

Институт физики

Кафедра молекулярной физики

Доцент

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Two-dimensional pair-interacting hole gas thermodynamics: Exactly solvable Moshinsky model for lens-shaped quantum dots

Y.S. Mamasakhlisov, M.A. Mkrtchyan, D.B. Hayrapetyan, S. Baskoutas, H.A. Sarkisyan

Heliyon 2024 e34762

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Sequence disorder-induced first order phase transition in confined polyelectrolytes

Y.Sh. Mamasakhlisov, V.F. Morozov, V. Stepanyan, A. Badasyan, R. Podgornik

Journal of Chemical Physics 2024 134906

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Pair-Interacting Heavy Holes Gas in a Strongly Prolate Ellipsoidal Quantum Dot: Thermodynamic Properties [Парно-взаимодействующий газ тяжелых дырок в сильно-вытянутой эллипсоидальной квантовой точке: термодинамические свойства]

Y. S. Mamasakhlisov, M. A. Mkrtchyan, H. A. Sarkisyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 391–396

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Computational Design of Gas Sensors Based on V3S4 Monolayer

Hayk A. Zakaryan, Misha A. Aghamalyan, Yevgeni Sh. Mamasakhlisov, Ilya V. Chepkasov,

Ekaterina V. Sukhanova, Alexander G. Kvashnin, Anton M. Manakhov, Zakhar I Popov,

Dmitry G. Kvashnin

Nanomaterials 2022 774

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M. A. Aghamalyan, V. M. Aroutiounian, E. S. Mamasakhlisov, E. V. Sukhanova, A. G. Kvashnin, Z. I. Popov,

A. A. Zakaryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 170-173

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The mechanism of flip-flops in a AOT lamella: A molecular dynamics study

Y. Sh. Mamasakhlisov, A.H. Poghosyan

Colloids and Surfaces A: Physicochemical and Engineering Aspects 2022 128681

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Spectroscopic Study of Protein Complexes with Low-Molecular Compounds

P.O. Vardevanyan, M.A. Shahinyan, N.H. Petrosyan, Y.Sh. Mamasakhlisov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 60-64

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A molecular dynamics study of protein denaturation induced by sulfonate-based surfactants

Yevgeni S. Mamasakhlisov, Armen H. Poghosyan, Aram A. Shahinyan, Gayane R. Kirakosyan,

Naira M. Ayvazyan, Garegin A. Papoian

Journal of Molecular Modeling 2021 261

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Cold denaturation of RNA secondary structures with loop entropy and quenched disorder

Yevgeni Mamasakhlisov, Flavio Iannelli, Roland R Netz

Physical Review E 2020 012502(1-14)

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Statistical mechanics of DNA-nanotube adsorption

Yevgeni Mamasakhlisov, Shushanik Tonoyan, Davit Khechoyan, Artem Badasyan

Physical Review E 2020 062422(1-5)

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The Conductivity of the Monolayer of DNA - Quantum Dot Complexes in the Presence of Intercalating Charged Ligands

Y.S. Mamasakhlisov, V.F. Morozov, S.A. Tonoyan, E.M. Kazaryan, A.Y. Mamasakhlisov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 87-93

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The Rouse Model of Viscoelasticity and Diffusion Behavior of Chromatin

Stepanyan V. A., Hayrapetyan A. A., Mamasakhlisov E.S

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 254-258

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Differential Melting Curves in Heterogeneous Biopolymers

V. F. Morozov, A. Y. Mamasakhlisov, A. Asatryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 259-264

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THE CONDUCTIVITY OF THE MONOLAYER OF COMPLEXES OF DNA WITH QUANTUM DOTS IN THE PRESENCE OF INTERCALATING LIGANDS

Ye. Sh. MAMASAKHLISOV, A. Ye. MAMASAKHLISOV

Proceedings of the YSU A. Physical and Mathematical Sciences 2019 203-207

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The double-stranded DNA stability in presence of a flexible polymer

Yevgeni Mamasakhlisov, Hakob Sngryan, Shushanik Tonoyan, Artur Hakobyan, Poghos Vardevanyan

Journal of Biomolecular Structure and Dynamics 2018 1-12

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Sensitivity of DNA Sensors in the Presence of Charged Ligands

Sh.A. Tonoyan, A.A. Hakobyan, A.K. Andreassian, V.F. Morozov, Y.Sh. Mamasakhlisov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 179-186

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Переход порядок-беспорядок в гетерогенных биологических макромолекулах

A.B. Asatryan, A.K. Andriasyan, Sh.A. Tonoyan, E.Sh. Mamasakhlisov, V.F. Morozov

Вестник Российско-Армянского Университета: Физико-математические и естественные науки 2018
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**AN INTEGRATED WEB-BASED INTERACTIVE DATA PLATFORM FOR MOLECULAR DYNAMICS
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HRACHYA ASTSATRYAN, WAHI NARSISIAN, ELIZA GYULGYULYAN, VARDAN BAGHDASARYAN,

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Scalable Computing: Practice and Experience 2018 131-138

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Effect of ligands binding on the isotherm of hybridization of the DNA-chip

H.L. Tsaturyan, Sh.A. Tonoyan, V.F. Morozov, Y.Sh. Mamasakhlisov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2017 180-188

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

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**Fluctuations in order-disorder transitions in the DNA-ligand complexes with various binding
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Y.Sh. Mamasakhlisov, A.P. Antonyan, A.Y. Mamasakhlisov, Sh.A. Tonoyan, P.H. Vardevanyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2017 173-179

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

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**On the Performance and Energy Consumption of Molecular Dynamics Applications for
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Armen Poghosyan, Hrachya Astsatryan, Wahi Narsisian, Yevgeni Mamasakhlisov

Cybernetics and Information Technologies 2017 68-80

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**Possible mechanism of non-monotone behavior of helix-coil transition temperature in two-
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Sh.A. Tonoyan, A.V. Asatryan, D.L. Hayrapetyan, Y.Sh. Mamasakhlisov, V.F. Morozov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2016 93-98

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

Статья

**Theoretical treatment of helix-coil transition of complexes DNA with two different ligands
having different binding parameters**

Armen T. Karapetian, Zareh A. Grigoryan, Yevgeni Sh. Mamasakhlisov, Mikael V. Minasyants,

Poghos O. Vardevanyan

Journal of Biomolecular Structure and Dynamics 2016 198-202

<http://www.tandfonline.com/action/journalInformation?journalCode=tbsd20#.V25anP...>

Статья

Generalized model of polypeptide chain for helix-coil transition in two-component solvent

Sh.A. Tonoyan, A.V. Asatryan, Mirtavoosi Saadat, Y.Sh. Mamasakhlisov, V.F. Morozov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2015 375-380

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

Статья

Solvent effects in the helix-coil transition model can explain the unusual biophysics of intrinsically disordered proteins

A. Badasyan, Y. Sh. Mamasakhlisov, R. Podgornik, V. A. Parsegian

Journal of Chemical Physics 2015 014102-1-014102-

<http://scitation.aip.org/content/aip/journal/jcp>

Статья

Collapse and hybridization of RNA: View from replica technique approach

Y.Sh. Mamasakhlisov, S. Bellucci, Shura Hayryan, H. Caturyan, Z. Grigoryan, Chin-Kun Hu

European Physical Journal E 2015 100

<http://epje.epj.org/>

Статья

Differential Geometry in DNA Molecules

Armen Nersessian, Yevgeni Mamasakhlisov, Stefano Bellucci

Nanoscience and Nanotechnology Letters 2011 922-926

<http://www.aspbs.com/nnl.htm>

Статья

External field influence on semiflexible macromolecules: geometric coupling

Armen Nersessian, Yevgeni Mamasakhlisov, Stefano Bellucci

Modern Physics Letters B 2011 1809-1819

<http://www.worldscientific.com/worldscinet/implb>

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The dsDNA duplex stability and carbon nanotube induced crystallization: the effect of two - component solvent

Sh.A. Tonoyan, A.V. Asatryan, S. Mirtavoosi, Y.Sh. Mamasakhlisov, V.F. Morozov

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Constrained Annealing Approach for Order-Disorder Transitions in heterogeneous Macromolecular Systems

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The Helix-Coil Transition the Frames of GMPC. Ligands Effects

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Yevgeni Mamasakhlisov, A. Andreassian, A. Hakobyan

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Study of human serum albumin interaction with some ligands

P. Vardevanyan, Y. Mamasakhlisov, M. Shahinyan, M. Mikaelyan, N. Petrosyan
