

## Институт физики

Սովետական ֆիզիկայի ամբիոն

Доцент

## Публикации

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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

### Статья

#### **Adsorption of Hydrogen Peroxide on Two-Dimensional Transition Metal Chalcogenides**

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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#### **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 Khechyan, 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

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#### **The Rouse Model of Viscoelasticity and Diffusion Behavior of Chromatin**

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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

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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

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**Straight Calculations of Helix-Coil Transition Parameters in Heteropolymers**

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

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**Переход порядок-беспорядок в гетерогенных биологических макромолекулах**

А.В. Асатрян, А.К. Андриасян, Ш.А. Тоноян, Е.Ш. Мамасахлисов, В.Ф. Морозов

Вестник Российско-Армянского Университета: Физико-математические и естественные науки 2018  
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**AN INTEGRATED WEB-BASED INTERACTIVE DATA PLATFORM FOR MOLECULAR DYNAMICS SIMULATIONS**

HRACHYA ASTSATRYAN, WAHI NARSISIAN, ELIZA GYULGYULYAN, VARDAN BAGHDASARYAN,

ARMEN POGHOSYAN, YEVGENI MAMASAKHLISOV, PETER WITTENBURG

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

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**Fluctuations in order-disorder transitions in the DNA-ligand complexes with various binding mechanisms**

Y.Sh. Mamasakhlisov, A.P. Antonyan, A.Y. Mamasakhlisov, Sh.A. Tonoyan, P.H. Vardevanyan

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**On the Performance and Energy Consumption of Molecular Dynamics Applications for**

**Heterogeneous CPU-GPU Platforms Based on Gromacs**

Armen Poghosyan, Hrachya Astsatryan, Wahi Narsisian, Yevgeni Mamasakhlisov

Cybernetics and Information Technologies 2017 68-80

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**Статья**

**Possible mechanism of non-monotone behavior of helix-coil transition temperature in two-component solvent**

Sh.A. Tonoyan, A.V. Asatryan, D.L.Hayrapetyan, Y.Sh. Mamasakhlisov, V.F. Morozov

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**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,

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**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

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**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

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**Collapse and hybridization of RNA: View from replica technique approach**

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**External field influence on semiflexible macromolecules: geometric coupling**

Armen Nersessian, Yevgeni Mamasakhlisov, Stefano Bellucci

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Конференция

**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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**Theoretical Description of ssDNA Adsorption on Carbon Nanotubes**

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

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

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

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**Reentrant Melting of Single - Stranded RNA with Quenched Sequence Randomness**

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**Study of human serum albumin interaction with some ligands**

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