

# Nikita Chernomyrdin

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

68

papers

922

citations

15

h-index

29

g-index

85

ext. papers

1,253

ext. citations

2.3

avg, IF

4.27

L-index

#	Paper	IF	Citations
68	Terahertz biophotonics as a tool for studies of dielectric and spectral properties of biological tissues and liquids. <i>Progress in Quantum Electronics</i> , <b>2018</b> , 62, 1-77	9.1	113
67	The progress and perspectives of terahertz technology for diagnosis of neoplasms: a review. <i>Journal of Optics (United Kingdom)</i> , <b>2020</b> , 22, 013001	1.7	79
66	Experimental observation of a photonic hook. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 031105	3.4	59
65	Highly Accurate in Vivo Terahertz Spectroscopy of Healthy Skin: Variation of Refractive Index and Absorption Coefficient Along the Human Body. <i>IEEE Transactions on Terahertz Science and Technology</i> , <b>2015</b> , 5, 817-827	3.4	57
64	Reflection-mode continuous-wave 0.15 $\mu$ m resolution terahertz solid immersion microscopy of soft biological tissues. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 111102	3.4	56
63	Terahertz spectroscopy of gelatin-embedded human brain gliomas of different grades: a road toward intraoperative THz diagnosis. <i>Journal of Biomedical Optics</i> , <b>2019</b> , 24, 1-5	3.5	53
62	Solid immersion terahertz imaging with sub-wavelength resolution. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 221109	3.4	49
61	Wide-aperture aspherical lens for high-resolution terahertz imaging. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 014703	1.7	47
60	Sapphire shaped crystals for waveguiding, sensing and exposure applications. <i>Progress in Crystal Growth and Characterization of Materials</i> , <b>2018</b> , 64, 133-151	3.5	39
59	Sapphire Photonic Crystal Waveguides for Terahertz Sensing in Aggressive Environments. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800573	8.1	29
58	Terahertz radiation and the skin: a review. <i>Journal of Biomedical Optics</i> , <b>2021</b> , 26,	3.5	25
57	Shaping the spectrum of terahertz photoconductive antenna by frequency-dependent impedance modulation. <i>Semiconductor Science and Technology</i> , <b>2019</b> , 34, 034005	1.8	24
56	Terahertz spectroscopy of pigmented skin nevi in vivo. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2015</b> , 119, 404-410	0.7	21
55	Terahertz dielectric spectroscopy of human brain gliomas and intact tissues : double-Debye and double-overdamped-oscillator models of dielectric response. <i>Biomedical Optics Express</i> , <b>2021</b> , 12, 69-83	3.5	18
54	Numerical analysis and experimental study of terahertz solid immersion microscopy. <i>Optical Engineering</i> , <b>2019</b> , 59, 1	1.1	17
53	Optimal hyperosmotic agents for tissue immersion optical clearing in terahertz biophotonics. <i>Journal of Biophotonics</i> , <b>2020</b> , 13, e202000297	3.1	14
52	A potential of terahertz solid immersion microscopy for visualizing sub-wavelength-scale tissue spheroids <b>2018</b> ,		13

51	Proof of concept for continuously-tunable terahertz bandpass filter based on a gradient metal-hole array. <i>Optics Express</i> , <b>2020</b> , 28, 26228-26238	3.3	13
50	Prospects of terahertz technology in diagnosis of human brain tumors [A review]. <i>Journal of Biomedical Photonics and Engineering</i> , <b>2020</b> , 6,	2.4	13
49	Overcoming the Abbe Diffraction Limit Using a Bundle of Metal-Coated High-Refractive-Index Sapphire Optical Fibers. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000307	8.1	11
48	Object-dependent spatial resolution of the reflection-mode terahertz solid immersion microscopy. <i>Optics Express</i> , <b>2021</b> , 29, 3553-3566	3.3	10
47	In vivospectroscopy of healthy skin and pathology in terahertz frequency range. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 584, 012023	0.3	9
46	Novel technique for medium permittivity profile reconstruction using THz pulsed spectroscopy. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 486, 012010	0.3	9
45	Nanoparticle-enabled experimentally trained wavelet-domain denoising method for optical coherence tomography. <i>Journal of Biomedical Optics</i> , <b>2018</b> , 23, 1-9	3.5	9
44	In vivoterahertz pulsed spectroscopy of dysplastic and non-dysplastic skin nevi. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 735, 012076	0.3	9
43	Terahertz dielectric spectroscopy and solid immersion microscopy of glioma model 101.8: brain tissue heterogeneity. <i>Biomedical Optics Express</i> , <b>2021</b> , 12, 5272-5289	3.5	8
42	Terahertz Microscope Based on Solid Immersion Effect for Imaging of Biological Tissues. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2019</b> , 126, 560-567	0.7	7
41	Step-index sapphire fiber and its application in a terahertz near-field microscopy <b>2019</b> ,		7
40	Wide-Aperture Aspheric Optics for Formation of Subwavelength Caustics of a Terahertz Electromagnetic-Radiation Beam. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2018</b> , 124, 428-436	0.7	6
39	An approach for automatic construction of the wavelet-domain de-noising procedure for THz pulsed spectroscopy signal processing. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 486, 012034	0.3	6
38	In vitro terahertz spectroscopy of gelatin-embedded human brain tumors: a pilot study <b>2018</b> ,		6
37	Capability of physically reasonable OCT-based differentiation between intact brain tissues, human brain gliomas of different WHO grades, and glioma model 101.8 from rats. <i>Biomedical Optics Express</i> , <b>2020</b> , 11, 6780-6798	3.5	6
36	Quantitative super-resolution solid immersion microscopy via refractive index profile reconstruction. <i>Optica</i> ,	8.6	6
35	Moisture adsorption by decellularized bovine pericardium collagen matrices studied by terahertz pulsed spectroscopy and solid immersion microscopy. <i>Biomedical Optics Express</i> , <b>2021</b> , 12, 5368-5386	3.5	6
34	Wavelet-domain de-noising technique for THz pulsed spectroscopy <b>2014</b> ,		5

33	Wavelet-domain de-noising of OCT images of human brain malignant glioma <b>2018</b> ,		5
32	Terahertz transmission-mode scanning-probe near-field optical microscopy based on a flexible step-index sapphire fiber. <i>Optical Engineering</i> , <b>2021</b> , 60,	1.1	5
31	Terahertz solid immersion microscopy for sub-wavelength-resolution imaging of biological objects and tissues <b>2018</b> ,		4
30	Terahertz spectroscopy of immersion optical clearing agents: DMSO, PG, EG, PEG <b>2018</b> ,		4
29	Optical Properties of Hyperosmotic Agents for Immersion Clearing of Tissues in Terahertz Spectroscopy. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2020</b> , 128, 1026-1035	0.7	4
28	Terahertz transmission-mode near-field scanning-probe microscope based on a flexible sapphire fiber <b>2019</b> ,		3
27	Early Diagnosis of Skin Melanoma Using Several Imaging Systems. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2020</b> , 128, 824-834	0.7	3
26	Non-destructive testing of composite materials using terahertz time-domain spectroscopy <b>2016</b> ,		3
25	In situ terahertz monitoring of an ice ball formation during tissue cryosurgery: a feasibility test. <i>Journal of Biomedical Optics</i> , <b>2021</b> , 26,	3.5	3
24	Terahertz solid immersion microscopy: Recent achievements and challenges. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 110501	3.4	3
23	A Comparison of Terahertz Pulsed Spectroscopy and Backward-Wave Oscillator Spectroscopy. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 536, 012009	0.3	2
22	Wavelet-domain de-noising of optical coherent tomography data for biomedical applications. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 584, 012013	0.3	2
21	Differentiation of healthy and malignant brain tissues using terahertz pulsed spectroscopy and optical coherence tomography <b>2019</b> ,		2
20	Differentiation of basal cell carcinoma and healthy skin using multispectral modulation autofluorescence imaging: A pilot study. <i>Journal of Biomedical Photonics and Engineering</i> , <b>2019</b> , 5, 010302-4		2
19	Optical coherence tomography of human brain glioma as a promising tool for intraoperative diagnostics in neurosurgery <b>2019</b> ,		2
18	Principle component analysis and linear discriminant analysis of multi-spectral autofluorescence imaging data for differentiating basal cell carcinoma and healthy skin <b>2016</b> ,		2
17	Terahertz waveguides based on multichannel sapphire shaped crystals <b>2016</b> ,		1
16	Sub-wavelength-resolution imaging of biological tissues using THz solid immersion microscopy <b>2018</b> ,		1

15	An Experimentally Trained Noise Filtration Method of Optical Coherence Tomography Signals. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2019</b> , 126, 587-594	0.7	1
14	Optical characteristics of LaNiO <sub>3</sub> thin films in the terahertz-infrared frequency range. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 025305	2.5	1
13	Sapphire shaped crystals for laser-assisted cryodestruction of biological tissues <b>2018</b> ,		1
12	Numerical simulations and experimental study of terahertz photoconductive antennas based on GaAs and its ternary compounds <b>2018</b> ,		1
11	A concept of cryoapplicator based on sapphire shaped crystal enabling control of the ice ball formation using spatially resolved elastic backscattering of light <b>2018</b> ,		1
10	A method for reconstruction of terahertz dielectric response of thin liquid samples <b>2019</b> ,		1
9	Study of malignant brain gliomas using optical coherence tomography and terahertz pulsed spectroscopy aimed on advanced intraoperative neurodiagnosis <b>2019</b> ,		1
8	Temperature Evolution of the Dielectric Response of D-Lactose Monohydrate in the THz Frequency Range. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2020</b> , 128, 752-758	0.7	1
7	Biomedical applications of terahertz solid immersion microscopy. <i>EPJ Web of Conferences</i> , <b>2018</b> , 195, 10017	0.3	1
6	Hyper-spectral modulation fluorescent imaging using double acousto-optical tunable filter based on TeO <sub>2</sub> -crystals. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 584, 012017	0.3	
5	Impact of Scattering in Quasi-Ordered Structures on THz Imaging. <i>EPJ Web of Conferences</i> , <b>2018</b> , 195, 08001	0.3	
4	Development of a Standard for Verification of the System for Automated Morphometry of Clinical Images of Skin Neoplasms. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2020</b> , 128, 815-823	0.7	
3	Intraoperative diagnosis of malignant brain gliomas using terahertz pulsed spectroscopy and optical coherence tomography. <i>EPJ Web of Conferences</i> , <b>2018</b> , 195, 10018	0.3	
2	Microstructured sapphire shaped crystals for antiresonant and bandgap terahertz waveguiding. <i>EPJ Web of Conferences</i> , <b>2018</b> , 195, 09003	0.3	
1	Continuously tunable middle-IR bandpass filters based on gradient metal-hole arrays for multispectral sensing and thermography. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 123103	2.5	