

RAPORT DE DISEMINARE

Lucrări publicate în reviste indexate ISI/WOS

1. Petronela Nechita, Mirela Roman, Alina Cantaragiu Ceoromila, Andreea Veronica (Dediu) Botezatu, *Improving barrier properties of xylan coated food packaging papers with alkyl ketene dimer*, Sustainability 2022, 14, 23, doi: 10.3390/su142316255, (FI: 3.889), WOS: WOS:000897124800001, WOS:000897124800001, (Q2) https://www.mdpi.com/journal/sustainability/topical_collections/Biomass_Waste_Valorization
2. 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 | Free Full-Text | Green Approaches on Modification of Xylan Hemicellulose to Enhance the Functional Properties for Food Packaging Materials—A Review \(mdpi.com\)](#)
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>, WOS:001094152100001, [Coatings | Free Full-Text | Barrier and Antimicrobial Properties of Coatings Based on Xylan Derivatives and Chitosan for Food Packaging Papers \(mdpi.com\)](#)
4. Silviu Marian Nastac, Petronela Nechita, Maria Violeta Guiman, Mirela Roman and Ioan Calin Rosca, *Applications of Xylan Derivatives to Improve the Functional Properties of Cellulose Foams for Noise Insulation*. Polymers 2023, 15, 4648, (Q1) FI=5,000, WOS:001130749400001, DOI:10.3390/POLYM15244648, <https://www.mdpi.com/2073-4360/15/24/4648> (Q1)
5. Roman, M.; Nechita, P.; Vasile, M.-A.; Guiman, M.V. *Food Packaging Performance and Environmental Impact of Polysaccharide-Coated Papers*, BioResources 2024, 19 (4), 6994-7018, WOS:001315421000008 (Q2) FI= 1,300, DOI:10.15376/biores.19.4.6994-7018, https://bioresources.cnr.ncsu.edu/wp-content/uploads/2024/08/BioRes_19_4_6994_Roman_Food_Packaging_Perform_Envir_Polysacch_Coated_Paper_23762.pdf,

Lucrări publicate în reviste 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) http://www.bipcic.icpm.tuiasi.ro/2023_69_2.html

Lucrări prezentate la conferințe interne și internaționale:

1. 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>
2. 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>
3. 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/>
4. 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/>
5. Mirela Roman, Petronela Nechita, Marian-Silviu Năstac, *Innovative and sustainable food packaging solutions based on biopolymer coated papers (poster)* **22nd Romanian International Conference on Chemistry and Chemical Engineering, RICCE 22**, 7-9 Septembrie 2022, Sinaia, Romania, <https://ricce22.chimie.upb.ro/>
6. 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 \(tuiasi.ro\)](http://icce2022.tuiasi.ro)
7. 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>
8. 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 \(google.com\)](http://comat2022.google.com)
9. 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://ugal.ro)

10. 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://cpag-tmfbg.rs)
11. 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://tuiasi.ro)
12. 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://icp-lj.si) .
13. Mirela Roman (Iana-Roman), Rodica Mihaela Dinică, Vasilica Barbu, Gabriela Elena Bahrim, Petronela Nechita, *The evaluation of biodegradability characteristics of food packaging papers based on xylan hemicellulose composite coating*, 12th Edition of Scientific Conference of Doctoral Schools SCDS-UDJG, "Dunărea de Jos" University of Galați, 6-7 Iunie 2024, Galați, *Prezentare orală*., https://www.csds-udjg.ugal.ro/media/attachments/2024/05/29/program_sdsfi_s3-s4-s5-s6-s7.pdf
14. Petronela Nechita, Mirela Roman, Silviu Marian Năstac, Aida Mihaela Vasile, Nicoleta Rotariu, *Sustainable food packaging: a study of composition, functional properties and environmental impact*, The 27th International symposium "The environment and the industry", SIMI 2024, 19 – 20 Septembrie 2024, Mamaia, Constanta, Poster: DOI:10.21698/simi.24.ab31, <https://www.simiecoind.ro/sustainable-food-packaging-a-study-of-composition-functional-properties-and-environmental-impact>
15. Silviu Năstac, Petronela Nechita, Maria Violeta Guiman, Mirela Iana Roman, Carmen Debeleac, *Assessments on using hemicelluloses to improve functional properties of foam forming fiber-based materials intended for noise insulation applications*, The 27th International symposium "The environment and the industry", SIMI 2024, 19 – 20 Septembrie 2024, Mamaia, Constanta, Poster: DOI:10.21698/simi.24.ab19 <https://www.simiecoind.ro/assessments-on-using-hemicelluloses-to-improve-functional-properties-of-foam-forming-fiber-based-materials-intended-for-noise-insulation-applications>
16. Petronela Nechita, Mirela Roman, Marian-Silviu Năstac, *Sustainable food packaging materials based on hemicellulose coated papers*, doi: <https://doi.org/10.24867/GRID-2024-p76>, The 12th International Symposium on Graphic Engineering and Design – GRID24, 14-16 Noiembrie 2024, Novi Sad, Serbia, <https://www.grid.uns.ac.rs/symposium/enzbornik2024.html>

Participări la saloane de inventică/târguri/expoziții cu produse realizate din activitatea de cercetare

1. Petronela Nechita, Mirela Roman (Iana Roman), Silviu Marian Năstac. 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, Galați, România www.invent.ugal.ro
2. Petronela Nechita, Mirela Roman (Iana Roman), Silviu-Marian Năstac, *Amestecuri omogene pe bază de hemiceluloze pentru tratarea hârtiilor de ambalaj alimentar*, Poster prezentat la International Innovation and Invention Show – Euro-Politehnicus 2024 – 1st Edition, 22-24 Noiembrie 2024, București, Romania, <https://politehnicus.upb.ro/>

Cerere de brevet internațional

1. Petronela Nechita, Mirela Iana-Roman, Mihaela-Aida Vasile, Rodica-Mihaela Dinică, Silviu- Marian Năstac, Alina-Mihaela Ceoromila, Andreea-Veronica Botezatu, Bianca Furdui, Cristian-Silviu Simionescu, Universitatea "Dunărea de Jos" Galați, *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/ *Composite mixture based on hemicellulose esters, process for obtaining it, and testing the specific properties of packaging for agri-food products*, PCT/RO2024/000024.

Teze de doctorat finalizate în perioada de implementare a proiectului

1. Teza de doctorat "Cercetări privind obținerea unor amestecuri biopolimerice pe bază de hemiceluloză destinate ambalajelor biodegradabile pentru produse alimentare", 2024 – doctorand ing. Mirela Iana-Roman, conducător de doctorat: Prof.dr.ing. Petronela Nechita, Universitatea Dunărea de Jos din Galați, <https://ugal.ro/studii/doctorat/sustineri-publice-teze-doctorat/11-site/14116-anunt-sustinere-teza-roman-v-mirela-iana-roman>
2. Teza de doctorat „Obținerea și caracterizarea unor compuși heteroaromatici cu proprietăți bioactive utilizând metode clasice sau aparținând chimiei verzi”, 2023 – doctorand Veronica-Andreea Botezatu, conducător de doctorat: Prof.dr.chim. Rodica Mihaela Dinică, Universitatea Dunărea de Jos din Galați, <https://ugal.ro/studii/doctorat/sustineri-publice-teze-doctorat/11-site/12873-anunt-sustinere-teza-dediu-i-andreea-veronica-botezatu>

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