

## Lect. univ. dr. Loredana MEREUTA - Fisa de autoevaluare privind standardele minimale pe domenii

**COMISIA DE FIZICĂ** - STANDARDE MINIMALE NECESARE ȘI OBLIGATORII PENTRU CONFERIEREA TITLURILOR DIDACTICE DIN ÎNVĂȚĂMÂNTUL SUPERIOR ȘI A GRADELOR PROFESIONALE DE CERCETARE-DEZVOLTARE (ORDIN nr. 6129 din 20 decembrie 2016)

### 1. Activitatea didactică și profesională

Nr. Crt.	Tipul activităților	Indicatori
1	Cărți în edituri internaționale recunoscute Web of Science în calitate de autor	$A_1 = \sum_i 4/n_i^{ef}$
2	Capitole de cărți în edituri internaționale recunoscute Web of Science în calitate de autor/Review-uri în reviste cotate ISI	$A_2 = \sum_i 1/n_i^{ef}$
3	Cărți în edituri internaționale recunoscute Web of Science în calitate de editor	$A_3 = \sum_i 0.5/n_i^{ef}$
4	<b>Cărți, manuale, îndrumare de laborator în edituri naționale</b> sau alte edituri internaționale ca autor, note interne, prezentări susținute pentru aprobarea analizelor de date în cadrul colaborărilor mari	$A_4 = \sum_i 0.5/n_i^{ef}$ <b>1.5</b>
5	Capitole de cărți în edituri naționale sau alte edituri internaționale ca autor	$A_5 = \sum_i 0.2/n_i^{ef}$
6	Lucrări in extenso (cel puțin 3 pagini) publicate în Proceedings-uri indexate ISI	$A_6 = \sum_i 0.2/n_i^{ef}$
7.	Brevete de invenție internaționale acordate	$A_7 = \sum_i 3/n_i^{ef}$
8	Brevete de invenție naționale acordate	$A_8 = \sum_i 0.5/n_i^{ef}$
9	Director/responsabil/coordonator pentru programe de studii, programe de formare continuă, proiecte educaționale și proiecte de infrastructură (proiectele de cercetare se exclud)	$A_9 = \sum_i 0.5$
10.	Director/ <b>responsabil</b> pentru proiecte de cercetare în valoare $V_i$ euro câștigate prin competiție națională sau internațională (proiectele de la punctul 9 se exclud). Sumele în lei sau în alte valute se convertesc în euro la cursul mediu din anul respectiv conform <a href="http://www.bnr.ro">www.bnr.ro</a> pentru perioada de după 1999 și la cursul din 1999 pentru perioada anterioară. Responsabilii de proiect sunt cei care conduc o echipă de cercetare, fiind menționați ca atare în proiectul depus; în cazul lor se consideră doar suma aferentă echipei conduse.	$A_{10} = \sum_i V_i / 100.000$ <b>0.68</b>

$$A = 2.18$$

Criterii minimale pentru activitatea didactică și profesională: conferențiar universitar:

$$A = \sum_{i=1}^{10} A_i \geq 1$$

## 2. Activitatea de cercetare

Nr. crt.	Tipul activităților	Indicatori
1	Articole științifice originale in extenso ca autor	$I = \sum_i AIS_i / n_i^{ef}$ <p><b>I = 6.239</b></p>
2	Articole științifice originale in extenso ca prim autor sau autor corespondent, conform mențiunilor de pe articol. Nu se iau în considerare articolele la care autorii sunt indicați în ordinea alfabetică a numelui și candidatul este prim-autor exclusiv datorită numelui acestuia și ordonării alfabetice. În cazul publicațiilor HEPP (High Energy Partide Physics) cu număr mare de autori, dacă articolul are la bază o notă internă a cărei aprobare în vederea trimiterii la publicare a fost susținută de către autor, atunci autorul este considerat prim autor.	$P = \sum_i AIS_i$ <p><b>P = 13.677</b></p>

Criterii minimale pentru activitatea de cercetare:  
CS II, conferențiar universitar **I ≥ 2, P ≥ 2**

## 3. Recunoașterea impactului activității

Nr. crt.	Tipul activităților	Indicatori
1	Citări în reviste științifice cu factor de impact care se regăsesc în InCites Journal Citation Reports sau în cărți în edituri recunoscute Web of Science. Nu se iau în considerare citările provenind din articole care au ca autor sau coautor candidatul	$C = \sum_i c_i / n_i^{ef}, \text{ unde } c_i$ <p>reprezintă numărul de citări în reviste ISI ale publicației i.</p> <p><b>C=48.32</b></p>
2	Indicele Hirsch	<p><b>h = 10</b></p>

Criterii minimale pentru recunoașterea impactului activității:  
CS II, conferențiar universitar **C ≥ 20, h ≥ 5**

Punctajul total CNATDCU:  $T = A + P/2 + I/2 + C/20 + h/5$   
CS II, conferențiar universitar: **T ≥ 5**

$$T = 2.18 + 13.677/2 + 6.239/2 + 48.32/20 + 10/5 = 16.554$$

## Justificare calcul punctaj

### 1. Activitatea didactică și profesională: A = 2.18

#### 4. Cărți, manuale în edituri naționale ca autor:

- **Loredana Mereuta**, *Metode Actuale în Biofizica Moleculară* 2017, Editura Universității „Alexandru Ioan Cuza”-Iasi, ISBN 978-606-714-369-0

0.5

- **Loredana Mereuta**, *‘Biofizica Sistemelor Senzoriale’* 2015, Editura Universității „Alexandru Ioan Cuza”- Iasi, 178 pagini

0.5

Prezentări susținute pentru aprobarea analizelor de date în cadrul colaborărilor mari:

Prezentarea proiectului de cercetare cu titlul ***‘Investigarea corelărilor fizico-chimice existente între structura moleculară și potentialul litic ale unor peptide antimicrobiene naturale și chimerice’*** - (Loredana MEREUTA) WORKSHOP organizat în cadrul proiectului “Rețea transnațională de management integrat al cercetării postdoctorale în domeniul Comunicarea Științei. Construcție instituțională (școala postdoctorală) și program de burse (CommScie)” – POSDRU/89/1.5/S/63663, <http://www.postdoc.commscie.uaic.ro> (29 octombrie 2012)

0.5

**A<sub>4</sub> = 1.5**

**10. Director/responsabil pentru proiecte de cercetare în valoare Vi euro câștigate prin competiție națională sau internațională** (proiectele de la punctul 9 se exclud). Sumele în lei sau în alte valute se convertesc în euro la cursul mediu din anul respectiv conform [www.bnr.ro](http://www.bnr.ro) pentru perioada de după 1999 și la cursul din 1999 pentru perioada anterioară.

- **Responsabil proiect Partener P1** în cadrul proiectului nr. 98/2012 PN II PCCA1 Tehnica imunochimică de analiză în faza omogenă bazată pe nanoparticule funcționalizate. Aplicație pentru detectia contaminantului pesticidic acid 2,4-diclorofenoxiacetic din probe alimentare și de mediu (HINANODET) 2012-2015/ 2.000.000 ron pe proiect/300.000 ron P1 -UAIC ~**68.000 euro**

**A<sub>10</sub> = 0.68**

## **2. Activitatea de cercetare si 3. Recunoașterea impactului activității**

**P = 13.677**

**I= 6.239**

**C=48.32**

Autor principal:

### **1. Quantitative Understanding of pH- and Salt-Mediated Conformational Folding of Histidine-Containing, beta-Hairpin-like Peptides, through Single-Molecule Probing with Protein Nanopores**

**By: Mereuta, Loredana; Asandei, Alina; Seo, Chang Ho; et al.**

**ACS APPLIED MATERIALS & INTERFACES Volume: 6 Issue: 15 Pages: 13242-13256 Published: AUG 13 2014**

**(1.373-AIS) N=5, Neff=5, C=8 (c= C/Neff=1.6) (I = AIS/Neff=0.274)**

#### **1. Electroosmotic flow through an alpha-hemolysin nanopore**

**By: Bonome, Emma Letizia; Cecconi, Fabio; Chinappi, Mauro MICROFLUIDICS AND NANOFUIDICS Volume: 21 Issue: 5 Article Number: 96 Published: MAY 2017**

#### **2. Channel of viral DNA packaging motor for real time kinetic analysis of peptide oxidation states**

**By: Wang, Shaoying; Zhou, Zhi; Zhao, Zhengyi; et al. BIOMATERIALS Volume: 126 Pages: 10-17 Published: MAY 2017**

#### **3. A Protein Nanopore-Based Approach for Bacteria Sensing By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jongkook; et al. NANOSCALE RESEARCH LETTERS Volume: 11 Article Number: 501 Published: NOV 15 2016**

#### **4. Fingerprinting of Peptides with a Large Channel of Bacteriophage Phi29 DNA Packaging Motor**

**By: Ji, Zhouxian; Wang, Shaoying; Zhao, Zhengyi; et al. SMALL Volume: 12 Issue: 33 Pages: 4572-4578 Published: SEP 7 2016**

#### **5. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al. ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016**

#### **6. Label-Free Nanopore Single-Molecule Measurement of Trypsin Activity**

**By: Zhou, Shuo; Wang, Liang; Chen, Xiaohan; et al. ACS SENSORS Volume: 1 Issue: 5 Pages: 607-613 Published: MAY 2016**

#### **7. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes**

**By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio PHYSICAL REVIEW E Volume: 92 Issue: 3 Article Number: 032714 Published: SEP 15 2015**

#### **8. Enhanced Resolution of Low Molecular Weight Poly(Ethylene Glycol) in Nanopore Analysis**

**By: Cao, Chan; Ying, Yi-Lun; Gu, Zhen; et al. ANALYTICAL CHEMISTRY Volume: 86 Issue: 24 Pages: 11946-11950 Published: DEC 16 2014**

## 2. Slowing down single-molecule trafficking through a protein nanopore reveals intermediates for peptide translocation

By: Mereuta, Loredana; Roy, Mahua; Asandei, Alina; et al.

SCIENTIFIC REPORTS Volume: 4 Article Number: 3885 Published: JAN 27 2014

**(2.075) N=7, Neff=6, C=29 (4.83) (0.345)**

1.

Driven translocation of a semi-flexible polymer through a nanopore

By: Sarabadani, Jalal; Ikonen, Timo; Mokkonen, Harri; et al.

SCIENTIFIC REPORTS Volume: 7 Article Number: 7423 Published: AUG 7 2017

2. Nanoscale Investigation of Generation 1 PAMAM Dendrimers Interaction with a Protein Nanopore

By: Asandei, Alina; Ciuca, Andrei; Apetrei, Aurelia; et al.

SCIENTIFIC REPORTS Volume: 7 Article Number: 6167 Published: JUL 21 2017

3. Temperature dependence of the translocation time of polymer through repulsive nanopores

By: Luo, Meng-Bo; Tsehay, Dessalegne A.; Sun, Li-Zhen JOURNAL OF CHEMICAL PHYSICS Volume: 147 Issue: 3 Article Number: 034901 Published: JUL 21 2017

4. Nanopore Sensing of Protein Folding

By: Si, Wei; Aksimentiev, Aleksei ACS NANO Volume: 11 Issue: 7 Pages: 7091-7100 Published: JUL 2017

5. Stochastic sensing of Angiotensin II with lysenin channels

By: Shrestha, Nisha; Bryant, Sheenah L.; Thomas, Christopher; et al.

SCIENTIFIC REPORTS Volume: 7 Article Number: 2448 Published: MAY 26 2017

6. Electroosmotic flow through an alpha-hemolysin nanopore

By: Bonome, Emma Letizia; Cecconi, Fabio; Chinappi, Mauro

MICROFLUIDICS AND NANOFUIDICS Volume: 21 Issue: 5 Article Number: 96 Published: MAY 2017

7. Channel of viral DNA packaging motor for real time kinetic analysis of peptide oxidation states

By: Wang, Shaoying; Zhou, Zhi; Zhao, Zhengyi; et al.

BIOMATERIALS Volume: 126 Pages: 10-17 Published: MAY 2017

8. Nanopore sensor for copper ion detection using a polyamine decorated beta- cyclodextrin as the recognition element

By: Guo, Yanli; Jian, Feifei; Kang, Xiaofeng

RSC ADVANCES Volume: 7 Issue: 25 Pages: 15315-15320 Published: 2017

9. Super Temporal-Resolved Microscopy (STReM)

By: Wang, Wenxiao; Shen, Hao; Shuang, Bo; et al.

JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 7 Issue: 22 Pages: 4524-4529 Published: NOV 17 2016

10. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

11. Driven Translocation of Polynucleotides Through an Aerolysin Nanopore

By: Cao, Chan; Yu, Jie; Wang, Ya-Qan; et al.

ANALYTICAL CHEMISTRY Volume: 88 Issue: 10 Pages: 5046-5049 Published: MAY 17 2016

12. Probing driving forces in aerolysin and alpha-hemolysin biological nanopores: electrophoresis versus electroosmosis

By: Boukhet, Mordjane; Piguet, Fabien; Ouldali, Hadjer; et al.

NANOSCALE Volume: 8 Issue: 43 Pages: 18352-18359 Published: 2016

13. Antimicrobial Peptide CMA3 Derived from the CA-MA Hybrid Peptide: Antibacterial and Anti-inflammatory Activities with Low Cytotoxicity and Mechanism of Action in Escherichia coli

By: Lee, Jong-kook; Seo, Chang Ho; Luchian, Tudor; et al.

ANTIMICROBIAL AGENTS AND CHEMOTHERAPY Volume: 60 Issue: 1 Pages: 495-506 Published: JAN 2016

14. Driven diffusion against electrostatic or effective energy barrier across alpha-hemolysin  
By: Ansalone, Patrizio; Chinappi, Mauro; Rondoni, Lamberto; et al.  
JOURNAL OF CHEMICAL PHYSICS Volume: 143 Issue: 15 Article Number: 154109 Published: OCT 21 2015
15. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes  
By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio  
PHYSICAL REVIEW E Volume: 92 Issue: 3 Article Number: 032714 Published: SEP 15 2015
16. Dynamics and Energy Contributions for Transport of Unfolded Pertactin through a Protein Nanopore  
By: Cressiot, Benjamin; Braselmann, Esther; Oukhaled, Abdelghani; et al.  
ACS NANO Volume: 9 Issue: 9 Pages: 9050-9061 Published: SEP 2015
17. All-Atom Molecular Dynamics Simulation of Protein Translocation through an alpha-Hemolysin Nanopore  
By: Di Marino, Daniele; Bonome, Emma Letizia; Tramontano, Anna; et al.  
JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 6 Issue: 15 Pages: 2963-2968 Published: AUG 6 2015
18. Membrane Protein Structure, Function, and Dynamics: a Perspective from Experiments and Theory  
By: Cournia, Zoe; Allen, Toby W.; Andricioaei, Ioan; et al.  
JOURNAL OF MEMBRANE BIOLOGY Volume: 248 Issue: 4 Pages: 611-640 Published: AUG 2015
19. Dendrimers in Nanoscale Confinement: The Interplay between Conformational Change and Nanopore Entrance  
By: Ficici, Emel; Andricioaei, Ioan; Howorka, Stefan  
NANO LETTERS Volume: 15 Issue: 7 Pages: 4822-4828 Published: JUL 2015
20. Nanopore Sensing of Botulinum Toxin Type B by Discriminating an Enzymatically Cleaved Peptide from a Synaptic Protein Synaptobrevin 2 Derivative  
By: Wang, Yong; Montana, Vedrana; Grubisic, Vladimir; et al.  
ACS APPLIED MATERIALS & INTERFACES Volume: 7 Issue: 1 Pages: 184-192 Published: JAN 14 2015
21. Nanopore Investigation of the Stereoselective Interactions between Cu<sup>2+</sup> and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue  
By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor  
LANGMUIR Volume: 31 Issue: 1 Pages: 387-396 Published: JAN 13 2015
22. Voltage and blockade state optimization of cluster-enhanced nanopore spectrometry  
By: Chavis, Amy E.; Brady, Kyle T.; Kothalawala, Nuwan; et al.  
ANALYST Volume: 140 Issue: 22 Pages: 7718-7725 Published: 2015
23. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore  
By: Wang, Yong; Gu, Li-qun  
AIMS MATERIALS SCIENCE Volume: 2 Issue: 4 Pages: 448-472 Published: 2015
24. Electroosmosis through alpha-Hemolysin That Depends on Alkali Cation Type  
By: Piguet, Fabien; Discala, Françoise; Breton, Marie-France; et al.  
JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 5 Issue: 24 Pages: 4362-4367 Published: DEC 18 2014
25. Enhanced Resolution of Low Molecular Weight Poly(Ethylene Glycol) in Nanopore Analysis  
By: Cao, Chan; Ying, Yi-Lun; Gu, Zhen; et al.  
ANALYTICAL CHEMISTRY Volume: 86 Issue: 24 Pages: 11946-11950 Published: DEC 16 2014
26. Discrimination among Protein Variants Using an Unfoldase-Coupled Nanopore  
By: Nivala, Jeff; Mulrone, Logan; Li, Gabriel; et al.  
ACS NANO Volume: 8 Issue: 12 Pages: 12365-12375 Published: DEC 2014
27. DNA sequencing technology based on nanopore sensors by theoretical calculations and simulations  
By: Si, Wei; Zhang, Yin; Wu, Gensheng; et al.  
CHINESE SCIENCE BULLETIN Volume: 59 Issue: 35 Pages: 4929-4941 Published: DEC 2014
28. Evidence of Unfolded Protein Translocation through a Protein Nanopore  
By: Pastoriza-Gallego, Manuela; Breton, Marie-France; Discala, Françoise; et al.  
ACS NANO Volume: 8 Issue: 11 Pages: 11350-11360 Published: NOV 2014
29. Channel-Forming Bacterial Toxins in Biosensing and Macromolecule Delivery

By: Gurnev, Philip A.; Nestorovich, Ekaterina M.  
TOXINS Volume: 6 Issue: 8 Pages: 2483-2540 Published: AUG 2014

### **3. Protein Nanopore-Based, Single-Molecule Exploration of Copper Binding to an Antimicrobial-Derived, Histidine-Containing Chimera Peptide**

**By: Mereuta, Loredana; Schiopu, Irina; Asandei, Alina; et al.**

**LANGMUIR Volume: 28 Issue: 49 Pages: 17079-17091 Published: DEC 11 2012**

**(1.177) N=6, Neff=5.5, C=11 (2)(0.214)**

#### **1. A Protein Nanopore-Based Approach for Bacteria Sensing**

By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al.

NANOSCALE RESEARCH LETTERS Volume: 11 Article Number: 501 Published: NOV 15 2016

#### **2. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation**

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

#### **3. Nanopore-based analysis of biochemical species**

By: Liu, Nannan; Yang, Zekun; Ou, Xiaowen; et al.

MICROCHIMICA ACTA Volume: 183 Issue: 3 Special Issue: SI Pages: 955-963 Published: MAR 2016

#### **4. Analytical applications for pore-forming proteins**

By: Kasianowicz, John J.; Balijepalli, Arvind K.; Etteedgui, Jessica; et al.

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1858 Issue: 3 Special Issue: SI Pages: 593-606  
Published: MAR 2016

#### **5. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes**

By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio

PHYSICAL REVIEW E Volume: 92 Issue: 3 Article Number: 032714 Published: SEP 15 2015

#### **6. Single glass nanopore-based regenerable sensing platforms with a non-immobilized polyglutamic acid probe for selective detection of cupric ions**

By: Chen, Lizhen; He, Haili; Xu, Xiaolong; et al.

ANALYTICA CHIMICA ACTA Volume: 889 Pages: 98-105 Published: AUG 19 2015

#### **7. Membrane Protein Structure, Function, and Dynamics: a Perspective from Experiments and Theory**

By: Cournia, Zoe; Allen, Toby W.; Andricioaei, Ioan; et al.

JOURNAL OF MEMBRANE BIOLOGY Volume: 248 Issue: 4 Pages: 611-640 Published: AUG 2015

#### **8. Nanopore Investigation of the Stereoselective Interactions between Cu<sup>2+</sup> and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue**

By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor

LANGMUIR Volume: 31 Issue: 1 Pages: 387-396 Published: JAN 13 2015

#### **9. Single-molecule analysis of the self-assembly process facilitated by host-guest interactions**

By: Meng, Fu-Na; Yao, Xuyang; Ying, Yi-Lun; et al.

CHEMICAL COMMUNICATIONS Volume: 51 Issue: 7 Pages: 1202-1205 Published: 2015

#### **10. Nanopore Biosensor for Label-Free and Real-Time Detection of Anthrax Lethal Factor**

By: Wang, Liang; Han, Yujing; Zhou, Shuo; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 6 Issue: 10 Pages: 7334-7339 Published: MAY 28 2014

#### **11. Nanopore detection of copper ions using a polyhistidine probe**

By: Wang, Guihua; Wang, Liang; Han, Yujing; et al.

BIOSENSORS & BIOELECTRONICS Volume: 53 Pages: 453-458 Published: MAR 15 2014

#### **4. The role of tryptophan spatial arrangement for antimicrobial-derived, membrane-active peptides adsorption and activity**

**By: \* Schiopu, Irina; \* Mereuta, Loredana; Apetrei, Aurelia; et al. (\*These authors contributed equally)**

**MOLECULAR BIOSYSTEMS Volume: 8 Issue: 11 Pages: 2860-2863 Published: 2012**

**(1.241) N=6, Neff=5.5, C=4 (0.72) (0.225)**

1. Chain length effect on the structure and stability of antimicrobial peptides of the (RW)(n) series

By: Phambu, Nsoki; Almarwani, Bashiyar; Garcia, Arlette M.; et al.

BIOPHYSICAL CHEMISTRY Volume: 227 Pages: 8-13 Published: AUG 2017

2. Isolation of a novel bio-peptide from walnut residual protein inducing apoptosis and autophagy on cancer cells

By: Ma, Sihui; Huang, Di; Zhai, Mengxin; et al.

BMC COMPLEMENTARY AND ALTERNATIVE MEDICINE Volume: 15 Article Number: 413 Published: NOV 23 2015

3. The role of spontaneous lipid curvature in the interaction of interfacially active peptides with membranes

By: Koller, Daniel; Lohner, Karl

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1838 Issue: 9 Special Issue: SI Pages: 2250-2259 Published: SEP 2014

4. Tryptophan as a Probe to Study the Anticancer Mechanism of Action and Specificity of alpha-Helical Anticancer Peptides By: Li, Guirong; Huang, Yibing; Feng, Qi; et al.

MOLECULES Volume: 19 Issue: 8 Pages: 12224-12241 Published: AUG 2014

#### **5. Meet Me on the Other Side: Trans-Bilayer Modulation of a Model Voltage-Gated Ion Channel Activity by Membrane Electrostatics Asymmetry**

**By: Mereuta, Loredana; Asandei, Alina; Luchian, Tudor**

**PLOS ONE Volume: 6 Issue: 9 Article Number: e25276 Published: SEP 27 2011**

**(1.798) N=3, Neff=3, C=9 (3)(0.599)**

1. Contributions of the membrane dipole potential to the function of voltage-gated cation channels and modulation by small molecule potentiators

By: Pearlstein, Robert A.; Dickson, Callum J.; Hornak, Viktor

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1859 Issue: 2 Pages: 177-194 Published: FEB 2017

2. Two types of syringomycin E channels in sphingomyelin-containing bilayers

By: Efimova, Svetlana S.; Zakharova, Anastasiia A.; Schagina, Ludmila V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 45 Issue: 1 Pages: 91-98 Published: JAN 2016

3. Modifiers of the Dipole Potential of Lipid Bilayers

By: Efimova, S. S.; Ostroumova, O. S.

ACTA NATURAE Volume: 7 Issue: 4 Pages: 70-79 Published: OCT-DEC 2015

4. Modifiers of Membrane Dipole Potentials as Tools for Investigating Ion Channel Formation and Functioning

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Malev, Valery V.

Edited by: Jeon, KW

INTERNATIONAL REVIEW OF CELL AND MOLECULAR BIOLOGY, VOL 315 Book Series: International Review of Cell and Molecular Biology Volume: 315 Pages: 245-297 Published: 2015



- Investigation of Channel-Forming Activity of Polyene Macrolide Antibiotics in Planar Lipid Bilayers in the Presence of Dipole Modifiers

By: Efimova, S. S.; Schagina, L. V.; Ostroumova, O. S.

ACTA NATURAE Volume: 6 Issue: 4 Pages: 67-79 Published: OCT-DEC 2014

- The Influence of Halogen Derivatives of Thyronine and Fluorescein on the Dipole Potential of Phospholipid Membranes

By: Efimova, Svetlana S.; Schagina, Ludmila V.; Ostroumova, Olga S.

JOURNAL OF MEMBRANE BIOLOGY Volume: 247 Issue: 8 Pages: 739-745 Published: AUG 2014

- The interaction of dipole modifiers with amphotericin-ergosterol complexes. Effects of phospholipid and sphingolipid membrane composition

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Mikhailova, Ekaterina V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 43 Issue: 4-5 Pages: 207-215 Published: MAY 2014

- The Interaction of Dipole Modifiers with Polyene-Sterol Complexes

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Chulkov, Evgeny G.; et al.

PLOS ONE Volume: 7 Issue: 9 Article Number: e45135 Published: SEP 21 2012

- Evaluation of molecularity of rate-limiting step of pore formation by antimicrobial peptides studied using mitochondria as a biosensor

By: Aliverdieva, Dinara; Mamaev, Dmitry; Snezhkova, Leona; et al.

TOXICOLOGY IN VITRO Volume: 26 Issue: 6 Pages: 939-949 Published: SEP 2012

## **6. The Kinetics of Ampicillin Complexation by gamma-Cyclodextrins. A Single Molecule Approach**

By: **\*Asandei, Alina; \*Mereuta, Loredana; Luchian, Tudor** (*\*These authors contributed equally*)

**JOURNAL OF PHYSICAL CHEMISTRY B Volume: 115 Issue: 33 Pages: 10173-10181 Published: AUG 25 2011**

**(1.161) N=3, Neff=3, C=10 (3.33)(0.387)**

- Nanopore Single-Molecule Analysis of Metal Ion-Chelator Chemical Reaction

By: Wang, Linlin; Yao, Fujun; Kang, Xiao-Feng

ANALYTICAL CHEMISTRY Volume: 89 Issue: 15 Pages: 7958-7965 Published: AUG 1 2017

- A Single-Molecule Mycobacterium Smegmatis Porin A Protein Nanopore Sensor for Host-guest Chemistry

By: Duan Jing; Zhou Sha; Yao Fu-Jun; et al.

CHINESE JOURNAL OF ANALYTICAL CHEMISTRY Volume: 44 Issue: 12 Pages: 1801-1807 Published: DEC 2016

- A Protein Nanopore-Based Approach for Bacteria Sensing

By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al.

NANOSCALE RESEARCH LETTERS Volume: 11 Article Number: 501 Published: NOV 15 2016

- Stochastic Detection of MPSA-Gold Nanoparticles Using a alpha-Hemolysin Nanopore Equipped with a Noncovalent Molecular Adaptor

By: Campos, Elisa J.; McVey, Colin E.; Astier, Yann

ANALYTICAL CHEMISTRY Volume: 88 Issue: 12 Pages: 6214-6222 Published: JUN 21 2016

- Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

6. Nanopore Investigation of the Stereoselective Interactions between Cu<sup>2+</sup> and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue  
By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor
7. LANGMUIR Volume: 31 Issue: 1 Pages: 387-396 Published: JAN 13 2015  
Channel-Forming Bacterial Toxins in Biosensing and Macromolecule Delivery  
By: Gurnev, Philip A.; Nestorovich, Ekaterina M.  
TOXINS Volume: 6 Issue: 8 Pages: 2483-2540 Published: AUG 2014
8. Sensing Single Mixed-Monolayer Protected Gold Nanoparticles by the alpha-Hemolysin Nanopore  
By: Campos, Elisa; McVey, Colin E.; Carney, Randy P.; et al.  
ANALYTICAL CHEMISTRY Volume: 85 Issue: 21 Pages: 10149-10158 Published: NOV 5 2013
9. Characterization of the Hydrochlorothiazide: beta-Cyclodextrin Inclusion Complex. Experimental and Theoretical Methods  
By: Onnainty, Renee; Schenfeld, Esteban M.; Quevedo, Mario A.; et al.  
JOURNAL OF PHYSICAL CHEMISTRY B Volume: 117 Issue: 1 Pages: 206-217 Published: JAN 10 2013
10. The Role of Lys147 in the Interaction between MPSA-Gold Nanoparticles and the alpha-Hemolysin Nanopore  
By: Campos, Elisa; Asandei, Alina; McVey, Colin E.; et al.  
LANGMUIR Volume: 28 Issue: 44 Pages: 15643-15650 Published: NOV 6 2012

## **7. The role played by lipids unsaturation upon the membrane interaction of the Helicobacter pylori HP(2-20) antimicrobial peptide analogue HPA3**

**By: Mereuta, Loredana; Luchian, Tudor; Park, Yoonkyung; et al.**

**JOURNAL OF BIOENERGETICS AND BIOMEMBRANES Volume: 41 Issue: 1 Pages: 79-84 Published: FEB 2009**

**(1.232) N= 4, Neff=4, C=7 (1.75) (0.308)**

1. A helix-PXXP-helix peptide with antibacterial activity without cytotoxicity against MDRPA-infected mice  
By: Lee, Jong-Kook; Park, Seong-Cheol; Hahm, Kyung-Soo; et al.  
BIOMATERIALS Volume: 35 Issue: 3 Pages: 1025-1039 Published: JAN 2014
2. Combined Mass and Structural Kinetic Analysis of Multistate Antimicrobial Peptide-Membrane Interactions  
By: Hirst, Daniel J.; Lee, Tzong-Hsien; Swann, Marcus J.; et al. ANALYTICAL CHEMISTRY Volume: 85 Issue: 19 Pages: 9296-9304 Published: OCT 1 2013
3. Does the lipid environment impact the open-state conductance of an engineered beta-barrel protein nanopore? By: Tomita, Noriko; Mohammad, Mohammad M.; Niedzwiecki, David J.; et al. BIOCHIMICA ET BIOPHYSICA ACTA BIOMEMBRANES Volume: 1828 Issue: 3 Pages: 1057-1065 Published: MAR 2013
4. Effect of acyl chain structure and bilayer phase state on binding and penetration of a supported lipid bilayer by HPA3  
By: Hirst, Daniel J.; Lee, Tzong-Hsien; Swann, Marcus J.; et al. Conference: 455th Seminar on Biophysics of Membrane Active Peptides Location: Bad Honnef, GERMANY Date: APR 11-14, 2010 EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 40 Issue: 4 Special Issue: SI Pages: 503-514 Published: APR 2011
5. ORF8a of SARS-CoV forms an ion channel: Experiments and molecular dynamics simulations  
By: Chen, Cheng-Chang; Krueger, Jens; Sramala, Issara; et al. BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1808 Issue: 2 Special Issue: SI Pages: 572-579 Published: FEB 2011
6. Unimolecular study of the interaction between the outer membrane protein OmpF from E. coli and an analogue of the HP(2-20) antimicrobial peptide  
By: Apetrei, Aurelia; Asandei, Alina; Park, Yoonkyung;

et al. JOURNAL OF BIOENERGETICS AND BIOMEMBRANES Volume: 42 Issue: 2 Pages: 173-180 Published: APR 2010

7. The membrane insertion of helical antimicrobial peptides from the N-terminus of Helicobacter pylori ribosomal protein L1 By: Lee, Tzong-Hsien; Hall, Kristopher N.; Swann, Marcus J.; et al. BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1798 Issue: 3 Pages: 544-557 Published: MAR 2010

## **8. Single-molecule investigation of the interactions between reconstituted planar lipid membranes and an analogue of the HP(2-20) antimicrobial peptide**

**By: Mereuta, Loredana; Luchian, Tudor; Park, Yoonkyung; et al.**

**BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS Volume: 373 Issue: 4 Pages: 467-472 Published: SEP 5 2008**

**(0.962) N=4, Neff=4, C=10 (2.5) (0.240)**

1. Two types of syringomycin E channels in sphingomyelin-containing bilayers

By: Efimova, Svetlana S.; Zakharova, Anastasiia A.; Schagina, Ludmila V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 45 Issue: 1 Pages: 91-98 Published: JAN 2016

2. Modifiers of the Dipole Potential of Lipid Bilayers

By: Efimova, S. S.; Ostroumova, O. S.

ACTA NATURAE Volume: 7 Issue: 4 Pages: 70-79 Published: OCT-DEC 2015

3. The Influence of Halogen Derivatives of Thyronine and Fluorescein on the Dipole Potential of Phospholipid Membranes

By: Efimova, Svetlana S.; Schagina, Ludmila V.; Ostroumova, Olga S.

JOURNAL OF MEMBRANE BIOLOGY Volume: 247 Issue: 8 Pages: 739-745 Published: AUG 2014

4. Channel-Forming Activity of Cecropins in Lipid Bilayers: Effect of Agents Modifying the Membrane Dipole Potential

By: Efimova, Svetlana S.; Schagina, Ludmila V.; Ostroumova, Olga S.

LANGMUIR Volume: 30 Issue: 26 Pages: 7884-7892 Published: JUL 8 2014

5. Electrophysiology Investigation of Trichogin GA IV Activity in Planar Lipid Membranes Reveals Ion Channels of Well-Defined Size

By: Iftemi, Sorana; De Zotti, Marta; Formaggio, Fernando; et al.

CHEMISTRY & BIODIVERSITY Volume: 11 Issue: 7 Pages: 1069-1077 Published: JUL 2014

6. The interaction of dipole modifiers with amphotericin-ergosterol complexes. Effects of phospholipid and sphingolipid membrane composition

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Mikhailova, Ekaterina V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 43 Issue: 4-5 Pages: 207-215 Published: MAY 2014

7. The Interaction of Dipole Modifiers with Polyene-Sterol Complexes

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Chulkov, Evgeny G.; et al.

PLOS ONE Volume: 7 Issue: 9 Article Number: e45135 Published: SEP 21 2012

8. Effect of Dipole Modifiers on the Magnitude of the Dipole Potential of Sterol-Containing Bilayers

By: Efimova, Svetlana S.; Ostroumova, Olga S.

LANGMUIR Volume: 28 Issue: 26 Pages: 9908-9914 Published: JUN 3 2012

9. Unimolecular study of the interaction between the outer membrane protein OmpF from E. coli and an analogue of the HP(2-20) antimicrobial peptide

By: Apetrei, Aurelia; Asandei, Alina; Park, Yoonkyung; et al.

JOURNAL OF BIOENERGETICS AND BIOMEMBRANES Volume: 42 Issue: 2 Pages: 173-180 Published: APR 2010

10. The membrane insertion of helical antimicrobial peptides from the N-terminus of *Helicobacter pylori* ribosomal protein L1

By: Lee, Tzong-Hsien; Hall, Kristopher N.; Swann, Marcus J.; et al.

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1798 Issue: 3 Pages: 544-557 Published: MAR 2010

**9. Influence of membrane potentials upon reversible protonation of acidic residues from the OmpF eyelet** By: **\*Asandei, Alina; \*Mereuta, Loredana; Luchian, Tudor**(*\*These authors contributed equally*)

**BIOPHYSICAL CHEMISTRY Volume: 135 Issue: 1-3 Pages: 32-40 Published: JUN 2008**

**(0.765) N=3, Neff=3, C=10 (3.33)(0.255)**

1. NMR Evidence for Grotthuss-like Proton Diffusion on the Surface of N-Alkyl-ammonium Micelles in Acidic Aqueous Solution

By: Delpuech, Jean J.; Dupont-Leclercq, Laurence; Parant, Stephane; et al.

JOURNAL OF SOLUTION CHEMISTRY Volume: 46 Issue: 8 Pages: 1698-1720 Published: AUG 2017

2. Two types of syringomycin E channels in sphingomyelin-containing bilayers

By: Efimova, Svetlana S.; Zakharova, Anastasiia A.; Schagina, Ludmila V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 45 Issue: 1 Pages: 91-98 Published: JAN 2016

3. Modifiers of the Dipole Potential of Lipid Bilayers

By: Efimova, S. S.; Ostroumova, O. S.

ACTA NATURAE Volume: 7 Issue: 4 Pages: 70-79 Published: OCT-DEC 2015

4. Investigation of Channel-Forming Activity of Polyene Macrolide Antibiotics in Planar Lipid Bilayers in the Presence of Dipole Modifiers

By: Efimova, S. S.; Schagina, L. V.; Ostroumova, O. S.

ACTA NATURAE Volume: 6 Issue: 4 Pages: 67-79 Published: OCT-DEC 2014

5. The interaction of dipole modifiers with amphotericin-ergosterol complexes. Effects of phospholipid and sphingolipid membrane composition

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Mikhailova, Ekaterina V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 43 Issue: 4-5 Pages: 207-215 Published: MAY 2014

6. Uni-molecular detection and quantification of selected beta-lactam antibiotics with a hybrid alpha-hemolysin protein pore

By: Asandei, Alina; Apetrei, Aurelia; Luchian, Tudor

7. JOURNAL OF MOLECULAR RECOGNITION Volume: 24 Issue: 2 Pages: 199-207 Published: MAR-APR 2011

The ionization state of D37 in *E. coli* porin OmpF and the nature of conductance fluctuations in D37 mutants

By: Vrouenraets, Maarten; Miedema, Henk

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 39 Issue: 12 Pages: 1563-1571 Published: NOV 2010

8. Unimolecular study of the interaction between the outer membrane protein OmpF from *E. coli* and an analogue of the HP(2-20) antimicrobial peptide

By: Apetrei, Aurelia; Asandei, Alina; Park, Yoonkyung; et al.

JOURNAL OF BIOENERGETICS AND BIOMEMBRANES Volume: 42 Issue: 2 Pages: 173-180 Published: APR 2010

9. Ion Selectivity of a Biological Channel at High Concentration Ratio: Insights on Small Ion Diffusion and Binding

By: Lidon Lopez, M.; Aguilera-Arzo, Marcel; Aguilera, Vicente M.; et al.

JOURNAL OF PHYSICAL CHEMISTRY B Volume: 113 Issue: 25 Pages: 8745-8751 Published: JUN 25 2009

10. Effects of novel antituberculosis agents on OmpF channel activity

By: Mahdiuni, H.; Mobasheri, H.; Shafiee, A.; et al.

BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS Volume: 376 Issue: 1 Pages: 174-179  
Published: NOV 7 2008

**10. A virtual instrumentation based protocol for the automated implementation of the inner field compensation method**

By: Mereuta, Loredana; Luchian, Tudor

CENTRAL EUROPEAN JOURNAL OF PHYSICS Volume: 4 Issue: 3 Pages: 405-416 Published: SEP 2006 **(0.215)** N=2, Neff=2, C=1 (0.5)(0.107)

1. pH modulation of transport properties of alamethicin oligomers inserted in zwitterionic-based artificial lipid membranes

By: Chiriac, Roxana; Luchian, Tudor

BIOPHYSICAL CHEMISTRY Volume: 130 Issue: 3 Pages: 139-147 Published: NOV 2007

**11. How could a chirp be more effective than a louder clock - resonant transfer of energy between subthreshold excitation pulses and excitable tissues**

By: Mereuta, L; Luchian, T

JOURNAL OF CELLULAR AND MOLECULAR MEDICINE Volume: 9 Issue: 2 Pages: 446-456 Published: APR-JUN 2005

**(1.678)** N=2, Neff=2 (0.839)

Coautor:

**12. Nanoscale Investigation of Generation 1 PAMAM Dendrimers Interaction with a Protein Nanopore**

By: Asandei, Alina; Ciuca, Andrei; Apetrei, Aurelia; et al.

SCIENTIFIC REPORTS Volume: 7 Article Number: 6167 Published: JUL 21 2017

**(1.482)** N=8, Neff=6.5 (0.228)

**13. Acidity-Mediated, Electrostatic Tuning of Asymmetrically Charged Peptides Interactions with Protein Nanopores**

By: Asandei, Alina; Chinappi, Mauro; Kang, Hee-Kyoung; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 7 Issue: 30 Pages: 16706-16714 Published: AUG 5 2015

**(1.462)** N=7, Neff=6; C=9 (1.5)(0.243)

1. Structural stability of the photo-responsive DNA duplexes containing one azobenzene via a confined pore

By: Meng, Fu-Na; Li, Zi-Yuan; Ying, Yi-Lun; et al.

CHEMICAL COMMUNICATIONS Volume: 53 Issue: 68 Pages: 9462-9465 Published: SEP 4 2017

2. Single-molecule nanopore enzymology

By: Willems, Kherim; Van Meervelt, Veerle; Wloka, Carsten; et al.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES Volume: 372 Issue: 1726

Article Number: 20160230 Published: AUG 5 2017

3. Hydrogen Peroxide Sensing Based on Inner Surfaces Modification of Solid-State Nanopore

By: Zhu, Libo; Gu, Dejian; Liu, Qunjun

NANOSCALE RESEARCH LETTERS Volume: 12 Article Number: 422 Published: JUN 20 2017

4. Single Molecule Analysis of Self-Assembly Supramolecular Oligomers in Solution

By: Meng, Fu-Na; Yao, Xuyang; Zhang, Junji; et al.

ACS SENSORS Volume: 1 Issue: 12 Pages: 1398-1402 Published: DEC 2016

5. A Protein Nanopore-Based Approach for Bacteria Sensing

By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al.

NANOSCALE RESEARCH LETTERS Volume: 11 Article Number: 501 Published: NOV 15 2016

6. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25

7. Detection of a single enzyme molecule based on a solid-state nanopore sensor

By: Tan, ShengWei; Gu, DeJian; Liu, Hang; et al.

NANOTECHNOLOGY Volume: 27 Issue: 15 Article Number: 155502 Published: APR 15 2016

8. Driven diffusion against electrostatic or effective energy barrier across alpha-hemolysin

By: Ansalone, Patrizio; Chinappi, Mauro; Rondoni, Lamberto; et al.

JOURNAL OF CHEMICAL PHYSICS Volume: 143 Issue: 15 Article Number: 154109 Published: OCT 21 2015

9. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes

By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio

PHYSICAL REVIEW E Volume: 92 Issue: 3 Article Number: 032714 Published: SEP 15 2015

#### **14. Placement of oppositely charged aminoacids at a polypeptide termini determines the voltage-controlled braking of polymer transport through nanometer-scale pores**

By: Asandei, Alina; Chinappi, Mauro; Lee, Jong-Kook; et al.

SCIENTIFIC REPORTS Volume: 5 Article Number: 10419 Published: JUN 1 2015

**(1.863) N=7, Neff=6, C=12 (2) (0.310)**

1. Single-molecule nanopore enzymology

By: Willems, Kherim; Van Meervelt, Veerle; Wloka, Carsten; et al.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES Volume: 372 Issue: 1726

Article Number: 20160230 Published: AUG 5 2017

2. Characterization of DNA duplex unzipping through a sub-2 nm solid-state nanopore

By: Lin, Yao; Shi, Xin; Liu, Shao-Chuang; et al.

CHEMICAL COMMUNICATIONS Volume: 53 Issue: 25 Pages: 3539-3542 Published: MAR 28 2017

3. Artificial Cell Membrane Systems for Biosensing Applications

By: Osaki, Toshihisa; Takeuchi, Shoji

ANALYTICAL CHEMISTRY Volume: 89 Issue: 1 Pages: 216-231 Published: JAN 3 2017



4. Nanopore sensor for copper ion detection using a polyamine decorated beta- cyclodextrin as the recognition element

By: Guo, Yanli; Jian, Feifei; Kang, Xiaofeng

RSC ADVANCES Volume: 7 Issue: 25 Pages: 15315-15320 Published: 2017

5. Single Molecule Analysis of Self-Assembly Supramolecular Oligomers in Solution

By: Meng, Fu-Na; Yao, Xuyang; Zhang, Junji; et al.

ACS SENSORS Volume: 1 Issue: 12 Pages: 1398-1402 Published: DEC 2016

6. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

7. Analytical applications for pore-forming proteins

By: Kasianowicz, John J.; Balijepalli, Arvind K.; Ettegui, Jessica; et al.

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1858 Issue: 3 Special Issue: SI Pages: 593-606 Published: MAR 2016

8. Probing driving forces in aerolysin and alpha-hemolysin biological nanopores: electrophoresis versus electroosmosis

By: Boukhet, Mordjane; Piguet, Fabien; Ouldali, Hadjer; et al.

NANOSCALE Volume: 8 Issue: 43 Pages: 18352-18359 Published: 2016

9. Driven diffusion against electrostatic or effective energy barrier across alpha-hemolysin

By: Ansalone, Patrizio; Chinappi, Mauro; Rondoni, Lamberto; et al.

JOURNAL OF CHEMICAL PHYSICS Volume: 143 Issue: 15 Article Number: 154109 Published: OCT 21 2015

10. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes

By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio

PHYSICAL REVIEW E Volume: 92 Issue: 3 Article Number: 032714 Published: SEP 15 2015

11. Voltage and blockade state optimization of cluster-enhanced nanopore spectrometry

By: Chavis, Amy E.; Brady, Kyle T.; Kothalawala, Nuwan; et al.

ANALYST Volume: 140 Issue: 22 Pages: 7718-7725 Published: 2015

12. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore

By: Wang, Yong; Gu, Li-qun

AIMS MATERIALS SCIENCE Volume: 2 Issue: 4 Pages: 448-472 Published: 2015

## **15. Probing of Various Physiologically Relevant Metals: Amyloid-beta Peptide Interactions with a Lipid Membrane-Immobilized Protein Nanopore**

**By: Asandei, Alina; Iftemi, Sorana; Mereuta, Loredana; et al.**

**JOURNAL OF MEMBRANE BIOLOGY Volume: 247 Issue: 6 Pages: 523-530 Published: JUN 2014**

**(0.726) N=5, Neff=5, C=5 (1) (0.145)**

1. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

2. Single molecule study of initial structural features on the amyloidosis process

By: Hu, Yong-Xu; Ying, Yi-Lun; Gu, Zhen; et al.

CHEMICAL COMMUNICATIONS Volume: 52 Issue: 32 Pages: 5542-5545 Published: 2016

3. Single glass nanopore-based regenerable sensing platforms with a non-immobilized polyglutamic acid probe for selective detection of cupric ions

By: Chen, Lizhen; He, Haili; Xu, Xiaolong; et al.

ANALYTICA CHIMICA ACTA Volume: 889 Pages: 98-105 Published: AUG 19 2015

4. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore

By: Wang, Yong; Gu, Li-qun

AIMS MATERIALS SCIENCE Volume: 2 Issue: 4 Pages: 448-472 Published: 2015

5. The use of nanopore analysis for discovering drugs which bind to alpha-synuclein for treatment of Parkinson's disease

By: Tavassoly, Omid; Kakish, Joe; Nokhrin, Sergiy; et al.

EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY Volume: 88 Special Issue: SI Pages: 42-54 Published: DEC 17 2014

## **16. Investigation of Cu<sup>2+</sup> Binding to Human and Rat Amyloid Fragments A beta (1-16) with a Protein Nanopore**

**By: Asandei, Alina; Schiopu, Irina; Iftemi, Sorana; et al.**

**LANGMUIR Volume: 29 Issue: 50 Pages: 15634-15642 Published: DEC 17 2013**

**(1.111) N=5, Neff=5, C=13 (2.6) (0.222)**

1. Modulation effect of acidulated human serum albumin on Cu<sup>2+</sup> -mediated amyloid beta-protein aggregation and cytotoxicity under a mildly acidic condition

By: Xie, Baolong; Liu, Fufeng; Dong, Xiaoyan; et al.

JOURNAL OF INORGANIC BIOCHEMISTRY Volume: 171 Pages: 67-75 Published: JUN 2017

2. Divalent copper ion bound amyloid-beta(40) and amyloid-beta(42) alloforms are less preferred than divalent zinc ion bound amyloid-beta(40) and amyloid-beta(42) alloforms

By: Coskuner, Orkid

JOURNAL OF BIOLOGICAL INORGANIC CHEMISTRY Volume: 21 Issue: 8 Pages: 957-973 Published: DEC 2016

3. A Protein Nanopore-Based Approach for Bacteria Sensing

By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al.

NANOSCALE RESEARCH LETTERS Volume: 11 Article Number: 501 Published: NOV 15 2016

4. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation

By: Asandei, Alina; Schiopu, Irina; Chinappi, Mauro; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 8 Issue: 20 Pages: 13166-13179 Published: MAY 25 2016

5. A novel device of array nanochannels integrated electrochemical detector for detection of amyloid beta aggregation and inhibitor screening

By: Wang, Chen; Liu, Hai-Ling; Li, Yu-Qian; et al.

ELECTROCHEMISTRY COMMUNICATIONS Volume: 66 Pages: 25-28 Published: MAY 2016

6. Single molecule study of initial structural features on the amyloidosis process

By: Hu, Yong-Xu; Ying, Yi-Lun; Gu, Zhen; et al.

CHEMICAL COMMUNICATIONS Volume: 52 Issue: 32 Pages: 5542-5545 Published: 2016

7. Nanopore Sensing of Botulinum Toxin Type B by Discriminating an Enzymatically Cleaved Peptide from a Synaptic Protein Synaptobrevin 2 Derivative

By: Wang, Yong; Montana, Vedrana; Grubisic, Vladimir; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 7 Issue: 1 Pages: 184-192 Published: JAN 14 2015

8. Nanopore Investigation of the Stereoselective Interactions between Cu<sup>2+</sup> and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue

By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor

LANGMUIR Volume: 31 Issue: 1 Pages: 387-396 Published: JAN 13 2015

9. Superposition of an AC field improves the discrimination between peptides in nanopore analysis



By: Jakova, Elisabet; Lee, Jeremy S.

ANALYST Volume: 140 Issue: 14 Pages: 4813-4819 Published: 2015

10. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore

By: Wang, Yong; Gu, Li-qun

AIMS MATERIALS SCIENCE Volume: 2 Issue: 4 Pages: 448-472 Published: 2015

11. The use of nanopore analysis for discovering drugs which bind to alpha-synuclein for treatment of Parkinson's disease

By: Tavassoly, Omid; Kakish, Joe; Nokhrin, Sergiy; et al.

EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY Volume: 88 Special Issue: SI Pages: 42-54 Published: DEC 17 2014

12. Nanopore Biosensor for Label-Free and Real-Time Detection of Anthrax Lethal Factor

By: Wang, Liang; Han, Yujing; Zhou, Shuo; et al.

ACS APPLIED MATERIALS & INTERFACES Volume: 6 Issue: 10 Pages: 7334-7339 Published: MAY 28 2014

13. Role of zinc and copper metal ions in amyloid beta-peptides A beta(1-40) and A beta(1-42) aggregation

By: Boopathi, Subramaniam; Kolandaivel, Ponmalai

RSC ADVANCES Volume: 4 Issue: 73 Pages: 38951-38965 Published: 2014

### **17. The RH 421 styryl dye induced, pore model-dependent modulation of antimicrobial peptides activity in reconstituted planar membranes**

**By: Apetrei, Aurelia; Mereuta, Loredana; Luchian, Tudor**

**BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS Volume: 1790 Issue: 8 Pages: 809-816**

**Published: AUG 2009**

**(0.883) N=3, Neff=3, C=14 (4.66) (0.294)**

1. Dipole Modifiers Regulate Lipid Lateral Heterogeneity in Model Membranes

By: Efimova, S. S.; Ostroumova, O. S.

ACTA NATURAE Volume: 9 Issue: 2 Pages: 67-74 Published: APR-JUN 2017

2. Effects of Dipole Potential Modifiers on Heterogenic Lipid Bilayers

By: Efimova, Svetlana S.; Malev, Valery V.; Ostroumova, Olga S.

JOURNAL OF MEMBRANE BIOLOGY Volume: 249 Issue: 1-2 Pages: 97-106 Published: APR 2016

3. Two types of syringomycin E channels in sphingomyelin-containing bilayers

By: Efimova, Svetlana S.; Zakharova, Anastasiia A.; Schagina, Ludmila V.; et al.

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS Volume: 45 Issue: 1 Pages: 91-98 Published: JAN 2016

4. Modifiers of the Dipole Potential of Lipid Bilayers

By: Efimova, S. S.; Ostroumova, O. S.

ACTA NATURAE Volume: 7 Issue: 4 Pages: 70-79 Published: OCT-DEC 2015

5. Nanopore Investigation of the Stereoselective Interactions between Cu<sup>2+</sup> and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue

By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor

LANGMUIR Volume: 31 Issue: 1 Pages: 387-396 Published: JAN 13 2015

6. Membrane dipole modifiers modulate single-length nystatin channels via reducing elastic stress in the vicinity of the lipid mouth of a pore

By: Chulkov, Evgeny G.; Schagina, Ludmila V.; Ostroumova, Olga S.

BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES Volume: 1848 Issue: 1 Pages: 192-199 Part: A Published: JAN 2015

7. Modifiers of Membrane Dipole Potentials as Tools for Investigating Ion Channel Formation and Functioning

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Malev, Valery V.

Edited by: Jeon, KW

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ACTA NATURAE Volume: 6 Issue: 4 Pages: 67-79 Published: OCT-DEC 2014

9. Channel-Forming Activity of Cecropins in Lipid Bilayers: Effect of Agents Modifying the Membrane Dipole Potential

By: Efimova, Svetlana S.; Schagina, Ludmila V.; Ostroumova, Olga S.

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10. The interaction of dipole modifiers with amphotericin-ergosterol complexes. Effects of phospholipid and sphingolipid membrane composition

By: Ostroumova, Olga S.; Efimova, Svetlana S.; Mikhailova, Ekaterina V.; et al.

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**By: Luchian, Tudor; Mereuta, Loredana**

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**(0.68) N=2, Neff=2, C=2 (1) (0.34)**

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