

Victor V Volkov

List of Publications by Year in descending order

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49
papers

1,717
citations

516710

16
h-index

276875

41
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51
all docs

51
docs citations

51
times ranked

2413
citing authors

#	ARTICLE	IF	CITATIONS
1	Ethanol electro-oxidation reaction on the Pd(111) surface in alkaline media: insights from quantum and molecular mechanics. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	2.8	2
2	Fungal pigments on paper: Raman and quantum chemistry studies of <i>Alternaria</i> Sp. <i>Dyes and Pigments</i> , 2021, 195, 109719.	3.7	5
3	Anchoring of a hydrophobic heptapeptide (AFILPTG) on silica facilitates peptide unfolding at the abiotic–biotic interface. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 18001-18011.	2.8	0
4	Mapping blood biochemistry by Raman spectroscopy at the cellular level. <i>Chemical Science</i> , 2021, 13, 133-140.	7.4	5
5	Indigo chromophores and pigments: Structure and dynamics. <i>Dyes and Pigments</i> , 2020, 172, 107761.	3.7	28
6	Polariton condensation and surface enhanced Raman in spherical ZnO microcrystals. <i>Nature Communications</i> , 2020, 11, 4908.	12.8	7
7	The structural and electronic properties of 3,3-azothiophene photo-switching systems. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1344-1353.	2.8	17
8	From phage display to structure: an interplay of enthalpy and entropy in the binding of the LDHSLHS polypeptide to silica. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4663-4672.	2.8	9
9	Distributions of Silica and Biopolymer Structural Components in the Spore Elater of <i>Equisetum arvense</i> , an Ancient Silicifying Plant. <i>Frontiers in Plant Science</i> , 2019, 10, 210.	3.6	6
10	Do Material Discontinuities in Silica Affect Vibration Modes?. <i>Journal of Physical Chemistry A</i> , 2018, 122, 4997-5003.	2.5	3
11	Correspondence between light-absorption spectrum and nonequilibrium work distribution as a mean to access free energy differences between electronic states. <i>Journal of Chemical Physics</i> , 2018, 149, 084101.	3.0	0
12	Binding Free Energies of Host–Guest Systems by Nonequilibrium Alchemical Simulations with Constrained Dynamics: Theoretical Framework. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 5874-5886.	5.3	14
13	Binding Free Energies of Host–Guest Systems by Nonequilibrium Alchemical Simulations with Constrained Dynamics: Illustrative Calculations and Numerical Validation. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 5887-5899.	5.3	14
14	Resolving capacity of infrared–visible sum frequency generation microscopy to address discrete structural realizations of a protein at interface. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 828-838.	2.5	1
15	Nonequilibrium work theorems applied to transitions between configurational domains. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 123204.	2.3	3
16	Modeling of Infrared–Visible Sum Frequency Generation Microscopy Images of a Giant Liposome. <i>Microscopy and Microanalysis</i> , 2016, 22, 1128-1145.	0.4	2
17	Polarization entanglement of sum-frequency photons: A tool to probe the Markovian limit. <i>Physical Review A</i> , 2015, 91, .	2.5	0
18	Sum frequency generation image reconstruction: Aliphatic membrane under spherical cap geometry. <i>Journal of Chemical Physics</i> , 2014, 141, 134121.	3.0	4

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19	Sum-frequency generation echo and grating from interface. <i>Journal of Chemical Physics</i> , 2014, 141, 144103.	3.0	2
20	Tip-induced deformation of a phospholipid bilayer: Theoretical perspective of sum frequency generation imaging. <i>Journal of Chemical Physics</i> , 2014, 141, 154201.	3.0	3
21	Structural analysis of neutral tetracycline using anharmonicity of delocalized vibrations. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 5655.	2.8	0
22	Structural Properties of gp41 Fusion Peptide at a Model Membrane Interface. <i>Journal of Physical Chemistry B</i> , 2013, 117, 15527-15535.	2.6	15
23	Excitonic effects in two-dimensional vibrational spectra of liquid formamide. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11351.	2.8	5
24	Structural Properties of a Membrane Associated Anchor Dipeptide. <i>Journal of Physical Chemistry B</i> , 2011, 115, 5294-5303.	2.6	12
25	Two-dimensional infrared spectroscopy of a structured liquid: Neat formamide. <i>Journal of Chemical Physics</i> , 2009, 130, 204518.	3.0	11
26	What are the Sites Water Occupies at the Interface of a Phospholipid Membrane?. <i>Journal of Physical Chemistry B</i> , 2009, 113, 4119-4124.	2.6	26
27	Partitioning of an Anchor Dipeptide in a Phospholipid Membrane. <i>Journal of Physical Chemistry B</i> , 2009, 113, 16246-16250.	2.6	1
28	Hydration of phospholipid interface: carbonyl-water hydrogen bond association. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 9979.	2.8	8
29	Retrieval of spectral and dynamic properties from two-dimensional infrared pump-probe experiments. <i>Journal of Computational Chemistry</i> , 2008, 29, 1507-1516.	3.3	9
30	Electrostatic interactions in phospholipid membranes revealed by coherent 2D IR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 15323-15327.	7.1	32
31	Distinct Water Species Confined at the Interface of a Phospholipid Membrane. <i>Physical Review Letters</i> , 2007, 99, 078302.	7.8	74
32	2P271 INTERMOLECULAR RELATIONS AND HYDROGEN BOND DYNAMICS AT PHOSPHOLIPID MEMBRANE INTERFACE(Native and artificial biomembranes,Oral Presentations). <i>Seibutsu Butsuri</i> , 2007, 47, S180.	0.1	0
33	Heterogeneity of Water at the Phospholipid Membrane Interface. <i>Journal of Physical Chemistry B</i> , 2007, 111, 1377-1383.	2.6	71
34	Domain Formation in Lipid Bilayers Probed by Two-Dimensional Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006, 110, 1499-1501.	2.6	19
35	Hydration and Hydrogen Bonding of Carbonyls in Dimyristoyl-Phosphatidylcholine Bilayer. <i>Journal of the American Chemical Society</i> , 2006, 128, 9466-9471.	13.7	34
36	1P216 Two-dimensional Infrared Spectroscopy and Molecular Dynamics of Liquid Formamide. <i>Seibutsu Butsuri</i> , 2005, 45, S85.	0.1	2

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37	1P215 Domain formation in lipid bilayer probed in two-dimensional infrared ultrafast experiment. Seibutsu Butsurei, 2005, 45, S85.	0.1	0
38	Active phase stabilization in Fourier-transform two-dimensional infrared spectroscopy. Optics Letters, 2005, 30, 2010.	3.3	76
39	Cotton Effect in Copper-Proline Complexes in the Visible Region. Journal of Chemical Education, 2005, 82, 1663.	2.3	3
40	Size-Dependent Optical Properties of Polydiacetylene Nanocrystal. Journal of Physical Chemistry B, 2004, 108, 7674-7680.	2.6	82
41	A Two-Dimensional Infrared Study of Localization, Structure, and Dynamics of a Dipeptide in Membrane Environment. Biophysical Journal, 2004, 87, 4213-4225.	0.5	35
42	Carrier recombination in clusters of NiO. Chemical Physics Letters, 2001, 337, 117-124.	2.6	55
43	The relaxation dynamics of the excited electronic states of retinal in bacteriorhodopsin by two-pump-probe femtosecond studies. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8475-8479.	7.1	68
44	Surface modification on time-resolved fluorescences of Fe ₂ O ₃ nanocrystals. Journal of Physics and Chemistry of Solids, 2000, 61, 757-764.	4.0	51
45	The 'lightning' gold nanorods: fluorescence enhancement of over a million compared to the gold metal. Chemical Physics Letters, 2000, 317, 517-523.	2.6	767
46	Low temperature optical properties of amorphous oxide nanoclusters in polymethyl methacrylate matrix. Chinese Physics B, 2000, 9, 767-773.	1.3	1
47	Optical Properties of Amorphous ZnO, CdO, and PbO Nanoclusters in Solution. Chemistry of Materials, 1999, 11, 3037-3043.	6.7	116
48	Optical rotation of the second harmonic radiation from retinal in bacteriorhodopsin monomers in Langmuir-Blodgett film: evidence for nonplanar retinal structure. Biophysical Journal, 1997, 73, 3164-3170.	0.5	17
49	ZnO Nanogold Doping: A Bioinorganic Paradigm for Sensing and Optical Security Applications. ACS Applied Nano Materials, 0, , .	5.0	1