

Fișa de evaluare privind standardele minimale pe domeniul FIZICĂ

CS III. dr. Alina ASANDEI

COMISIA DE FIZICĂ - STANDARDE MINIMALE NECESARE ȘI OBLIGATORII PENTRU CONFERIREA 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	Cărți, manuale, îndrumare de laborator în edituri naționale sau alte edituri internaționale ca autor, note interne, prezentări susținute pentru aprobarea analizelor de date în cadrul colaborărilor mari	$A_4 = \sum_i 0.5/n_i^{ef}$ 1.5
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/ responsabil 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 www.bnr.ro 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.	$A_{10} = \sum_i V_i/100.000$ 1.23

A = 2.73

Criterii minimale pentru activitatea didactică și profesională: CS II:

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

2. Activitatea de cercetare

Nr. crt.	Tipul activităților	Indicatori
1	Articole științifice originale in extenso ca autor	$I = \sum_i AIS_i / n_i^{ef}$ I = 6.704
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 = 17.498

Criterii minimale pentru activitatea de cercetare: CS II, conferențiar universitar

$$I \geq 2, P \geq 2$$

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	$C = \sum_i c_i / n_i^{ef}$ unde c_i reprezintă numărul de citări în reviste ISI ale publicației i. C=47.772
2	Indicele Hirsch	h = 13

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**

$$T = 2.73 + 17.498/2 + 6.704/2 + 47.772/20 + 13/5 = 19.8196$$

Justificare punctaj

1. Activitatea didactică și profesională: A = 2.73

1.4. Cărți, manuale în edituri naționale ca autor:

- **Alina ASANDEI**, ‘Fenomene de transport în biofizica moleculară’ 2018, Editura Universității „Alexandru Ioan Cuza”- Iasi, 164 pagini

0.5

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

1. Prezentarea rezultatelor obținute în cadrul proiectului de cercetare cu titlul ‘*Elucidarea mecanismelor de transport ale unor compusi activi biologici utilizand complexi proteici α -Hemolizina – Ciclodextrina*’ –(Alina Asandei) WORKSHOP organizat în cadrul proiectului POSDRU/89/1.5/S/49944 - “Dezvoltarea capacității de inovare și creșterea impactului cercetării prin programe post-doctorale - **A. Asandei**, “*A single molecule approach of the interaction between ampicillin and a hybrid α -haemolysin protein pore*” „International Conference on Global Research and Education, interAcademia 2011, 26-29 September 2011, Sucevita, Romania

0.5

2. Prezentarea rezultatelor obținute în cadrul proiectului de cercetare PNII-ID-PCCE-2011-2-0027 “**Ion sensing and separation through modified cyclic peptides, cyclodextrins and protein pores**/ Detectia și separarea ionică prin intermediul peptidelor ciclice, al ciclodextrinelor și al porilor proteici” - Satellite Workshop in the frame of IC-ANMBES 2014 11-12 June 2014 Current reports on synthetic peptides, metals and molecular adaptors interaction with protein pores and reconstituted lipid membrane systems – Parteneri: CO - “Alexandru I. Cuza” University (UAIC); P1 - National Research and Development Institute of Isotopic and Molecular Technologies (INCDTIM); P2 - “Babes-Bolyai” University (UBB); P3 - “Horia Hulubei” National Institute for Physics and Nuclear Engineering (IFIN-HH); P4 - “Carol Davila” University of Medicine and Pharmacy (UMFB)

0.5

A4 = 1.5

1.10. 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 pentru perioada de după 1999 și la cursul din 1999 pentru perioada anterioară.

- **Responsabil proiect Partener P1 (2015-2016)** în cadrul proiectului nr. 98/2012 PN II PCCA1 Tehnica imunochimica de analiza in faza omogena bazata pe nanoparticule functionalizate. Aplicatie pentru detectia contaminantului pesticidic acid 2,4-diclorofenoxiacetic din probe alimentare si de mediu (HINANODET) 2012-2015 (prelungire 2015-2016)/ 2.000.000 ron pe proiect/300.000 ron P1 -UAIC ~**68.000 euro (2015 - 2016)** rămas 23.000 euro

0.23

- **Director proiect (2018-2020)** în cadrul proiectului nr. 45 / 02.05.2018 PN-III-P1-1.1-TE-2016-0508 Identificarea unimoleculară a domeniilor aminoacidice din structura primară a polipeptidelor folosind

nanopori proteici// Nanopore-based, pattern recognition on the primary structure of polypeptides at uni-molecular level, (PEPREC) 450.000ron ~100.000euro

1

$A_{10} = 1.23$

2. Activitatea de cercetare (I și P) și 3. Recunoașterea impactului activității (C)

P = 17.498

I = 6.704

C = 47.772

Autor principal:

1. **Alina Asandei**, Dragomir Isabela S., Di Muccio Giovanni, Chinappi Mauro, Park Yoonkyung, Luchian Tudor. Single-Molecule Dynamics and Discrimination between Hydrophilic and Hydrophobic Amino Acids in Peptides, through Controllable, Stepwise Translocation across Nanopores. *Polymers* 10(8), 885, (2018)

(AIS = 0.7) N = 6, Neff = 5.5, C = 0 (I = AIS / Neff = 0.127)

2. Ciuca Andrei, **Asandei Alina**, Schiopu Irina, Apetrei Aurelia, Mereuta Loredana, Seo Chang Ho, Park Yoonkyung, Luchian Tudor. Single Molecule, Real-Time Dissecting of Peptide Nucleic Acids-DNA Duplexes with a Protein Nanopore Tweezer. *Anal. Chem.*, 90, 7682–7690, (2018)

(AIS = 1.371) N = 8, Neff = 6.5, C = 0 (I = AIS / Neff = 0.211)

3. **Alina Asandei**, Schiopu Irina, Ciobanasu Corina, Park Yoonkyung, Luchian Tudor. If Squeezed, a Camel Passes Through the Eye of a Needle: Voltage-Mediated Stretching of Dendrimers Facilitates Passage Through a Nanopore. *J. Membr. Biol.* 251(3), 405-417, (2018)

(AIS = 0.456) N = 5, Neff = 5, C = 1 (c = C/Neff = 0.2) (I = AIS / Neff = 0.0912)

Citări

1. Lipid Membranes and Reactions at Lipid Interfaces: Theory, Experiments, and Applications By: Bondar, Ana-Nicoleta; Keller, Sandro *JOURNAL OF MEMBRANE BIOLOGY* 251(3), 295-298, 2018

4. **Alina Asandei**, Aldo E Rossini, Mauro Chinappi, Yoonkyung Park, Tudor Luchian. Protein Nanopore-Based Discrimination Between Selected Neutral Amino Acids from Polypeptides. *Langmuir*, 33, 14451–14459 (2017)

(AIS = 0.964) N = 5, Neff = 5, C = 4 (c = C/Neff = 0.8) (I = AIS / Neff = 0.193)

Citări

1. The Utility of Nanopore Technology for Protein and Peptide Sensing By: Robertson, Joseph W. F.; Reiner, Joseph E. *PROTEOMICS* 18(18), 1800026, 2018

2. Protein sequencing via nanopore based devices: a nanofluidics perspective, By: Chinappi, Mauro; Cecconi, Fabio *JOURNAL OF PHYSICS-CONDENSED MATTER* 30(20), 204002, 2018

3. Peptide bond detection via graphene nanogaps: a proof of principle study By: Rossini, Aldo Eugenio; Gala, Fabrizio; Chinappi, Mauro; et al. *NANOSCALE* 10(13), 5928-5937, 2018

4. Chirality Dependence of the Tunneling Current in Graphene Nano-Gaps for Peptide Sequencing By: Rossini, Aldo Eugenio; Zollo, Giuseppe Conference: NanoInnovation Conference and Exhibition (NANOINNOVATION) Location: SAPIENZA Univ Rome, Fac Civil & Ind Engr, Rome, ITALY Date: SEP 26-29, 2017 NANOINNOVATION 2017 Book Series: AIP Conference Proceedings 1990, UNSP 020003-1 2018

5. **Alina Asandei**, Andrei Ciuca, Aurelia Apetrei, Irina Schiopu, Loredana Mereuta, Chang Ho Seo, Yoonkyung Park, Tudor Luchian, Nanoscale Investigation of Generation 1 PAMAM Dendrimers Interaction with a Protein Nanopore. Scientific Reports, 7 (6167), (2017)

(AIS = 1.484) N = 8, Neff = 6.5, C = 0 (c= C/Neff=0) (I = AIS / Neff = 0.228)

6. **Alina Asandei**, Irina Schiopu, Mauro Chinappi, Chang Ho Seo, Yoonkyung Park, Tudor Luchian. Electroosmotic Trap Against the Electrophoretic Force Near a Protein Nanopore Reveals Peptide Dynamics During Capture and Translocation. Applied Materials & Interfaces 8 (20), 13166-13179, (2016).

(AIS = 1.462) N = 6, Neff = 5.5, C = 16 (c= C/Neff=2,909) (I = AIS / Neff = 0.266)

Citări

1. Versatile cyclodextrin nanotube synthesis with functional anchors for efficient ion channel formation: design, characterization and ion conductance By: Mamad-Hemouch, Hajar; Bacri, Laurent; Huin, Cecile; et al. NANOSCALE 10(32), 15303-15316, 2018
2. Controlling Interactions of Cyclic Oligosaccharides with Hetero-Oligomeric Nanopores: Kinetics of Binding and Release at the Single-Molecule Level By: Satheesan, Remya; Krishnan, Smrithi R.; Mahendran, Kozhinjampara R. SMALL, 14 (32), 1801192, AUG 9 2018
3. Single-File Protein Translocations through Graphene-MoS₂ Heterostructure Nanopores, By: Luan, Binqun; Zhou, Ruhong JOURNAL OF PHYSICAL CHEMISTRY LETTERS, 9(12), 3409-3415, 2018
4. Real-time Event Recognition and Analysis System for Nanopore Study By: Wang Hui-Feng; Huang Fei; Gu Zhen; et al. CHINESE JOURNAL OF ANALYTICAL CHEMISTRY 46(6), 843-850, 2018
5. Protein sequencing via nanopore based devices: a nanofluidics perspective By: Chinappi, Mauro; Cecconi, Fabio JOURNAL OF PHYSICS-CONDENSED MATTER 30(20), 204002, 2018
6. Analysis of Pore Formation and Protein Translocation Using Large Biological Nanopores By: Watanabe, Hirokazu; Gubbiotti, Alberto; Chinappi, Mauro; et al. ANALYTICAL CHEMISTRY 89(21), 11269-11277, 2017
7. Electro-osmotic capture and ionic discrimination of peptide and protein biomarkers with FraC nanopores By: Huang, Gang; Willems, Kherim; Soskine, Misha; et al. NATURE COMMUNICATIONS 8, 935, 16 2017
8. Mimicking wettability alterations using temperature gradients for water nanodroplets By: Bakli, Chirodeep; Hari, Sree P. D.; Chakraborty, Suman NANOSCALE 9(34), 12509-12515, 2017
9. pH Change in Electroosmotic Flow Hysteresis By: Lim, Chun Yee; Lim, An Eng; Lam, Yee Cheong ANALYTICAL CHEMISTRY 89(17), 9394-9399, 2017
10. Single Molecule Nanopore Spectrometry for Peptide Detection By: Chavis, Amy E.; Brady, Kyle T.; Hatmaker, Grace A.; et al. ACS SENSORS, 2(9), 1319-1328, 2017
11. Translocation of Rigid Rod-Shaped Virus Through Solid-State Nanopore at Low Salt Concentration By: Gu, Dejian; Wang, Rongliang; Lu, Lichia; et al. NANOSCIENCE AND NANOTECHNOLOGY LETTERS, 9(5), 685-692, 2017
12. Peptide-Mediated Nanopore Detection of Uranyl Ions in Aqueous Media By: Roozbahani, Golbarg M.; Chen, Xiaohan; Zhang, Youwen; et al. ACS SENSORS, 2(5), 703-709, 2017
13. Electroosmotic flow through an alpha-hemolysin nanopore By: Bonome, Emma Letizia; Cecconi, Fabio; Chinappi, Mauro MICROFLUIDICS AND NANOFUIDICS, 21(5), 96, 2017
14. High-bandwidth nanopore data analysis by using a modified hidden Markov model By: Zhang, Jianhua; Liu, Xiuling; Ying, Yi-Lun; et al. NANOSCALE, 9(10), 3458-3465, 2017

15. 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, 7(25), 15315-15320, 2017

16. Probing driving forces in aerolysin and alpha-hemolysin biological nanopores: electrophoresis versus electroosmosis By: Boukhet, Mordjane; Piguet, Fabien; Ouldali, Hadjer; et al. NANOSCALE, 8(43), 18352-18359, 2016

7. **Alina Asandei**, Mauro Chinappi, Hee-Kyoung Kang, Chang Ho Seo, Loredana Mereuta, Yoonkyung Park, Tudor Luchian, Acidity-Mediated, Electrostatic Tuning of Asymmetrically Charged Peptides Interactions with Protein Nanopores. ACS Applied Materials & Interfaces 7 (30), 16706-16714, (2015)

(AIS = 1.462) N = 7, Neff = 6, C = 11 (c= C/Neff=1.833) (I = AIS / Neff = 0.244)

Citări

1. Electrochemical Confinement Effects for Innovating New Nanopore Sensing Mechanisms By: Ying, Yi-Lun; Gao, Rui; Hu, Yong-Xu; et al. SMALL METHODS, 2(6), UNSP 1700390, 2018

2. Development of Biological Nanopore Technique in Non-gene Sequencing Application By: Yang Jie; Li Shuang; Wu Xue-Yuan; et al. CHINESE JOURNAL OF ANALYTICAL CHEMISTRY, 45(12), 1766-1773, 2017

3. 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 53(68), 9462-9465, 2017

4. Single Molecule Nanopore Spectrometry for Peptide Detection Chavis, Amy E.; Brady, Kyle T.; Hatmaker, Grace A.; et al. ACS SENSORS 2(9), 1319-1328, 2017

5. Single-molecule nanopore enzymology By: Willems, Kherim; Van Meervelt, Veerle; Wloka, Carsten; et al. PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES 372(1726), 20160230, 2017

6. Hydrogen Peroxide Sensing Based on Inner Surfaces Modification of Solid-State Nanopore Zhu, Libo; Gu, Dejian; Liu, Quanjun NANOSCALE RESEARCH LETTERS 12, 422, 2017

7. Single Molecule Analysis of Self-Assembly Supramolecular Oligomers in Solution By: Meng, Fu-Na; Yao, Xuyang; Zhang, Junji; et al. ACS SENSORS: 1(12), 1398-1402, 2016

8. A Protein Nanopore-Based Approach for Bacteria Sensing By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al. NANOSCALE RESEARCH LETTERS 11, 501, 2016

9. Detection of a single enzyme molecule based on a solid-state nanopore sensor Tan, ShengWei; Gu, DeJian; Liu, Hang; et al. NANOTECHNOLOGY 27(15), 155502, 2016

10. Driven diffusion against electrostatic or effective energy barrier across alpha-hemolysin Ansalone, Patrizio; Chinappi, Mauro; Rondoni, Lamberto; et al. JOURNAL OF CHEMICAL PHYSICS 143(15), 154109, 2015

11. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio PHYSICAL REVIEW E 92(3), 032714, 2015

8. **Alina Asandei**, Mauro Chinappi, Jong-kook Lee, Chang Ho Seo, Loredana Mereuta, Yoonkyung Park, Tudor Luchian, Placement of oppositely charged aminoacids at a polypeptide termini determines the voltage controlled braking of polymer transport through nanometer-scale pores. Scientific Reports, 5 (10419), (2015)

(AIS = 1.865) N = 7, Neff = 6, C = 12 (c= C/Neff=2) (I = AIS / Neff = 0.311)

Citări

1. Protein sequencing via nanopore based devices: a nanofluidics perspective By: Chinappi, Mauro; Cecconi, Fabio JOURNAL OF PHYSICS-CONDENSED MATTER 30(20), 204002, 2018
2. Single-molecule nanopore enzymology By: Willems, Kherim; Van Meervelt, Veerle; Wloka, Carsten; et al. PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES 372(1726), 20160230, 2017
3. 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 53(25), 3539-3542, 2017
4. Artificial Cell Membrane Systems for Biosensing Applications By: Osaki, Toshihisa; Takeuchi, Shoji ANALYTICAL CHEMISTRY 89(1), 216-231, 2017
5. 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 7(25), 15315-15320, 2017
6. Single Molecule Analysis of Self-Assembly Supramolecular Oligomers in Solution By: Meng, Fu-Na; Yao, Xuyang; Zhang, Junji; et al. ACS SENSORS 1(12), 1398-1402, 2016
7. Analytical applications for pore-forming proteins By: Kasianowicz, John J.; Balijepalli, Arvind K.; Etteedgui, Jessica; et al. BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES 1858(3), Special Issue: SI, 593-606, 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 8(43), 18352-18359, 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 143(15), 154109, 2015
10. Nanopore tweezers: Voltage-controlled trapping and releasing of analytes By: Chinappi, Mauro; Luchian, Tudor; Cecconi, Fabio PHYSICAL REVIEW E 92(3), 032714, 2015
11. Voltage and blockade state optimization of cluster-enhanced nanopore spectrometry By: Chavis, Amy E.; Brady, Kyle T.; Kothalawala, Nuwan; et al. ANALYST 140(22), 7718-7725, 2015
12. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore By: Wang, Yong; Gu, Li-qun AIMS MATERIALS SCIENCE 2(4), 448-472, 2015
9. Alina Asandei, Sorana Iftemi, Loredana Mereuta, Irina Schiopu, Tudor Luchian, Probing of Various Physiologically Relevant Metals: Amyloid-beta Peptide Interactions with a Lipid Membrane-Immobilized Protein Nanopore, Journal of Membrane Biology, 247(6), 523-553 (2014)

(AIS = 0.726) N = 5, Neff = 5, C = 6 (c= C/Neff=1.2) (I = AIS / Neff = 0.145)

Citări

1. Electrochemical Confinement Effects for Innovating New Nanopore Sensing Mechanisms By: Ying, Yi-Lun; Gao, Rui; Hu, Yong-Xu; et al. SMALL METHODS 2(6) UNSP 1700390, 12 2018
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 52(32), 5542-5545, 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 889, 98-105, 2015

4. Nanopore Investigation of the Stereoselective Interactions between Cu²⁺ and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor LANGMUIR 31(1), 387-396, 2015
5. Biomedical diagnosis perspective of epigenetic detections using alpha-hemolysin nanopore By: Wang, Yong; Gu, Li-qun AIMS MATERIALS SCIENCE 2(4), 448-472, 2015
6. 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 88 Special Issue: SI 42-54, 2014

10. Alina Asandei, Irina Schiopu, Sorana Iftemi, Loredana Mereuta, Tudor Luchian, Investigation of Cu²⁺ Binding to Human and Rat Amyloid Fragments A beta (1-16) with a Protein Nanopore, Langmuir, 29, (50), 15634-15642 (2013)

(AIS = 1.111) N = 5, Neff = 5, C = 14 (c= C/Neff=2.8) (I = AIS / Neff = 0.222)

Citări

1. Nanopore-Based, Rapid Characterization of Individual Amyloid Particles in Solution: Concepts, Challenges, and Prospects By: Houghtaling, Jared; List, Jonathan; Mayer, Michael SMALL 14(46) Special Issue: SI 1802412, 2018
2. Amyloid Growth, Inhibition, and Real-Time Enzymatic Degradation Revealed with Single Conical Nanopore By: Giamblanco, Nicoletta; Coglitore, Diego; Gubbiotti, Alberto; et al. ANALYTICAL CHEMISTRY 90(21), 12900-12908, 2018
3. Single-molecule porphyrin-metal ion interaction and sensing application By: Wei, Keke; Yao, Fujun; Kang, Xiao-Feng BIOSENSORS & BIOELECTRONICS 109, 272-278, 2018
4. Modulation effect of acidulated human serum albumin on Cu²⁺ -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 171, 67-75, 2017
5. 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 21(8), 957-973, 2016
6. A Protein Nanopore-Based Approach for Bacteria Sensing By: Apetrei, Aurelia; Ciuca, Andrei; Lee, Jong-kook; et al. NANOSCALE RESEARCH LETTERS 11, 501, 2016
7. 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 66, 25-28, 2016
8. Single molecule study of initial structural features on the amyloidosis process By: Hu, Yong-Xu; Ying, Yi-Lun; Gu, Zhen; et al. CHEMICAL COMMUNICATIONS 52(32), 5542-5545, 2016
9. 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 7(1), 184-192, 2015
10. Nanopore Investigation of the Stereoselective Interactions between Cu²⁺ and D,L-Histidine Amino Acids Engineered into an Amyloidic Fragment Analogue By: Schiopu, Irina; Iftemi, Sorana; Luchian, Tudor LANGMUIR 31(1), 387-396, 2015
11. Superposition of an AC field improves the discrimination between peptides in nanopore analysis By: Jakova, Elisabet; Lee, Jeremy S. ANALYST 140(14), 4813-4819, 2015

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