

List of publications- Dr. Roxana-Diana Pașca

a) Articles:

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1. Adrian Calborean Alia Colniță, Ioana Grosu, Ioana Brezeștean, **Roxana-Diana Pașca**, Lucian Tudoran-Barbu, Daniel Marconi, “The adhesion of L-methionine amino acid through Dip Pen Nanolithography on silver thin films grown by Molecular Beam Epitaxy technique”, *Journal of Molecular Structure*, **2021**, 1244, 131247.
2. Alia Colniță, Daniel Marconi, Ioana Brezeștean, **Roxana-Diana Pașca**, Irina Kacso, Lucian Barbu-Tudoran, Ioan Turcu, “High-Throughput Fabrication of Anti-Counterfeiting Nanopillar-Based Quick Response (QR) Codes Using Nanoimprint Lithography”, *Analytical Letters*, **2020**, 54 (1-2), 302-313.
3. Dragos Apostu, Ondine Lucaciu, Alexandru Mester, Daniel Oltean-Dan, Mihaela Baciut, Grigore Baciut, Simion Bran, Florin Onisor, Andra Piciu, **Roxana-Diana Pașca**, Andrei Maxim, Horea Benea, “Systemic drugs with impact on osteoarthritis”, *Drug Metabolism Reviews*, **2019**, 51 (4), 498-523.
4. Ossi Horovitz, **Roxana-Diana Pașca***, „Classification of amino acids by multivariate data analysis, based on thermodynamic and structural characteristics”, *Studia Universitatis Babeș-Bolyai- Chemia*, **2017**, 62 (2), 19-31.
5. Horea Benea, Gheorghe Tomoaia, Olga Sorițău, **Roxana-Diana Pașca***, „A review on the reconstruction of articular cartilage using collagen scaffolds”, *Romanian Biotechnological Letters*, **2016**, 21 (4), 11720-11728.
6. **Roxana-Diana Pașca**, Gheorghe Tomoaia, Aurora Mocanu, Ioan Petean, Alexandra-Gertrud Păltinean, Olga Sorițău, Maria Tomoaia-Cotișel, „Porous collagen scaffolds for bone regeneration”, *Studia Universitatis Babeș-Bolyai- Chemia*, **2015**, 60 (3), 257-264.
7. **Roxana-Diana Pașca**, Aurora Mocanu, Simona Cobzac, Ioan Petean, Ossi Horovitz, Maria Tomoaia-Cotișel, “Biogenic syntheses of gold nanoparticles using plant extracts”, *Particulate Science and Technology*, **2014**, 32 (2), 131-137.
8. Aurora Mocanu, **Roxana-Diana Pașca**, Gheorghe Tomoaia, Corina Garbo, Petre Frangopol, Ossi Horovitz, Maria Tomoaia-Cotișel, “New procedure to synthesize silver nanoparticles and their interaction with local anesthetics”, *International Journal of Nanomedicine*, **2013**, 8, 3867-3874.
9. Aurora Mocanu, **Roxana-Diana Pașca**, Gheorghe Tomoaia, Antonis Avranas, Ossi Horovitz, Maria Tomoaia-Cotișel, “Selective effect of procaine, tetracaine and dibucaine on gold nanoparticles”, *Journal of Nanoscience and Nanotechnology*, **2012**, 12 (12), 8935-8939.
10. Maria Tomoaia-Cotișel, **Roxana-Diana Pașca**, Ossi Horovitz, Aurora Mocanu, “Surface Potentials of Cholesterol and Dimyristoyl Phosphatidylcholine Monolayers at the Air-Water Interface”, *Revue Roumaine de Chimie*, **2011**, 56 (10-11), 1047-1053.
11. Csaba Pal Racz, **Roxana-Diana Pașca**, Szabolcs Santa, Irina Kacso, Gheorghe Tomoaia, Aurora Mocanu, Ossi Horovitz, Maria Tomoaia-Cotișel, „Inclusion Complex of β -Cyclodextrin and Quercetin. Thermodynamic Approach”, *Revista de Chimie*, **2011**, 62 (10), 992-997.

12. Aurora Mocanu, **Roxana-Diana Pașca**, Ossi Horovitz, Maria Tomoaia-Cotișel, "Behavior of Mixed DMPC-Cholesterol Monolayers at the Air-Water Interface", *Studia Universitatis Babeș-Bolyai- Chemia*, **2010**, 55 (2), 303-312.

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13. **Roxana-Diana Pasca**, Titus Adrian Beu, "Some Aspects of Thermodynamic Properties of Ethylenimine and Ethylene Glycol Linear Polymers", *Studia Universitatis Babeș-Bolyai, Physica*, **2019**, 1, 83-90.

14. Gheorghe Tomoaia, **Roxana-Diana Pașca***, „On the collagen mineralization. A review”, *Clujul Medical*, **2015**, 88 (1), 15-22.

15. **Roxana-Diana Pașca**, Ossi Horovitz, Aurora Mocanu, Maria Tomoaia-Cotișel, „Self Assemblies of Mixed Lipids at the Air-Water Interface”, *Annals of „Dunarea de Jos” University of Galati, Mathematics, Physics, Theoretical Mechanics*, Fascicle II, Year III (XXXIV), **2011**, pp. 141-147.

b)Proceedings:

16. **Roxana-Diana Pașca**, Atena Moldovan, Ossi Horovitz, Alexandru Lupan, "On the thermodynamic of triazines. A DFT and topological study", *International Journal of Computational Physics Series*, **2018**, 1 (1), 12-12.

17. **Roxana-Diana Pasca***, Szabolcs Santa, Levente Zsolt Racz, Csaba Pal Racz, "Metal nanoparticles (other than gold or silver) prepared using plant extracts for medical applications", *SPIE Proceedings Publications, in Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII*, (Edited by Marian Vladescu, Razvan Tamas, Ionica Cristea), Proceedings of SPIE Vol. 10010 (SPIE, Bellingham, WA, **2016**), Article ID 10010 0A, ISSN: 0277-786X.

18. **Roxana-Diana Pasca**, Aurora Mocanu, Gheorghe Tomoaia, Santa Szabolcz, Csaba Racz, Ossi Horovitz, Maria Tomoaia-Cotisel, "Interaction of lipid Langmuir monolayers with propranolol", *Romanian Journal of Biochemistry*, **2014**, 51 (S) p 81, ISSN 1582-3318.

19. **Roxana-Diana Pașca**, Maria Tomoaia-Cotișel, Ossi Horovitz, Aurora Mocanu, "Cholesterol and Dimyristoyl Phosphatidylcholine Monolayers at the Air-Water Interface. Structural and Thermodynamic Characterization", in *Proceedings of the Humboldt-Kolleg "Knowledge, Culture, Science. The Fundament of Quality of Life in Society"*, Ioana Ionel, Speranta Stanescu, Daniel Vizman (Editori), Editura Politehnica Timișoara, Colecția Conferințe, **2011**, pp. 196-202, ISBN 978-606-554-314-0.

20. **Roxana-Diana Pașca**, Oana-Alexandra Rusu, "Studies on the Behavior of Gold Nanoparticles at the Air-Water Interface", in *Proceedings of the 9th National Symposium on Colloids and Surface Chemistry*, Galați, Romania, 29-30 May **2008**, Galați University Press, pp. 129-132, ISSN 2065-3603.

c)PhD thesis:

„Nanostructuri lipidice în prezența unor biomolecule solubile în apă sau a unor nanoparticule metalice de aur sau argint”, 20 September 2013: Scientific committee: Prof. Dr. Maria Tomoaia-Cotișel-

Scientific advisor, Prof. Dr. Ing. Mircea Dărăbanțu, Prof. Dr. Minodora Leca, Prof. Dr. Elena Maria Pică, Prof. Dr. Ossi Horovitz.

Conferences:

-abroad:

1. **Roxana-Diana Pașca**, Titus-Adrian Beu, “Thermodynamic properties of linear and branched polyethylenimine”, Quantum Thermodynamics conference: QTD2019, **Aalto University, Helsinki-Espoo, Finland, 23-28 June 2019** (participant Roxana-Diana Pașca).
2. Ioana Brezestean, Daniel Marconi, Alia Colniță, **Roxana-Diana Pasca**, Andreea Alexandra Măinea, Nicoleta Levința, Ioan Turcu, “2D Structures in Full-Biobased Polyamide Nanocomposites Characterized by Raman Spectroscopy”, 4th International Turkish Congress on Molecular Spectroscopy (TURCMOS 2019), **Kusadasi, Aydın, Turkey, 5-9 August 2019** (participants: Ioana Brezestean and Alia Colniță).
3. Atena Moldovan, **Roxana-Diana Pașca**, “Rhombic polyhedra of propellanic nature for thermodynamic studies”, 7th Rostocker International Conference: “Thermophysical Properties for Technical Thermodynamics, Institute of Technical Thermodynamics, **University of Rostock, Germany, 26-27 July, 2018** (poster presentation by Roxana-Diana Pașca).
4. **Roxana-Diana Pașca**, Atena Moldovan, Ossi Horovitz, Alexandru Lupan, “On the thermodynamic of triazines. A DFT and topological study”, International Conference on Computational Materials Science and Thermodynamic Systems (CMST 2018), Wolfson College. **University of Cambridge, United Kingdom, 22-23 March 2018**, (oral presentation by Roxana-Diana Pașca).
5. **Roxana-Diana Pașca**, Firuta Goga “The thermodynamic of the calcium trialuminate formation”, XXI International Conference on Chemical Thermodynamics in Russia (RCCT-2017), Akademgorodok, **Novosibirsk, Russia, 26-30 June, 2017** (poster presentation-virtual participation).
6. Emőke Volentiru, Réka Csutak, **Roxana-Diana Pașca**, Norbert Nagy, Zoltán Hórvölgyi, “Silica coatings with controlled morphology”, *10th Conference on Colloid Chemistry (10CCC)*, **Budapest, Hungary, 29-31 August, 2012** (oral presentation by Emőke Volentiru).
7. Aurora Mocanu, **Roxana-Diana Pașca**, Gheorghe Tomoaia, Ossi Horovitz, Maria Tomoaia-Cotișel, “Structural and Thermodynamic Characterization of Cholesterol and Dimyristoyl Phosphatidyl Choline Monolayers at the Air/Water Interface”, *14th International Conference on Organized Molecular Films (ICOMF 14-LB 14)*, **Paris, France, 10-13 July, 2012** (poster).
8. **Roxana-Diana Pașca**, “The interaction of cholesterol-DMPC mixed monolayers and type I collagen. Langmuir-Blodgett technique and AFM approach”, *2nd EBSA BIOPHYSICS COURSE ON: Membrane Biophysics and Lipid-Protein Interaction*, **Bordeaux-Lacanau, France, 24-29 June, 2012**, (oral presentation).
9. **Roxana-Diana Pașca**, Réka Csutak, Norbert Nagy, Emőke Volentiru, Zoltán Hórvölgyi, “SiO₂ thin films containing Stöber silica particles: structural, optical and wettability properties”, *Conference of Chemical Engineering 2012, Veszprem, Hungary, 24-26 April, 2012* (oral presentation by **Roxana-Diana Pașca**).

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10. Roxana-Diana Pașca, Tonia Mariarosaria Di Palma, Attila Bende, “Rydberg-type electronic excited states in sodium-doped water clusters”, 13th International Conference, Process in Isotopes and Molecules, Cluj-Napoca, Romania, 22-24 September **2021** (poster).

11. Daniel Marconi, Alia Colniță, Ioana Brezeștean, **Roxana-Diana Pașca**, Lucian Barbu-Tudoran, Ioan Turcu, “High quality anti-counterfeiting labels fabricated on flexible thermoplastic substrates using nanoimprint lithography”, 12th International conference Processes in Isotopes and Molecules (PIM), Cluj-Napoca, Romania, 25-27 September, **2019** (poster).

12. Alia Colniță, Daniel Marconi, Ioana Brezeștean, **Roxana-Diana Pașca**, Lucian Barbu-Tudoran, Ioan Turcu, “High-throughput fabrication of anti-counterfeiting nanopillar-based quick response codes”, 12th International conference Processes in Isotopes and Molecules (PIM), Cluj-Napoca, Romania, 25-27 September, **2019** (poster).

13. Ioana Brezestean, Daniel Marconi, Alia Colniță, **Roxana-Diana Pasca**, Andreea Alexandra Măinea, Nicoleta Levința, Ioan Turcu, “Raman analysis- perspective for innovative polyamide composites”, 12th International conference Processes in Isotopes and Molecules (PIM), Cluj-Napoca, Romania, 25-25 September, **2019** (poster).

14. Roxana-Diana Pasca, Titus Adrian Beu, “Thermodynamic aspects of ethylenimine and ethylene glycol polymers”, Molecular Modeling in Chemistry and Biochemistry (MOLMOD 2018), **Cluj-Napoca, Romania**, 28-30 October, **2018** (poster).

15. Roxana-Diana Pasca, Alexandru Lupan, “Thermodynamic investigation of tautomerism in triazine oximes”, Molecular Modeling in Chemistry and Biochemistry (MOLMOD 2016), **Cluj-Napoca, Romania**, 13-15 November, **2016** (poster).

16. Horea Benea, Aurel Muste, Cristian Berce, Olga Soritau, **Roxana-Diana Pasca**, Gheorghe Tomoaia, “One step reconstruction of articular cartilage using collagen scaffolds and autologous cells - our experience”, 7th International Conference “Biomaterials, Tissue Engineering & Medical Devices”, (BIOMMEDD’2016), **Constanta, Romania**, 15-17 September, **2016** (oral presentation by Horea Benea).

17. Roxana-Diana Pasca, Ossi Horovitz, “Thermodynamic investigation of some mixed monolayers at the air water interface”, (SISCHEM), **București, Romania**, 8-9 September, **2016** (poster).

18. Roxana-Diana Pasca, Gheorghe Tomoaia, Aurora Mocanu, Ioan Petean, Corina Garbo, Alexandra Gertrud Paltinean, Maria Tomoaia-Cotisel, “The interaction between collagen, hydroxyapatite and APTES. Langmuir-Blodgett and AFM study”, 11 International Conference on Physics of Advanced Materials (ICPAM-11), **Cluj-Napoca, Romania**, 8-14 September, **2016** (poster).

19. Roxana-Diana Pasca, Szabolcs Santa, Levente Zsolt Racz, Csaba Pal Racz, “Metal nanoparticles (other than gold or silver) prepared using plant extracts for medical applications”, 8th Edition of the International Conference “Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies” (ATOM-N 2016), **Constanta, Romania**, 25-28 August, **2016** (oral presentation by **Roxana-Diana Pasca**).

20. Szabolcs Santa, Gheorghe Borodi, Csaba Pal Racz, Levente Racz, **Roxana-Diana Pasca**, Maria Tomoaia-Cotisel, Flavia Martin and Irina Kacso, "Novel co-crystal of Resveratrol with 4,4'-bipyridine: crystal structure and physicochemical properties", 10th International conference *Processes in Isotopes and Molecules (PIM)*, **Cluj-Napoca, Romania**, 23-25 September, **2015** (poster).
21. **Roxana-Diana Pasca**, Gheorghe Tomoaia, Aurora Mocanu, Maria Tomoaia-Cotisel, "Biomimetic collagen scaffolds for cell cultures", 10th International conference *Processes in Isotopes and Molecules (PIM)*, **Cluj-Napoca, Romania**, 23-25 September, **2015** (poster).
22. **Roxana-Diana Pasca**, Szabolcz Santa, Csaba Racz, Ossi Horovitz, Principal component analysis of amino acids, Conference 25 years of promoting molecular life sciences, **Bucuresti, Romania**, 17-18 September, **2015** (poster).
23. Szabolcs Santa, Irina Kacso, Flavia Martin, Gheorghe Borodi, Ioan Bratu, Csaba-Pal Racz, **Roxana Diana Pasca**, Maria Tomoaia-Cotisel, „Physical and chemical characterization of resveratrol new solid forms”, *A XXXIII Conferință Națională de Chimie, Călimănești-Căciulata, Romania*, 01-03 October, **2014** (poster).
24. **Roxana-Diana Pasca**, Maria Tomoaia-Cotisel, Gheorghe Tomoaia, "The formation and characterization of collagen fibers at the air water interface", 6th International Conference "Biomaterials, Tissue Engineering & Medical Devices" (BiomMedD'2014), **Constanta, Romania**, 17-20 September, **2014** (poster).
25. **Roxana-Diana Pasca**, Gheorghe Tomoaia, Aurora Mocanu, Ioan Petean, Alexandra-Gertrud Hosu-Prack, Maria Tomoaia-Cotisel, "Fibrous Structures of Collagen Type I Investigated by Langmuir-Blodgett Technique and AFM", *Advanced Spectroscopies on Biomedical and Nanostructured Systems (BioNanoSpec 2014)*, **Cluj-Napoca, Romania**, 7-10 September, **2014** (poster).
26. **Roxana-Diana Pasca**, Aurora Mocanu, Gheorghe Tomoaia, Santa Szabolcz, Csaba Racz, Ossi Horovitz, Maria Tomoaia-Cotisel, "Interaction of lipid Langmuir monolayers with propranolol", *The Annual International Conference of the RSBMB (Romanian Society of Biochemistry and Molecular Biology)*, **Băile Felix, Oradea, Romania**, 5-6 June, **2014** (poster).
27. **Roxana-Diana Pașca**, Aurora Mocanu, Gheorghe Tomoaia, Ossi Horovitz, Maria Tomoaia-Cotișel, "The interaction between lipids and collagen type I", *11th Conference on Colloid and Surface Chemistry – 11 CCSC, Iasi, Romania*, 09-11 May, **2013** (oral presentation by **Roxana-Diana Pasca**).
28. **Roxana-Diana Pașca**, Daniel Frankel, "Interaction of lipids with lectins", *COST Action TD0906 Biological Adhesives: from biology to biomimetics "WG3 & WG4 Scientific Workshop"*, **Cluj-Napoca, Romania**, 09-11 April, **2013** (poster).
29. **Roxana-Diana Pașca**, Aurora Mocanu, Gheorghe Tomoaia, Ossi Horovitz, Maria Tomoaia-Cotișel, "Membrane Models. The interaction between lipids and proteins", *A XXXII Conferință Națională de Chimie, Călimănești-Căciulata, Romania*, 03-05 October, **2012** (poster).
30. Gheorghe Tomoaia, Lacrimioara-Bianca Pop, Gabriel Furtos, Cristina Prejmerean, Ioan Petean, **Roxana-Diana Pasca**, Alexandra-Gertrud Hosu-Prack, Aurora Mocanu, Maria Tomoaia-Cotisel. "The

effect of various calcium phosphate particles on collagen mineralization”, *The 3rd Workshop and 4th Management meeting of the COST TD0903, “Understanding and Manipulating Enzymatic and Proteomic Processes in Biomineralization”*, **Cluj-Napoca, Romania**, 11-13 October, **2011** (poster).

31. Roxana-Diana Pașca, Ossi Horovitz, Aurora Mocanu and Maria Tomoaia-Cotișel, “Interaction of Silver Nanoparticles with some Biomolecules”, *Processes in Isotopes and Molecules (PIM)*, **Cluj-Napoca, Romania**, 29 September-01 October **2011** (poster).

32. Aurora Mocanu, Roxana-Diana Pașca, Ossi Horovitz and Maria Tomoaia-Cotișel, “Thermodynamic Characterization of Mixed Lipids at the Air-Water Interface”, *Processes in Isotopes and Molecules (PIM)*, **Cluj-Napoca, Romania**, 29 September-01 October **2011** (poster).

33. Ioana Bozga, Codruța Cobzac, Roxana-Diana Pașca, Aurora Mocanu, Maria Tomoaia-Cotișel, Ossi Horovitz, „Sinteza biogenică a unor nanoparticule”, *A VI-a conferință națională cu participare internațională „Coroziune și protecție anticorozivă, CPA”*, **Cluj-Napoca, Romania**, 22-24 September **2011** (oral presentation by **Roxana-Diana Pasca**).

34. Roxana-Diana Pașca, Ossi Horovitz, Aurora Mocanu, Maria Tomoaia-Cotișel, „Interaction of Silver Nanoparticles with some Molecules of Biological Interest” *The 10th International conference on colloids and surfaces chemistry*, **Galați, Romania**, 9-11 June, **2011**, (poster).

35. Roxana-Diana Pașca, Ossi Horovitz, Aurora Mocanu, Maria Tomoaia-Cotișel, „Self Assemblies of Mixed Lipids at the Air-Water Interface”, *10th International conference on colloids and surfaces chemistry*, **Galați, Romania**, 9-11 June, **2011**, (oral presentation by **Roxana-Diana Pasca**)

36. Roxana-Diana Pașca, Maria Tomoaia-Cotișel, Ossi Horovitz, Aurora Mocanu, “Cholesterol and Dimyristoyl Phosphatidylcholine Monolayers at the Air-Water Interface. Structural and Thermodynamic Characterization”, *Humboldt-Kolleg “Knowledge, Culture, Science. The Fundament of Quality of Life in Society”*, **Timișoara, Romania**, 23-28 November, **2010**, (oral presentation by **Roxana-Diana Pasca**).

37. Roxana-Diana Pașca, Aurora Mocanu, Ossi Horovitz, Maria Tomoaia-Cotișel, “Phase Behavior of Cholesterol and Dimyristoyl Phosphatidylcholine Monolayers at the air- water interface”, *14th International Conference of Physical Chemistry, ROMPHYSICHEM*, **București, Romania**, 2-4 June, **2010**, (poster).

38. Roxana-Diana Pașca, “The Interfacial Behavior and Nanostructures of Cholesterol and Dimyristoyl Phosphatidylcholine Monolayers”, *7th International Conference “Students for Students”*, **Cluj-Napoca, Romania**, 23-25 April **2010**, (poster).

39. Roxana-Diana Pașca, “Studiu comparativ privind relația dintre modul de preparare al nanoparticulelor de aur și comportamentul la interfața aer-apă”, *6th International Conference “Students for Students”*, **Cluj-Napoca, Romania**, 10-12 April **2009**, (oral presentation by **Roxana-Diana Pasca**).

40. Roxana-Diana Pașca, Oana-Alexandra Rusu, “Studies on the Behavior of Gold Nanoparticles at the Air-Water Interface”, *9th National Symposium on Colloids and Surfaced Chemistry – Galați, Romania*, 29-30 May **2008**, (poster).

41. Roxana-Diana Pașca, „Studies on the Behavior of Gold Nanoparticles at the Air-Water Interface”, 5th International Conference “Students for Students”, Cluj-Napoca, Romania, 18-20 April **2008** (oral presentation by **Roxana-Diana Pasca**).

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