

List of Publications (D)

- D50.** E. Eren, J. Vijayaraghavan, J. Liu, B.R. Cheneke, D.S. Touw, B.W. Lepore, M. Indic, **L. Movileanu** and B. van den Berg, 2012, Substrate specificity within a family of outer membrane carboxylate channels, *PLoS Biol.* **10(1)**, e1001242.
- D49.** D.J. Niedzwiecki and **L. Movileanu**, 2011, Monitoring protein adsorption with solid-state nanopores, *J. Vis. Exp.* **58**, e3560, DOI: 10.3791/3560.
- D48.** M.M. Mohammad, K.R. Howard and **L. Movileanu**, 2011, Redesign of a plugged beta-barrel membrane protein, *J. Biol. Chem.* **286(10)**, 8000-8013.
- D47.** B.R. Cheneke, B. van den Berg and **L. Movileanu**, 2011, Analysis of gating transitions among the three major open states of the OpdK channel, *Biochemistry* **50(22)**, 4987-4997.
- D46.** R. Bikwemu, A.J. Wolfe, X. Xing and **L. Movileanu**, 2010, Facilitated translocation of polypeptides through a single nanopore, *J. Phys.: Condens. Matter* **22(45)**, 454117.
- D45.** M.M. Mohammad and **L. Movileanu**, 2011, Protein sensing with engineered protein nanopores, *Methods Mol. Biol.*, *In press*.
- D44.** D.J. Niedzwiecki, J. Grazul and **L. Movileanu**, 2010, Single-molecule observation of protein adsorption onto an inorganic surface, *J. Am. Chem. Soc.* **132(31)**, 10816-10822.
- D43.** **L. Movileanu**, 2011, Single-molecule detection of proteins using nanopores, Chapter 25, In: *Frontiers in Sensing – From Biology to Engineering*, F.G. Barth, J.A.C. Humphrey and M.V. Srinivasan (Eds.), First Edition, Springer, Wien, New York, pp. 363-381.
- D42.** M.M. Mohammad and **L. Movileanu**, 2010, Impact of distant charge reversals within a robust β -barrel protein pore, *J. Phys. Chem. B* **114(26)**, 8750-8759.
- D41.** **L. Movileanu**, 2009, Interrogating single proteins through nanopores: challenges and opportunities, *Trends Biotechnol.* **27(6)**, 333-341.
- D40.** S. Biswas, M.M. Mohammad, **L. Movileanu** and B. van den Berg, 2008, Crystal structure of outer membrane protein OpdK from *Pseudomonas aeruginosa*, *Structure* **16(7)**, 1027-1035.
- D39.** C. Chimere, **L. Movileanu**, S. Pezeshki, M. Winterhalter and U. Kleinekathöfer, 2008, Transport at the nanoscale: Temperature dependence of ion conductance, *Eur. Biophys. J.* **38(1)**, 121-125.
- D38.** D. Popescu, **L. Movileanu** and A.G. Popescu, 2008, The behavior of the lipid vesicle under osmotic stress, Chapter 11, *Invited review article*, In: *Mathematical Biology Research Trends*, L.B. Wilson (Ed.), Nova Science Publishers, New York, pp. 275-294.
- D37.** **L. Movileanu**, 2008, Squeezing a single polypeptide through a nanopore, *Soft Matter* (Highlight Article) **4(5)**, 925-931.

- D36.** M.M. Mohammad and **L. Movileanu**, 2008, Excursion of a single polypeptide into a protein pore: simple physics, but complicated biology, *Eur. Biophys. J.* **37(6)**, 913-925.
- D35.** M.M. Mohammad, S. Prakash, A. Matouschek and **L. Movileanu**, 2008, Controlling a single protein in a nanopore through electrostatic traps, *J. Am. Chem. Soc.* **130(12)**, 4081-4088.
- D34.** A.J. Wolfe, M.M. Mohammad, S. Cheley, H. Bayley and **L. Movileanu**, 2007, Catalyzing the translocation of polypeptides through attractive interactions, *J. Am. Chem. Soc.* **129(45)**, 14034-14041.
- D33.** S. Biswas, M.M. Mohammad, D.R. Patel, **L. Movileanu** and B. van den Berg, 2007, Structural insight into OprD substrate specificity, *Nature Struct. Mol. Biol.* **14(11)**, 1108-1109.
- D32.** C.P. Goodrich, S. Kirmizialtin, B.M. Huyghues-Despointes, A. Zhu, J.M. Scholtz, D.E. Makarov and **L. Movileanu**, 2007, Single-molecule electrophoresis of β -hairpin peptides by electrical recordings and Langevin dynamics simulations, *J. Phys. Chem. B* **111(13)**, 3332-3335.
- D31.** Y.H. Jung, H. Bayley and **L. Movileanu**, 2006, Temperature-responsive protein pores, *J. Am. Chem. Soc.* **128(47)**, 15332-15340.
- D30.** **L. Movileanu**, D. Popescu, S. Ion, and A.I. Popescu, 2006, Transbilayer pores induced by thickness fluctuations, *Bull. Math. Biol.* **68(6)**, 1231-1255.
- D29.** D. Dinu, M.T. Nechifor and **L. Movileanu**, 2005, Ethanol-induced alterations of the antioxidant defense system in rat kidney, *J. Biochem. Mol. Toxicol.* **19(6)**, 386-395.
- D28.** **L. Movileanu**, J.P. Schmittschmitt, J.M. Scholtz and H. Bayley, 2005, Interactions of peptides with a protein pore, *Biophys. J.* **89(2)**, 1030-1045.
- D27.** **L. Movileanu** and D. Popescu, 2004, The birth, life and death of statistical pores into a bilayer membrane, *Invited review article*, In: *Recent Research Developments in Biophysics*, vol. 3, Part I, Transworld Research Network, Kerala, pp. 61-86.
- D26.** **L. Movileanu**, S. Cheley and H. Bayley, 2003, Partitioning of individual flexible polymers into a nanoscopic protein pore, *Biophys. J.* **85(2)**, 897-910.
- D25.** D. Popescu, S. Ion, A. I. Popescu and **L. Movileanu**, 2003, Elastic properties of bilayer lipid membranes and pore formation, *Invited review article*, In: *Membrane Science and Technology Series (vol. 7), Planar Lipid Bilayers (BLMs) and Their Applications*, H. Ti Tien and A. Ottova (Eds.), Elsevier Science Publishers, Amsterdam, pp. 173-204.
- D24.** S. Avram, **L. Movileanu**, D. Mihailescu, M.-L. Flonta, 2002, Comparative study of some energetic and steric parameters of the wild type and mutants HIV-1 protease: a way to explain the viral resistance, *J. Cell Mol. Med.* **6(2)**, 251-260.
- D23.** **L. Movileanu**, J.M. Benevides and G.J. Thomas, Jr., 2002, Temperature dependence of the Raman spectrum of DNA. II. Raman signatures of premelting and melting transitions of poly(dA)•poly(dT) and comparison with poly(dA-dT)•poly(dA-dT), *Biopolymers* **63(3)**, 181-194.

- D22. L. Movileanu**, J.M. Benevides and G.J. Thomas, Jr., 2002, Determination of Base and Backbone Contributions to the Thermodynamics of Premelting and Melting Transitions in B DNA, *Nucleic Acids Res.* **30(17)**, 3767-3777.
- D21. G. Miles, Jr., L. Movileanu** and H. Bayley, 2002, Subunit composition of a bicomponent toxin: staphylococcal leukocidin forms an octameric transmembrane pore, *Protein Sci.* **11(4)**, 894-902.
- D20. L. Movileanu**, and H. Bayley, 2001, Partitioning of a polymer into a nanoscopic protein pore obeys a simple scaling law. *Proc. Natl. Acad. Sci. USA* **98(18)**, 10137-10141.
- D19. S. Howorka, L. Movileanu**, O. Braha and H. Bayley, 2001, Kinetics of duplex formation for individual DNA strands within a single protein nanopore. *Proc. Natl. Acad. Sci. USA* **98(23)**, 12996 - 13001.
- D18. L. Movileanu**, S. Cheley, S. Howorka, O. Braha and H. Bayley, 2001, Location of a constriction in the lumen of a transmembrane pore by targeted covalent attachment of polymer molecules. *J. Gen. Physiol.* **117(3)**, 239-251.
- D17. L. Movileanu**, S. Howorka, O. Braha and H. Bayley, 2000, Detecting protein analytes that modulate transmembrane movement of a polymer chain within a single protein pore. *Nature Biotechnol.* **18(10)**, 1091-1095.
- D16. S. Howorka, L. Movileanu**, X. Lu, M. Magnon, S. Cheley, O. Braha and H. Bayley, 2000, A protein pore with a single polymer chain tethered within the lumen. *J. Am. Chem. Soc.* **122(11)**, 2411-2416.
- D15. D. Popescu, L. Movileanu**, S. Ion and M.-L. Flonta, 2000, Hydrodynamic effects on the solute transport across endothelial pores and hepatocyte membranes, *Phys. Med. Biol.* **45(11)**, N157-N165
- D14. L. Movileanu**, I. Neagoe and M.L. Flonta, 2000, Interaction of the antioxidant flavonoid quercetin with planar lipid bilayers, *Int. J. Pharm.* **205(1-2)**, 135-146
- D13. L. Movileanu**, J.M. Benevides and G.J. Thomas, Jr., 1999b, Temperature Dependence of the Raman Spectrum of DNA. I. Raman Signatures of Premelting and Melting Transitions of Poly(dA-dT).Poly(dA-dT), *J. Raman Spectrosc.* **30(8)**, 637-649.
- D12. J.M. Benevides, L. Movileanu** and G.J. Thomas, Jr., 1999, Structure and thermostability of DNA containing A-T pairs in alternating and non-alternating sequences: investigation of premelting, melting and postmelting phenomena by Raman spectroscopy. *J. Biomol. Struct. Dyn.* **16(6)**, 1331-1332.
- D11. L. Movileanu**, 1999, A rapid method for the evaluation of the ionic permeabilities across epithelial cell membranes. *J. Biochem. Biophys. Methods* **38(3)**, 209-215.
- D10. L. Movileanu** and D. Popescu, 1998, A theoretical model for the association probabilities of saturated phospholipids from two-component bilayer lipid membranes. *Acta Biotheor.* **46(4)**, 347-368.
- D9. L. Movileanu**, 1998, The cell model of the electrolyte transport mechanisms for cultured human colonocytes. Electromotive forces of the cellular pathways. *Bioelectrochem. Bioenerg.* **44(2)**, 169-176.
- D8. L. Movileanu**, M.L. Flonta, D. Mihailescu and P.T. Frangopol, 1998, Characteristics of ionic transport processes in fish intestinal epithelial cells. *BioSystems* **45(2)**, 123-140.

- D7. L. Movileanu**, D. Popescu and M.L. Flonta, 1998, The hydrophobic acyl-chain effect in the lipid domains appearance through phospholipid bilayers. *J. Mol. Struct. (THEOCHEM)* **434(3)**, 213-227.
- D6. D. Popescu**, **L. Movileanu**, G. Victor and G. Turcu, 1997, Stability and instability properties of aggregation of single-chain amphiphiles into binary mixtures. *Bull. Math. Biol.* **59(1)**, 43-61.
- D5. L. Movileanu**, D. Popescu, G. Victor and G. Turcu, 1997, Selective association of phospholipids as a clue for the passive flip-flop diffusion through bilayer lipid membranes, *BioSystems* **40(3)**, 263-275.
- D4. L. Movileanu**, 1996, On the electrolyte transport mechanisms through fish intestinal cells. A computer study. *Bioelectrochem. Bioenerg.* **40(2)**, 261-265.
- D3. L. Movileanu** and D. Popescu, 1996, Global ratio of efficiency in a single chain binary mixture. *J. Biol. Systems* **4(3)**, 425-432.
- D2. L. Movileanu** and D. Popescu, 1995b, Differential length effects into a binary mixture of single-chain amphiphiles in planar monolayers. A three-dimensional approach. *BioSystems* **36(1)**, 43-53.
- D1. L. Movileanu** and D. Popescu, 1995a, Aspects of self- and cross-association hydrophobicity in a single-chain binary mixture. A computer study. *Acta Biochim. Polon.* **42(1)**, 89-96.