

# Alexandr Shmat'ko

## List of Publications by Year in descending order

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89  
papers

134  
citations

1937685

4  
h-index

2053705

5  
g-index

89  
all docs

89  
docs citations

89  
times ranked

37  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersion properties of a one-dimensional anisotropic magnetophotonic crystal with a gyrotropic layer. , 2016, , .		13
2	Bragg reflection and transmission of light by one-dimensional gyrotropic magnetophotonic crystal. , 2017, , .		10
3	Analysis of Slow Wave Modes in Modified Photonic Crystal Waveguides Using the MPB Package. , 2018, , .		10
4	Photonic crystal and Bragg waveguides for THz electron devices. , 2016, , .		9
5	Novel THz sources with profiled focusing field and photonic crystal electrodynamic systems. , 2016, , .		9
6	Localized field enhancement in slow-wave modes of modified Bragg waveguide. , 2017, , .		9
7	Surface and bulk modes of magnetophotonic crystals. , 2018, , .		9
8	Dispersion Properties of TM and TE Modes of Gyrotropic Magnetophotonic Crystals. , 0, , .		8
9	Floquet-Bloch waves in magnetophotonic crystals with transverse magnetic field. Journal of Electromagnetic Waves and Applications, 2020, 34, 1667-1679.	1.6	6
10	Resonant transparency of a layered superconductor: Hyperbolic material in the terahertz range tuned by dc magnetic field. Physical Review B, 2021, 103, .	3.2	6
11	The Smith-Pursell Effect Amplification of the Electromagnetic Waves in an Open Waveguide with a Metal-Dielectric Layer. Telecommunications and Radio Engineering (English Translation of) Tj ETQq1 1 0.784314 rgBT/Overlæk 10 Tf 50		6
12	Tunable Angular Spatial Filter Based on 1D Magnetophotonic Crystal. , 2020, , .		5
13	Nonlinear theory of long-range-interaction resonant generators. Electronics Letters, 1977, 13, 480.	1.0	4
14	Scattering of a wave beam by inhomogeneous anisotropic chiral layer. , 0, , .		4
15	Antenna array with a given fractal distribution of current. , 2012, , .		3
16	Surface and Bulk Wave Modes of Two Dimensional Photonic Crystal Waveguide. , 2019, , .		3
17	Nonstationary nonlinear theory of O-type resonant generators. Radiation Effects, 1978, 35, 193-199.	0.4	2
18	Output characteristics of a diffraction radiation generator in the autonomous and nonautonomous modes. Radiophysics and Quantum Electronics, 1991, 34, 251-257.	0.5	2

#	ARTICLE	IF	CITATIONS
19	Gyrotropic Semiconductor-Ferrite One Dimensional Magnetophotonic Crystals. , 2019, , .		2
20	Resonant absorption of terahertz waves in layered superconductors: Wood's anomalies and anomalous dispersion. Physical Review B, 2020, 101, .	3.2	2
21	Hyperbolic Magnetophotonic Crystals with Gyrotropic Layers. Dispersion Characteristics. , 2020, , .		2
22	Wavetrains scattering by anisotropic composite absorbing layer with metal-dielectric substrate. , 0, , .		1
23	Electrodynamic characteristics of open wave-guide with the diffraction-connected sources of radiation. , 2005, , .		1
24	Wide-Band Filters on Ferrite Resonators. , 2006, , .		1
25	Wave Beam Scattering by Thin Lossy Dielectric Cylinder. , 2007, , .		1
26	Surface magnon polariton modes in the open through passage resonator partially filled ferrite. , 2010, , .		1
27	Self-consistent theory of Smith-Purcell effect at harmonics of bwo frequency in the double-mode parametric oscillator. , 2010, , .		1
28	Extraordinary reflection from photonic crystal with metamaterials. , 2016, , .		1
29	Gyrotropic superlattice as a transformer of light polarization. Low Temperature Physics, 2021, 47, 588-595.	0.6	1
30	Sensor-Polarimeter Based on Anisotropic Photonic Crystal for Solids and Liquids. , 2020, , .		1
31	Comparison of Binary and Ternary Layered Structures as Claddings of Bragg Waveguide. , 2022, , .		1
32	Surface Modes in Modified Two-Dimensional Photonic Crystal Waveguide. , 2022, , .		1
33	Low-frequency fluctuations in o-type cavity oscillators with distributed interaction. Radiophysics and Quantum Electronics, 1984, 27, 313-322.	0.5	0
34	Properties of electron-wave interaction on the upper modes in Orotion diffracted radiation oscillators. Radiophysics and Quantum Electronics, 1986, 29, 272-278.	0.5	0
35	Unsteady-state oscillations in O-type resonant oscillators with external excitation. Radiophysics and Quantum Electronics, 1987, 30, 1092-1099.	0.5	0
36	Theory of resonant relativistic oscillator with nonuniform focusing field. Journal of Infrared, Millimeter and Terahertz Waves, 1996, 17, 1165-1180.	0.6	0

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37	Nonlinear theory of relativistic microwave electron devices. , 0, , .		0
38	Reflection of a Gaussian beam from a ferrite slab. , 1999, , .		0
39	Planar traveling-wave amplifier of mm-wave band with different velocities of electron streams. , 1999, , .		0
40	Reflection of a laser beam from a gyromagnetic layer with a magneto-dielectric substrate. , 0, , .		0
41	Excitation of the nonlinear two-stage electron-wave system by external signal. , 0, , .		0
42	Electron-wave mechanism of oscillation amplification in open wave-guide with a periodical structure. , 0, , .		0
43	Scattering of laser wave beam on dielectric layer with ferrite film. , 0, , .		0
44	Wave processes in an open waveguide with a metal-dielectric layer. , 0, , .		0
45	Forced oscillations in nonlinear electron-wave systems of O-type. Simulation and analysis. , 0, , .		0
46	Scattering of the Gaussian beams on two-layer structure with gyrotropy. , 0, , .		0
47	Definition of material parameters of industrial thin-film samples [magnetodielectric and gyrotropic materials]. , 0, , .		0
48	Influence of local magnetic irregularity on output properties of synchronized MM-wave generator. , 0, , .		0
49	Scattering of laser wave beam by anisotropic chiral layer. , 0, , .		0
50	Frequency multiplication in the hybrid O-type beam-wave system. , 2003, , .		0
51	Multilayer microwave absorber. , 2004, , .		0
52	Self-synchronization of oscillations in microwave generators with sustained electron-wave interaction. , 2005, , .		0
53	Excitation of a finite chain of coupled cavities filled with a piecewise homogeneous magnetodielectric medium. , 2005, , .		0
54	Electrodynamic Account of Waveguide Branching with Isotropic and Anisotropic Layers. , 2006, , .		0

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55	Dispersion Equalization of Amplifier on an Smith-Parcell Effect with the Eventual Value of the Magnetic Field. , 2006, , .		0
56	Ferrite Resonator with Bragg Mirrors. , 2007, , .		0
57	Supersymmetry model of a binary mixture with noise of the diffusion flux. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 365, 358-363.	2.1	0
58	Physical nature of the Smith-Purcell effect and its simulation. , 2008, , .		0
59	Effect of the focusing field induction on the klinotron amplifier characteristics. , 2008, , .		0
60	Waveguide-ferrit resonator with lateral metallic films. , 2008, , .		0
61	Novel double-mode O-type source of coherent subterahertz radiation. , 2010, , .		0
62	Spurious resonances in electrodynamics problems on the waveguide discontinues. , 2010, , .		0
63	Scattering of the Gaussian beam by a metamaterial slab. , 2010, , .		0
64	Scattering of the polarized Gaussian beam on the metamaterial slab. , 2010, , .		0
65	Slow-wave regimes of the photonic crystal waveguides. , 2011, , .		0
66	Nature of extraordinary transmission through a metal screen slit filled with a metamaterial. , 2013, , .		0
67	Nature of extraordinary transmission through a metal grating at frequencies closed to the Rayleigh-Wood anomaly. , 2013, , .		0
68	Methods of estimation surface roughness. , 2013, , .		0
69	Scattering H10 wave on diaphragme with gyromagnetic medium in rectangulary waveguide. , 2014, , .		0
70	Double-mode O-type oscillator-amplifier with inclined focusing field. , 2014, , .		0
71	Effect of DC magnetic field on reflectivity of layered superconductors. , 2016, , .		0
72	Surface Plasmon Polariton Resonances of Diffraction Metamaterial Grating. , 2018, , .		0

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73	Computer Simulation and Visualization of Random Dynamical Processes on the Sea Surface by Characteristic Signal Reflection. , 2018, , .		0
74	Anomalous dispersion of oblique terahertz waves localized in the plate of a layered superconductor. Low Temperature Physics, 2019, 45, 885-893.	0.6	0
75	Ferrite Magnetophotonic Crystal for Terahertz Tunable Filter. , 2019, , .		0
76	Focusing Magnetic Field Effect on Wave Dynamics In Plasma-Beam Superheterodyne FEL of Dopplertron Type with Rectilinear REB. , 2019, , .		0
77	Longitudinal Electric Field Effect on Multiharmonic Space Charge Wave Formation in Two-Stream Superheterodyne FEL. , 2019, , .		0
78	Wave Packet Scattering by an Anisotropic Gyromagnetic Layer. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and Radiotekhnika), 2002, 57, 5.	0.4	0
79	EXTRAORDINARY TRANSMISSION: FROM ROWS OF HOLES TO SLITS FILLED WITH THE DRUDE-LIKE METAMATERIAL. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 297 T	0.4	0
80	Nonlinear Two-Dimensional Theory of Relativistic Resonant O-Type Oscillators. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and Radiotekhnika), 1998, 52, 88-90.	0.4	0
81	Theory of the O-Type Resonant Oscillator Subject to Powerful External High-Frequency and Parametric Low-Frequency Forcing. Telecommunications and Radio Engineering (English Translation) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 297 T	0.4	0
82	Transformation of Electromagnetic Waves of Complex Space-and-Time Configuration by Layered Electrodynamic Structures. Telecommunications and Radio Engineering (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 T	0.4	0
83	Modeling Signal Propagation Through Inhomogeneous Media. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and Radiotekhnika), 1999, 53, 16-19.	0.4	0
84	TERAHERTZ BAND DOUBLE-FREQUENCY DIFFRACTION RADIATION OSCILLATOR WITH INCLINED FOCUSING FIELD. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 T	0.4	0
85	DISPERSION CHARACTERISTICS OF STRATIFIED STRUCTURES IN THE PROBLEM OF WAVE DIFFRACTION BY GRATINGS OF A METAMATERIAL. Telecommunications and Radio Engineering (English Translation of) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 297 T	0.4	0
86	NORMAL AND ANOMALOUS DISPERSION OF WEAKLY NON-LINEAR LOCALIZED MODES IN A SLAB OF A LAYERED SUPERCONDUCTIVE MATERIAL. Telecommunications and Radio Engineering (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 T	0.4	0
87	THE MODEL OF PULSE RADIATOR WITH OUTPUT SIGNAL COMPRESSION IN HELICALLY COILED DIELECTRIC WAVEGUIDE. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and) Tj ETQq1 1 0.784314 rgB0 /Overlock 10 Tf 50 297 T	0.4	0
88	LOCALIZED WAVES IN LAYERED SUPERCONDUCTORS. Telecommunications and Radio Engineering (English Translation of Elektrosvyaz and Radiotekhnika), 2019, 78, 615-631.	0.4	0
89	Floquet-Bloch Theory for Semiconductor Bragg Structure. Springer Proceedings in Physics, 2020, , 51-59.	0.2	0