras Turiv, Oleg D. Lavrentovich, Qi-Huo Wei. [impact factor 7.36]
“Liquid Crystal Pancharatnam–Berry Micro-Optical Elements for Laser Beam Shaping”, **Advanced Optical Materials**, Vol. 6, Issue 19, 1800961 (2018)
- 2018: **Irakli Chaganava**, Roin Chedia, Qi-Huo Wei. [impact factor 0.50]
“Study of the photoanisotropic properties of polarization-sensitive compositions based on organic chromophore salts with various alkali metals”, Proc. SPIE **Optical Manufacturing and Testing XII**, Vol. 10742, 1K (2018)
- 2018: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze, Luis Oriol, Milagros Piñol, Alfonso Martinez-Felipe. [impact factor 3.22]
“Induction of the vector polyphotochromism in side-chain azopolymers”, **Journal of Photochemistry and Photobiology A: Chemistry**, Vol. 354, Pages 70-77 (2018)
- 2017: **Irakli Chaganava**, Barbara N. Kilosanidze, George Kakauridze, Irine Kobulashvili.
“The study of polyelectrolyte-containing photoanisotropic compositions”, Proc. SPIE **Light Manipulating Organic Materials and Devices IV** (2017) [impact factor 0.43]
- 2017: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze, Luis Oriol, Milagros Piñol, Alfonso Martinez-Felipe. [impact factor 0.43]
“Photoanisotropy in Polarization-sensitive Polymer Materials Based on the Media with Covalently-

- bonded Components”, Proc. SPIE **Organic Photonic Materials and Devices XIX**, Vol. 10101, 0T (2017)
- 2015: **Irakli Chaganava**; Barbara Kilosanidze; George Kakauridze. [[impact factor 0.30](#)]
“Light manipulating vector polyphotochromatic behavior in organic polarization-sensitive materials”, Proc. SPIE **Light Manipulating Organic Materials and Devices II**, Vol. 9564 (2015)
- 2014: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze, Yuri Mshvenieradze.
“Vector photochromism in polarization-sensitive materials”, **Optics Letters**, Vol. 39, Issue 13, pp. 3841-3844 (2014) [[impact factor 3.86](#)]
- 2014: **Irakli Chaganava**; George Kakauridze; Barbara Kilosanidze and Yuri Mshvenieradze.
“Light-controlled vector polyphotochromism”, Proc. SPIE **Organic Photonics VI**, Vol. 913712 (2014) [[impact factor 0.30](#)]
- 2013: Kilosanidze B., Kakauridze G., **Chaganava I.**, Yu. Mshvenieradze. [[impact factor 1.98](#)]
“Dynamic Polarization Holography: 2. Dynamic Polarization-Holographic Gratings and their Application”, **Applied Optics**, Vol. 52, Issue 5, pp. 1006-1015 (2013)
- 2011: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze and George Datukishvili. “Development of high-performance, stable, and moisture-resistant polarization-sensitive materials”, Proc. SPIE **Optical Manufacturing and Testing**, Vol. 8126, 81261I (2011) [[impact factor 0.31](#)]
- 2011: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze.
“Photoanisotropy in polarization-sensitive medium developed on the basis of polar water-soluble components”, Proc. SPIE **Practical Holography XXV: Materials and Applications**, Vol. 7957, 7957-39 (2011). [[impact factor 0.31](#)]
- 2009: Kilosanidze B., Kakauridze G., **Chaganava I.** [[impact factor 0.18](#)]
“Dynamic Polarization Holography: Methods and Applications”, **Journal of Holography and Speckle**, 2009, Vol. 5, pp. 52–61.
- 2009: Kilosanidze B., Kakauridze G. and **Chaganava I.** “Dynamic polarization holography. Methods and applications”, Proc. SPIE **Holography: Advances and Modern Trends**, 2009, Vol. 7358. [[impact factor 0.30](#)]
- 2009: Kilosanidze B., Kakauridze G., **Chaganava I.** [[impact factor 1.98](#)]
“Dynamic polarization holography. 1. Dynamic polarization-sensitive materials on the basis of azo-dye-containing polymers”, **Applied Optics**, 2009, Vol. 48, No. 10, pp. 1861- 1868.
- 2008: V. Shaverdova, S. Petrova, N. Obolashvili, **I. Chaganava**.
“The influence of chemical activities polymer matrices on photo anisotropy of azo dyes”, Proc. SPIE **Optical Design and Engineering III**, Vol. 7100, 71001P (2008).
- 2008: V. Tarasashvili, A. Purtseladze, **I.Chaganava**. [[impact factor 0.30](#)]
“Photoinduced anisotropy in seleno-cadmium glass”, Proc. SPIE **Optical Design and Engineering III**, Vol. 7100, 710022 (2008).
- 2007: Kilosanidze B., Kakauridze G., **Chaganava I.** [[impact factor 0.30](#)]
“Dynamic polarization-sensitive media”, **Optical Memory & Neural Networks**, 2007, vol.16, #1, p.17-23.

- 2019: **Irakli Chaganava**, Irine Kobulashvili.
"Dynamic characteristics of photoanisotropic materials based on biogenic and synthetic polyelectrolytes". **Frontiers in Optics/Laser Science, FiO+LS 2019**. Conference Paper JTU4A.27
- 2019: Taras Turiv, Jess Krieger, Hao Yu, **Irakli Chaganava**, Qi-Huo Wei, Min-Ho Kim, O D Lavrentovich.
"Alignment and controlled formation of topological defects in living fibroblast cells by liquid crystals". **Active Matter III, APS March Meeting 2019**, Bulletin of the American Physical Society, Volume 64, #2, F61.00002
- 2019: Robin Selinger, Greta Babakhanova, Youssef Mosaddeghian Golestani, Sajedah Afghah, Michael Varga, Paul Shiller, Hao Yu, **Irakli Chaganava**, Jonathan Selinger, Qi-Huo Wei, O Lavrentovich.
"Dynamically morphing microchannels in liquid crystal elastomer coatings with extended disclinations". **Actuation in Soft Matter II, APS March Meeting 2019**, Bulletin of the American Physical Society, Volume 64, #2, S59.00009
- 2018: **Irakli Chaganava**, Sakinah Mohd Alauddin, Nurul Fadhilah Kamalul Aripin, Alfonso Martinez-Felipe, Irine Kobulashvili.
"Comparative Characteristics of the Properties of Photoanisotropic Materials Composed with Covalent Bond and Electrostatic Interactions". **Frontiers in Optics/Laser Science, FiO+LS 2018**. Conference Paper JTU3A. 21
- 2016: Barbara N. Kilosanidze, **Irakli Chaganava**, George Kakauridze, Luis Oriol, Milagros Piñol, Alfonso Martinez-Felipe.
"The Phenomenon of Vector Polyphotochromism in Polarization-sensitive Materials". **Frontiers in Optics: The 100th OSA Annual Meeting and Exhibit/Laser Science XXXII. Polarization Control and Measurements**. Conference Paper page FF3G.7.
- 2016: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze, Luis Oriol, Milagros Piñol, Alfonso Martinez-Felipe.
"Induction of the Vector Polyphotochromism in Side-Chain Azopolymers". **The 4th International Symposium Molecular Photonics 2016**, Book of Symposium abstracts, p. 34.
- 2015: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze.
"Spectral Selectivity of Azochromophore-containing Polymer Films in Polarized Light". **ICSP & AM, Book of Abstracts**, p. 23
- 2012: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze.
"Azodye-Containing Polarization-Sensitive Materials", Second International Conference on Young Chemists, **ICYC- 2012, Book of Abstracts**, p. 20
- 2011: **Irakli Chaganava**, George Kakauridze, Barbara Kilosanidze.
"Photoanisotropic properties enhancement via introducing ionogenic functional groups into the material azodye component molecules", 2-nd International Conference on Organic Chemistry: "Advances in Heterocyclic Chemistry", **GeoHet 2011, Book of Abstracts**, PP131, p. 287
- 2008: Kilosanidze B., Kakauridze G., Mshvenieradze Yu., **Chaganava I.**
"Polarization- holographic gratings and devices on their basis: Polarization-holographic protection system and Polarization-holographic saccharimeter" ,
SPIE Europe, Photonics Innovation Village 2008 – Strasburg, France.

- 2008: V. Tarasashvili, A. Purceladze, **I. Chaganava**.
"The phenomenon of the photoinduced anisotropy in seleno-cadmium glasses and practical application", Conference Holographic and optical recording, storage and processing of information, **HOLOOPTO 2008, Abstract Digest**, p. 84-85 (2008). – Tbilisi, Georgia.
- 2008: B. Kilosanidze, G. Kakauridze, **I. Chaganava**. "Dynamic polarization-holographic diffraction gratings". Conference on Holographic and optical recording, storage and processing of information, **HOLOOPTO 2008, Abstract Digest**. p. 10-11 Tbilisi, Georgia.
- 2008: V. Shaverdova, S. Petrova, N. Obolashvili, **I. Chaganava**. "Ellipsometric measurements for the dye-polymer asymmetric systems". Conference on Holographic and optical recording, storage and processing of information, **HOLOOPTO 2008, Abstract Digest**. p. 24-25 Tbilisi, Georgia.
- 2008: V. Shaverdova, S. Petrova, N. Obolashvili, **I. Chaganava**. "Photochemical behavior of azo dyes in various polymer matrices". Conference on Holographic and optical recording, storage and processing of information, **HOLOOPTO 2008, Digest**. p. 21-24 Tbilisi, Georgia.
- 2008: V. Tarasashvili, A. Purtseladze, **I. Chaganava**,
"Polarization-holographic amplifier-corrector of optical signals", Coherent Optical Technologies and Applications 2008 Conference,
OSA Technical Digest Series (Optical Society of America, 2008), paper JMB2. Boston,