

Victor A Karachevtsev

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9374428/publications.pdf>

Version: 2024-02-01

109
papers

1,163
citations

361045

20
h-index

476904

29
g-index

111
all docs

111
docs citations

111
times ranked

1357
citing authors

#	ARTICLE	IF	CITATIONS
1	Stacking interaction of cytosine with carbon nanotubes: MP2, DFT and Raman spectroscopy study. <i>Chemical Physics Letters</i> , 2008, 459, 153-158.	1.2	58
2	Noncovalent Interaction of Single-Walled Carbon Nanotubes with 1-Pyrenebutanoic Acid Succinimide Ester and Glucoseoxidase. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21072-21082.	1.5	54
3	Raman Spectroscopy Study and First-Principles Calculations of the Interaction between Nucleic Acid Bases and Carbon Nanotubes. <i>Journal of Physical Chemistry A</i> , 2009, 113, 3621-3629.	1.1	49
4	Noncovalent Interaction of Methylene Blue with Carbon Nanotubes: Theoretical and Mass Spectrometry Characterization. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20579-20590.	1.5	46
5	Achieving High Mid-IR Bolometric Responsivity for Anisotropic Composite Materials from Carbon Nanotubes and Polymers. <i>Advanced Functional Materials</i> , 2012, 22, 2177-2186.	7.8	44
6	Glucose sensing based on NIR fluorescence of DNA-wrapped single-walled carbon nanotubes. <i>Chemical Physics Letters</i> , 2007, 435, 104-108.	1.2	40
7	Combined Raman scattering and ab initio investigation of the interaction between pyrene and carbon SWNT. <i>Molecular Physics</i> , 2003, 101, 2609-2614.	0.8	39
8	Decrease of carbon nanotube UV light absorption induced by π - π -stacking interaction with nucleotide bases. <i>Carbon</i> , 2010, 48, 3682-3691.	5.4	37
9	Spectroscopic and SEM studies of SWNTs: Polymer solutions and films. <i>Carbon</i> , 2006, 44, 1292-1297.	5.4	34
10	Raman spectroscopy of HiPCO single-walled carbon nanotubes at 300 and 5 K. <i>Carbon</i> , 2003, 41, 1567-1574.	5.4	33
11	Peculiarities of Homooligonucleotides Wrapping around Carbon Nanotubes: Molecular Dynamics Modeling. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9271-9279.	1.2	33
12	IR Spectra of Photopolymerized C60Films. Experimental and Density Functional Theory Study. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15769-15775.	1.2	32
13	SWNT-DNA and SWNT-polyC Hybrids: AFM Study and Computer Modeling. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1473-1480.	0.9	30
14	Effective photopolymerization of C60 films under simultaneous deposition and UV light irradiation: Spectroscopy and morphology study. <i>Carbon</i> , 2004, 42, 2091-2098.	5.4	25
15	pH-Induced changes in electronic absorption and fluorescence spectra of phenazine derivatives. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2007, 66, 849-859.	2.0	24
16	Spectroscopic Detection of Tetracationic Porphyrin H-Aggregation on Polyanionic Matrix of Inorganic Polyphosphate. <i>Journal of Fluorescence</i> , 2010, 20, 695-702.	1.3	24
17	Raman Spectroscopy and Theoretical Characterization of Nanohybrids of Porphyrins with Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2010, 114, 16215-16222.	1.5	24
18	Noncovalent Interaction of Graphene with Heterocyclic Compounds: Benzene, Imidazole, Tetracene, and Imidazophenazines. <i>ChemPhysChem</i> , 2016, 17, 1204-1212.	1.0	22

#	ARTICLE	IF	CITATIONS
19	FTIR spectra and conformations of 2- β -deoxyuridine in Kr matrices. <i>Low Temperature Physics</i> , 2007, 33, 590-594.	0.2	21
20	SWNT-DNA and SWNT-polyC Hybrids: AFM Study and Computer Modeling. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1473-1480.	0.9	20
21	Dimers of phenol in argon and neon matrices. <i>Low Temperature Physics</i> , 2001, 27, 666-675.	0.2	19
22	Photoluminescence intensity enhancement in SWNT aqueous suspensions due to reducing agent doping: Influence of adsorbed biopolymer. <i>Chemical Physics</i> , 2014, 438, 23-30.	0.9	18
23	Binding of Polycytidylic Acid to Graphene Oxide: Spectroscopic Study and Computer Modeling. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18221-18233.	1.5	18
24	Mg ²⁺ ion effect on conformational equilibrium of poly A \hat{A} ² poly U and poly A poly U in aqueous solutions. <i>International Journal of Biological Macromolecules</i> , 2003, 31, 223-233.	3.6	17
25	Adsorption of Biopolymers on SWCNT: Ordered Poly(rC) and Disordered Poly(rI). <i>Journal of Physical Chemistry B</i> , 2013, 117, 2636-2644.	1.2	17
26	Adsorption of Poly(rA) on the Carbon Nanotube Surface and its Hybridization with Poly(rU). <i>ChemPhysChem</i> , 2008, 9, 2010-2018.	1.0	14
27	Fermi resonance in Ne, Ar and Kr-matrix infrared spectra of 5-bromouracil. <i>Low Temperature Physics</i> , 2013, 39, 546-551.	0.2	14
28	Comparative study on protection properties of anionic surfactants (SDS, SDBS) and DNA covering of single-walled carbon nanotubes against pH influence: luminescence and absorption spectroscopy study. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2011, 42, 41-46.	0.5	13
29	Interactions of the Watson-Crick nucleic acid base pairs with carbon nanotubes and graphene: DFT and MP2 study. <i>Chemical Physics Letters</i> , 2014, 610-611, 186-191.	1.2	13
30	Graphene induced molecular flattening of meso -5,10,15,20-tetraphenyl porphyrin: DFT calculations and molecular dynamics simulations. <i>Computational and Theoretical Chemistry</i> , 2018, 1133, 1-6.	1.1	13
31	Photophysics of Carbon Nanotubes Interfaced with Organic and Inorganic Materials. , 2012, , .		12
32	Absorption and fluorescent spectral studies of imidazophenazine derivatives. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2004, 60, 2005-2011.	2.0	11
33	Influence of cysteine doping on photoluminescence intensity from semiconducting single-walled carbon nanotubes. <i>Chemical Physics Letters</i> , 2015, 623, 51-54.	1.2	11
34	Evaluation of the reduction of imidazophenazine dye derivatives under fast-atom-bombardment mass-spectrometric conditions. <i>Journal of Mass Spectrometry</i> , 2006, 41, 113-123.	0.7	10
35	Unusual aggregation of poly(rC)-wrapped carbon nanotubes in aqueous suspension induced by cationic porphyrin. <i>Journal of Materials Chemistry</i> , 2012, 22, 10795.	6.7	10
36	The effect of protonation of cytosine and adenine on their interactions with carbon nanotubes. <i>Journal of Molecular Graphics and Modelling</i> , 2016, 70, 77-84.	1.3	10

#	ARTICLE	IF	CITATIONS
37	Behavior of hybrid thermosensitive nanosystem dextran-graft-PNIPAM/gold nanoparticles: characterization within LCTS. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	0.8	10
38	Exciton migration in quasi-one-dimensional crystals: Antiferromagnetic CsMnCl ₃ ·2H ₂ O. <i>Physical Review B</i> , 1994, 49, 11799-11807.	1.1	9
39	Raman spectroscopy of DNA-wrapped single-walled carbon nanotube films at 295 and 5K. <i>Low Temperature Physics</i> , 2010, 36, 373-381.	0.2	9
40	Excitonic energy transfer in polymer wrapped carbon nanotubes in gradually grown nanoassemblies. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10914-10922.	1.3	9
41	DNA-wrapped carbon nanotubes aligned in stretched gelatin films: Polarized resonance Raman and absorption spectroscopy study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 92-96.	1.3	9
42	Nucleoside conformers in low-temperature argon matrices: Fourier transform IR spectroscopy of isolated thymidine and deuteriothymidine molecules and quantum-mechanical calculations. <i>Low Temperature Physics</i> , 2019, 45, 1008-1017.	0.2	9
43	RNA-Wrapped Carbon Nanotubes Aggregation Induced by Polymer Hybridization. <i>Molecular Crystals and Liquid Crystals</i> , 2008, 497, 7/[339]-19/[351].	0.4	8
44	Tuning the carbon nanotube photoluminescence enhancement at addition of cysteine through the change of external conditions. <i>Materials Chemistry and Physics</i> , 2017, 186, 131-137.	2.0	8
45	Infrared spectra of 5-fluorouracil molecules isolated in inert Ar matrices, and their films on graphene oxide at 6%K. <i>Low Temperature Physics</i> , 2017, 43, 400-408.	0.2	8
46	Mg ²⁺ and Ni ²⁺ ion effect on stability and structure of triple poly I·poly A·poly I helix. <i>International Journal of Biological Macromolecules</i> , 2005, 35, 201-210.	3.6	7
47	Luminescence and Raman scattering of nonpolymerized and photopolymerized fullerene films at 297 and 5K. <i>Low Temperature Physics</i> , 2007, 33, 704-709.	0.2	6
48	Permeability of C60 films deposited on polycarbonatesyloxane to N ₂ , O ₂ , CH ₄ , and He gases. <i>Applied Surface Science</i> , 2007, 253, 3062-3065.	3.1	6
49	Self-assemblies of tricationic porphyrin on inorganic polyphosphate. <i>Biophysical Chemistry</i> , 2014, 185, 39-46.	1.5	6
50	The conformational structure of adenosine molecules, isolated in low-temperature Ar matrices. <i>Low Temperature Physics</i> , 2015, 41, 936-941.	0.2	6
51	Interaction of a tricationic meso-substituted porphyrin with guanine-containing polyribonucleotides of various structures. <i>Methods and Applications in Fluorescence</i> , 2016, 4, 034005.	1.1	6
52	Composite films of single-walled carbon nanotubes with strong oxidized graphene: Characterization with spectroscopy, microscopy, conductivity measurements (5%K) and computer modeling. <i>Low Temperature Physics</i> , 2019, 45, 754-762.	0.2	6
53	Low-temperature transport of magnetic excitons in the quasi-one-dimensional antiferromagnet CsMnCl ₃ ·2H ₂ O doped with Cu ²⁺ ions. <i>Physical Review B</i> , 1996, 54, 447-453.	1.1	5
54	Spectroscopy Study of SWNT in Aqueous Solution With Different Surfactants. <i>AIP Conference Proceedings</i> , 2003, , .	0.3	5

#	ARTICLE	IF	CITATIONS
55	Nanohybrid Structures Formed by Carbon Nanotubes with Long Polynucleotide. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 531-537.	1.0	5
56	Binding of Metallated Porphyrin-Imidazophenazine Conjugate to Tetramolecular Quadruplex Formed by Poly(G): a Spectroscopic Investigation. Journal of Fluorescence, 2015, 25, 1897-1904.	1.3	5
57	Probing the Influence of Amino Acids on Photoluminescence from Carbon Nanotubes Suspended with DNA. Journal of Fluorescence, 2016, 26, 1951-1958.	1.3	5
58	Comparison of noncovalent interactions of zigzag and armchair carbon nanotubes with heterocyclic and aromatic compounds: Imidazole and benzene, imidazophenazines, and tetracene. Chemical Physics, 2017, 483-484, 68-77.	0.9	5
59	The temperature dependence of electron transport in a composite film of graphene oxide with single-wall carbon nanotubes: an analysis and comparison with a nanotube film. Low Temperature Physics, 2019, 45, 1109-1116.	0.2	5
60	Unusual behaviour of the luminescence in quasi-one-dimensional antiferromagnetic crystal CsMnCl ₃ ·2H ₂ O at low temperature. Solid State Communications, 1993, 87, 1027-1029.	0.9	4
61	Monte Carlo simulation of exciton trapping in quasi-one-dimensional antiferromagnetic CsMnCl ₃ ·2H ₂ O. Journal of Chemical Physics, 1995, 103, 2656-2660.	1.2	4
62	Phonon thermoactivated exciton tunneling in crystals of weak charge transfer complexes N-TCPA doped with Nd ³⁺ -TCPA. Chemical Physics, 1997, 216, 1-6.	0.9	4
63	Absorption and luminescence of CsMnCl ₃ ·2H ₂ O crystals doped with Cu ²⁺ . Journal of Luminescence, 2000, 92, 35-42.	1.5	4
64	Effect of Mg ²⁺ Ions on the Stability of PolyA/2PolyU Three-Stranded Helices in Aqueous Solutions. Macromolecular Bioscience, 2002, 2, 155.	2.1	4
65	Raman Spectroscopy and SEM Study of SWNTs in Aqueous Solution and Films with Surfactant or Polymer Surroundings. Fullerenes Nanotubes and Carbon Nanostructures, 2006, 14, 221-225.	1.0	4
66	Binding of polynucleotides with single-walled carbon nanotubes: Effect of temperature. Materialwissenschaft Und Werkstofftechnik, 2011, 42, 92-97.	0.5	4
67	Raman scattering in non-polymerized and photo-polymerized C ₆₀ films at 5%K. Low Temperature Physics, 2012, 38, 854-862.	0.2	4
68	Photophysical Properties of SWNT Interfaced with DNA. , 2012, , 89-163.		4
69	Manifestation of Fermi resonance in the vibrational spectra of 5-ioduracil, and its deuterio-derivatives isolated in low-temperature Ar matrices. Low Temperature Physics, 2014, 40, 1097-1103.	0.2	4
70	Spectroscopic Studies on Binding of Porphyrin-Phenazine Conjugate to Four-Stranded Poly(G). Journal of Fluorescence, 2015, 25, 1013-1021.	1.3	4
71	Hybridization of Homopolynucleotides with Different Base Ordering on the Carbon Nanotube Surface. Journal of Physical Chemistry C, 2015, 119, 11991-12001.	1.5	4
72	Enhancement of Photoluminescence from Semiconducting Nanotubes in Aqueous Suspensions due to Cysteine and Dithiothreitol Doping: Influence of the Sonication Treatment. Nanoscale Research Letters, 2016, 11, 490.	3.1	4

#	ARTICLE	IF	CITATIONS
73	Comparison of temperature dependences of electrical conductivity of composite rGO-SWNT film with rGO and SWNT films. <i>Low Temperature Physics</i> , 2020, 46, 285-292.	0.2	4
74	Composite films of graphene oxide with semiconducting carbon nanotubes: Raman spectroscopy characterization. <i>Low Temperature Physics</i> , 2021, 47, 206-213.	0.2	4
75	Hydrogen-bonded complexes of 2-aminopyrimidine- <i>para</i> -benzoquinone in an argon matrix. <i>Low Temperature Physics</i> , 2006, 32, 148-157.	0.2	3
76	Pre-resonance Raman and IR absorption spectroscopy of imidazophenazine and its derivatives: Experimental and ab initio study. <i>Vibrational Spectroscopy</i> , 2008, 47, 71-81.	1.2	3
77	Luminescence investigations of hybrids of carbon nanotubes with DNA in a water suspension and film at 5-290K. <i>Low Temperature Physics</i> , 2008, 34, 1033-1037.	0.2	3
78	The Effect of Divalent Metal Ions on the Temperature Stability of Poly(I:C) Duplex. <i>Journal of Spectroscopy</i> , 2020, 2020, 1-7.	0.6	3
79	SWNTs with DNA in Aqueous Solution and Film. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	2
80	Noncovalent Functionalization of Single-Walled Carbon Nanotubes for Biological Application: Raman and NIR Absorption Spectroscopy. , 2004, , 139-150.		2
81	IR Spectroscopy and ab initio calculations of imidazophenazine and its derivatives in a low-temperature argon matrix. <i>Low Temperature Physics</i> , 2009, 35, 491-502.	0.2	2
82	Enhancement of single-walled nanotubes luminescence intensity upon dithiothreitol doping. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2014, 117, 428-433.	0.2	2
83	Controlled Aggregation of Biopolymer-Wrapped Carbon Nanotubes in Aqueous Suspension, Induced by Cationic Porphyrin. <i>Macromolecular Symposia</i> , 2014, 335, 51-57.	0.4	2
84	Adsorption of Polyadenylic acid on graphene oxide: experiments and computer modeling. <i>Journal of Biomolecular Structure and Dynamics</i> , 2020, , 1-13.	2.0	2
85	Pheophorbide-phenazinium conjugate as a fluorescent light-up probe for G-quadruplex structure. <i>Journal of Molecular Structure</i> , 2020, 1214, 128218.	1.8	2
86	SWNT-DNA and SWNT-polyC hybrids: AFM study and computer modeling. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1473-80.	0.9	2
87	Temperature dependence of the phosphorescence of naphthalene-tetrachlorophthalic anhydride charge-transfer crystal complex. <i>Journal of Applied Spectroscopy</i> , 1987, 46, 377-380.	0.3	1
88	A wide-range unit for recording luminescence decay kinetics. <i>Journal of Applied Spectroscopy</i> , 1993, 58, 448-453.	0.3	1
89	Hybridization of poly(rl) with poly(rC) adsorbed to the carbon nanotube surface. <i>Nanoscale Research Letters</i> , 2014, 9, 157.	3.1	1
90	Enhancement of the absorption bands in the infrared spectra of low-temperature uracil films by interference. <i>Low Temperature Physics</i> , 2018, 44, 1215-1218.	0.2	1

#	ARTICLE	IF	CITATIONS
91	Structures and infrared spectra of 5-chlorouracil molecules in the low-temperature inert Ar, Ne matrices and composite films with oxide graphene. <i>Low Temperature Physics</i> , 2018, 44, 847-855.	0.2	1
92	Modeling of nucleobase/oligonucleotide interaction with graphene and graphene oxide: the role of charging and/or oxidizing the graphene surface. <i>Molecular Crystals and Liquid Crystals</i> , 2020, 697, 49-59.	0.4	1
93	Spectroscopic study of binding of a cationic Pheophorbide-a to an antiparallel quadruplex Tel22. <i>Biopolymers and Cell</i> , 2019, 35, 129-142.	0.1	1
94	7th International Conference "Nanobiophysics: Fundamental and Applied Aspects" Kharkiv, Ukraine, October 4-8, 2021. <i>Low Temperature Physics</i> , 2022, 48, 275-277.	0.2	1
95	New Approach to Growth of Photopolymerized C60 Films. <i>AIP Conference Proceedings</i> , 2002, , .	0.3	0
96	Emission of carbon nanotube-DNA-GOX bionanohybrid for glucose detection. <i>Proceedings of SPIE</i> , 2007, , .	0.8	0
97	Enhancement of infrared absorption of low-temperature uracil thin films by a nanostructured silver surface. <i>Low Temperature Physics</i> , 2016, 42, 106-110.	0.2	0
98	Comparison of Raman scattering in non-polymerized and photo-polymerized fullerene films at temperatures of 5-300 K. <i>Low Temperature Physics</i> , 2016, 42, 1144-1150.	0.2	0
99	Change in the Microviscosity of Erythrocyte Membranes and Proteins in Blood Plasma after Graphene Oxide Addition: The ESR Spectroscopy Study. <i>Journal of Spectroscopy</i> , 2019, 2019, 1-8.	0.6	0
100	Interaction of Single Walled Carbon Nanotube with Graphene: Quantum-Chemical Calculation and Molecular Dynamics Study. , 2019, , .		0
101	Interaction of double-stranded polynucleotide poly(A:U) with graphene/graphene oxide. <i>European Physical Journal E</i> , 2021, 44, 24.	0.7	0
102	Biomolecules and their complexes with nanostructures. <i>Low Temperature Physics</i> , 2021, 47, 179-180.	0.2	0
103	Coronene-uracil complexes embedded in argon matrices: FTIR spectroscopy and quantum-mechanical calculations. <i>Low Temperature Physics</i> , 2021, 47, 325-334.	0.2	0
104	COMPOSITE FULLERENE MEMBRANES AND THEIR APPLICABILITY AS ELEMENTS OF VENTILATION-FILTRATION-DISINFECTION SYSTEMS. , 2007, , .		0
105	Comparison of Poly(rl) and Poly(rA) Adsorption on Carbon Nanotubes. <i>Springer Proceedings in Physics</i> , 2013, , 275-290.	0.1	0
106	Enhancement of Luminescence from a Carbon Nanotube Aqueous Suspension at the Cysteine Doping: Influence of the Adsorbed Polymer. <i>Ukrainian Journal of Physics</i> , 2016, 61, 932-939.	0.1	0
107	Spectroscopy analysis of the alignment of nanoassemblies of DNA-wrapped carbon nanotubes in stretched gelatin film. <i>Low Temperature Physics</i> , 2022, 48, 286-292.	0.2	0
108	Low-temperature electrical conductivity of composite film formed by carbon nanotubes with MoS ₂ flakes. <i>Low Temperature Physics</i> , 2022, 48, 322-329.	0.2	0

#	ARTICLE	IF	CITATIONS
109	Spectroscopic features of Pheophorbide- <i>a</i> binding to poly-L-lysine. Molecular Crystals and Liquid Crystals, 0, , 1-14.	0.4	0