



## Informații personale

Nume / Prenume **Popescu Gh. Dumitru**  
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 Naționalitate Română  
 Data nașterii 26.10.1947  
 Sex Masculin

## Experiența profesională

<p><b>Perioada</b></p> <p>Funcția sau postul ocupat</p> <p>Activități și responsabilități principale</p> <p>Numele și adresa angajatorului</p> <p>Tipul activității sau sectorul de activitate</p>	<p>1.09.2001 – prezent</p> <p>Cercetător științific gradul I</p> <p>Biomatematica; Bionanotehnologie; Rețele neuronale artificiale; Elasticitatea biomembranelor; Lipozom pulsatoriu.</p> <p><b>Institutul de Statistică Matematică și Matematică Aplicată „Gh. Mihoc-C. Iacob” București</b>, Departamentul de Modelare Matematică în Științele Mediului și Vieții, Academia Română. Str. 13 Septembrie, nr.13, sector 5, 050711, Bucuresti,</p> <p>Cercetare stiintifica</p> <p><b>Director interimar</b> (1.04. 2008-30.06.2008)</p>
<p><b>Perioada</b></p> <p>Funcția sau postul ocupat</p> <p>Activități și responsabilități principale</p> <p>Numele și adresa angajatorului</p> <p>Tipul activității sau sectorul de activitate</p>	<p>01.09.2000 – 31.08.2001; 1.09.2001-1.09.2012 (1/2 norma)</p> <p><b>Profesor universitar asociat</b>. Cercetător științific gradul I.</p> <p>Predare curs „Rețele neuronale artificiale” (2003-2007). Cercetare stiintifica.</p> <p><b>Universitatea din București</b>, Facultatea de Biologie, Catedra de Fiziologie Animala și Biofizică. Spl. Independentei, nr. 91–95, sector 5.</p> <p>Elasticitatea biomembranelor artificiale si naturale; Bionanotehnologie; Neurobiologie; Biologie moleculara; Rețele neuronale artificiale. Sinteze biochimice.</p>
<p><b>Perioada</b></p> <p>Funcția sau postul ocupat</p> <p>Activități și responsabilități principale</p>	<p>01.04.1991– 31.08.2000</p> <p>Cercetator științific gradul II (1.12.1993-31.08.2000) Cercetător științific gradul III (1.04.1991-30.11.1993);</p> <p>Cercetare stiintifica: Biofizica Membranelor; Biologie Moleculara; Microscopie Electronica, Biomatematica</p>

Numele și adresa angajatorului	<b>Sef Laborator de Biofizica Membranelor.</b> <b>Membru al Consiliului Științific</b> <b>Institutul de Biologie, Academia Română.</b> Spl Independentei, 296, sector 6, 060031, Bucuresti
Tipul activității sau sectorul de activitate	Simulare moleculară dinamică. Modelarea transportului prin biomembrane.
<b>Perioada</b>	12.07.1980 – 31.03.1991
Funcția sau postul ocupat	Biofizician principal
Activități și responsabilități principale	Biofizica membranelor biologice și microscopie electronică
Numele și adresa angajatorului	<b>Institutul de Științe Biologice,</b> București
Tipul activității sau sectorul de activitate	<b>Sef Laborator de Microscopie Electronica</b> (1.11.1985-31.03.1991)
<b>Perioada</b>	15.02.1977 – 12.07.1980
Funcția sau postul ocupat	Cercetător științific
Activități și responsabilități principale	Implementarea tehnologiei CANDU pentru centrala nucleara de la Cernavoda
Numele și adresa angajatorului	<b>Institutul de Reactori Nucleari Energetici,</b> str. Campului, nr.1, Mioveni, 115400, jud. Arges.
Tipul activității sau sectorul de activitate	Fizica reactorilor nucleari
<b>Perioada</b>	01.08.1970 – 15.02.1977
Funcția sau postul ocupat	Fizician stagiar (1.08.1970-31.07.1973); Cercetător științific (1.08.1973-15.02.1977)
Activități și responsabilități principale	Fizică nucleară. Surse noi de energie.
Numele și adresa angajatorului	<b>Institutului de Fizică Atomică,</b> str. Atomistilor, nr. 407, Măgurele, 077125, jud. Ilfov.
Tipul activității sau sectorul de activitate	Cercetare experimentală în domeniul reactorilor nucleari
<b>Educație și formare</b>	
<b>Perioada</b>	1982 - noiembrie 1990
Calificarea / diploma obținută	<b>Diploma de doctor în fizică</b> (1990)

Domenii principale studiate/	Fizică - studii doctorale
Numele și tipul instituției de învățământ	<b>Facultatea de Fizică, Universitatea din București</b>
<b>Perioada</b>	1 octombrie 1965 – 30 iunie 1970
Calificarea / diploma obținută	Diplomă de licență
Domenii principale studiate	Fizica nucleara
Numele și tipul instituției de învățământ	<b>Facultatea de Fizică, Universitatea din București</b>
<b>Perioada</b>	15 septembrie 1961 – 30 iunie 1965
Calificarea / diploma obținută	Diplomă de maturitate
Domenii principale studiate	Studii liceale
Numele și tipul instituției de învățământ	<b>Liceul „Emanuil Gojdu”, Oradea</b>
<b>Perioada</b>	15 sept. 1954 – iunie 1961
Numele și tipul instituției de învățământ	Scoala generala din com. Danciulesti, jud. Gorj
<b>Aptitudini și competențe personale</b>	
Limbi straine cunoscute	Engleza, franceza
Competenta calculator	Limbaje de programare: FORTRAN, C <sup>++</sup> . Programe pentru calculator: MATLAB, ORIGIN
<b>Proiecte internaționale</b>	<ol style="list-style-type: none"> <li>1. Proiect ROMLISS Institutul de Biologie, Bucuresti, Univ. Nottingham, Experimental and theoretical studies of ion transport across natural and artificial membranes, 1993–1995, Director partea română;</li> <li>2. Contr.nr.3452.19.05.2015/IBB:nr.1788/19.05.2015.Grant finantat: Islanda, Liechtenstein, Norvegia. <b>Sistem național de monitorizare pe termen lung a bioacumulării metalelor grele aeropurtate (BIOMONRO)</b> din Programul RO04 ”Reducerea substantelor periculoase”.Expert statistica</li> </ol>

<b>Proiecte/ contracte naționale</b>	<ul style="list-style-type: none"> <li>– 6 contracte de cercetare la IFA-Magurele si IRNE-Pitesti, 1975–1980. <b>Responsabil;</b></li> <li>– 6 contracte de cercetare la Institutul de Științe Biologice București, 1980–1986. <b>Responsabil;</b></li> <li>– <b>Program de cercetare;</b> MEI, Rolul interacțiunilor localizate la interfetele de separare a fazelor din biomembrane asupra transportului ionic, 1991–1995, <b>Director.</b></li> <li>– 6 granturi de cercetare [CNCSU-MEI(1), 1995; Academia Romana (2), 1996–1998; ANSTI (1), 1999–2000; MEC/CNCSIS(1), 2011-2002] Tema: Interacțiuni intermoleculare in biomembrane; Proprietati elastice si formarea porilor lipidici transmembranari; Fluctuatii ale grosimii si miscari termice colective in bistraturi lipidice plane si sferice. <b>Director.</b></li> <li>– <b>Proiect 50A1-687/2003, CNCSIS, 2003–2005; 344/10.2004 PNCDI-VIASAN, 2004–2006</b> Studiul interacțiunii substantelor farmacologice din clasa flavonoide lor si polifenolilor cu membrane artificiale; mecanisme ale depresiei si anxietatii prin metode de simulare moleculara, 2003–2005 <b>Director.</b></li> </ul>
<b>Activitate didactica</b>	<ul style="list-style-type: none"> <li>– Laborator de Biofizică, 1982 – 1983, Universitatea din București, Facultatea de Biologie.</li> <li>– Conducator științific pentru lucrari de licență: 1991 – 1997, Facultatea de Biologie, Universitatea din București 1993 – 1997, Facultatea de Fizică, Universitatea din București</li> <li>– Selecționare și îndrumare pentru specializare la Universitatea din Nottingham, Anglia, 1993 – 1995, Facultatea de Fizică, Facultatea de Biologie, Universitatea din București.</li> <li>– Cursul de biofizică și metabolism, 1996 – 1997, Facultatea de Biologie, Universitatea din București</li> <li>– Cursul de rețele neuronale artificiale (program de master, neurobiologie) 2003–2006, Facultatea de Biologie, Universitatea din București.</li> <li>– <b>Conducator de doctorat</b> in cadrul Universitatii din Bucuresti, domeniul “Științele Naturii” din anul 2004.</li> <li>– Membru in 40 comisii de referenti pentru sustinerea publica a tezei de doctorat.</li> </ul>
<b>• Publicații:</b>	<ul style="list-style-type: none"> <li>– 2 cărți: Editutura Universitatii din Bucuresti, 2009; Editura Lambert Academic Publishing, Germania, 2012</li> <li>– 4 capitole în cărți publicate de edituri straine;</li> <li>– 9 capitole în carti publicate de edituri românești;</li> <li>– 105 articole publicate în reviste cu referenti;</li> <li>– 26 articole publicate în proceedings;</li> <li>– 141 abstracte în volumele unor conferințe, congrese internaționale, conferinte interne;</li> </ul>
<b>Premii si distinctii</b>	<ul style="list-style-type: none"> <li>• Premiul „<b>Emil Racovita</b>” al Academiei Romane pentru anul 1990</li> </ul>

<b>Informatii suplimentare</b>	<ul style="list-style-type: none"> <li>• Fondator al revistei „Romanian Journal of Biophysics”</li> <li>• Membru al unor societati stiintifice: Societatea Romana de Biofizica Pura si Aplicata; Societatea Romana de Fizica; Societatea Romana de Biologie Celulara,</li> <li>• Expert evaluator pentru proiecte de cercetare stiintifica: CNCSIS; ANCS.</li> <li>• Index Hirsch:14</li> <li>• Citari: 555</li> </ul>
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## LIST OF PUBLICATIONS

### A. Doctoral thesis

**D. Popescu** 1990. Cercetari privind formarea, stabilitatea si proprietatile bioagregatelor supramoleculare membranare. Facultatea de Fizica, Universitatea din Bucuresti.

### B. Books

**1. Dumitru Popescu**, Maria Luiza Flonta. Teoria retelelor neuronale artificiale. Vol. I. Editura Universitatii din Bucuresti, Bucuresti, pp. 264, 2009.

**2. Dumitru Popescu**. The pulsatory lipid vesicle dynamics under osmotic stress. **Lambert Academic Publishing and AV Akademikerverlag, Saarbruecken, Germany, 2012. (ISBN 978-3-659-11086-3)**

### C. Articles or chapters in peer-reviewed collective volumes

**1. Dumitru Popescu**, Liviu Movileanu, Stelian Ion, Aurel Popescu. Elastic properties of bilayer lipid membranes and pore formation. *Invited review paper*. In: **Membrane Science and Technology “Planar Lipid Bilayers (BLMs) and Their Applications.” Chapter 5, Vol. 7.** Eds.: H. T. Tien and A. Ottova, Elsevier Science, Amsterdam. pp. 173–204, 2003.

**2. Liviu Movileanu, Dumitru Popescu**. The birth, life and death of statistical pores into a bilayer membrane. *Invited review paper*. **Recent Research Developments in Biophysics. Chapter 4, Vol. 3** Part I. Ed. S. G. Pandalai, Transworld Research Network, International Publisher of Review Books in all Areas of Science, Kerala, pp.61-86, 2004.

**3. Dumitru Popescu**, Liviu Movileanu, Alin Gabriel Popescu. The behaviour of the closed lipidic bilayer under osmotic stress. *Invited review paper*. Mathematical Biology Research Trends. Chapter 11, Ed: Lachlan B. Wilson, Nova Science Publishers, NY, pp. 275–294, 2008.

**4. Ionela Mirela Neagoe, D. Popescu**, L. Lazar, V. I. R. Niculescu, S. Miclos. Human cryptosporidiosis: species, subgenotypes, differences in pathogenity and clinical manifestations and mathematical methods for DNA sequence analysis. *Invited chapter*. **Advances in Medicine and Biology. Chapter 7, Vol. 103**, Ed. Leon V. Berhardt, Nova Science Publishers, NY, pp. 105-166, 2016.

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5. Rodica Dumitrescu, Marin Andrei, **Dumitru Popescu**. The assesement of radiosensitivity of root interphase cells in *Phaseolus Vulgaris* L.. **In: Current Problems and Techniques in Cellular and Molecular Biology**. Eds. C. Craciun and A. Ardelean, Mirton Timisoara, pp 571-574, 1996.

6. **Dumitru Popescu**. Drumul parcurs in viata, pana la absolvirea liceului. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.1. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 222–233, 2011.

7. **Dumitru Popescu**. Dumnezeu este fizician. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.2. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 221–235, 2012.

8. **Dumitru Popescu**. Dialectica fizicii: De la Esop la Lipozomul Pulsatoriu. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.2. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 232–241, 2012.

9. **Dumitru Popescu**. Un altfel de interviu. Addendum-1. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 238–260, 2015.

10. **Dumitru Popescu**. Teoria retetelor neuronale artificiale (recenzie). **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 452–458, 2015.

11. **Dumitru Popescu**. Lipozomul pulsatoriu ca un biomicromotor in 2 timpi (recenzie). **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 459–463, 2015.

12. **Dumitru Popescu**. **100 Gojdisti de prestigiu**, pp. 151-153, Aureo, Oradea, 2019

13. **Dumitru Popescu** O lectie de viata la chimie, pp.84, **Revista Colegiului National “Emanuil Gojdu”**, Oradea, Seria a IV-a, Nr.49–50, 2019

## D. Articles in peer-reviewed publications

1. Ali Imran, **Dumitru Popescu**, Liviu Movileanu. Cyclic Activity of an Osmotically Stressed Liposome in a Finite Hypotonic Environment. **Langmuir**, **36**, 3659 – 3666, 2020.

2. Andrei-Dennis Voichitoiu, Florentina Duica, Dumitru Petru Iga, **Dumitru Popescu**, Dragos Cretoiu, Nicolae Suci. Alteration of biochemical balance of amphiphilic compounds by partial reduction and methylation. **Revista de chimie**, 2020 (in press)

3. Liviu Gr. Ixaru, **Dumitru Popescu**, A mathematical investigation on the active substance pulsatory release from a solution-charged liposome. **BioSystems**, **179**, 48–54, 2019.

4. Dumitru Petru Iga, **Dumitru Popescu**, Silvia Gatman. Alternate modulation of biological activity of stress molecule,  $\beta$ -d-glucopyranosyl-cholesterol, by chemical modification of sugar moiety. Hypotheses concerning biochemical meaning of the new glycosides. **Revista de chimie**, **70(11)**, 3987–3990, 2019.

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5. **Dumitru Popescu**, Alin Gabriel Popescu. The influence of the external bath on the number of cycles of a lipid unilamellar vesicle under hypotonic conditions. *Romanian J. Biophys.* **28(4)**, 159–170, 2018.
  
  6. D. P. Iga, **D. Popescu**, Florentina Duica. Utilizarea exoglicozidazelor pentru analiza a doua substrate enzimatiche noi,  $\beta$ -D-xilopiranozil-4-nitrocatechina-1-il si  $\alpha$ -lactosil-4-nitrocatechina-1-il. *Revista de chimie*, **68(8)**, 1771–1776, 2017.
  
  7. Valentin Ion Remus Niculescu, **Dumitru Popescu**, Ramona Anton, Liana Sandru. A new family of Woods – Saxon potentials with complex poles. *Romanian. J. Phys.*, **61** (9-10), 1513–1518, 2016.
  
  8. **Dumitru Popescu**, Sorin Miclos, Iuliana Pasol, Valentin Ion Remus Niculescu. Wavelet and short time Fourier transformations - two complementary methods for spectral analysis of muscle electrical activity. *Romanian Reports in Physics*, **68** (2), 486–496, 2016.
  
  9. Ecaterina Maries, Alin Gabriel Popescu, **Dumitru Popescu**. The pulsatory liposomes releasing of the neurotransmitters inside to interneuronal synaptic cleft may be a possible device for the depression treatment. *Romanian J. Biophys.* **25** (2), 117–129, 2015.
  
  10. **D. Popescu**, Iuliana Pasol, S. Miclos. Spectral analysis of electrical activity of the triceps branchii muscle contraction. *Romanian J. Biophys.* **25(1)**, 35–45, 2015.
  
  11. Iuliana Paşol, D.-C. Irimia, **D. Popescu**. Correlations between muscle contraction and bone electrical activity. *Romanian J. Biophys.* **24(3)**, 185–197, 2014.
  
  12. Ionela Mirela Neagoe, **D. Popescu**, V.I.R. Niculescu. Applications of entropic divergence measures for DNA segmentation into high variable regions of *Cryptosporidium* spp. Gp60 gene. *Romanian Reports in Physics*, **66(4)**, 1078–1087.
  
  13. Ionela Mirela Neagoe, **D. Popescu**, V.I.R. Niculescu. Alternative methods for statistical characterization and quantification of *Cryptosporidium* spp. gp60 gene variability. *Romanian Reports in Physics*, **66(3)**, 683–692, 2014.
  
  14. Ionela Mirela Neagoe, S. Miclos, **D. Popescu**, D. Savastru, V.I.R. Niculescu, M. Damian, L. Lazar, S. Dontu, M. Tautan. Wavelet spectrogram - based DNA analysis for the assessment of *Cryptosporidium* spp. Gp60 subgenotypes variation. *Optoelectron. Adv. Mater.-Rapid Comm.* **8** (7–8), 814–819 2014.
  
  15. Ionela Mirela Neagoe, S. Micloş, **D. Popescu**, D. Savastru, D. Steriu, S. Dontu, V.I.R. Niculescu, M. Tautan. DNA structural information from *Giardia intestinalis* tpi gene assemblages using the wavelet spectrogram analysis. *J. Optoelectron. Adv. Mater.* **16** (3–4), 408–413, 2014.
  
  16. Iuliana Pasol, D-C. Irimia, **D. Popescu**. Electrical activity in bone: comparative research made to active persons versus sedentary persons. *Discobolul* **1(37)**, 46-51, 2013.
  
  17. D. Popescu, **A. G. Popescu**. Determination of the parameters characterizing a cycle of the pulsatory vesicle. *Romanian J. Biophys.* **21(2)**, 125–138, 2011.
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18. A. G. Popescu, **D. Popescu**, B. Amuzescu, S. Ion. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. III. The liposome relaxing. *Romanian J. Biophys.* **20(3)**, 223–234, 2010.
19. **D. Popescu**, A. G. Popescu, B. Amuzescu, E. Maries. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. II. The pore appearance. *Romanian J. Biophys.* **20(2)**, 171–181, 2010.
20. **D. Popescu**, A. G. Popescu, B. Amuzescu. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. I. The liposome swelling. *Romanian J. Biophys.* **20 (1)**, 37–46, 2010.
21. **Dumitru Popescu**, Mathematical modelling of the pulsatory lipid vesicle dynamics under osmotic stress. *Proceedings of the Romanian Academy, Series A*, **11(2)**, pp. 108–115, 2010.
22. **Dumitru Popescu**, Dumitru Petru Iga. Transmembranare Delivery of Biological Active Substances by Pulsatory Liposomes. *Rev. Chim.* **61(1)**, 78–81, 2010.
23. **Dumitru Popescu**, Alin Gabriel Popescu. The working of a pulsatory liposome. *J. Theor. Biol.*, **254**, pp. 515–519, 2008.
24. L. Movileanu, **D. Popescu**, S. Ion, A. Popescu. Transbilayer pores induced by thickness fluctuations. *Bulletin of Mathematical Biology.* **68(6)**, 1231–1255, 2006.
25. **Dumitru Popescu**, Corneliu Nicolae Zaharia. Mathematical modelling of the drug delivery by liposomes used as carriers to the target place, *Studies and Researches in Virology*, **36(2)**, 133–137, 2006.
26. C.N. Zaharia, **D. Popescu**. Docking simulation of hypericine molecule on a supposed active site of serotonin transporter, *Studies and Researches in Virology*, **36(1)**, 45–51, 2006.
27. **D. Popescu**, C.N. Zaharia, I. Stelian, M.L. Flonta. Compensation of the neurotransmitters deficiency in the synaptic cleft. *Romanian J. Biophys.* **16(3)**, 189–204, 2006.
28. **D. Popescu**, I. Stelian, A.G. Popescu, Nicoleta Neacșu, Maria Luiza Flonta. The effect of lipid bilayer hydration on transbilayer pores appearance. *Romanian J. Biophys.* **16(1)**, 39–56, 2006.
29. **D. Popescu**, C.N. Zaharia, Ecaterina Maries, The role of structurale simmetry of some molecules inserted in lipidic bilayer. *Studies and Researches in Virology*, **35(2)**, 173–178, 2005.
30. Beatrice Macri, **D. Popescu**, Maria-Luiza Flonta, Gheorghe Stoian. The effect of hypericine molecules on lipidic membranes. *Studies and Researches in Virology*, **35(1)**, 57–63, 2005.
31. C.N. Zaharia, **D. Popescu**, M. Stoian. New methods to study some basic mechanisms of neuropsychiatric disorders. *Studies and Researches in Virology*, **34(1)**, 63–69, 2004.
32. B. Amuzescu, S. Ion, **D. Popescu**, L. Movileanu, Beatrice Macri, Maria-Luiza Flonta. Thermal group motion creates stochastic pores in plane phosphatidylcholine bilayers. *Romanian J. Biophys.* **12(1–2)**, 37–52, 2002.
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- 33. D. Popescu**, S. Ion, Maria Luiza Flonta, Appearance of pores through black lipid membranes due to collective thermal movement of lipid molecules, *Annals of Bucharest University*, **2**, anul **L**, 185–192, 2001.
- 34. D. Popescu**, S. Ion, L. Movileanu, Florentina Pluteanu, Speranța Avram, Maria-Luiza Flonta. Elastic Waves Induce The Appearance of pores in a lipid bilayer membrane. *Romanian J. Biophys.***11(3–4)**, 163–170, 2001.
- 35. Dumitru Popescu**, Carol Prunescu, Paula Prunescu. Substances transport through endothelial pores owing to hydrodynamic effects in sinusoids of rat liver. *Romanian J. Biophys.* **11(1–2)**, 65–73, 2001.
- 36. Rodica Dumitrescu**, **D. Popescu**, M. Andrei. The gamma radiation effect on cells of two zones of *Allium Sativum* L. root after radioprotective chemical treatment. *Romanian J. Biophys.* **10(1–2)**, 68–78, 2000.
- 37. D. Popescu**, Maria–Luiza Flonta, S. Ion. Attraction energy through van der Waals–London dispersion forces between coplanar unparallel linear hydrophobic chains. *Romanian J. Biophys.* **10(1–2)**, 83–88, 2000.
- 38. Irina Holobiuc**, Marian Verzea, Elena Marcela Badea, **Dumitru Popescu**. Studiul embriogenezei polinice la formele parentale si la hibrizii F<sub>1</sub> de grau rezultati din incrucisarea dialela (6x6). *Researches of Vegetale and Animal Genetic*, **6**, 225–235, 2000.
- 39. D. Popescu**, L. Movileanu, S. Ion, Maria–Luiza Flonta. Hydrodynamic effects on the solutes transport across endothelial pores and hepatocytes membranes. *Physics in Medicine and Biology*, **45(11)**, 157–165, 2000.
- 40. Dumitru Popescu**, Victor Gheorghe, Romeo Popa, Mihai Ionescu. The dynamic simulation of a phospholipid molecule in a lipid bilayer. *Romanian J. Biophys.* **9(3–4)**, 197–210, 1999.
- 41. Rodica Dumitrescu**, **D. Popescu**, M. Andrei. The combined effect of gamma radiation of Co<sup>60</sup> with different chemical on the cell of the radicular vegetative tip of *Allium sativum* L. *Rev. Roum. Biol.* **44(1–2)**, 63–70, 1999.
- 42. Romeo Popa**, **Dumitru Popescu**. Obtaining mean diameter of spherical vesicles or nuclei from photographs of their cross sections. *Rev. Roum. Biochim.* **36(1–2)**, 53–56, 1999.
- 43. Liviu Movileanu**, **Dumitru Popescu**. A theoreticaal model for the association probabilities of saturated phospholipids from two component biological lipid membranes. *Acta Bioteoretica*, **46(4)**, 347–368, 1999.
- 44. Rodica Dumitrescu**, M. Andrei, **D. Popescu**. The assessment of radiosensitivity of root interphase cells in *Allium Sativum* L.. *Acta Horti Botanici Bucurestiensis*, **27**, 87–92, 1998.
- 45. L. Movileanu**, **D. Popescu**, Maria – Luiza Flonta. The hydrophobic acylchain effect in the lipid domains appearance through phospholipid bilayers. *J. of Molecular Structure (THEOCHEM)*, **434(1-3)**, 213-227, 1998.
- 46. D. Popescu**, V. Gheorghe, R. Popa, C. N. Zaharia. The dynamic simulation of a phospholipid molecule in a lipid bilayer. *Romanian J. Biophys.* **8** 1998
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