Victor A Karachevtsev

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Spectroscopy analysis of the alignment of nanoassemblies of DNA-wrapped carbon nanotubes in stretched gelatin film. Low Temperature Physics, 2022, 48, 286-292. | 0.6 | Ο |
| 2 | 7th International Conference "Nanobiophysics: Fundamental and Applied Aspects―Kharkiv, Ukraine, October 4–8, 2021. Low Temperature Physics, 2022, 48, 275-277. | 0.6 | 1 |
| 3 | Low-temperature electrical conductivity of composite film formed by carbon nanotubes with MoS ₂ flakes. Low Temperature Physics, 2022, 48, 322-329. | 0.6 | 0 |
| 4 | Interaction of double-stranded polynucleotide poly(A:U) with graphene/graphene oxide. European Physical Journal E, 2021, 44, 24. | 1.6 | 0 |
| 5 | Composite films of graphene oxide with semiconducting carbon nanotubes: Raman spectroscopy characterization. Low Temperature Physics, 2021, 47, 206-213. | 0.6 | 4 |
| 6 | Biomolecules and their complexes with nanostructures. Low Temperature Physics, 2021, 47, 179-180. | 0.6 | 0 |
| 7 | Coronene-uracil complexes embedded in argon matrices: FTIR spectroscopy and quantum-mechanical calculations. Low Temperature Physics, 2021, 47, 325-334. | 0.6 | О |
| 8 | Modeling of nucleobase/oligonucleotide interaction with graphene and graphene oxide: the role of charging and/or oxidizing the graphene surface. Molecular Crystals and Liquid Crystals, 2020, 697, 49-59. | 0.9 | 1 |
| 9 | Adsorption of Polyadenylic acid on graphene oxide: experiments and computer modeling. Journal of Biomolecular Structure and Dynamics, 2020, , 1-13. | 3.5 | 2 |
| 10 | The Effect of Divalent Metal Ions on the Temperature Stability of Poly(I:C) Duplex. Journal of Spectroscopy, 2020, 2020, 1-7. | 1.3 | 3 |
| 11 | Pheophorbide–phenazinium conjugate as a fluorescent light-up probe for G-quadruplex structure. Journal of Molecular Structure, 2020, 1214, 128218. | 3.6 | 2 |
| 12 | Comparison of temperature dependences of electrical conductivity of composite rGO-SWNT film with rGO and SWNT films. Low Temperature Physics, 2020, 46, 285-292. | 0.6 | 4 |
| 13 | Change in the Microviscosity of Erythrocyte Membranes and Proteins in Blood Plasma after Graphene Oxide Addition: The ESR Spectroscopy Study. Journal of Spectroscopy, 2019, 2019, 1-8. | 1.3 | Ο |
| 14 | 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. | 0.6 | 5 |
| 15 | Composite films of single-walled carbon nanotubes with strong oxidized graphene: Characterization with spectroscopy, microscopy, conductivity measurements (5–291 K) and computer modeling. Low Temperature Physics. 2019. 45. 754-762. | 0.6 | 6 |
| 16 | Nucleoside conformers in low-temperature argon matrices: Fourier transform IR spectroscopy of isolated thymidine and deuterothymidine molecules and quantum-mechanical calculations. Low Temperature Physics, 2019, 45, 1008-1017. | 0.6 | 9 |
| 17 | Interaction of Single Walled Carbon Nanotube with Graphene: Quantum-Chemical Calculation and Molecular Dynamics Study. , 2019, , . | | 0 |
| 18 | Spectroscopic study of binding of a cationic Pheophorbide-a to an antiparallel quadruplex Tel22. Biopolymers and Cell, 2019, 35, 129-142. | 0.4 | 1 |

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|----|---|-----|-----------|
| 19 | Graphene induced molecular flattening of meso -5,10,15,20-tetraphenyl porphyrin: DFT calculations and molecular dynamics simulations. Computational and Theoretical Chemistry, 2018, 1133, 1-6. | 2.5 | 13 |
| 20 | Enhancement of the absorption bands in the infrared spectra of low-temperature uracil films by interference. Low Temperature Physics, 2018, 44, 1215-1218. | 0.6 | 1 |
| 21 | Structures and infrared spectra of 5-chlorouracil molecules in the low-temperature inert Ar, Ne matrices and composite films with oxide graphene. Low Temperature Physics, 2018, 44, 847-855. | 0.6 | 1 |
| 22 | Behavior of hybrid thermosensitive nanosystem dextran-graft-PNIPAM/gold nanoparticles: characterization within LCTS. Journal of Nanoparticle Research, 2018, 20, 1. | 1.9 | 10 |
| 23 | DNA-wrapped carbon nanotubes aligned in stretched gelatin films: Polarized resonance Raman and absorption spectroscopy study. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 93, 92-96. | 2.7 | 9 |
| 24 | 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. | 1.9 | 5 |
| 25 | Tuning the carbon nanotube photoluminescence enhancement at addition of cysteine through the change of external conditions. Materials Chemistry and Physics, 2017, 186, 131-137. | 4.0 | 8 |
| 26 | Infrared spectra of 5-fluorouracil molecules isolated in inert Ar matrices, and their films on graphene oxide at 6 K. Low Temperature Physics, 2017, 43, 400-408. | 0.6 | 8 |
| 27 | Binding of Polycitydylic Acid to Graphene Oxide: Spectroscopic Study and Computer Modeling. Journal of Physical Chemistry C, 2017, 121, 18221-18233. | 3.1 | 18 |
| 28 | 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. | 5.7 | 4 |
| 29 | Noncovalent Interaction of Graphene with Heterocyclic Compounds: Benzene, Imidazole, Tetracene, and Imidazophenazines. ChemPhysChem, 2016, 17, 1204-1212. | 2.1 | 22 |
| 30 | Enhancement of infrared absorption of low-temperature uracil thin films by a nanostructured silver surface. Low Temperature Physics, 2016, 42, 106-110. | 0.6 | 0 |
| 31 | Comparison of Raman scattering in non-polymerized and photo-polymerized fullerene films at temperatures of 5–300 K. Low Temperature Physics, 2016, 42, 1144-1150. | 0.6 | 0 |
| 32 | Interaction of a tricationic meso-substituted porphyrin with guanine-containing polyribonucleotides of various structures. Methods and Applications in Fluorescence, 2016, 4, 034005. | 2.3 | 6 |
| 33 | Probing the Influence of Amino Acids on Photoluminescence from Carbon Nanotubes Suspended with DNA. Journal of Fluorescence, 2016, 26, 1951-1958. | 2.5 | 5 |
| 34 | The effect of protonation of cytosine and adenine on their interactions with carbon nanotubes. Journal of Molecular Graphics and Modelling, 2016, 70, 77-84. | 2.4 | 10 |
| 35 | Enhancement of Luminescence from a Carbon Nanotube Aqueous Suspension at the Cysteine Doping: Influence of the Adsorbed Polymer. Ukrainian Journal of Physics, 2016, 61, 932-939. | 0.2 | 0 |
| 36 | The conformational structure of adenosine molecules, isolated in low-temperature Ar matrices. Low Temperature Physics, 2015, 41, 936-941. | 0.6 | 6 |

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|----|--|-----|-----------|
| 37 | Influence of cysteine doping on photoluminescence intensity from semiconducting single-walled carbon nanotubes. Chemical Physics Letters, 2015, 623, 51-54. | 2.6 | 11 |
| 38 | Spectroscopic Studies on Binding of Porphyrin-Phenazine Conjugate to Four-Stranded Poly(G). Journal of Fluorescence, 2015, 25, 1013-1021. | 2.5 | 4 |
| 39 | Hybridization of Homopolynucleotides with Different Base Ordering on the Carbon Nanotube Surface. Journal of Physical Chemistry C, 2015, 119, 11991-12001. | 3.1 | 4 |
| 40 | Binding of Metallated Porphyrin-Imidazophenazine Conjugate to Tetramolecular Quadruplex Formed by Poly(G): a Spectroscopic Investigation. Journal of Fluorescence, 2015, 25, 1897-1904. | 2.5 | 5 |
| 41 | Manifestation of Fermi resonance in the vibrational spectra of 5-ioduracil, and its deutero-derivatives isolated in low-temperature Ar matrices. Low Temperature Physics, 2014, 40, 1097-1103. | 0.6 | 4 |
| 42 | Enhancement of single-walled nanotubes luminescence intensity upon dithiothreitol doping. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2014, 117, 428-433. | 0.6 | 2 |
| 43 | Photoluminescence intensity enhancement in SWNT aqueous suspensions due to reducing agent doping: Influence of adsorbed biopolymer. Chemical Physics, 2014, 438, 23-30. | 1.9 | 18 |
| 44 | Excitonic energy transfer in polymer wrapped carbon nanotubes in gradually grown nanoassemblies. Physical Chemistry Chemical Physics, 2014, 16, 10914-10922. | 2.8 | 9 |
| 45 | Controlled Aggregation of Biopolymerâ€< scp>Wrapped Carbon Nanotubes in Aqueous Suspension, Induced by Cationic Porphyrin. Macromolecular Symposia, 2014, 335, 51-57. | 0.7 | 2 |
| 46 | Self-assemblies of tricationic porphyrin on inorganic polyphosphate. Biophysical Chemistry, 2014, 185, 39-46. | 2.8 | 6 |
| 47 | Interactions of the Watson–Crick nucleic acid base pairs with carbon nanotubes and graphene: DFT and MP2 study. Chemical Physics Letters, 2014, 610-611, 186-191. | 2.6 | 13 |
| 48 | Hybridization of poly(rI) with poly(rC) adsorbed to the carbon nanotube surface. Nanoscale Research Letters, 2014, 9, 157. | 5.7 | 1 |
| 49 | Adsorption of Biopolymers on SWCNT: Ordered Poly(rC) and Disordered Poly(rI). Journal of Physical Chemistry B, 2013, 117, 2636-2644. | 2.6 | 17 |
| 50 | Fermi resonance in Ne, Ar and Kr-matrix infrared spectra of 5-bromouracil. Low Temperature Physics, 2013, 39, 546-551. | 0.6 | 14 |
| 51 | Comparison of Poly(rI) and Poly(rA) Adsorption on Carbon Nanotubes. Springer Proceedings in Physics, 2013, , 275-290. | 0.2 | 0 |
| 52 | Raman scattering in non-polymerized and photo-polymerized C60films at 5 K. Low Temperature Physics, 2012, 38, 854-862. | 0.6 | 4 |
| 53 | Noncovalent Interaction of Methylene Blue with Carbon Nanotubes: Theoretical and Mass Spectrometry Characterization. Journal of Physical Chemistry C, 2012, 116, 20579-20590. | 3.1 | 46 |
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54 Photophysical Properties of SWNT Interfaced with DNA. , 2012, , 89-163.

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|----|---|------|-----------|
| 55 | Photophysics of Carbon Nanotubes Interfaced with Organic and Inorganic Materials. , 2012, , . | | 12 |
| 56 | Unusual aggregation of poly(rC)-wrapped carbon nanotubes in aqueous suspension induced by cationic porphyrin. Journal of Materials Chemistry, 2012, 22, 10795. | 6.7 | 10 |
| 57 | Achieving High Midâ€IR Bolometric Responsivity for Anisotropic Composite Materials from Carbon Nanotubes and Polymers. Advanced Functional Materials, 2012, 22, 2177-2186. | 14.9 | 44 |
| 58 | Noncovalent Interaction of Single-Walled Carbon Nanotubes with 1-Pyrenebutanoic Acid Succinimide Ester and Glucoseoxidase. Journal of Physical Chemistry C, 2011, 115, 21072-21082. | 3.1 | 54 |
| 59 | Peculiarities of Homooligonucleotides Wrapping around Carbon Nanotubes: Molecular Dynamics Modeling. Journal of Physical Chemistry B, 2011, 115, 9271-9279. | 2.6 | 33 |
| 60 | Comparative study on protection properties of anionic surfactants (SDS, SDBS) and DNA covering of singleâ€walled carbon nanotubes against pH influence: luminescence and absorption spectroscopy study. Materialwissenschaft Und Werkstofftechnik, 2011, 42, 41-46. | 0.9 | 13 |
| 61 | Binding of polynucleotides with singleâ€walled carbon nanotubes: Effect of temperature. Materialwissenschaft Und Werkstofftechnik, 2011, 42, 92-97. | 0.9 | 4 |
| 62 | Spectroscopic Detection of Tetracationic Porphyrin H-Aggregation on Polyanionic Matrix of Inorganic Polyphosphate. Journal of Fluorescence, 2010, 20, 695-702. | 2.5 | 24 |
| 63 | Decrease of carbon nanotube UV light absorption induced by π–π-stacking interaction with nucleotide bases. Carbon, 2010, 48, 3682-3691. | 10.3 | 37 |
| 64 | Raman spectroscopy of DNA-wrapped single-walled carbon nanotube films at 295 and 5K. Low Temperature Physics, 2010, 36, 373-381. | 0.6 | 9 |
| 65 | Nanohybrid Structures Formed by Carbon Nanotubes with Long Polynucleotide. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 531-537. | 2.1 | 5 |
| 66 | Raman Spectroscopy and Theoretical Characterization of Nanohybrids of Porphyrins with Carbon Nanotubes. Journal of Physical Chemistry C, 2010, 114, 16215-16222. | 3.1 | 24 |
| 67 | Raman Spectroscopy Study and First-Principles Calculations of the Interaction between Nucleic Acid Bases and Carbon Nanotubes. Journal of Physical Chemistry A, 2009, 113, 3621-3629. | 2.5 | 49 |
| 68 | IR Spectroscopy andab initiocalculations of imidazophenazine and its derivatives in a low-temperature argon matrix. Low Temperature Physics, 2009, 35, 491-502. | 0.6 | 2 |
| 69 | Adsorption of Poly(rA) on the Carbon Nanotube Surface and its Hybridization with Poly(rU). ChemPhysChem, 2008, 9, 2010-2018. | 2.1 | 14 |
| 70 | Stacking interaction of cytosine with carbon nanotubes: MP2, DFT and Raman spectroscopy study. Chemical Physics Letters, 2008, 459, 153-158. | 2.6 | 58 |
| 71 | Pre-resonance Raman and IR absorption spectroscopy of imidazophenazine and its derivatives: Experimental and ab initio study. Vibrational Spectroscopy, 2008, 47, 71-81. | 2.2 | 3 |
| 72 | SWNT-DNA and SWNT-polyC Hybrids: AFM Study and Computer Modeling. Journal of Nanoscience and Nanotechnology, 2008, 8, 1473-1480. | 0.9 | 30 |

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|----|---|------|-----------|
| 73 | RNA-Wrapped Carbon Nanotubes Aggregation Induced by Polymer Hybridization. Molecular Crystals and Liquid Crystals, 2008, 497, 7/[339]-19/[351]. | 0.9 | 8 |
| 74 | Luminescence investigations of hybrids of carbon nanotubes with DNA in a water suspension and film at 5–290K. Low Temperature Physics, 2008, 34, 1033-1037. | 0.6 | 3 |
| 75 | SWNT-DNA and SWNT-polyC Hybrids: AFM Study and Computer Modeling. Journal of Nanoscience and Nanotechnology, 2008, 8, 1473-1480. | 0.9 | 20 |
| 76 | SWNT-DNA and SWNT-polyC hybrids: AFM study and computer modeling. Journal of Nanoscience and Nanotechnology, 2008, 8, 1473-80. | 0.9 | 2 |
| 77 | Luminescence and Raman scattering of nonpolymerized and photopolymerized fullerene films at 297 and 5K. Low Temperature Physics, 2007, 33, 704-709. | 0.6 | 6 |
| 78 | FTIR spectra and conformations of 2′-deoxyuridine in Kr matrices. Low Temperature Physics, 2007, 33, 590-594. | 0.6 | 21 |
| 79 | Emission of carbon nanotube-DNA-GOX bionanohybrid for glucose detection. Proceedings of SPIE, 2007, , . | 0.8 | 0 |
| 80 | Permeability of C60 films deposited on polycarbonatesyloxane to N2, O2, CH4, and He gases. Applied Surface Science, 2007, 253, 3062-3065. | 6.1 | 6 |
| 81 | Glucose sensing based on NIR fluorescence of DNA-wrapped single-walled carbon nanotubes. Chemical Physics Letters, 2007, 435, 104-108. | 2.6 | 40 |
| 82 | pH-Induced changes in electronic absorption and fluorescence spectra of phenazine derivatives. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 66, 849-859. | 3.9 | 24 |
| 83 | COMPOSITE FULLERENE MEMBRANES AND THEIR APPLICABILITY AS ELEMENTS OF VENTILATION-FILTRATION-DISINFECTION SYSTEMS. , 2007, , . | | 0 |
| 84 | IR Spectra of Photopolymerized C60Films. Experimental and Density Functional Theory Study. Journal of Physical Chemistry B, 2006, 110, 15769-15775. | 2.6 | 32 |
| 85 | Spectroscopic and SEM studies of SWNTs: Polymer solutions and films. Carbon, 2006, 44, 1292-1297. | 10.3 | 34 |
| 86 | Hydrogen-bonded complexes of 2-aminopyrimidine–parabenzoquinone in an argon matrix. Low Temperature Physics, 2006, 32, 148-157. | 0.6 | 3 |
| 87 | Evaluation of the reduction of imidazophenazine dye derivatives under fast-atom-bombardment mass-spectrometric conditions. Journal of Mass Spectrometry, 2006, 41, 113-123. | 1.6 | 10 |
| 88 | 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. | 2.1 | 4 |
| 89 | SWNTs with DNA in Aqueous Solution and Film. AIP Conference Proceedings, 2005, , . | 0.4 | 2 |
| 90 | Mg2+ and Ni2+ ion effect on stability and structure of triple poly I·poly A·poly I helix. International Journal of Biological Macromolecules, 2005, 35, 201-210. | 7.5 | 7 |

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| 91 | Absorption and fluorescent spectral studies of imidazophenazine derivatives. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2005-2011. | 3.9 | 11 |
| 92 | Effective photopolymerization of C60 films under simultaneous deposition and UV light irradiation: Spectroscopy and morphology study. Carbon, 2004, 42, 2091-2098. | 10.3 | 25 |
| 93 | Noncovalent Functionalization of Single-Walled Carbon Nanotubes for Biological Application: Raman and Nir Absorption Spectroscopy. , 2004, , 139-150. | | 2 |
| 94 | Raman spectroscopy of HiPCO single-walled carbon nanotubes at 300 and 5 K. Carbon, 2003, 41, 1567-1574. | 10.3 | 33 |
| 95 | Mg2+ ion effect on conformational equilibrium of poly Aâ€^•â€^2 poly U and poly A poly U in aqueous solutions. International Journal of Biological Macromolecules, 2003, 31, 223-233. | 7.5 | 17 |
| 96 | Combined Raman scattering and ab initio investigation of the interaction between pyrene and carbon SWNT. Molecular Physics, 2003, 101, 2609-2614. | 1.7 | 39 |
| 97 | Spectroscopy Study of SWNT in Aqueous Solution With Different Surfactants. AIP Conference Proceedings, 2003, , . | 0.4 | 5 |
| 98 | New Approach to Growth of Photopolymerized C60 Films. AIP Conference Proceedings, 2002, , . | 0.4 | 0 |
| 99 | Effect of Mg2+ Ions on the Stability of PolyA/2PolyU Three-Stranded Helices in Aqueous Solutions. Macromolecular Bioscience, 2002, 2, 155. | 4.1 | 4 |
| 100 | Dimers of phenol in argon and neon matrices. Low Temperature Physics, 2001, 27, 666-675. | 0.6 | 19 |
| 101 | Absorption and luminescence of CsMnCl3·2H2O crystals doped with Cu2+. Journal of Luminescence, 2000, 92, 35-42. | 3.1 | 4 |
| 102 | Phonon termoactivated exciton tunneling in crystals of weak charge transfer complexes N-TCPA doped with Nd8-TCPA. Chemical Physics, 1997, 216, 1-6. | 1.9 | 4 |
| 103 | Low-temperature transport of magnetic excitons in the quasi-one-dimensional antiferromagnetCsMnCl3â<2H2O doped withCu2+ions. Physical Review B, 1996, 54, 447-453. | 3.2 | 5 |
| 104 | Monte Carlo simulation of exciton trapping in quasiâ€oneâ€dimensional antiferromagnetic CsMnCl3â‹2H2O. Journal of Chemical Physics, 1995, 103, 2656-2660. | 3.0 | 4 |
| 105 | Exciton migration in quasi-one-dimensional crystals: AntiferromagneticCsMnCl3â‹2H2O. Physical Review B, 1994, 49, 11799-11807. | 3.2 | 9 |
| 106 | Unusual behaviour of the luminescence in quasi-one-dimensional antiferromagnetic crystal CsMnCl32H2O at low temperature. Solid State Communications, 1993, 87, 1027-1029. | 1.9 | 4 |
| 107 | A wide-range unit for recording luminescence decay kinetics. Journal of Applied Spectroscopy, 1993, 58, 448-453. | 0.7 | 1 |
| 108 | Temperature dependence of the phosphorescence of naphthalene-tetrachlorophthalic anhydride charge-transfer crystal complex. Journal of Applied Spectroscopy, 1987, 46, 377-380. | 0.7 | 1 |

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|-----|---|-----|-----------|
| 109 | Spectroscopic features of Pheophorbide- <i>a</i> binding to poly-L-lysine. Molecular Crystals and Liquid Crystals, 0, , 1-14. | 0.9 | 0 |