

LISTA LUCRĂRILOR ȘTIINȚIFICE

Prof.dr.ing. Petronela NECHITA

I. Teza de doctorat:

Ph.D thesis: **Researches regarding the relations between coating layer structure and paper product quality**, 119 pages (2007) – Domeniul Inginerie Chimică

II. Teza de abilitare: **Modern strategies on valorization of cellulose fibres aiming to obtain the sustainable products for (bio)economy applications**, 135 pages (2018)

A. ARTICOLE/LUCRĂRI PUBLICATE

A.1. Lucrări indexate ISI Web of Knowledge

A.1.1. Lucrări indexate ISI Web of Knowledge - în reviste cu factor de impact calculat

1. Mirela Roman, **Petronela Nechita**, Aida Mihaela Vasile and Maria Violeta Guiman, Food Packaging Performance and Environmental Impact of Polysaccharide-Coated Papers, *BioResources*, **2024**, 19(4), 6994-7018. DOI: 10.15376/biores.19.4.6994-7018 , (Q2), WOS:001315421000008
2. Nastac, S.M.; **Nechita, P.**; Guiman, M.V.; Roman, M.; Rosca, I.C. Applications of Xylan Derivatives to Improve the Functional Properties of Cellulose Foams for Noise Insulation. *Polymers* **2023**, 15, 4648. <https://doi.org/10.3390/polym15244648> (Q1) WOS:000987643000001
3. Roman, M.; **Nechita, P.**; Vasile, M.-A.; Cantaragiu Ceoromila, A.-M. Barrier and Antimicrobial Properties of Coatings Based on Xylan Derivatives and Chitosan for Food Packaging Papers. *Coatings* **2023**, 13, 1761. (Q2) <https://doi.org/10.3390/coatings13101761>, *Coatings* <https://www.mdpi.com/2079-6412/13/10/1761> WOS:001094152100001
4. **Nechita, P.**; Roman, M.; Năstac, S.M. Green Approaches on Modification of Xylan Hemicellulose to Enhance the Functional Properties for Food Packaging Materials—A Review. *Polymers* **2023**, 15, 2088. (Q1) WOS:000987643000001, <https://doi.org/10.3390/polym15092088>, *Polymers* <https://www.mdpi.com/2073-4360/15/9/2088>
5. Seciureanu, M.; Nastac, S.-M.; Guiman, M.-V.; **Nechita, P.** Cellulose Fibers-Based Porous Lightweight Foams for Noise Insulation. *Polymers* **2023**, 15, 3796. (Q1) <https://doi.org/10.3390/polym15183796>, <https://www.mdpi.com/2073-4360/15/18/3796> WOS:001072201800001
6. **Petronela Nechita**, Mirela Roman, Alina Cantaragiu Ceoromila and Andreea Veronica Dediu Botezatu, Improving Barrier Properties of Xylan-Coated Food Packaging Papers with Alkyl Ketene Dimer, *Sustainability* **2022**, 14, 16255. <https://doi.org/10.3390/su142316255>, FI 3.889, SI 0.65, Q2
7. Rahoveanu, MMT ; Serban, V ; Zugravu, AG ; Rahoveanu, AT ; Cristea, DS; **Nechita, P** ; Simionescu, CS, *Perspectives on Smart Villages from a Bibliometric Approach*, *Sustainability* **2022**, 14, 10723. <https://doi.org/10.3390/su141710723> , WOS:000851898700001, FI 3.889, SI 0.65, Q2
8. **Nechita, P**; Nastac, SM, *Overview on Foam Forming Cellulose Materials for Cushioning Packaging Applications*, *Polymers* **2022**, 14, 1963. <https://doi.org/10.3390/polym14101963>, WOS:000802654400001, FI 4.967, SI 0.88, Q1
9. Nastac, S ; **Nechita, P** ; Debeleac, C ; Simionescu, C ; Seciureanu, M, The Acoustic Performance of Expanded Perlite Composites Reinforced with Rapeseed Waste and Natural Polymers, *Sustainability* **2022**, 14, 103. <https://doi.org/10.3390/su14010103>, WOS:000758562600001, FI 3.889, SI 0.65, Q2

10. **Nechita P.**, Roman M., Ciolacu F., *Xylan Hemicellulose: A Renewable Material with Potential Properties for Food Packaging Applications*, Sustainability, **2021** 13(24), DOI: 10.3390/su132413504, **FI:3,251, WOS: 000737474700001**, Sustainability | Free Full-Text | Xylan Hemicellulose: A Renewable Material with Potential Properties for Food Packaging Applications (mdpi.com), Q2
11. **Petronela Nechita**, The Influence of Drying Conditions of Clay-Based Polymer Coatings on Coated Paper Properties, Coatings **2021**, 11, 12. <https://dx.doi.org/10.3390/coatings11010012> FI: 2,881, WOS: 000609998500001 (Q2)
12. **Petronela Nechita**, *The influence of coating composition on the structural and functional properties of coated paper for packaging applications*, NORDIC PULP & PAPER RESEARCH JOURNAL, **2020** Volume: 35, Issue: 3, Pages: 408-418, DOI: 10.1515/npprj-2020-0029 , WOS: 000575408000011
13. **Nechita P.**, Roman M., *Review on polysaccharides used in coatings for food packaging papers*, Coatings **2020**, 10(6), 566; <https://doi.org/10.3390/coatings10060566>(FI: 2,33)(Q2), <https://www.mdpi.com/2079-6412/10/6/566>
14. Debeleac C, **Nechita P.**, Năstac S. *Computational Investigations on Soundproof Applications of Foam-Formed Cellulose Materials*, Polymers **2019**, 11, 1223; doi:10.3390/polym11071223 (FI: 3,164) www.mdpi.com/journal/polymers (Q1)
15. **P. Nechita**, Ș. M.Ionescu, *Investigation on the thermal insulation properties of lightweight biocomposites based on lignocellulosic residues and natural polymers* Journal of Thermoplastic Composite Materials, 31 (11), 1497-1509, **2018** (FI: 0,912), <http://journals.sagepub.com/eprint/FCX6XzOaRIKzBkAuyfe7/full>;
16. **P. Nechita**, S. Năstac, *Foam-formed cellulose composite materials with potential applications in sound insulation*, Journal of Composite Materials, Vol. 52(6) 747–754, **2018** ; (FI: 1,613), (Q2) <https://doi.org/10.1177/0021998317714639> <http://journals.sagepub.com/impact-factor/jcm>
17. S.Năstac, C. Debeleac, **P. Nechita**, *Assessment on shock absorbtion properties of foam-formed low density cellulose composites* – Acta Technica Napocensis, Series: Applied Mathematics, Mechanics and Engineering, vol.60, Issue IV, **2017**, p.565-572, <http://www.atna-mam.utcluj.ro/index.php/Acta/article/view/934>,
18. **P. Nechita**, S. M. Ionescu, *Valorization of municipal wastewater treatment plant sludge and agro-waste in building materials with thermal insulation properties*, Environmental Engineering and Management Journal May **2017**, Vol.16, No. 5, 1185-1191 <http://omicron.ch.tuiasi.ro/EEIJ/> (FI: 1,008)
19. **P. Nechita**, *Active-antimicrobial coatings based on silver nano-particles and natural polymers for paper packaging functionalization*, Nordic Pulp&Paper Research Journal Volume 32, **2017**, Issue No. 3, p. 452-458, DOI10.3183/NPPRJ-2017-32-03, (Q1) FI: 1,354, <https://www.degruyter.com/view/journals/npprj/32/3/article-p452.xml>
20. **P. Nechita**, E. Bobu, G. Parfene, R. M. Dinica, T. Balan, *Antimicrobial coatings based on chitosan derivatives and quaternary ammonium salts for packaging paper applications*, Cellulose Chem. Technol., 49 (7-8), 625-632, **2015**, FI = 0,825, www.cellulosechemtechnol.ro/
21. L.Albu, G. Zăinescu, D.Deselnicu, R.R.Constantinescu, A.M.Vasilescu, **P.Nichita**, C. Sârbu – *A new concept of complexes valorisation of leather wastes* - Materiale Plastice, FI = 0,379, <http://www.revmaterialeplastice.ro/>, 51(1), 90 – 93, **2014**
22. **P.Nechita**, D.M.Panaiteescu, *Improving the dispersability of cellulose microfibrillated structures in polymer matrix by controlling of drying conditions and chemical surface modifications*, Cellulose Chemistry and Technology, Cellulose Chemistry and Technology, **2013**, ISSN 0576-9787, FI = 0,825, www.cellulosechemtechnol.ro/
23. Johansson, C., Bras, J., Mondragon, I., **Nechita, P.**, Plackett, D., Šimon, P., Svetec, D. G., Virtanen, S., Baschetti, M. G., Breen, C., Clegg, F., and Aucejo, S., *"Renewable fibers and bio-based materials for packaging applications - A review of recent developments,"* BioRes. 7(2), 2506-2552, **2012**, FI: 1,309, www.ncsu.edu/bioresources/

24. **P. Nechita**, E. Dobrin, F. Ciolacu, E. Bobu - *The biodegradability and mechanical strength of nutritive pots for vegetable planting based on lignocellulose composite materials*, - *BioResources* 5 (2), 1102-1113, **2010**, FI: 1,409, www.ncsu.edu/bioresources/
25. M.M.Codescu, E. Manta, E.A. Pătroi, W. Kappel, I. Zăpodeanu, M. Burlacu, **P. Nechita**, V. Midoni – *Securing element with ferromagnetic microwires* – *Optoelectronics and Advanced Materials – Rapid Communication*, 4 (9), 1361 – 1365, **2010**, ISSN 1842 – 6573, FI: 0,451, <http://www.journals4free.com/link.jsp?l=13673897>
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27. D.M.Panaiteescu, D.M.Vuluga, H.Paven, M.D.Iorga, M.Ghiurea, I.Mătășaru, **P. Nechita** - *Properties of polymer composites with cellulose microfibrils* – *Molecular Crystals&Liquid Crystals*, Vol. 484, **2008**, pages 86/[452] - 98/[464], ISSN 1542-5287, FI: 0,554, <https://www.tandfonline.com/doi/full/10.1080/15421400801903502>
28. D.M.Panaiteescu, **P. Nechita**, H.Iovu, M.D.Iorga, M.Ghiurea, D. Șerban – *Compozite din polipropilenă și microfibrile celulozice obținute prin tratament mecano-chimic* – *Materiale Plastice*, 44(3), **2007**, p. 195 – 198, ISSN 0025 – 5289, (FI: 0,404), <http://www.revmaterialeplastice.ro/>

A.1.2. Lucrări indexate ISI Web of Knowledge - în volume ale conferințelor indexate (ISI Proceedings)
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1. D.M.Panaiteescu, D.M.Vuluga, H.Paven, M.D.Iorga, M.Ghiurea, I.Mătășaru, **P. Nechita** - *Properties of polymer composites with cellulose microfibrils* – IXth International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM), Cracovia, 8 – 12 iulie **2007**, p.315

A.2. Articole indexate BDI

1. Mirela Roman, **Petronela Nechita**, Cristian Silviu Simionescu. Evaluation of barrier properties of food packaging papers coated with hemicellulose biopolymers. *Bul. Inst. Polit. Iași*, Vol. 69 (73), Nr. 2, 2023, DOI: 10.5281/zenodo.8162840, BIP-CIC,69(73)(2)2023 (tuiasi.ro) [\[Index Copernicus\]](#)
2. **Petronela NECHITA**, Marilena CRĂCIUN, Carmen Elena OCHIROȘI - Removal of Drug Pollutants from Aqueous Media Using Clam Shells Waste, *The Annals of "Dunarea de Jos" University of Galati. Fascicle IX, Metallurgy and Materials Science*, Vol 45 No 1 (2022), DOI: <https://doi.org/10.35219/mms.2022.1>, <https://www.gup.ugal.ro/ugaljournals/index.php/mms/article/view/51892022> [\[EBSCO, Gscholar\]](#)
3. **Petronela NECHITA**, Electrocoagulation technique in the treatment of waste waters from paper recycling, *THE ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI FASCICLE XIV MECHANICAL ENGINEERING*, ISSN 1224-5615, Vol 25 No 2 (**2018**), <https://doi.org/10.35219/im.2018.2.05> [\[EBSCO, Gscholar\]](#)
4. **P.Nechita**, C. M. Burtea, V. Barbu, Considerations on Applying of Practical Control Methods in the Biological Treatment of Wastewaters from Paper Manufacturing, vol.No. 4, **2018**, of the Journal *The Annals of "Dunarea de Jos" university of Galati. Fascicle IX, Metallurgy and materials science*, <http://www.fascicula9.ugal.ro/> [\[EBSCO, Gscholar, DOAJ\]](#)
5. S.M. Ionescu, **P. Nechita**, *Thermo-insulating panels based on composite structures from vegetal fibres and polymeric matrix* – **2017**, *Advanced Materials Research*, Vol. 1143, p.154-159, DOI: 10.4028/www.scientific.net/AMR.1143.154 <https://www.scientific.net/AMR.1143.154> [\[Scientific.net\]](#)
6. S.Nastac, C. Debeleac, **P. Nechita**, *Experimental analyses of shock protection availability for low density cellulose composites*, The 40th International Conference on Mechanics of Solids, Acoustics and Vibrations, ICMSAV 2016 and The 6th International Conference on "Advanced Composite Materials Engineering", COMAT 2016, Brașov, ROMANIA, 24-25 November **2016** <http://aspeckt.unitbv.ro/jspui/handle/123456789/2146>, [\[Dspace, Gscholar\]](#)
7. S. Nastac, **P. Nechita**, *Experimental analyses of noise mitigation characteristics for low density cellulose composites*, The 40th International Conference on Mechanics of Solids, Acoustics and Vibrations, ICMSAV 2016 and The 6th International Conference on "Advanced Composite Materials Engineering",

COMAT 2016, Braşov, ROMANIA, 24-25 November 2016, <http://aspeckt.unitbv.ro/jspui/handle/123456789/2148>, [Dspace, GScholar]

8. **P.Nechita**, *Natural Additives Used in Adsorption of Pollutants from Textile Wastewaters*, American Journal of Environmental Engineering, 2015, 5(2): 39-42 DOI: 0.5923/j.ajee.20150502.01, <http://article.sapub.org/10.5923.j.ajee.20150502.01.html> , [Index Copernicus, CrossRef, EBSCO, Gscholar]
9. **P. Nechita**, *Studies regarding the use of natural zeolites in the industrial wastewaters treatment*, The Annals of "Dunarea de Jos" University of Galati. Fascicle IX. Metallurgy and materials science, special issue 2015, ISSN 1453 – 083X, 64, http://www.fascicula9.ugal.ro/uploads/pdf/Cuprins_TEME_2015.pdf [EBSCO, Gscholar, DOAJ]
10. **P. Nechita**, Ş.M. Ionescu, A. Leopa, D. Anghelache, *Environmentally friendly thermal insulation materials based on lignocellulosic fibres and natural additives*, Celuloză si Hârtie, vol.64 (4), p.38, 2015, ISSN 1220-9848 , (<http://ceprohart.ro/documente/revista/2015/Issue%204.pdf> <http://scholar.google.ro/> [Gscholar]
11. **P.Nechita**, *Lignocellulose fibres used on obtaining of insulating composite materials*, Celuloză si Hârtie, vol.64 (1), p.25, 2015, ISSN 1220-9848, <http://ceprohart.ro/documente/revista/2015/Issue%201.pdf> , <http://scholar.google.ro/> [Gscholar]
12. **P.Nechita**, *Actual trends and research regarding the use of natural additives in the industrial wastewater treatments*, Celuloză si Hârtie, vol.63 (3), p.13, 2014, ISSN 1220-9848 <http://ceprohart.ro/documente/revista/2014/Issue%203.pdf> <http://scholar.google.ro/>[Gscholar]
13. **P.Nechita**, S.M.Ionescu, *Biocomposites from renewable resources – a review on current trends and challenges in building energy savings*, Bulletin of the Polytechnic Institute of Iaşi, Section Chemistry and Chemical Engineering, 2013, Tome LIX(LXIII), Fasc.3, ISSN 0254-7104, <http://www.ch.tuiasi.ro/0611buletin.html> http://www.ch.tuiasi.ro/pdf/cercetare/buletin/bul_ipi_2013_3.pdf [Index Copernicus]
14. **P.Nechita**, A.M.Axinte, *Fibres based packaging with biofunctional properties – a review of recent developments*, Celuloză şi Hârtie, 62, 1, 2013, p.13-22, ISSN 1220-9848, (<http://ceprohart.ro/documente/revista/2013/Issue%201.pdf> [Gscholar]
15. **P.Nechita**, R.Dinică, G. Parfene, *Some possibilities to obtain the antimicrobial paper*, Celuloză şi Hârtie, 62, 2, 2013, p.3-8, ISSN 1220-9848 <http://ceprohart.ro/documente/revista/2013/Issue%202.pdf> <http://scholar.google.ro/>[Gscholar]
16. **P. Nechita** – *Investigation and analysis of recycling potential of filtering composites based on cellulosic fibres resulted from the industrial filtration process of alimentary liquids – Journal Engineering Studies and Research – Volume 18 2012, 2, p.77-83*, <http://pubs.ub.ro/?pg=revues&rev=jesr&num=201202&vol=18&aid=3618> [Gscholar, ProQuest CSA]
17. E.Dobrin, M.Roşu, E.Drăghici, **P.Nechita** – *Evaluation of Potential Biodegradation of Materials Based on Peat and Waste of Cellulose Fibres for Use in Seedling Production – Scientific Papers. Series B. Horticulture, Vol.LVI, 2012, ISSN 2285 – 5653: The International Conference of the University of Agronomic Sciences and Veterinary Medicine of Bucharest" Agriculture for Life, Life for Agriculture" 160 Years of Romanian Agronomic Education October 4 - 6, 2012, Bucharest, Romania* <http://horticulturejournal.usamv.ro/index.php/scientific-papers/9-articles/89-art14>, [Thomson Reuters, Cabi, Index Copernicus]
18. **P. Nechita**, D. Manea, E. Dobrin - *Recycled fibres – reinforcing elements of nutritive pots based on lignocelluloses composite materials - The 16th International Symposium in the field of pulp, Paper, Packaging and Graphics*, Zlatibor, Cigota, Serbia, June, 15 – 18, 2010, p. 203-210, ISBN 867401267-1(<http://agris.fao.org/agris-search/search.do?recordID=RS2011000386> , [Agris, Gscholar]
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21. R.Madjar, E.Dobrin, **P. Nechita** – *The macronutrients quantity realease from biodegradable pots used in vegetable transplant* – Proceedings of Romanian Academy, Series B, **2009**, 1, p.69-74, ISSN 1454-8267, <http://www.acad.ro/sectii2002/proceedingsChemistry/doc2009-1/art11Madjar.pdf> **[Cabi, Thomson Reuters Master Journal List]**

A.6. Articole în volumele manifestărilor științifice de specialitate – Selecție

1. Mirela Roman (Iana-Roman), Petronela Nechita, Aida Vasile, Alina Cantaragiu Ceoromila, *The study of functional properties of food packaging based on xylan/chitosan polyelectrolyte complexes*, **11th Edition of SCDS-UDJG**, Perspectives and challenges in doctoral research, organizată de CSUD, în data/perioada 8 – 9 iunie 2023, Galați, Romania, [Programme \(ugal.ro\)](http://www.ugal.ro)
2. Mirela Roman, Petronela Nechita, Alina Cantaragiu Ceoromila, Andreea Veronica (Dediu) Botezatu, *FUNCTIONAL COATINGS BASED ON MODIFIED XYLAN HEMICELLULOSES FOR FOOD PACKAGING PAPERS*, **24th International symposium in the field of pulp, paper, packaging and graphics**, June 21st – 22nd 2023, Belgrade, Serbia. [PROGRAM-OF-XXIV-CPAG-SYMPOSIUM Belgrade-2023 2.pdf \(cpag-tmfbg.rs\)](http://www.cpag-tmfbg.rs)
3. Petronela Nechita, Mihai Seciureanu, Maria-Violeta Guiman, Silviu-Marian Nastac, Carmen-Nicoleta Debeleac, *SANDWICH BIOCOMPOSITES STRUCTURES BASED ON FOAM AND CELLULOSE FIBERS INTENDED TO NOISE INSULATION*, **24th International symposium in the field of pulp, paper, packaging and graphics**, June 21st – 22nd 2023, Belgrade, Serbia. [PROGRAM-OF-XXIV-CPAG-SYMPOSIUM Belgrade-2023 2.pdf \(cpag-tmfbg.rs\)](http://www.cpag-tmfbg.rs)
4. Petronela Nechita, Mirela Roman, Alina Cantaragiu, *Polysaccharides coatings an innovative alternative to improve the sustainability of food packaging materials*, **12th International Conference on Environmental Engineering and Management (ICEEM 12)**, 13 – 16 septembrie 2023, Iași, Romania, [ICEEM12 Program-04.09.2023 f.pdf \(tuiasi.ro\)](http://www.tuiasi.ro)
5. Petronela Nechita, Mirela Roman (Iana-Roman), Aida Vasile, *Food packaging papers based on biopolymers polyelectrolyte complexes*, **3rd International Circular Packaging Conference 19-20 October 2023**, Ljubljana (Slovenia) (on line), [3. International Circular Packaging Conference – Icp \(icp-lj.si\)](http://www.icp-lj.si) .
6. Nastac S.M., Seciureanu M., **Nechita P.**, Guiman M.V., Rosca I.C., Musca G.D., Debeleac C.N., Goanta A.M., Dragan N., Potirniche M.A., Pana D., Capatana G.F. *ON COMPUTATIONAL POROACOUSTICS MODELS FOR POROUS LIGHTWEIGHT FOAMFORMED CELLULOSE FIBERS-BASED MATERIALS*, The 10th International Conference on COMPUTATIONAL MECHANICS AND VIRTUAL ENGINEERING, COMEC **2023**, 25-27 Oct.2023, Brașov, România, <https://sites.google.com/view/comatcomec/program/full-program>
7. Mihai Seciureanu, Maria-Violeta Guiman, Silviu-Marian Nastac, **Petronela Nechita**, Carmen-NicoletaDebeleac, Gigel-Florin Capatana, *On experimental evaluation of tortuosity for cellulose-based highly porous composites used within noiseinsulation applications*, „ACOUSTICS AND VIBRATION OF MECHANICAL STRUCTURES“ May 26-27, **2023** - Timisoara, Romania, <http://www.mec.upt.ro/meca/avms/main.php> [Program AVMS2023.pdf](http://www.mec.upt.ro/meca/avms/main.php)
8. . Silviu-Marian NASTAC, Mihai SECIUREANU, **Petronela NECHITA**, Maria-Violeta GUIMAN, Gina-Diana MUSCA, Adrian-Mihai GOANTA, Nicusor DRAGAN, Carmen-Nicoleta DEBELEAC, Gigel-Florin CAPATANA, Maria-Aurora POTIRNICHE, *Study regarding the Ability Evaluation of Highly-Porous Composites based on Cellulose Fibres for Soundproofing Applications*, SISOM 2023 and Symposium of Acoustics, September 21 - 22, **2023**, București, România, https://imsar.ro/wp-content/uploads/2023/09/Program_SISOM_2023.pdf
9. Silviu-Marian NASTAC, Mihai SECIUREANU, **Petronela NECHITA**, Maria-Violeta GUIMAN, Gina-Diana MUSCA, Adrian-Mihai GOANTA, Nicusor DRAGAN, Carmen-Nicoleta DEBELEAC, Gigel-Florin CAPATANA, Maria-Aurora POTIRNICHE, *Experimental Investigations regarding Specific Characteristics of Porous Lightweight Cellulose Fibers-based Composites for Computational Poroacoustics Models*, SISOM 2023 and

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10. Seciureanu, M., Nastac, S.-M., Debeleac, C.-N., **Nechita, P.** *INNOVATIVE BIO-FOAM-FORMED COMPOSITES FOR SOUNDPROOFING APPLICATIONS* Proceedings of the International Congress on Sound and Vibration, 2023
11. Mirela Roman (Iana-Roman), **Petronela Nechita**, *Xylan hemicelluloses – Alkyl Ketene Dimer coatings with improved barrier properties for food packaging paper*, 10th Edition of SCDS-UDJG, Perspectives and challenges in doctoral research, organizată de CSUD, în data/perioada 9 – 10 iunie 2022, Galați, Romania, <http://www.cssd-udjg.ugal.ro/index.php/programme-2022>
12. Mirela Roman (Iana-Roman), **Petronela Nechita**, *Edible films and coatings based on Xylan hemicelluloses for vegetables packaging*, 10th Edition of SCDS-UDJG, Perspectives and challenges in doctoral research, organizată de CSUD, în data/perioada 9 – 10 iunie 2022, Galați, Romania (poster), <http://www.cssd-udjg.ugal.ro/index.php/programme-2022>
13. Mirela Roman, **Petronela Nechita**, *The food packaging performances of papers coated with xylan hemicelluloses*, The 4th INTERNATIONAL CONFERENCE „Natural Resources Green Technology and Sustainable Development“, 14-16 September 2022, Zagreb, CROAȚIA, <https://www.sumins.hr/green2022/>
14. Mirela Roman (Iana-Roman), **Petronela Nechita**, *The performance of xylan hemicelluloses to form edible films used to preserve the quality of fresh vegetables*, 22nd Romanian International Conference on Chemistry and Chemical Engineering, RICCE 22, 7-9 Septembrie 2022, Sinaia, Romania, <https://ricce22.chimie.upb.ro/>
15. Mirela Roman, **Petronela Nechita**, Marian-Silviu Năstac, *Innovative and sustainable food packaging solutions based on biopolymer coated papers* 22nd Romanian International Conference on Chemistry and Chemical Engineering, RICCE 22, 7-9 Septembrie 2022, Sinaia, Romania, <https://ricce22.chimie.upb.ro/>
16. **P. Nechita**, M. Roman, A. V. Botezatu (Dediu), *Enhancement of hydrophobicity of xylan hemicellulose by chemical modification with alkyl ketene dimer*, 6th International Conference on Chemical Engineering, ICCE 2022, Romania, Iași, October 5 – 7, 2022, ICCE 2022 (tuiasi.ro)
17. Mirela Roman, **Petronela Nechita**, *Strategies to improve the hydrophobic properties of xylan hemicelluloses for food packaging applications*, SCIENTIFIC COMMUNICATIONS OF YOUNG RESEARCHERS, MacroYouth 2022, Iasi, Romania, November 18, 2022, <https://www.icmpp.ro/macroyouth2022>
18. Silviu Năstac, **Petronela Nechita**, *Innovative Bio-fiber Foam Composites for Soundproofing and Packaging Applications*, The 9th International Conference on Advanced Composite Materials Engineering COMAT 2022, Brasov, Romania, October 17-18, 2022, (poster) COMAT 2022 (google.com)
19. **Nechita P.** *Biocomposite coatings – a sustainable alternative for paper packaging functionalisation*, 1st GREENERING International Conference, on the 15th and 16th February 2021.
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C. CĂRȚI PUBLICATE

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4. **Petronela Nechita**, Rodica Dinică, Bianca Furdul: *Advances in Biomass Waste Valorization in: Sustainability - Topical Collection*, 2021 (mdpi.com/si/79178, www.mdpi.com/journal/sustainability), 221 pag, [Sustainability Editor-Certificate-272711.pdf](https://www.mdpi.com/journal/sustainability/2021/10/272711), [Top Collection Biomass Waste Valorization.pdf](https://www.mdpi.com/journal/sustainability/2021/10/272711)
5. **P.Nechita**, Chapter: *Use of Recycled Cellulose Fibers to Obtain Sustainable Products for Bioeconomy Applications* in: *Generation, Development and Modifications of Natural Fibres*, <https://www.intechopen.com/online-first/use-of-recycled-cellulose-fibers-to-obtain-sustainable-products-for-bioeconomy-applications>, DOI: 10.5772/intechopen.86092, 2019
6. **P.Nechita**, Chapter 10 *Applications of Chitosan in Wastewater Treatment inn Biological Activities and Application of Marine Polysaccharides*, ISBN 978-953-51-2860-1, DOI: 10.5772/65289, Intech Open Science Croatia, 2017, <https://www.intechopen.com/books/biological-activities-and-application-of-marine-polysaccharides/applications-of-chitosan-in-wastewater-treatment>

C.3. Cărți publicate (var. electronica) în Universități sau alte instituții (autor)

1. **Petronela Nechita**, *Metode fizice avansate de purificare a apelor uzate*, format electronic, 2020, Platforma Microsoft Teams, 300 slide-uri,
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D.. Brevete și cereri de brevet

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6. *Paper with barrier properties for food packaging and method of obtaining*– Authors: D. Manea, A. Radu, C. M. Talașman, **P. Nechita**, M. Burlacu, D.Gavrilescu, G. Mustățea, M. Ionescu - RO128764-A2/2013, BOPI nr. 8/2013 (www.osim.ro) Derwent Primary Accession Number: 2013-N12503
7. *Amestec compozit pe bază de esteri de hemiceluloză, procedeu de obținere și de testare a proprietăților specifice ambalajelor pentru produse agro-alimentare*, nr. de înregistrare OSIM: A/00178/12.04.2024, Authors: **Petronela Nechita**, Mirela Iana-Roman, Mihaela-Aida Vasile, Rodica -Mihaela Dinică, Silviu- Marian Năstac, Alina-Mihaela Ceoromila, Andreea-Veronica Botezatu, Cristian-Silviu Simionescu.

E. PROIECTE/GRANTURI/CONTRACTE DE CERCETARE ȘTIINȚIFICĂ OBTINUTE PRIN COMPETIȚIE

E.1. Proiecte/Granturi/Contracte de cercetare științifică cu finanțare de la instituții din străinătate

1. COFUND-M-ERA NET II - *Active GRaPhene based FOOD packaging systems for a modern society* – GRAFOOD (2017 – 2020), <https://m-era.net/joint-calls/joint-call-2016/list-of-funded-projects-2016.pdf> , member of research team
2. Black Sea Basin ENI Cross-Border Cooperation Programme 2014-2020: *Black Sea Basin interdisciplinary cooperation network for sustainable joint monitoring of environmental toxicants migration, improved evaluation of ecological state and human health impact of harmful substances, and public exposure prevention* – MONITOX, cod BSB27, contract 105070/2018 (2018-2021) member of research team, <https://www.monitox.ugal.ro/index.php/ro/>
3. EEA-Grants: „*Restoration of the aquatic and terrestrial ecosystems complex, from Fundu Mare Island, part of the Small Wetland of Brăila - RAMSAR site 1074* ”, <http://eeagrantsmediu.ro/proiecte/18> , <http://www.wildwetlandbraila.ugal.ro> ,(2017-2018) member of research team
4. FP V – Competitive and Sustainable Growth (2001 – 2004) - “*A Competitive European Pulp and Paper Industry*”- Contract nr. GIRT - CT - 2001 - 05021/23.08.2001, (**project responsible**), http://cordis.europa.eu/news/rcn/100384_en.html http://cordis.europa.eu/project/rcn/58157_en.html

5. COST CA 18224 - *Green Chemical Engineering Network towards upscaling sustainable* - **GREENERING**, 2019-2023, MC and WGs member, <https://www.greenering.eu/>, <https://www.cost.eu/actions/CA18224/#tabs|Name:management-committee>
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7. COST FP 1405: *„Active and intelligent fibre-based packaging - innovation and market introduction (ActInPak)”* – MoU COST 099/14 - 2014 - 2018- MC and WGs member, <https://www.cost.eu/actions/FP1405/#tabs|Name:management-committee>
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10. COST FP0901: *„Analytical Techniques for Biorefineries”* – 2009 – 2013, WGs member, http://web.abo.fi/fak/tkf/spk/costfp0901/wg2_participants.html
11. COST FP0904: *Thermo-Hydro-Mechanical Wood Behaviour and Processing* -2009 – 2013, MC and WGs member. <https://www.cost.eu/actions/FP0904/#tabs|Name:management-committee>
12. COST E48 – *Limits of Paper Recycling* – 2004 – 2009, MC and WGs member, <https://www.cost.eu/actions/E48/#tabs|Name:overview>
13. COST E32 - *Characterisation of paper surfaces for improved printing paper grades* – 2002 – 2007 - MC and WGs member. <https://www.cost.eu/actions/E32/#tabs|Name:overview>
14. COST E46 - *Improvements in the understanding and use of de-inking technology* – 2004 – 2008 - WGs member. <https://www.cost.eu/actions/E46/#tabs|Name:overview>
15. COST E36 - *Modelling and Simulation in Pulp and Paper Industry* – 2004 – 2008 - WGs member.- <https://www.cost.eu/actions/E36/#tabs|Name:overview>
16. COST E11 – *Characterisation methods for cellulose fibres and papers* - 1997 – 2000, MC and WGs member. <https://www.cost.eu/actions/E11/#tabs|Name:overview>

E.2. Granturi/ Proiecte/Contracte de cercetare științifică cu finanțare de la instituții din România

1. National Research Programme Susținerea și dezvoltarea activităților CDI-TT în Universitatea „Dunărea de Jos” din Galați, Studii și cercetări privind optimizarea proprietăților funcționale ale materialelor compozite cu porozitate ridicată din fibre celulozice, Contract de finanțare nr. RF 2475/31.05.2024 (2024) – **director de proiect**
2. National Research Programme Susținerea și dezvoltarea activităților CDI-TT în Universitatea „Dunărea de Jos” din Galați, Cercetări privind evaluarea capacității de utilizare a materialelor compozite cu porozitate ridicată din fibre celulozice în aplicații de protecție acustică, Contract de finanțare nr. RF 9418/30.03.2023, (2022-2023) – **membru în echipa de implementare**
3. National Research Programme - Programul 4 – Cercetare fundamentală și de frontieră, Proiect de Cercetare Exploratorie (PCE 2021), **proiect PN-III-P4-PCE-2021-0714, Contract nr. PCE 22/2022** , Strategii inovative și durabile de obținere a acoperirilor pe bază de hemiceluloză cu proprietăți adecvate hârtiei de ambalaj activ pentru alimente **SustHC_CoatPack**, <https://susthc-coatpack.ugal.ro/> (2022-2024) – **project manager**
4. National Research Programme Susținerea și dezvoltarea activităților CDI-TT în Universitatea „Dunărea de Jos” din Galați, Materiale compozite cu porozitate ridicată cu proprietăți de absorbție fonică și protecție împotriva șocurilor, *PorousMatSound*, **CONTRACT DE FINANȚARE Nr. RF 3646/30.09.2021, (2021-2022) project manager**

5. National Research Programme - BioWWater- *Integrated system of measures and control techniques for generation and wastewater processes from recycling papers* (- **BioWWater** -), PN-III-P2-2.1-BG-2016-0040, contract 86BG/2016 - <http://biowwater.ugal.ro/>, (2016 - 2018) – **project manager**
6. National Research Programme PNCDI II–, Contract no. 93/2014 – Biocomposite from renewable resources – research and advanced solutions for increasing of energetic efficiency of buildings– **BIO4BUILD** (2014 – 2016), <http://bio4build.wix.com/bio4build#!home/mainPage>, **technical responsible**
7. National Research Programme (2007–2010)– **BIOSUN** - *Biocomposites from renewable resources – biodegradable nutritive support for containerized seedling manufacturing* - Contract no. 51-090/2007– **project manager**, <http://www.ceprohart.ro/biosun.php>
8. National Research Programme (2007 – 2010)- Contract no.81-059-1/2007 – **FIR MAGIC** - *Security element with magnetic fibres and field sensor for electronic validation direction applications* – **project responsible** , <http://firmagic.icpe-ca.ro/>
9. National Research Programme (2008 – 2011) - *Strategies for research on assessing the conservation and implementation of new materials and techniques to restore and preserve old books and documents to ensure of the cultural heritage in the Community* – **PapREST** - Contract D9, 92077/2008 – **project responsible**, <http://omicron.ch.tuiasi.ro/~thmalu/paprest.htm>
10. Structural Funds – POSDRU (2010 – 2013) – *Organizational Support Programmes and profesional training for employees of romanian pulp and paper field* – POSDRU 81/3.2/S/53449 - **project manager** <http://www.ceprohart.ro/posdru81/index.php>
11. National Research Programme – CEEX (2006–2008) – *Advanced microfiltering composites - efficient solution for food safety* – **FILTRAL** - Contract no. 63/2006– **project manager**, <http://www.ceprohart.ro/filtral.php>
12. National Research Programme – CEEX (2005 – 2007) - *Polymeric biocomposites based on renewable resources for high tech applications* **BICOP** - Contract no. 3434/2005- **project responsible**; <http://tsocm.pub.ro/cercetare/BICOP/index.htm>
13. National Research Programme (2005 – 2006) – *Education systems for industry personnel training* , Contract no.24/198040/08.08.2005, - **project responsible** http://www.ceprohart.ro/proiecte_alte_tipuri.php
14. National Research Programme - Relansin (2003 – 2005),– Contract no. 1807/2003 – *The modernization of technology for tissue paper manufacturing* (**project responsible**), http://www.ceprohart.ro/proiecte_alte_tipuri.php
15. *Composite materials based on cellulose fibres and high minerals for automotive industry* (2004-2005), Contract no. 8274/2004, beneficiary Fermit SA Rm.Sărat, Romania, **project manager**, http://www.ceprohart.ro/proiecte_alte_tipuri.php
16. National Research Programme (2007 – 2010) - **FILFLOSEC** - *Integrated system of protecting markings and security documents, carried out in the base paper making and printing* - contract no. 71 -126/2007 — member of research team, <http://www.ceprohart.ro/filflosec.php>
17. National Research Programme (2008 - 2011) – *Fast Preparation of Flexible Wet-Resistant and Biodegradable Films From a Stable Suspension of Xylan/Chitosan Polyelectrolyte Complexes*, *Journal of Polymers and the Environment* National Research Programme (2008 – 2011) – **ARCON** -*One chance for the archives future – ionized radiation disinfection* - contract no. 92- 83/2008 - member of research team, <http://www.irasm.ro/arcon/arcon.htm>
18. National Research Programme (2007 – 2010) – **ELHART** -*Technology for electrical insulating paper manufacture*, contract no. 31/2007 - member of research team, <http://www.ceprohart.ro/elhart.php>
19. R&D Programe for Industry (2005 – 2006) – *Alternative solutions in packaging manufacturing to conformation with Europeans requirements* – contract no. 8286/2005 - member of research team , http://www.ceprohart.ro/proiecte_alte_tipuri.php

E.3. Proiecte/lucrări de cercetare pe bază de contract direct cu beneficiarii și din ORIZONT 2000

1. Lucrare de cercetare nr. D 1351/1993 – *Cercetări privind stabilirea corelațiilor dintre reologia pastelor de cretare și utilizarea în practică a diverselor echipamente tehnologice de cretare* – beneficiar: Ministerul Cercetării și Tehnologiei București (**responsabil de lucrare**)
2. Lucrare de cercetare nr. D 1374/1993 – 1994 – *Cercetări privind perfecționarea instalației pilot defabricare a cartonului cromo-lux în vederea obținerii caracteristicilor de calitate* – beneficiar: Ministerul Cercetării și Tehnologiei București (**responsabil de lucrare**)
3. Program Orizont 2000 - Contract de cercetare nr. 29B/1995 – *Experimentări industriale pentru obținerea hârtiei cromo la SC COMCEH SA Călărași*, beneficiar: Ministerul Cercetării și Tehnologiei București (**co-responsabil**)
4. Program Orizont 2000 - Contract de cercetare nr. 29B/1995 – *Cercetări privind diversificarea gamei de lianți sintetici și auxiliari chimici în paste de cretare în vederea îmbunătățirii calității hârtiilor și cartoanelor înnobite* (1995 – 1996) – beneficiar: Ministerul Cercetării și Tehnologiei București (**co-responsabil**)
5. Contract de asistență tehnică nr. 8144/1997 – *Rețete și tehnologii pentru obținerea hârtiei cromo cu conținut total de lianți sintetici* (1996 – 1997) – beneficiar: SC COMCEH SA Călărași (**co-responsabil**)
6. Program Orizont 2000 - Contract de cercetare nr. 214/1996, act adițional 260/I/1997 – *Experimentări de laborator și pilot privind utilizarea pastelor de cretare de consistență ridicată cu conținut total de lianți sintetici* – beneficiar: Ministerul Cercetării și Tehnologiei București (**co-responsabil**)
7. Program Orizont 2000 - Contract de cercetare nr. 214/1996 – *Metode de caracterizare a fibrelor celulozice și hârtiilor* (1998 – 2001) – beneficiar: Ministerul Cercetării și Tehnologiei București (**coresponsabil, responsabil de lucrare în anul 2000 și 2001**)
8. Program Orizont 2000 – Contract de cercetare nr. 214/1996, act adit. 189/99/II - *Cercetări privind realizarea hârtiilor și cartoanelor cu grad de alb ridicat cu utilizarea înălbitorilor optici și a coloranților de nuanțare* (D1756/1999) – beneficiar: Ministerul Cercetării și Tehnologiei București (**responsabil de lucrare**)
9. Program Orizont 2000 - Contract 537/2000, act adit.1/2001, act adit.1/2002 – *Cercetări privind stabilirea tehnologiei de obținere a cartoanelor cretate pe o față destinate ambalării produselor industriale* – beneficiar: ANSTI București și Ministerul Educației și Cercetării (2000 – 2002) (**responsabil de lucrare**)

E.4. Contribuții la realizarea unor proiecte finanțate prin programele Phare/POSDRU

1. **Program PHARE 2000 – Coeziune Economică și Socială** "Dezvoltarea unor noi politici de resurse umane, în sprijinul strategiilor de dezvoltare pe termen mediu și lung a companiei S.C. "VRANCART" S.A. Adjud", contract nr. 1014303/12.09.2002/ RO.0007.02.02.01.0069 – membru în echipa de proiect, trainer Management de proiect – curs: *Scrierea cererilor de finanțare*
2. **Program PHARE 2000 – Coeziune Economică și Socială** "Dezvoltarea resurselor umane din întreprinderi mici și mijlocii cu activități productive și de servicii", contract nr.101653/28.11.2002, RO0007.02.01.01.0304– membru în echipa de proiect, trainer Management de proiect – curs: *Scrierea cererilor de finanțare, Surse și scheme de finanțare*
3. **Program PHARE 2002 – Coeziune Economică și Socială** "Îmbunătățirea competențelor profesionale și implementarea unei noi politici de resurse umane la SC URB Rulmenți SA Suceava", contract nr.1960/30.11.2004, RO2002/000/586.05.02.02.007 , membru în echipa de proiect, trainer Management de proiect – curs: *Scrierea cererilor de finanțare, Surse și scheme de finanțare*
4. **Program Phare 2003 – Coeziune Economică și Socială** « Strategie de dezvoltare a resurselor umane din companii cu activități productive », contract nr. 10423L/29.11.2005, RO2003/005/551.05.03.02.049, administrator de proiect, trainer curs Management de proiect, curs: *Scrierea cererilor de finanțare. Surse și scheme de finanțare*
5. **Program Phare 2004 – Coeziune Economică și Socială – Promovarea Capitalului Uman** „Servicii de sprijin pentru formarea profesională continuă a angajaților“, contract nr.28/30.11.2006, RO2004/016/772.04.02.02.01.01.121, membru în echipa de proiect, trainer curs Management de proiect, curs: *Managementul proiectelor, curs: Scrierea cererilor de finanțare. Surse și scheme de finanțare*
6. **Program Phare 2004 – Coeziune Economică și Socială – Promovarea Capitalului Uman** „Dezvoltarea resurselor umane din SC CET SA Brăila”, Phare/2004/016-772.04.02.02.01.01.205, trainer curs Management de proiect, curs: *Scrierea cererilor de finanțare*

7. **Program Phare 2005 – Coeziune Economică și Socială** - “Servicii de consultanță și instruire pentru pregătirea personalului adult din industria prelucrătoare”, PHARE: **2005/017- 553.04.02.01.207**, Coordonator activități consultanță, trainer curs: *Management strategic*, trainer curs Manager de proiect.
8. **Program POSDRU 2007 – 2013 – Capital Uman – investiție pentru prezent și viitor în regiunea Sud Est** POSDRU/34/3.2/G/40107, Specialist relații publice și comunicare, trainer curs Manager de proiect (**2009 – 2010**) http://ceprohart.ro/posdru/index_proiect.php
9. **Program POSDRU 2007 – 2013** - „Îmbunătățirea condițiilor de muncă și viață profesională a angajaților – condiție esențială pentru obținerea performanței sustenabile” POSDRU/78/3.2/A/48495, Analist politici și strategii (**2010**) <http://ceprohart.ro/posdru2/index.php>
10. **Program POSDRU 2007 – 2013** - ”Sprijin și formare profesională pentru dezvoltarea culturii antreprenoriale în partea de Est a României” - POSDRU/92/3.1/S/56106 – Responsabil Formare Profesională, trainer curs Manager de proiect (**2010 – 2013**) <http://ceprohart.ro/posdru92/index.php>

F. PREMII

1. Medalie de argint și Diploma de excelență, pentru: *Cercetări privind evaluarea capacității de utilizare a spumelor din fibre celulozice în aplicații de protecție acustică*, autori: Silviu Marian Nastac, Petronela Nechita, Maria Violeta Guiman, Mirela Iana Roman, Mihai Seciureanu, la **International Innovation and Invention Show – Euro-Politehnicus 2024 – 1st Edition, 22-24 Noiembrie 2024, București, Romania**
2. Medalie de argint și Diploma de excelență, pentru: *Amestecuri omogene pe bază de hemiceluloze pentru tratarea hârtiilor de ambalaj alimentar*, autori: Petronela Nechita, Mirela Roman (Iana Roman), Silviu-Marian Năstac, la **International Innovation and Invention Show – Euro-Politehnicus 2024 – 1st Edition, 22-24 Noiembrie 2024, București, Romania**
3. Diploma de excelență pentru Cercetător cu experiență și rezultate deosebite în activitatea de CDI-TT în cadrul Facultății de Inginerie și Agronomie din Brăila Gala Cercetării de Excelență la Universitatea „Dunărea de Jos” din Galați „**CEREX UDJG 2023**”
4. Diploma de excelență pentru rezultate de excelență obținute în activitatea de cercetare în cadrul Universității Dunărea de Jos din Galați, Gala Cercetării de Excelență la Universitatea „Dunărea de Jos” din Galați „**CEREX UDJG 2023**”
5. Diploma de excelență pentru lucrarea: *Green Approaches on Modification of Xylan Hemicellulose to Enhance the Functional Properties for Food Packaging Materials—A Review*. *Polymers* 2023, 15, 2088. (Q1) WOS:000987643000001, Gala Cercetării de Excelență la Universitatea „Dunărea de Jos” din Galați „**CEREX UDJG 2023**”
6. Medalie de aur pentru tema: *Cercetări privind evaluarea capacității de utilizare a materialelor compozite cu porozitate ridicată din fibre celulozice în aplicații de protecție acustică*, **Salonul Inovării și Cercetării UGAL INVENT, 9-10 Noiembrie 2023, www.invent.ugal.ro**
7. Medalie de argint pentru tema: *Paste de acoperire pe bază de hemiceluloză pentru hârtii destinate ambalării produselor alimentare*, **Salonul Inovării și Cercetării UGAL INVENT, 9-10 Noiembrie 2023, www.invent.ugal.ro**
8. Diploma de excelență pentru rezultate deosebite în activitatea de cercetare în cadrul Universității Dunărea de Jos din Galați, Gala Cercetării de Excelență la Universitatea „Dunărea de Jos” din Galați „**CEREX UDJG 2022**”
9. Diploma de excelență pentru Lucrarea: *Structuri tip sandwich din bio-compozite pe bază de spumă și fibre celulozice destinate aplicațiilor de izolare acustică*, acordată de Asociația Iustin Capră în cadrul Salonului Cercetării și Inovării, **UGAL INVENT, 2021**
10. Diploma de excelență pentru rezultate deosebite în activitatea de cercetare în cadrul Universității Dunărea de Jos din Galați, Gala Cercetării de Excelență la Universitatea „Dunărea de Jos” din Galați „**CEREX UDJG 2021**”

11. Medalie de aur pentru: Structuri tip sandwich din bio-compozite pe bază de spumă și fibre celulozice destinate aplicațiilor de izolare acustică Poster B6.1 în cadrul Salonului Cercetării și Inovării, **UGAL INVENT, 2021**
12. Diploma of Excellence and Silver medal for paper: *Biomaterials with low density based on foam and cellulose fibres with sound proofing properties*, **UGAL INVENT**, Galați, Romania, **2019**, <http://www.invent.ugal.ro/>
13. Diploma of Excellence and Silver medal: *Paper with barrier properties for food packaging and its manufacturing process*, **Proinvent 2014**, Cluj Napoca, Romania
14. Gold medal: *Paper with barrier properties for food packaging and its manufacturing process*, **UGAL INVENT 2014**, Galați, Romania
15. Gold medal: *Security paper and process of its manufacturing*, **Euroinvent 2014**, Iași, Romania and **UGAL INVENT**, Galați, Romania, **2014**
16. Silver medal and Diploma of Excellence, *Process for obtaining antifungal protection ointment with prophylactic nature*, **EUREKA 2012**, **Inventika 2011**, **Proinvent 2013**

10.05.2025

Nechita Petronela