

# Stanislav O Yurchenko

## List of Publications by Year in descending order

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114  
papers

2,267  
citations

186209

28  
h-index

243529

44  
g-index

114  
all docs

114  
docs citations

114  
times ranked

1438  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrodynamic model for electron-hole plasma in graphene. Journal of Applied Physics, 2012, 111, .	1.1	132
2	<i>In vivo</i> terahertz spectroscopy of pigmentary skin nevi: Pilot study of non-invasive early diagnosis of dysplasia. Applied Physics Letters, 2015, 106, .	1.5	112
3	Non-Destructive Evaluation of Polymer Composite Materials at the Manufacturing Stage Using Terahertz Pulsed Spectroscopy. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 810-816.	2.0	95
4	Complex crystalline structures in a two-dimensional core-softened system. Soft Matter, 2018, 14, 2152-2162.	1.2	80
5	Ion-Specific and Thermal Effects in the Stabilization of the Gas Nanobubble Phase in Bulk Aqueous Electrolyte Solutions. Langmuir, 2016, 32, 11245-11255.	1.6	78
6	Solid immersion terahertz imaging with sub-wavelength resolution. Applied Physics Letters, 2017, 110, .	1.5	69
7	Highly Accurate <i>In Vivo</i> Terahertz Spectroscopy of Healthy Skin: Variation of Refractive Index and Absorption Coefficient Along the Human Body. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 817-827.	2.0	66
8	Sapphire shaped crystals for waveguiding, sensing and exposure applications. Progress in Crystal Growth and Characterization of Materials, 2018, 64, 133-151.	1.8	65
9	Wide-aperture aspherical lens for high-resolution terahertz imaging. Review of Scientific Instruments, 2017, 88, 014703.	0.6	63
10	Structure of the nanobubble clusters of dissolved air in liquid media. Journal of Biological Physics, 2012, 38, 121-152.	0.7	54
11	Tunable two-dimensional assembly of colloidal particles in rotating electric fields. Scientific Reports, 2017, 7, 13727.	1.6	51
12	Effect of plasma resonances on dynamic characteristics of double graphene-layer optical modulator. Journal of Applied Physics, 2012, 112, .	1.1	50
13	Accuracy of sample material parameters reconstruction using terahertz pulsed spectroscopy. Journal of Applied Physics, 2014, 115, .	1.1	50
14	Terahertz Photonic Crystal Waveguides Based on Sapphire Shaped Crystals. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 576-582.	2.0	49
15	Sapphire Photonic Crystal Waveguides for Terahertz Sensing in Aggressive Environments. Advanced Optical Materials, 2018, 6, 1800573.	3.6	48
16	Practical thermodynamics of Yukawa systems at strong coupling. Journal of Chemical Physics, 2015, 142, 194903.	1.2	46
17	Excitation spectra in fluids: How to analyze them properly. Scientific Reports, 2019, 9, 10483.	1.6	43
18	Thermodynamics of two-dimensional Yukawa systems across coupling regimes. Journal of Chemical Physics, 2017, 146, 134702.	1.2	42

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19	Band-gap nonlinear optical generation: The structure of internal optical field and the structural light focusing. Journal of Applied Physics, 2014, 115, 213505.	1.1	40
20	Thermoacoustic Instability in Two-Dimensional Fluid Complex Plasmas. Physical Review Letters, 2018, 121, 075003.	2.9	39
21	Graphene terahertz uncooled bolometers. Journal Physics D: Applied Physics, 2013, 46, 065102.	1.3	38
22	Thermodynamics and dynamics of two-dimensional systems with dipolelike repulsive interactions. Physical Review E, 2018, 97, 022616.	0.8	34
23	Onset of transverse (shear) waves in strongly-coupled Yukawa fluids. Journal of Chemical Physics, 2019, 150, 104503.	1.2	34
24	A hybrid continuous-wave terahertz imaging system. Review of Scientific Instruments, 2015, 86, 113704.	0.6	33
25	Flame propagation in two-dimensional solids: Particle-resolved studies with complex plasmas. Physical Review E, 2017, 96, 043201.	0.8	32
26	Enhancement of second harmonic generation in NaNO <sub>2</sub> -infiltrated opal photonic crystal using structural light focusing. Applied Physics Letters, 2014, 105, 051902.	1.5	31
27	Particle-Resolved Phase Identification in Two-Dimensional Condensable Systems. Journal of Physical Chemistry C, 2017, 121, 26860-26868.	1.5	30
28	Spectroscopy of Nafion in terahertz frequency range. Journal of Applied Physics, 2014, 116, .	1.1	29
29	Terahertz spectroscopy of pigmentary skin nevi in vivo. Optics and Spectroscopy (English Translation) Tj ETQq1 1 0,784314 rgBT /Overl	0.2	27
30	Pair correlations in classical crystals: The shortest-graph method. Journal of Chemical Physics, 2015, 143, 034506.	1.2	26
31	The shortest-graph method for calculation of the pair-correlation function in crystalline systems. Journal of Chemical Physics, 2014, 140, 134502.	1.2	25
32	Enhanced third-harmonic generation in photonic crystals at band-gap pumping. Journal Physics D: Applied Physics, 2017, 50, 055105.	1.3	25
33	Medical diagnostics using terahertz pulsed spectroscopy. Journal of Physics: Conference Series, 2014, 486, 012014.	0.3	24
34	Experimental studies of two-dimensional complex plasma crystals: waves and instabilities. Physics-Uspexhi, 2019, 62, 1000-1011.	0.8	24
35	Dissipative phase transitions in systems with nonreciprocal effective interactions. Soft Matter, 2018, 14, 9720-9729.	1.2	23
36	Universal Effect of Excitation Dispersion on the Heat Capacity and Gapped States in Fluids. Physical Review Letters, 2020, 125, 125501.	2.9	23

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37	Interpolation method for pair correlations in classical crystals. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 235401.	0.7	22
38	Collective modes of two-dimensional classical Coulomb fluids. <i>Journal of Chemical Physics</i> , 2018, 149, 134114.	1.2	22
39	The Role of Scattering in Quasi-Ordered Structures for Terahertz Imaging: Local Order Can Increase an Image Quality. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2018, 8, 403-409.	2.0	21
40	Nondestructive testing of polymer composite materials using THz radiation. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012008.	0.3	19
41	Tunable interactions between particles in conically rotating electric fields. <i>Soft Matter</i> , 2018, 14, 9657-9674.	1.2	19
42	Anticrossing of Longitudinal and Transverse Modes in Simple Fluids. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4470-4475.	2.1	19
43	Multilayer-graphene-based amplifier of surface acoustic waves. <i>AIP Advances</i> , 2015, 5, .	0.6	17
44	Bizarre behavior of heat capacity in crystals due to interplay between two types of anharmonicities. <i>Journal of Chemical Physics</i> , 2018, 148, 134508.	1.2	16
45	Programmable Soft-Matter Electronics. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2017-2022.	2.1	16
46	<i>In vivo</i> terahertz pulsed spectroscopy of dysplastic and non-dysplastic skin nevi. <i>Journal of Physics: Conference Series</i> , 2016, 735, 012076.	0.3	15
47	Diagrammatic method for tunable interactions in colloidal suspensions in rotating electric or magnetic fields. <i>Journal of Chemical Physics</i> , 2019, 151, 244103.	1.2	15
48	A method of studying spectral optical characteristics of a homogeneous medium by means of terahertz time-domain spectroscopy. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2019, 45, 1015-1020.	1.0	10
49	Hygroscopic property of biofuel obtained by torrefaction of wood in a quiescent layer of bentonite. <i>Fuel</i> , 2020, 282, 118766.	3.4	13
50	Colloids in rotating electric and magnetic fields: designing tunable interactions with spatial field hodographs. <i>Soft Matter</i> , 2020, 16, 8155-8168.	1.2	13
51	BWO based THz imaging system. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012027.	0.3	12
52	<i>In vivo</i> spectroscopy of healthy skin and pathology in terahertz frequency range. <i>Journal of Physics: Conference Series</i> , 2015, 584, 012023.	0.3	12
53	Experimental validation of interpolation method for pair correlations in model crystals. <i>Journal of Chemical Physics</i> , 2019, 151, 114502.	1.2	12
54	Tick-Borne Encephalitis Electrochemical Detection by Multilayer Perceptron on Liquid-Metal Interface. <i>ACS Applied Bio Materials</i> , 2020, 3, 7352-7356.	2.3	12

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55	2D colloids in rotating electric fields: A laboratory of strong tunable three-body interactions. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 564-574.	5.0	12
56	Novel Algorithm for Sample Material Parameter Determination using THz Time-Domain Spectrometer Signal Processing. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012018.	0.3	11
57	Direct Experimental Evidence of Longitudinal and Transverse Mode Hybridization and Anticrossing in Simple Model Fluids. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1370-1376.	2.1	11
58	Phase diagram of two-dimensional colloids with Yukawa repulsion and dipolar attraction. <i>Journal of Chemical Physics</i> , 2019, 150, 104903.	1.2	10
59	Correlated noise effect on the structure formation in the phase-field crystal model. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 12185-12193.	1.2	10
60	From soft- to hard-sphere fluids: Crossover evidenced by high-frequency elastic moduli. <i>Physical Review E</i> , 2021, 103, 052117.	0.8	10
61	Entropy of simple fluids with repulsive interactions near freezing. <i>Journal of Chemical Physics</i> , 2021, 155, 134501.	1.2	10
62	FDTD simulation of the electromagnetic field surface states in 2D photonic crystals. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012003.	0.3	9
63	Combined terahertz imaging system for enhanced imaging quality. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	8
64	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> , 2014, 486, 012034.	0.3	7
65	Technological aspects of manufacturing terahertz photonic crystal waveguides based on sapphire shaped crystals. , 2017, , .		7
66	Localization of Ion Concentration Gradients for Logic Operation. <i>Frontiers in Chemistry</i> , 2019, 7, 419.	1.8	7
67	Strange attractors induced by melting in systems with nonreciprocal effective interactions. <i>Physical Review E</i> , 2020, 101, 063205.	0.8	7
68	Collective excitations in active fluids: Microflows and breakdown in spectral equipartition of kinetic energy. <i>Journal of Chemical Physics</i> , 2021, 155, 024902.	1.2	7
69	Wavelet-domain de-noising technique for THz pulsed spectroscopy. , 2014, , .		6
70	Second optical harmonic near the surface of ferroelectric photonic crystals and photon traps. <i>Physics of the Solid State</i> , 2015, 57, 453-459.	0.2	6
71	The active-passive continuous-wave terahertz imaging system. <i>Journal of Physics: Conference Series</i> , 2016, 735, 012075.	0.3	6
72	Defect-governed double-step activation and directed flame fronts. <i>Physical Review E</i> , 2019, 100, 023203.	0.8	6

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73	In vitro terahertz spectroscopy of gelatin-embedded human brain tumors: a pilot study. , 2018, , .		6
74	Features of combined instability of a charged interface between moving media. Journal of Engineering Physics and Thermophysics, 2007, 80, 912-917.	0.2	5
75	Quantum Tomograms and Their Application in Quantum Information Science. Journal of Physics: Conference Series, 2013, 414, 012040.	0.3	5
76	Nonlinear optical conversion in synthetic opal. Inorganic Materials, 2015, 51, 419-424.	0.2	5
77	Peculiarity of Terahertz Waves Scattering. International Journal of High Speed Electronics and Systems, 2015, 24, 1520002.	0.3	5
78	Core-shell particles in rotating electric and magnetic fields: Designing tunable interactions via particle engineering. Journal of Chemical Physics, 2021, 155, 084903.	1.2	5
79	Mean-field model of melting in superheated crystals based on a single experimentally measurable order parameter. Scientific Reports, 2021, 11, 17963.	1.6	5
80	The role of attraction in the phase diagrams and melting scenarios of generalized 2D Lennard-Jones systems. Journal of Chemical Physics, 2022, 156, 114703.	1.2	5
81	Enhanced third harmonic generation using the surface states of light in periodic photonic structures. Journal of Physics: Conference Series, 2014, 541, 012072.	0.3	4
82	Sensing of phase transition in medium with terahertz pulsed spectroscopy. Journal of Physics: Conference Series, 2014, 486, 012024.	0.3	4
83	Scattering in structured two-layered medium. Journal of Physics: Conference Series, 2015, 584, 012019.	0.3	4
84	An impact of multiple wave reflections in a flat sample on material parameter reconstruction using THz pulsed spectroscopy. Journal of Physics: Conference Series, 2015, 584, 012005.	0.3	4
85	On the problem of instability of the boundary of two media of finite thickness. Journal of Engineering Physics and Thermophysics, 2007, 80, 1199-1205.	0.2	3
86	Nonlinear waves propagating over a conducting ideal fluid surface in an electric field. Fluid Dynamics, 2009, 44, 748-758.	0.2	3
87	Evolution of perturbations of a charged interface between immiscible inviscid fluids in the interelectrode gap. Fluid Dynamics, 2010, 45, 817-826.	0.2	3
88	A Comparison of Terahertz Pulsed Spectroscopy and Backward-Wave Oscillator Spectroscopy. Journal of Physics: Conference Series, 2014, 536, 012009.	0.3	3
89	Wavelet-domain de-noising of optical coherent tomography data for biomedical applications. Journal of Physics: Conference Series, 2015, 584, 012013.	0.3	3
90	Non-destructive testing of composite materials using terahertz time-domain spectroscopy. , 2016, , .		3

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91	Numerical simulation of terahertz-wave propagation in photonic crystal waveguide based on sapphire shaped crystal. Journal of Physics: Conference Series, 2016, 673, 012001.	0.3	3
92	Colloidal suspensions in external rotating electric field: experimental studies and prospective applications in physics, material science, and biomedicine. , 2018, , .		3
93	Principle component analysis and linear discriminant analysis of multi-spectral autofluorescence imaging data for differentiating basal cell carcinoma and healthy skin. , 2016, , .		2
94	Second Harmonic Generation in Microstructured Barium Titanate. Journal of Russian Laser Research, 2016, 37, 254-258.	0.3	2
95	Terahertz waveguides based on multichannel sapphire shaped crystals. , 2016, , .		2
96	Experimental Approach for Obtaining a Complex (Dusty) Plasma Fluid. Journal of Physics: Conference Series, 2019, 1348, 012094.	0.3	2
97	Diagrammatics of tunable interactions in anisotropic colloids in rotating electric or magnetic fields: New kind of dipole-like interactions. Journal of Chemical Physics, 2021, 155, 114107.	1.2	2
98	The structure and spectral properties of two-dimensional dipole systems. Journal of Physics: Conference Series, 2014, 486, 012031.	0.3	1
99	Problem of light scattering in complex media. Journal of Physics: Conference Series, 2015, 584, 012025.	0.3	1
100	Structural light focusing phenomenon and enhanced second harmonic generation in NaNO <sub>2</sub> -infiltrated opal photonic crystal. Journal of Physics: Conference Series, 2015, 584, 012002.	0.3	1
101	“Tunable colloids” Experimental complex for studying generic phenomena in classical condensed matter. Journal of Physics: Conference Series, 2018, 1135, 012039.	0.3	1
102	Interpolation method for crystals with many-body interactions. Physical Review B, 2021, 104, .	1.1	1
103	Efficient approach to calculating radial distribution function in bcc Fe lattice. Journal of Physics: Conference Series, 2020, 1697, 012074.	0.3	1
104	Interacting Oscillators with Fluctuating Coupling: Mode Mixing without Cross-Correlations. Physical Review Letters, 2022, 129, .	2.9	1
105	Summer school in Kabardino-Balkaria by BMSTU SPIE Student Chapter. Proceedings of SPIE, 2014, , .	0.8	0
106	2nd Russia“Japan“USA Symposium on the Fundamental and Applied Problems of Terahertz Devices and Technologies (RJUS TeraTech “ 2013). Journal of Physics: Conference Series, 2014, 486, 011001.	0.3	0
107	Nonlinear conversion in optical waveguide filled with NaNO <sub>2</sub> . Journal of Physics: Conference Series, 2015, 584, 012009.	0.3	0
108	Hyper-spectral modulation fluorescent imaging using double acousto-optical tunable filter based on TeO <sub>2</sub> -crystals. Journal of Physics: Conference Series, 2015, 584, 012017.	0.3	0

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109	Pseudo-stochastic signal characterization in wavelet-domain. Journal of Physics: Conference Series, 2015, 584, 012021.	0.3	0
110	Study of electromagnetic field surface states in photonic crystals using the finite-difference method. Bulletin of the Lebedev Physics Institute, 2015, 42, 48-54.	0.1	0
111	2nd International Symposium "Optics and its Applications". Journal of Physics: Conference Series, 2016, 672, 011001.	0.3	0
112	Radiation scattering on growing ordered structures. Journal of Physics: Conference Series, 2016, 673, 012011.	0.3	0
113	Terahertz pulsed spectroscopy of medium polymerization. , 2016, , .		0
114	Enhanced high-harmonic generation in photonics crystal: theoretical and experimental studies. , 2017, , .		0