

## Research Institute of Physics

Laboratory of Physics of Macromolecules

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## Publications

### Article

#### **ANTICANCER EFFECT OF AgTOEPyP4 PORPHYRIN**

N. H. KARAPETYAN, G. V. ANANYAN, S. G. HAROUTIUNIAN

ԵՊՀ գիտական տեղեկագիր. Քիմիա և կենսաբանություն: 2023 41-53

### Article

#### **Structural Transitions in Complementary G-Rich and C-Rich Strands and Their Mixture at Various pH Conditions**

Yeva B. Dalyan, Ishkhan V. Vardanyan, Samvel G. Haroutiunian, Milena Kh. Badalyan

ACS Omega 2023 47051-47056

### Article

#### **НОВАЯ МОДЕЛЬ РЕЙТИНГОВОГО ФИНАНСИРОВАНИЯ НАУЧНЫХ ОРГАНИЗАЦИЙ АРМЕНИИ**

Ш. А. Саргсян, Т. С. Арутюнян, В. А. Саакян, С. Г. Арутюнян

Библиосфера 2019 85-92

### Article

#### **ПЛАВЛЕНИЕ ДНК ОПУХОЛЕНОСЯЩИХ КРЫС, ЛЕЧЕНЫХ мезо-ТЕТРА(4-Н-ГИДРОКСИЭТИЛПИРИДИЛ)ПОРФИРИНОМ И ЕГО Ag-, Zn-, Со-ПРОИЗВОДНЫМИ**

Н.Г. Карапетян, Г.В. Ананян, Е.Б. Далян, С.Г. Арутюнян

Биофизика (Biophysics) 2017 458-463

[http://elibrary.ru/title\\_about.asp?id=7680](http://elibrary.ru/title_about.asp?id=7680)

### Article

#### **Dose-rate effect of ultrashort electron beam radiation on DNA damage and repair in vitro**

Nelly Babayan, Galina Hovhannisyan, Bagrat Grigoryan, Ruzanna Grigoryan, Natalia Sarkisyan,

Gohar Tsakanova, Samvel Haroutiunian, Rouben Aroutiounian

Journal of Radiation Research 2017 894-897

<https://academic.oup.com/jrr>

### Article

#### **Two-photon microscopy imaging of oxidative stress in human living erythrocytes.**

GOHAR TSAKANOVA, ELINA ARAKELOVA, VIOLETTA AYVAZYAN, ANNA AYVAZYAN, STEPAN TATIKYAN,

ROUBEN AROUTIOUNIAN, YEVA DALYAN, SAMVEL HAROUTIUNIAN, VASILI TSAKANOV, ARSEN ARAKELYAN

BIOMEDICAL OPTICS EXPRESS 2017 5834-5846

### Article

#### **Investigation of irradiated rats DNA in the presence of Cu(II) chelates of amino acids Schiff bases**

N.H. Karapetyan, A.L. Torosyan, M. Malakyan, S.A. Bajinyan, S.G. Haroutiunian

Journal of Biomolecular Structure and Dynamics 2016 177-183

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

*Article*

**AREAL low energy electron beam applications in life and materials sciences.**

V.M. Tsakanov, R.M.Aroutiounian, G.A.Amatuni, L.R.Aloyan, L.G.Aslyan, V.Sh. Avagyan, N.S.Babayan, V.V.Buniyatyan, Y.B.Dalyan, H.D.Davtyan, M.V. Derdzyan, B.A.Grigoryan, N.E.Grigoryan, L.S.Hakobyan, S.G.Haroutyunian, V.V. Harutiunyan, K.L.Hovhannesyan, V.G.Khachatryan, N.W.Martirosyan, G.S. Melikyan, A.G.Petrosyan, V.H.Petrosyan, A.A.Sahakyan, V.V.Sahakyan, A.A.Sargsyan, A.S.Simonyan, S.Sh.Tatikyan, G.V.Tsakanova, E.Tsovyan, A.S.Vardanyan, V.V.Vardanyan, A.S.Yeremyan, H.N.Yeritsyan, G.S.Zanyan

Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment

2016 248-253

<http://www.journals.elsevier.com/nuclear-instruments-and-methods-in-physics-res...>

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*Article*

**Development of viscometric methods for studying the interaction of various porphyrins with DNA. Part I: meso-tetra-(4N-hydroxyethylpyridyl) porphyrin and its Ni-, Cu-, Co- and Zn-containing derivatives**

V.G. Barkhudaryan, G.V. Ananyan, Y.B. Dalyan, S.G. Harutunyan

Journal of Porphyrins and Phthalocyanines 2014 594-599

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

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*Article*

**Influence of Amino Acids Schiff Bases on Irradiated DNA Stability In Vivo**

N. H. Karapetyan, A. L. Torosyan, S. G. Haroutyunian, M. H. Malakyan, S. A. Bajinyan, I. E. Grigoryan

Cell Biochemistry and Biophysics 2013 1137-1145

<http://link.springer.com/journal/12013>

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*Article*

**EVALUATION OF ERRORS IN DETERMINATION OF DNA MELTING CURVE REGISTERED WITH DIFFERENTIAL SCANNING CALORIMETRY**

D.Y. LANDO, I.E. GRIGORYAN, A.S. FRIDMAN, E.N. GALYUK, Y.B. DALYAN, S.G. HAROUTIUNIAN

Հայաստանի կենսաբանական հանդես 2013 6-12

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*Article*

**COMPARATIVE ANALYSIS OF THE EFFECTS OF PLATINUM COMPOUNDS ON THERMOSTABILITY OF DNA**

I. E. GRIGORYAN, Ye. B. DALYAN, S. G. HAROUTIUNIAN

Proceedings of the YSU. Physical and Mathematical Sciences 2011 52-57

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*Article*

**Влияние малых концентраций cis-DDP на адсорбцию лигандов на ДНК**

В. Б. Аракелян, С. Г. Арютюнян, Г. С. Саркисян, П. О. Варdevanyan

Հայաստանի կենսաբանական հանդես 2008 175-182

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*Article*

**The Pseudo-ring structures formation in DNA complexes with covalently binding ligands**

S. G. Haroutyunyan, Sh. A. Sargsyan, A. P. Antonyan

Հայաստանի կենսաբանական հանդես 2008 162-166

*Article*

**Microcalorimetric Investigation of DNA, poly(dA)poly(dT) and poly[d(A-C)]poly[d(G-T)] Melting in the Presence of Water Soluble (Meso tetra (4 N oxyethylpyridyl) Porphyrin) and its Zn Complex**

J. Monaselidze, Majagaladze, Sh. Barbakadze, D. Khachidze, M. Gorgoshidze, Y. Kalandadze, S. Haroutiunian, Y. Dalyan, V. Vardanyan

Journal of Biomolecular Structure and Dynamics 2008 419-424

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*Article*

**Compensation of DNA Stabilization and Destabilization Effects Caused by Cisplatin is Partially Disturbed in Alkaline Medium**

Elena N. Galyuk, Alexander S. Fridman, Vladimir I. Vorobev, Samvel G. Haroutiunian, Shushanik A. Sargsyan, Maryna M. Hauruk, Dmitri Y. Lando

Journal of Biomolecular Structure and Dynamics 2008 407-417

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*Article*

**In vitro testing of cyto- and genotoxicity of new porphyrin water-soluble metal derivatives**

Gennadi Gasparyan, Galina Hovhannisyan, Robert Ghazaryan, Lida Sahakyan, Artak Tovmasyan, Rusanna Grigoryan, Natalia Sarkissyan, Samvel Haroutiunian, Rouben Aroutiounian

International Journal of Toxicology 2007 497-502

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*Conference*

**The features of complexformation of poly(dl-dC) 2 with porphyrins**

Gayane V. Ananyan, Nelli H. Karapetyan, Samvel G. Haroutiunian, Yeva B. Dalyan

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*Conference*

**Лечение опухоленосящих крыс мезо-тетра(4N-гидроксиэтилпироридил) порфиринами**

**H<sub>2</sub>TOEtPyP4 и AgTOEtPyP4**

Карапетян Н.Г., Ананян Г.В., Далян Е.Б., Арутюнян С. Г.

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*Conference*

**Genetic effects: DNA radiation damage and repair**

R. Aroutiounian, G. Hovhannisyan, B. Grigoryan, G. Tsakanova, S. Haroutiunian, T. Harutyunyan, N. Babayan

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*Conference*

**The influence of CuTOEPyP4 porphyrin on DNA damage induced by high energy electron beam radiation.**

L. R. Aloyan, Y. B. Dalyan, S.G Haroutiunian

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*Conference*

**The influence of FeTOEPyP4 porphyrins on DNA damage induced by high energy electron beam radiation.**

L.R. Aloyan, Y.B. Dalyan, S.G. Haroutiunian

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*Conference*

**INFLUENCE OF CATION PORPHYRINES ON DNA DAMAGE DURING ELECTRON BEAM**

**IRRADIATION**

L.R. Aloyan, Y.B. Dalyan, S.G Haroutiunian

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