

Nikolay Surovtsev

List of Publications by Year in descending order

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113
papers

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citations

279798

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114
all docs

114
docs citations

114
times ranked

1307
citing authors

#	ARTICLE	IF	CITATIONS
1	Ionic liquid glasses: properties and applications. Russian Chemical Reviews, 2022, 91, .	6.5	4
2	Raman scattering in protonated and deuterated 1,2-dipalmitoyl-sn-glycero-3-phosphatidylcholine (DPPC): Indicators of conformational and lateral orders. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 267, 120583.	3.9	4
3	Raman spectra of deuterated hydrocarbons for labeling applications. Journal of Raman Spectroscopy, 2022, 53, 297-309.	2.5	6
4	Conformational state diagram of DOPC/DPPCd62/cholesterol mixtures. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183869.	2.6	1
5	Possibilities of Brillouin spectroscopy in the study of xenogeneic collagen-containing materials. , 2022, , .		0
6	Brillouin Spectroscopy of Binary Phospholipid-Cholesterol Bilayers. Applied Spectroscopy, 2022, 76, 1206-1215.	2.2	2
7	Coexistence of lipid phases in multilayer phospholipid films probed by Raman mapping. Analyst, The, 2022, 147, 3748-3755.	3.5	3
8	Strontium barium niobate crystals with various chemical compositions probed by Raman and Brillouin scattering. Ferroelectrics, 2022, 592, 108-115.	0.6	0
9	Raman Spectroscopic Study of Phase Coexistence in Binary Phospholipid Bilayers. Applied Spectroscopy, 2021, 75, 87-93.	2.2	5
10	Raman spectroscopy and DSC assay of the phase coexistence in binary DMPC/cholesterol multilamellar vesicles. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183514.	2.6	8
11	Cu ₂ ZnSnS ₄ crystal growth using an SnCl ₂ based flux. CrystEngComm, 2021, 23, 1025-1032.	2.6	10
12	On the Mutual Relationships between Molecular Probe Mobility and Free Volume and Polymer Dynamics in Organic Glass Formers: cis-1,4-poly(isoprene). Polymers, 2021, 13, 294.	4.5	2
13	Nanometer structure as a key to various phenomena in ferroelectrics. Ferroelectrics, 2021, 575, 37-42.	0.6	0
14	Temperature dependence of elastic properties of the phospholipid vesicles in aqueous suspension probed by Brillouin spectroscopy. Journal of Physics Condensed Matter, 2021, 33, 495102.	1.8	3
15	Lipid phase transitions in cat oocytes supplemented with deuterated fatty acids. Biophysical Journal, 2021, 120, 5619-5630.	0.5	5
16	Dynamic response on a nanometer scale of binary phospholipid-cholesterol vesicles: Low-frequency Raman scattering insight. Physical Review E, 2021, 104, 054406.	2.1	4
17	A monoclinic semiorganic molecular crystal GUHP for terahertz photonics and optoelectronics. Scientific Reports, 2021, 11, 23433.	3.3	3
18	Deciphering the orientation of lipid molecules by principal component analysis of Raman mapping data. Analyst, The, 2020, 145, 1466-1472.	3.5	9

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19	Deuterated stearic acid uptake and accumulation in lipid droplets of cat oocytes. Archives of Biochemistry and Biophysics, 2020, 692, 108532.	3.0	15
20	Exploration of the Structural and Vibrational Properties of the Ternary Molybdate $Tl_5BiHf(MoO_4)_6$ with Isolated MoO_4 Units and Tl^{+} Conductivity. Inorganic Chemistry, 2020, 59, 12681-12689.	4.0	8
21	Membrane "Sugar Interactions Probed by Low-Frequency Raman Spectroscopy: The Monolayer Adsorption Model. Langmuir, 2020, 36, 11655-11660.	3.5	12
22	Effect of the Hydrocarbon Chain Disorder in Phosphatidylcholine Bilayers on Gigahertz Sound Velocity. Journal of Physical Chemistry B, 2020, 124, 9079-9085.	2.6	5
23	Second-order-derivative analysis of structural relaxation time in the elastic model of glass-forming liquids. Physical Review E, 2020, 101, 052610.	2.1	1
24	Optical investigations of fluctuation of order parameter in THz range in $Sr_xBa_{1-x}Nb_2O_6$ crystals with different chemical compositions. Ferroelectrics, 2020, 560, 102-109.	0.6	3
25	Raman study of temperature-induced hydrocarbon chain disorder in saturated phosphatidylcholines. Chemistry and Physics of Lipids, 2020, 230, 104926.	3.2	11
26	Low-wavenumber Raman scattering of phospholipid bilayers in fluid, ripple, and gel phases. Journal of Raman Spectroscopy, 2020, 51, 952-958.	2.5	2
27	Raman spectroscopy evidence of lipid separation in domestic cat oocytes during freezing. Cryobiology, 2020, 95, 177-182.	0.7	15
28	Brillouin study of elastic properties of nanometric phospholipid layers in aqueous suspensions of vesicles. Ferroelectrics, 2019, 541, 10-16.	0.6	5
29	Brillouin spectroscopy of biorelevant fluids in relation to viscosity and solute concentration. Physical Review E, 2019, 99, 062410.	2.1	20
30	Vibrational eigenmodes of phospholipid layers in low-wavenumber Raman spectrum of multilamellar vesicles. Journal of Raman Spectroscopy, 2019, 50, 1691-1699.	2.5	3
31	Combined photon-echo, luminescence and Raman spectroscopies of layered ensembles of colloidal quantum dots. Laser Physics, 2019, 29, 124009.	1.2	32
32	Effect of low temperatures on cytochrome photoresponse in mouse embryos. Archives of Biochemistry and Biophysics, 2019, 669, 32-38.	3.0	6
33	Residual mechanical stresses in pressure treated $BaTiO_3$ powder. Ceramics International, 2019, 45, 12455-12460.	4.8	5
34	Vibrational layer eigenmodes of binary phospholipid-cholesterol bilayers at low temperatures. Physical Review E, 2019, 99, 022417.	2.1	11
35	Normal vibrations of ternary DOPC/DPPC/cholesterol lipid bilayers by low-frequency Raman spectroscopy. RSC Advances, 2019, 9, 34451-34456.	3.6	11
36	Exploration of structural, vibrational and spectroscopic properties of self-activated orthorhombic double molybdate $RbEu(MoO_4)_2$ with isolated MoO_4 units. Journal of Alloys and Compounds, 2019, 785, 692-697.	5.5	64

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37	Structural and vibrational properties of PVT grown BiTeCl microcrystals. <i>Materials Research Express</i> , 2019, 6, 045912.	1.6	9
38	Determination of the Orientation of Phospholipid Molecules in Planar Structures from Raman Spectra. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2019, 55, 495-500.	0.6	1
39	Effect of glycerol on photobleaching of cytochrome Raman lines in frozen yeast cells. <i>European Biophysics Journal</i> , 2018, 47, 655-662.	2.2	3
40	Stretch Vibrations of CH ₂ as a Measure of Conformational and Lateral Orders in Fatty Acid and Phospholipid Layers. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2018, 54, 538-545.	0.6	5
41	Lipid Droplet Phase Transition in Freezing Cat Embryos and Oocytes Probed by Raman Spectroscopy. <i>Biophysical Journal</i> , 2018, 115, 577-587.	0.5	27
42	Structural Properties of Glass-Forming Ethanol and Glycerol From O-H Vibrational Spectra. <i>Journal of Structural Chemistry</i> , 2018, 59, 321-327.	1.0	1
43	Frequencies of Stretching and Bending OH (OD) Vibrations in KDP (DKDP) Crystals, According to the Temperature Dependence of Their Raman Spectrum. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2018, 82, 294-298.	0.6	1
44	Raman spectroscopy for quantification of water-to-lipid ratio in phospholipid suspensions. <i>Vibrational Spectroscopy</i> , 2018, 97, 102-105.	2.2	6
45	Uniaxial mechanical stresses and their influence on the parameters of the ferroelectric phase transition in pressure-treated barium titanate. <i>Ferroelectrics</i> , 2017, 508, 161-166.	0.6	7
46	Normal vibrational modes of phospholipid bilayers observed by low-frequency Raman scattering. <i>Physical Review E</i> , 2017, 95, 032412.	2.1	13
47	Raman spectroscopy reveals the lipid phase transition in preimplantation mouse embryos during freezing. <i>Archives of Biochemistry and Biophysics</i> , 2017, 635, 37-43.	3.0	18
48	Inelastic light scattering study of hydrogen-bonded glass formers: Glycerol and ethanol. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 429-434.	3.1	3
49	Temperature dependence of the Landau-Placzek ratio in liquid water. <i>Physical Review E</i> , 2017, 96, 042608.	2.1	4
50	Suppression of spurious background in low-frequency Raman spectroscopy. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2017, 53, 250-254.	0.6	12
51	Effect of Nitrogen Impurities on the Raman Line Width in Diamond, Revisited. <i>Crystals</i> , 2017, 7, 239.	2.2	26
52	Cryoprotectant redistribution along the frozen straw probed by Raman spectroscopy. <i>Cryobiology</i> , 2016, 72, 148-153.	0.7	10
53	Local residual stresses in pressure-treated barium titanate powders probed by inelastic light scattering. <i>Ferroelectrics</i> , 2016, 496, 225-230.	0.6	4
54	Local residual stresses in pressure-treated barium titanate powders probed by second harmonic generation. <i>Ferroelectrics</i> , 2016, 501, 9-14.	0.6	6

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55	Relaxor-like features in pressure-treated barium titanate powder. <i>Applied Physics Letters</i> , 2015, 107, 102902.	3.3	9
56	Temperature effects in low-frequency Raman spectra of corticosteroid hormones. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2015, 118, 214-223.	0.6	10
57	Temperature-Dependent Hydrocarbon Chain Disorder in Phosphatidylcholine Bilayers Studied by Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 15613-15622.	2.6	42
58	Origin of the anomaly in the behavior of the viscosity of water near 0°C. <i>JETP Letters</i> , 2015, 102, 732-736.	1.4	5
59	Temperature dependence of the Raman line width in diamond: Revisited. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 171-176.	2.5	15
60	Second harmonic generation study of local polar inhomogeneities in Pb ₃ (MgNb ₂)O ₉ . <i>Physics of the Solid State</i> , 2015, 57, 472-475.	0.6	5
61	Redox State of Cytochromes in Frozen Yeast Cells Probed by Resonance Raman Spectroscopy. <i>Biophysical Journal</i> , 2015, 109, 2227-2234.	0.5	17
62	Transition from Arrhenius to non-Arrhenius temperature dependence of structural relaxation time in glass-forming liquids: Continuous versus discontinuous scenario. <i>Physical Review E</i> , 2014, 90, 032308.	2.1	25
63	Flexibility of phospholipids with saturated and unsaturated chains studied by Raman scattering: The effect of cholesterol on dynamical and phase transitions. <i>Journal of Chemical Physics</i> , 2014, 140, 235103.	3.0	20
64	Low-frequency inelastic light scattering in a ZBLAN (ZrF ₄ -BaF ₂ -LaF ₃ -AlF ₃ -NaF) glass. <i>Journal of Chemical Physics</i> , 2014, 140, 184508.	3.0	4
65	Photobleaching of the resonance Raman lines of cytochromes in living yeast cells. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2014, 141, 269-274.	3.8	5
66	Glass crystallization in the MnNbOF ₅ -BaF ₂ -BiF ₃ system as probed by Raman spectroscopy. <i>Russian Journal of Inorganic Chemistry</i> , 2014, 59, 831-837.	1.3	4
67	Temperature of nanometer-scale structure appearance in glasses. <i>Glass Physics and Chemistry</i> , 2013, 39, 124-129.	0.7	8
68	Dynamics of the order parameter and the potential of the hydrogen bond in a ferroelectric DKDP crystal. <i>Journal of Experimental and Theoretical Physics</i> , 2013, 116, 280-285.	0.9	1
69	Low-Frequency Raman Scattering in a Xe Hydrate. <i>Journal of Physical Chemistry B</i> , 2013, 117, 10686-10690.	2.6	13
70	Stimulated Raman scattering of light in optical silica fiber under subnanosecond pumping. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2013, 49, 416-422.	0.6	0
71	Synthesis, structural and vibrational properties of microcrystalline $\hat{\Gamma}^2$ -RbSm(MoO ₄) ₂ . <i>Materials Letters</i> , 2013, 106, 26-29.	2.6	69
72	Raman scattering evidence of hydrohalite formation on frozen yeast cells. <i>Cryobiology</i> , 2013, 66, 47-51.	0.7	23

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73	Order Parameter Dynamics and Hydrogen Bond Potential in DKDP. <i>Ferroelectrics</i> , 2012, 440, 113-118.	0.6	1
74	Low-Temperature Dynamical and Structural Properties of Saturated and Monounsaturated Phospholipid Bilayers Revealed by Raman and Spin-Label EPR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2012, 116, 8139-8144.	2.6	32
75	Glycine phases formed from frozen aqueous solutions: Revisited. <i>Journal of Chemical Physics</i> , 2012, 137, 065103.	3.0	37
76	Second harmonic generation in the paraelectric phase in powders and ceramics of BaTiO ₃ . <i>Physics of the Solid State</i> , 2012, 54, 920-923.	0.6	10
77	Structural and vibrational properties of microcrystalline TIM(MoO ₄) ₂ (M=Nd, Pr) molybdates. <i>Optical Materials</i> , 2012, 34, 812-816.	3.6	64
78	Central peak in the strontium titanate crystal near the tetragonal-to-cubic phase transition. <i>Physics of the Solid State</i> , 2012, 54, 924-926.	0.6	3
79	Temperature dependence of the Landau-Placzek ratio in glass forming liquids. <i>Journal of Chemical Physics</i> , 2011, 135, 134510.	3.0	21
80	Raman study of low-frequency modes in three glycine polymorphs. <i>Journal of Chemical Physics</i> , 2011, 134, 045102.	3.0	31
81	Raman line shape analysis as a mean characterizing molecular glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 3058-3063.	3.1	10
82	Dielectric susceptibility of a deuterated KDP crystal from experiment on Raman scattering and in the cluster approximation. <i>Physics of the Solid State</i> , 2011, 53, 1371-1377.	0.6	6
83	Temperature Dependence of Hyperfine Interaction for ¹⁵ N Nitroxide in a Glassy Matrix at 10 ⁻² –210 K. <i>Applied Magnetic Resonance</i> , 2011, 41, 411-429.	1.2	5
84	Synthesis, structural and vibrational properties of microcrystalline RbNd(MoO ₄) ₂ . <i>Journal of Crystal Growth</i> , 2011, 318, 683-686.	1.5	91
85	Rayleigh-Brillouin light-scattering study of a simple glass former: Evidence of locally favored structures. <i>Physical Review E</i> , 2010, 82, 011503.	2.1	16
86	On the glass-forming ability and short-range bond ordering of liquids. <i>Chemical Physics Letters</i> , 2009, 477, 57-59.	2.6	28
87	Formation of amorphous sapphire by a femtosecond laser pulse induced micro-explosion. <i>Applied Surface Science</i> , 2009, 255, 9745-9749.	6.1	28
88	On the universal regularities of the lattice dynamics in ferroelectrics. <i>Physics of the Solid State</i> , 2009, 51, 1390-1393.	0.6	2
89	Conformational Changes of Lipids in Bilayers at the Dynamical Transition Near 200 K Seen by Raman Scattering. <i>Journal of Physical Chemistry B</i> , 2009, 113, 15558-15562.	2.6	23
90	Central Peak in Raman Spectra of Ferroelectric KDP and DKDP Crystals. <i>Ferroelectrics</i> , 2009, 379, 43-47.	0.6	7

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91	Investigation of the fast relaxation in glass-forming selenium by low-frequency Raman spectroscopy. <i>Class Physics and Chemistry</i> , 2008, 34, 30-36.	0.7	3
92	Low-frequency Raman scattering study of the ferroelectric phase transition in the DKDP crystal. <i>Physics of the Solid State</i> , 2008, 50, 1137-1143.	0.6	14
93	On the Low-Temperature Onset of Molecular Flexibility in Lipid Bilayers Seen by Raman Scattering. <i>Journal of Physical Chemistry B</i> , 2008, 112, 12361-12365.	2.6	26
94	Transition from single-molecule to cooperative dynamics in a simple glass former: Raman line-shape analysis. <i>Physical Review E</i> , 2007, 76, 021502.	2.1	17
95	Salient Properties of Raman Central Peak in LiNbO ₃ and LiTaO ₃ Crystals. <i>Ferroelectrics</i> , 2007, 348, 177-181.	0.6	8
96	Specific features of the central peak in the Raman spectra of a lithium niobate crystal. <i>Physics of the Solid State</i> , 2006, 48, 1094-1098.	0.6	3
97	Specific features in the behavior of the central peak in Raman spectra of lithium tantalate. <i>Physics of the Solid State</i> , 2006, 48, 2317-2321.	0.6	6
98	Fast relaxation intensity versus silica glass density: existence of sharp peculiarity. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 4763-4771.	1.8	7
99	Low-frequency Raman spectra in LiNbO ₃ : Within and beyond the standard paradigm of ferroelectric dynamics. <i>Physical Review B</i> , 2005, 72, .	3.2	17
100	Density of vibrational states and light-scattering coupling coefficient in the structural glass and glassy crystal of ethanol. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 223-230.	1.8	21
101	Suppression of fast relaxation and the Raman coupling coefficient in densified silica. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 3035-3040.	1.8	7
102	Features of the Raman coupling coefficient of boson peak vibrations in glasses. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 2867-2870.	0.8	11
103	Low-frequency Raman scattering in As ₂ S ₃ glass former around the liquid-glass transition. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 7651-7662.	1.8	11
104	Density of states and light-vibration coupling coefficient in B ₂ O ₃ glasses with different thermal history. <i>Physical Review B</i> , 2003, 67, .	3.2	24
105	Frequency behavior of Raman coupling coefficient in glasses. <i>Physical Review B</i> , 2002, 66, .	3.2	74
106	Evaluation of terahertz density of vibrational states from specific-heat data: Application to silica glass. <i>Physical Review E</i> , 2001, 64, 061102.	2.1	24
107	Light scattering spectra of fast relaxation in B ₂ O ₃ glass. <i>Journal of Chemical Physics</i> , 2000, 112, 2319-2324.	3.0	27
108	A comprehensive light scattering study of the glass former toluene. <i>Journal of Chemical Physics</i> , 2000, 113, 1143-1153.	3.0	77

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109	qDependence of Low-Frequency Raman Scattering in Silica Glass. Physical Review Letters, 1999, 82, 4476-4479.	7.8	18
110	Effect of nitrogen impurities on the Raman line width in diamonds. Journal of Physics Condensed Matter, 1999, 11, 4767-4774.	1.8	56
111	Has the boson peak a contribution from propagating modes?. Journal of Physics Condensed Matter, 1998, 10, L113-L118.	1.8	10
112	Light-scattering spectra of fast relaxation in glasses. Physical Review B, 1998, 58, 14888-14891.	3.2	104
113	Connection between quasielastic Raman scattering and free volume in polymeric glasses and supercooled liquids. Journal of Chemical Physics, 1997, 107, 1057-1065.	3.0	82