## Sergei A Khakhomov

List of Publications by Year in descending order

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Version: 2024-02-01

66 papers 674 citations

686830 13 h-index 610482 24 g-index

76 all docs 76
docs citations

76 times ranked 576 citing authors

| #  | Article  | IF  | Citations |
|----|--|-----|-----------|
| 1  | Broadband Reflectionless Metasheets: Frequency-Selective Transmission and Perfect Absorption. Physical Review $X$ , 2015, 5, .   | 2.8 | 126       |
| 2  | Ground-plane-less bidirectional terahertz absorber based on omega resonators. Optics Letters, 2015, 40, 2084.  | 1.7 | 63        |
| 3  | Coordinated multi-band angle insensitive selection absorber based on graphene metamaterials. Optics Express, 2019, 27, 31435.  | 1.7 | 54        |
| 4  | Modeling of Spirals with Equal Dielectric, Magnetic, and Chiral Susceptibilities. Electromagnetics, 2008, 28, 476-493.   | 0.3 | 33        |
| 5  | Transformation of the polarization of electromagnetic waves by helical radiators. Journal of Communications Technology and Electronics, 2007, 52, 850-855.                               | 0.2 | 23        |
| 6  | Reflection and transmission by a uniaxially bi-anisotropic slab under normal incidence of plane waves. Journal Physics D: Applied Physics, 1998, 31, 2458-2464.                          | 1.3 | 22        |
| 7  | Sensors With Multifold Nanorod Metasurfaces Array Based on Hyperbolic Metamaterials. IEEE<br>Sensors Journal, 2020, 20, 1801-1806.   | 2.4 | 21        |
| 8  | Optimal helix shape: Equality of dielectric, magnetic, and chiral susceptibilities. Russian Physics Journal, 2009, 52, 472-479.  | 0.2 | 20        |
| 9  | Highly transparent twist polarizer metasurface. Applied Physics Letters, 2017, 111, .  | 1.5 | 20        |
| 10 | Perfect Narrowband Absorber Based on Patterned Graphene-Silica Multilayer Hyperbolic Metamaterials. Plasmonics, 2020, 15, 1869-1874.   | 1.8 | 20        |
| 11 | Stored and absorbed energy of fields in lossy chiral single-component metamaterials. Physical Review B, 2018, 97, .  | 1.1 | 18        |
| 12 | Study of the properties of artificial anisotropic structures with high chirality. Crystallography Reports, 2011, 56, 366-373.  | 0.1 | 16        |
| 13 | Chiral metamaterial with unit negative refraction index. EPJ Applied Physics, 2009, 46, 32607.   | 0.3 | 15        |
| 14 | Investigation of electromagnetic properties of a high absorptive, weakly reflective metamaterialâ€"substrate system with compensated chirality. Journal of Applied Physics, 2017, 121, . | 1.1 | 14        |
| 15 | Helices of optimal shape for nonreflecting covering. EPJ Applied Physics, 2010, 49, 33002.   | 0.3 | 12        |
| 16 | Independent tunable multi-band absorbers based on molybdenum disulfide metasurfaces. Physical Chemistry Chemical Physics, 2019, 21, 24132-24138.   | 1.3 | 12        |
| 17 | Electromagnetic Waves in Artificial Chiral Structures with Dielectric and Magnetic Properties. Electromagnetics, 2001, 21, 401-414.  | 0.3 | 11        |
| 18 | Polarization Plane Rotation of Electromagnetic Waves by the Artificial Periodic Structure with One-Turn Helical Elements. Electromagnetics, 2006, 26, 219-233.                           | 0.3 | 11        |

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|----|---|------------|----------------|
| 19 | Nanoscale Piezoelectric Properties and Phase Separation in Pure and La-Doped BiFeO3 Films Prepared by Sol–Gel Method. Materials, 2021, 14, 1694.  | 1.3        | 11             |
| 20 | High-performance terahertz refractive index sensor based on a hybrid graphene Tamm structure. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 2543.                   | 0.9        | 11             |
| 21 | Artificial Uniaxial Bianisotropic Media at Oblique Incidence of Electromagnetic Waves.<br>Electromagnetics, 2002, 22, 71-84.  | 0.3        | 10             |
| 22 | Inversion Method Characterization of Graphene-Based Coordination Absorbers Incorporating Periodically Patterned Metal Ring Metasurfaces. Nanomaterials, 2020, 10, 1102.                       | 1.9        | 10             |
| 23 | Radiation of circularly polarized microwaves by a plane periodic structure of $\hat{I}$ © elements. Journal of Communications Technology and Electronics, 2007, 52, 1002-1005.                | 0.2        | 9              |
| 24 | Reply to comment on `Reflection and transmission by a uniaxial bi-anisotropic slab under normal incidence of plane waves. Journal Physics D: Applied Physics, 1999, 32, 2705-2706.            | 1.3        | 8              |
| 25 | Investigation of the properties of weakly reflective metamaterials with compensated chirality. Crystallography Reports, 2014, 59, 480-485.  | 0.1        | 8              |
| 26 | Optimal arrangement of smooth helices in uniaxial 2D-arrays. , 2013, , .  |            | 7              |
| 27 | Microwave analogy of optical properties of cholesteric liquid crystals with local chirality under normal incidence of waves. Journal Physics D: Applied Physics, 1999, 32, 3222-3226.         | 1.3        | 6              |
| 28 | Polarization selectivity of electromagnetic radiation of deoxyribonucleic acid. Journal of Communications Technology and Electronics, 2007, 52, 996-1001.                                     | 0.2        | 6              |
| 29 | Polarization Selectivity of Artificial Anisotropic Structures Based on DNA-Like Helices.<br>Crystallography Reports, 2010, 55, 921-926.   | 0.1        | 6              |
| 30 | Polarization selectivity of interaction of DNA molecules with X-ray radiation. Biophysics (Russian) Tj ETQq0 0 0 rg   | 5BT/Overlo | ock 10 Tf 50 3 |
| 31 | View on the history of electromagnetics of metamaterials: Evolution of the congress series of complex media. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 279-283. | 1.0        | 6              |
| 32 | The potential energy of non-resonant optimal bianisotropic particles in an electromagnetic field does not depend on time. EPJ Applied Metamaterials, 2014, 1, 4.                              | 0.8        | 5              |
| 33 | Optimal angular stability of reflectionless metasurface absorbers. Physical Review B, 2021, 103, .  | 1.1        | 5              |
| 34 | High-Performance Tunable Multichannel Absorbers Coupled with Graphene-Based Grating and Dual-Tamm Plasmonic Structures. Plasmonics, 2022, 17, 287-294.  | 1.8        | 5              |
| 35 | Optical Forces Acting on a Double DNA-Like Helix, Its Unwinding and Strands Rupture. Photonics, 2020, 7, 83.  | 0.9        | 4              |
| 36 | A single-layer meta-atom absorber. , 2014, , .  |            | 3              |

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|----|--|--------------------|-------------|
| 37 | Helical Metamaterial Elements as RLC Circuit. Advanced Materials Research, 2015, 1117, 122-125.  | 0.3                | 3           |
| 38 | Omega-Structured Substrate-Supported Metamaterial for the Transformation of Wave Polarization in THz Frequency Range. Advances in Intelligent Systems and Computing, 2018, , 72-80.                        | 0.5                | 3           |
| 39 | Ferroelectric Properties of Nanostructured SBTN Sol-Gel Layers. Advances in Intelligent Systems and Computing, 2017, , 103-108.  | 0.5                | 3           |
| 40 | Nanostructure and Ferroelectric Properties of Sol-Gel SBTN-Films for Electronic Devices. Advances in Intelligent Systems and Computing, 2018, , 144-150.   | 0.5                | 3           |
| 41 | Absorptive weakly reflective metamaterial based on optimal rectangular omegas., 2017,,.  |                    | 2           |
| 42 | Effective Electron Model of the Wire Helix Excitation at Microwaves: First Step to Optimization of Pitch Angle of Helix., 2002,, 245-256.  |                    | 2           |
| 43 | INTERACTION OF ARTIFICIAL DNA-LIKE STRUCTURES IN THE MICROWAVE RANGE: POLARIZATION SELECTIVITY OF WAVE REFLECTION. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz) Tj ETQq1 | . <b>₫.∅.</b> 7843 | 3124 rgBT / |
| 44 | The equilibrium state of bifilar helix as element of metamaterials. , 0, , .   |                    | 2           |
| 45 | Polarization Properties of a Rectangular Balanced Omega Element in the THz Range. Lecture Notes in Networks and Systems, 2020, , 84-93.  | 0.5                | 2           |
| 46 | <title>Artificial anisotropic chiral materials for decrease of reflection of electromagnetic waves from metallic surfaces</title> ., 2001, , .   |                    | 1           |
| 47 | Interaction Forces of Electric Currents and Charges in a Double DNA-like Helix and its Equilibrium. , 2018, , .  |                    | 1           |
| 48 | Design and Creation of Metal-Polymer Absorbing Metamaterials Using the Vacuum-Plasma Technologies. Lecture Notes in Networks and Systems, 2019, , 105-112.   | 0.5                | 1           |
| 49 | The development of double-sided nonreflecting absorber of the terahertz waves on the basis of metamaterials. Journal of Physics: Conference Series, 2020, 1461, 012148.                                    | 0.3                | 1           |
| 50 | Multi-focusing metalenses based on quadrangular frustum pyramid-shaped nanoantennas. Photonics and Nanostructures - Fundamentals and Applications, 2021, 46, 100957.                                       | 1.0                | 1           |
| 51 | Propagation of Electromagnetic Waves in Artificial Anisotropic Uniform and Twisted Omega-Structures., 2002,, 197-210.  |                    | 1           |
| 52 | Metamaterials and metasurfaces. Science and Innovations, 2020, 8, 23-27.   | 0.1                | 1           |
| 53 | Structural Properties of BiFeO3 and Bi0,9La0,1FeO3 Powders Synthesized by Sol-Gel Process. Lecture Notes in Networks and Systems, 2020, , 113-118.   | 0.5                | 1           |
| 54 | DNA-like Helices as Nanosized Polarizers of Electromagnetic Waves. Frontiers in Nanotechnology, 0, 4,  | 2.4                | 1           |

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|----|---|-----|-----------|
| 55 | The Influence of Induced Chiral Properties on the Transformation of Acoustic Waves Polarization in Piezoelectric Semiconductors., 1997,, 219-226.   |     | О         |
| 56 | Artificial anisotropic chiral structures with dielectric and magnetic properties at oblique incidence of electromagnetic waves. , $0$ , , .   |     | 0         |
| 57 | The Competition of Bragg Reflection and Fresnel'S Reflection of Electromagnetic Waves in the Artificial Helicoidal Bianisotropic Media with Local Chirality. , 2002, , 307-318.                           |     | 0         |
| 58 | Total Absorption Based on Smooth Double-Turn Helices. Advanced Materials Research, 2015, 1117, 39-43.   | 0.3 | 0         |
| 59 | Notice of Removal: Investigation of interaction of surface acoustic wave with controlled electroinduced domain structures in the crystal., 2017,,.  |     | 0         |
| 60 | Features of Electro-Induced Periodical Structures in LiTaO <sub>3</sub> Single Crystal and Their Interaction with Surface Acoustic Wave. Advances in Materials Science and Engineering, 2019, 2019, 1-12. | 1.0 | 0         |
| 61 | Multifunctional Single-Layer Metasurface for Electromagnetic Wave Manipulations. , 2020, , .  |     | 0         |
| 62 | Radiation Patterns of Double DNA-Like Helices as Elements of Metamaterials and Antenna Systems. Lecture Notes in Networks and Systems, 2020, , 135-143.   | 0.5 | 0         |
| 63 | INFLUENCE OF THE COMPOSITION AND CONDITIONS OF THE SOL-GEL PROCESS ON THE PROPERTIES OF BARIUM-STRONTIUM TITANATE FERROELECTRIC THIN FILMS. Problemy Fiziki, Matematiki I Tehniki, 2021, , 45-50.         | 0.0 | 0         |
| 64 | A metamaterial based on planar spirals as a electromagnetic waves polarization converter. Proceedings of the National Academy of Sciences of Belarus Physics and Mathematics Series, 2022, 58, 110-119.   | 0.1 | 0         |
| 65 | MODELING, CREATING AND EXPERIMENTAL STUDY OF METASURFACES COVERING OBJECTS OF COMPLEX SHAPE. Problemy Fiziki, Matematiki I Tehniki, 2022, , 7-13.   | 0.0 | 0         |
| 66 | SwitchableÂFanoÂResonanceÂFilterÂwithÂGraphene-basedÂDoubleÂFreestandingÂDielectricÂGratings.<br>Plasmonics, 0, , .   | 1.8 | 0         |