

SCIENTIFIC WORK

1. Published papers:

ISI journals:

1. **Simona GAVRILAȘ**, Michaela Dina STĂNESCU, Improving the antioxidant properties of wild raspberry juice by enzymatic treatments. *Rev. Chim.-Bucharest*, **2016**, *67*, 219-222.
2. Michaela Dina Stănescu, **Simona Gavrilăș**, Roland Ludwig, Dietmar Haltrich, Vladimir I. Lozinsky, Preparation of immobilized *Trametes pubescens* laccase on a cryogel-type polymeric carrier and application of the biocatalyst to apple juice phenolic compounds oxidation. *Eur. Food Res. Technol.*, **2012**, *234*, 655-662.
3. Michaela Dina Stănescu, Magdalena Fogorasi, Boris. L. Shaskolskiy, **Simona Gavrilas**, Vladimir. I. Lozinsky, New Potential Biocatalysts by Laccase Immobilization in PVA Cryogel Type Carrier, *Appl. Biochem. Biotechnol.*, **2010**, *160*, 1947-1954.
4. Maria-Raluca Szabo, Dana Radu, **Simona Gavrilas**, Dorina Chambre, Cornelia Iditoiu, Antioxidant and antimicrobial properties of selected spice extracts. *Int. J. Food Prop.*, **2010**, *13*, 535-545.

ISI Proceedings:

5. Dochia Mihaela, Pustianu Monica, Gavrilăș Simona, Tomescu Daniel, Copolovici Dana Maria, Study of the ultrasound efficiency on bioscouring treatment of hemp-cotton fabrics. *17th International Multidisciplinary Scientific Geoconference SGEM 2017, Micro and Nano Technologies Advanced in Biotechnology, Conference Proceedings*, Volume 17, Issue 61, 2017, ISBN 978-619-7408-12-6, ISSN 1314-2704, DOI 10.5593/sgem2017/61, 1015-1023, *sent for indexation*.
6. Pustianu Monica, Dochia Mihaela, Gavrilăș Simona, Tomescu Daniel, Study of the efficiency of bioscouring by determination of the residual Ca^{2+} from flax-cotton fabrics. *17th International Multidisciplinary Scientific Geoconference SGEM 2017, Micro and Nano Technologies Advanced in Biotechnology, Conference Proceedings*, Volume 17, Issue 61, 2017, ISBN 978-619-7408-12-6, ISSN 1314-2704, DOI 10.5593/sgem2017/61, 1007-1014, *sent for indexation*.
7. Dochia Mihaela, Gavrilăș Simona, Pustianu Monica, Tomescu Daniel, Copolovici Dana Maria, Comparative study regarding the influence of the complexing agents

EDTA and sodium citrate on the 50% flax-50% cotton fabrics during the bioscouring treatment, *16th International Multidisciplinary Scientific Geoconference SGEM 2016, Book 6, Nano, Bio and Green-Technologies for a Sustainable Future, Conference Proceedings*, Volume III, 2016, ISBN 978-619-7105-79-7, ISSN 1314-2704, DOI 10.5593/sgem2016HB63, 223-230.

8. Monica Pustianu, Mihaela Dochia, Cecilia Sîrghie, Simona Gavrilaş, Daniel Tomescu, Treatment optimization for bioscouring in ultrasound of cotton/cottonised hemp blended fabrics. *Proceedings of the 7th International Workshop on Soft Computing Applications (SOFA 2016)*, Volume 2, Advances in Intelligent Systems and Computing 634, Springer Publishing, Editors: Valentina Emilia Balăş, Lakhmi C. Jain. Marius Mircea Bălaş, pp. 595. doi: 10.1007/978-3-319-62524-9.
9. Bălaş Marius, Sîrghie Cecilia, Pustianu Monica, Dochia Mihaela, Gavrilaş Simona, Tomescu Daniel, Fuzzy method applied on the control of textiles biotechnologies. *Proceedings of the 7th International Workshop on Soft Computing Applications (SOFA 2016)*, Volume 2, Advances in Intelligent Systems and Computing 634, Springer Publishing, Editors: Valentina Emilia Balăş, Lakhmi C. Jain. Marius Mircea Bălaş, pp. 605. doi: 10.1007/978-3-319-62524-9.

IDB journals:

10. Dochia Mihaela, Pustianu Monica, **Gavrilaş Simona**, Tomescu Daniel, Copolovici Dana Maria, Study on the influence of ultrasound in bioscouring treatment of 50 % of flax + 50% of cotton fabrics. *Annals of the University of Oradea, Fascicle of textiles, leatherwork*, Volume XVIII, **2017**, No. 1, ISSN 1843-813X, pp. 27-32.
11. Pustianu Monica, Dochia Mihaela, **Gavrilaş Simona**, Tomescu Daniel, Copolovici Dana Maria, Study on the bioscouring treatment of 50 % of hemp + 50 % of cottonfabrics. *Annals of the University of Oradea, Fascicle of textiles, leatherwork*, Volume XVIII, **2017**, No. 2, ISSN 1843-813X, pp. 29-34.
12. **Simona Gavrilaş**, Florina Dumitru, Michaela Dina Stănescu, Commercial laccase oxidation of phenolic compounds, *U.P.B. Sci. Bull., Series B: Chemistry and Material Sciences*, **2012**, 74, Iss. 4, 3-10.

„Paper review“ type journals:

13. **Simona Gavrilaş**, Florentina-Daniela Munteanu, Determination of ascorbic acid in fruit juices. *Scien. Tech. Bull-Chem. Food Sci. Eng.*, Vol. 14(XV), **2017**, 33-37.

14. **Simona Gavrilaş**, Mirela Gornic, Eleonora Bundiş, Creativity in pedagogical research. Annual Training Conference papers „*Research and practice in modern teaching*“, Alba Iulia, **2013**, ISSN 2344-4142, 142-145.
15. Michaela Dina Stănescu, Dorina Rodica Chambre, **Simona Gavrilaş**, Adina-Maria Bodescu, Thermal degradation of free and immobilized laccase. *Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering*, **2010**, *14*, 18-21.
16. Radu Dana Gina, **Gavrilaş Simona**, Stănescu Michaela Dina, Pectinases for improving raspberry and blackberry juice production, *Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering*, **2008**, *13*, 121-124.
17. Chambre Dorina, Szabo Maria-Raluca, **Gavrilaş Simona**, Idițoiu Cornelia, Enzymatic analysis of glucose, fructose and saccharose mixtures in food stuffs. *Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering*, **2007**, *12*, 40-44.

2. Conferences:

a) International:

1. **Simona Gavrilaş**, Mihaela Dochia, Cristian Moisă, Monica Pustianu, Physicochemical methods used to determine residual calcium and pectines from cotton fabrics after pectinolytic treatment. „*EASTWEST Chemistry Conference*“, Skopje, Macedonia, 12-14 Octombrie **2017**, (presentation).
2. Mihaela Dochia, **Simona Gavrilaş**, Monica Pustianu, Daniel Tomescu, Sodium Citrate as a New Possible Complexing Agent for the Bioscouring Treatment of the Cellulosic/Lignocellulosic Fabrics. *20th Romanian International Conference on Chemistry and Chemical Engineering*, Poiana Braşov, Romania, 6-9 September, **2017**, (presentation).
3. **Simona Gavrilaş**, Mihaela Dochia, Monica Pustianu, Cristian Moisă, Dorina Chambre, Influence of the bioscouring complexing agents on the thermal degradation of cotton fabrics. *CEEC-TAC4-4th Central and Eastern European Conference on Thermal Analysis and Calorimetry*, Chişinău, Republica Moldova, 28-31 August **2017**, Abstracts book p. 169, (presentation).
4. Mihaela Dochia, **Simona Gavrilaş**, Monica Pustianu, Daniel Tomescu, Dorina Chambre, Influence of the ultrasound on the thermal behaviour of flax-cotton fabrics during the bioscouring treatment. *CEEC-TAC4-4th Central and Eastern European Conference on Thermal Analysis and Calorimetry*, Chişinău, Republica Moldova, 28-31 August **2017**, Abstracts book p. 471, (poster).

5. Dochia Mihaela, Pustianu Monica, **Gavrilaş Simona**, Tomescu Daniel, Copolovici Dana Maria, Study of the ultrasound efficiency on bioscouring treatment of hemp-cotton fabrics. *17th International Multidisciplinary Scientific Geoconference-SGEM*, Albena, Bulgaria, 27 June-6 July **2017**, (poster).
6. Pustianu Monica, Dochia Mihaela, **Gavrilaş Simona**, Tomescu Daniel, Study of the efficiency of bioscouring by determination of the residual Ca^{2+} from flax-cotton fabrics. *17th International Multidisciplinary Scientific Geoconference SGEM*, Albena, Bulgaria, 27 June-6 July **2017**, (poster).
7. Dochia Mihaela, Pustianu Monica, Gavrilaş Simona, Tomescu Daniel, Copolovici Dana Maria, Study on the influence of ultrasound in bioscouring treatment of 50 % of flax + 50 % of cotton fabrics. *International Scientific Conference „Innovative solutions for sustainable development of textiles and leather industry”*, Oradea, România, 26-27 May **2017**, (presentation).
8. **Simona Gavrilaş**, Current state regarding the fat food fortification with spice herbs extracts. *6th International Symposium “Research and Education in an Innovation Era”*, 8-10 Decembrie **2016**, Abstracts book p. 23, (poster).
9. **Simona Gavrilaş**, Mihaela Dochia, Monica Pustianu, Daniel Tomescu, Calcium spectrophotometric determination from flax-cotton fabrics after bioscouring treatment. *6th International Symposium “Research and Education in an Innovation Era”*, 8-10 December **2016**, Abstracts book p. 24, (poster).
10. Mihaela Dochia, **Simona Gavrilaş**, Monica Pustianu, Daniel Tomescu, Cecilia Sîrghie, Dana Maria Copolovici, Determination of the residual pectin from a bioscoured flax/cotton fabric using Ruthenium Red method. *6th International Symposium “Research and Education in an Innovation Era”*, 8-10 December **2016**, (poster).
11. M. Pustianu, M. Dochia, **S. Gavrilaş**, D. Tomescu, Comparative study on treatment bioscouring optimization with and without ultrasound for 50 % of cotton + 50 % of flax materials. *4th International Conference Advances in Engineering & Management, ADEM*, Drobeta-Turnu Severin, 17-18 Noiembrie **2016**, (poster).
12. Marius M. Balaş, Cecilia Sîrghie, Monica Pustianu, Mihaela Dochia, **Simona Gavrilaş**, Daniel Tomescu, Fuzzy Methods Applied on the Control of Textile Biotechnologies. *7th International Workshop on Soft Computing Applications*, 24-26 August **2016**, Arad, (presentation).

13. Dochia Mihaela, **Gavrilaș Simona**, Pustianu Monica, Tomescu Daniel, Copolovici Dana Maria, Comparative study regarding the influence of the complexing agents EDTA and sodium citrate on the 50% flax-50% cotton fabrics during the bioscouring treatment, *16th International Multidisciplinary Scientific Geoconference, SGEM*, Viena, 2-5 Noiembrie **2016**, (presentation).
14. **Gavrilaș Simona**, Munteanu Florentina-Daniela, Electrochemical study of ascorbic acid from *Rutaceae* and *Solanaceae* fruits using the glassy carbon electrode. *19th Romanian International Conference on Chemistry and Chemical Engineering-RICCCE 19*, Sibiu, 2-5 September **2015**, (poster).
15. **Simona Gavrilaș**, Michaela Dina Stănescu, Enzymatic treatments used to improve polyphenol stability and content in fruit juices. *3rd North and East European Congress on Food-NEEFOOD*, Brașov, 20-23 Mai **2015**, Abstracts book p. 55, (presentation)
16. **Gavrilaș Simona**, Kitti Mueangtoom, Michaela Dina Stănescu, Preliminary studies to assess the ability of *Botrytis aclada* fungus to produce laccases. *International Symposium Research And Education In Innovation Era-ISREIE*, 5rd Edition, Arad, 05-07 Noiembrie **2014**, Abstracts book p. 19, (poster).
17. **Simona Gavrilaș**, Michaela Dina Stănescu, Antioxidant Properties of Wild *Rubus Idaeus* Juice after Pectinolytic Treatment. *Food International Conference-Food, health and well being*, Belgrad, 26-28 Noiembrie **2012**, Abstracts book p. 71, (poster).
18. **Gavrilaș Simona**, Dochia Mihaela, Sanislav Andreia, Fogorasi Magdalena, Lozinsky Vladimir I, Stănescu Michaela Dina, Syntheses Of Immobilized Enzymes In/On Cryogel Polymers. *International Symposium Research And Education In Innovation Era-ISREIE*, 4rd Edition, Arad, 08-09 Noiembrie **2012**, Abstracts book p. 20, (poster).
19. **Simona Gavrilaș**, Dorina-Rodica Chambré, Adina-Maria Bodescu, Michaela Dina Stănescu, Thermal behaviour of Laccase-PVA biocomposite. *1st Central and Eastern European Conference on Thermal Analysis and Calorimetry-CEEC-TAC1*, Craiova, 07-10 Septembrie **2011**, Abstracts book p. 398, (poster).
20. **Simona Gavrilaș**, Florina Dumitru, Michaela Dina Stănescu, Preliminary studies of phenols enzymatic oxidation. *4th European Conference on Chemistry for Life Sciences, 4ECCLS*, Budapesta, 31 August–03 Septembrie **2011**, Abstracts book p. 182, (poster).

21. Stănescu Michaela Dina, Chambrée Dorina-Rodica, **Gavrilaş Simona**, Bodescu Adina-Maria, Thermal degradation of free and immobilized laccase. *International Symposium Research and Education in Innovation Era-ISREIE*, 3rd Edition, Arad, 11-12 Noiembrie 2010 (poster). Michaela Dina STĂNESCU, Dorina CHAMBRÉE,
22. **Simona GAVRILAŞ**, Adina BODESCU, Thermal behaviour of biomaterials based on cryogel PVA. *International Conference of the Chemical Societies of the South-Eastern European Countries-ICOSECS-7*, Bucureşti, 15-17 Septembrie 2010, Abstracts book p. 17, (presentation).
23. Michaela Dina Stănescu, **Simona Gavrilaş**, Mihaela-Ana Dochia, Kitti Mueangtoom, Roland Ludwig, Dietmar Haltrich, Boris L. Shaskolskiy, Vladimir I. Lozinsky, Laccase immobilized on cryogel polymer as biocatalyst for polyphenols oxidation. *3rd EuChemMS Chemistry Congres-the Creative Force*, Nürnberg, 29 August-02 Septembrie 2010 (poster).
24. **Simona Gavrilaş**, Michaela Dina Stănescu, Kitti Mueangtoom, Roland Ludwig, Dietmar Haltrich & Vladimir I. Lozinsky, Oxidation of phenols from fruits juice using immobilized laccase. *COST 928 Action, 3rd Annual Workshop*, Cracovia, 23-25 Septembrie 2009, Abstracts book p. 48, (poster).
25. Michaela Dina Stănescu, **Simona Gavrilaş**, Kitti Mueangtoom, Boris L. Shaskolskiy, Roland Ludwig, Dietmar Haltrich, Vladimir I. Lozinsky, Cryogel type polymers as support for laccase immobilization. *16th Romanian International Conference on Chemistry and Chemical Engineering-RICCCE 16*, Sinaia, 9-12 Septembrie 2009, (poster).
26. Radu Dana Gina, **Gavrilaş Simona**, Stănescu Michaela Dina, Pectinases for improving raspberry and blackberry juice production. *International Symposium, Research and Education in Innovation Era-ISREIE*, 2nd Edition, Arad, 20-21 Noiembrie 2008, (presentation).
27. Dorina Chambré, Dumitru Condrat, **Simona Gavrilaş**, Daniela Diaconescu, Cornelia Idrăţoiu, Estimation methods of the non-isothermal kinetic parameters for degradation processes of natural fibres-Review. **FAO/SCORENA, Sps-Nato Workshop: "Natural Fibers as a solution to the economic crisis and climatic and environmental changes"**, Arad, 21-26 Iunie 2009, (poster).

b) National

26. Mihaela Dochia, **Simona Gavrițaș**, Monica Pustianu, Daniel Tomescu, Physico-chemical parameters of the wastewaters resulted from the bioscouring treatment of the cellulosic/lignocellulosic fabrics. *A XXXIV-a Conferință Națională de Chimie*, Căciulata, 04-07 Octombrie 2016, (presentation).
27. **Simona Gavrițaș**, Dorina-Rodica Chambré, Dana-Maria Copolovici, Michaela Dina Stănescu, Non-isothermal degradation of *Trametes pubescens* laccase immobilized on PVA cryogel carrier. *The 25th Symposium on Thermal Analysis and Calorimetry-Eugen SEGAL*, Academia Română, București, 15 Aprilie, 2016, Abstracts book p. 18, (presentation)
28. **Simona Gavrițaș**, Michaela Dina Stănescu, *Modification of total phenol content of wild raspberry juice after enzymatic treatments*, *A XXXIII-a Conferință Națională de Chimie*, Căciulata, 01-03 Octombrie 2014, (poster).
29. **Simona Gavrițaș**, Dorina-Rodica Chambré, Adina-Maria Bodescu, Michaela Dina Stănescu, Thermal behaviour of laccase-PVA biocomposite. *Romanian Academy Annual Symposium of Thermal Analysis and Calorimetry*, Buc., 11 Februarie 2011, (presentation).

3. Books and chapters/laboratory guide

1. **Simona Gavrițaș**, Ryszard M. Kozłowski, Chapter 7 „Natural Lignocellulosic Raw Material As A Source Of Nanocellulosic Fibres”, pp. 135-147, in *Natural Fibres: Properties, Mechanical behavior, Functionalization and Application*, Editors: Ryszard Michal Kozłowski, Malgorzata Muzyczek, Nova Science Publishers, Inc., New York, 2017, ISBN: 978-1-53612-071-4.
2. **Simona Gavrițaș**, Michaela Dina Stănescu, „Polihidroxifenoli alimentari: structuri, surse, proprietăți, influența tratamentelor enzimatică”/“Polyhydroxy food phenols: structure, sources, properties, influence of the enzymatic treatments”, Aurel Vlaicu University Publisher, Arad, 2015, ISBN 978-973-752-688-5.
3. Michaela Dina Stănescu, Sergiu Erich PALCU, **Simona Gavrițaș**, „Biochimie analitică. Aplicații și probleme. Ediție adăugită și revizuită”/“Analytical Biochemistry. Applications and problems. Revised and enlarged edition“, Aurel Vlaicu University Publisher, Arad, 2010, ISBN 978-973-752-498-0.