

**L I S T A**  
**lucrărilor științifice**  
**GAVRILAȘ Simona**

**A. Teza de doctorat**

Studii privind aplicarea tratamentelor enzimaticice pentru îmbunătățirea calității sucurilor de fructe. *Polihidroxifenoli-conținut și compoziție*, Universitatea „Politehnica” din București, 2014.

**B. Cărți și capitole publicate**

**B1. 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.

**B2. Simona Gavrițaș**, Michaela Dina Stănescu, „Polihidroxifenoli alimentari: structuri, surse, proprietăți, influența tratamentelor enzimaticice”, Editura Universității „Aurel Vlaicu” Arad, 2015, ISBN 978-973-752-688-5.

**B3.** Michaela Dina Stănescu, Sergiu Erich PALCU, **Simona Gavrițaș**, „Biochimie analitică. Aplicații și probleme Ediție adăugită și revizuită”, Editura Universității „Aurel Vlaicu” Arad, 2012, ISBN 978-973-752-638-0, (*îndrumător de laborator*).

**C. Lucrări indexate ISI/BDI publicate**

**Reviste ISI:**

**C1. Simona Gavrițaș**, Claudiu-Ștefan Ursachi, Mihaela Dochia, Simona Perța-Crișan, Florentina-Daniela Munteanu, The influence of different vacuum impregnation solutions on the colour of fresh-cut apple slices. *St. Cerc. St. CICBIA*, 2020, 21 (4), 523-531.

**C2.** Violeta Năstuneac, **Simona Gavrițaș**, Florentina-Daniela Munteanu, Assessment of the water quality in Siret hydrographic basin. *St. Cerc. St. CICBIA*, 2019, 20 (3), 471-480.

**C3.** Violeta Năstuneac, Mirela Panainte-Lehadus, Emilian Florin Mosnegut, **Simona Gavrițaș**, Gabriela Cioca, Florentina-Daniela Munteanu, Removal of Cypermethrin from Water by Using *Fucus Spiralis* Marine Alga. *Int. J. Environ. Res. Public Health*, 2019, Volume 16, Issue 19, 3663. **I.F. 2.468.**

**C4.** Dorina Chambre, Mihaela Dochia, **Simona Gavrițaș**, TG/DTG analysis of an eco-friendly scoured fabric, 2019, *Rev. Roum. Chim.*, 64(5), 353-460. **I.F. 0.370**

**C5.** Dorina-Rodica CHAMBRE, **Simona GAVRILAS**, Michaela Dina STANESCU, Crisan POPESCU, Thermal analysis for depiction of a laccase-PVA biocomposite. 2018, *Rev. Roum. Chim.*, 63(9), 855-860. **I.F. 0.370**

**C6.** Mihaela Dochia, Monica Pustianu, Cristian Moisă, Dorina Chambre, **Simona Gavrițaș**, Sodium citrate as an eco-friendly complexing agent for the bioscouring treatment of the cellulosic/lignocellulosic fabrics, 2018, *Chem. Pap.*, 72(8), 1881-1888. **I.F. 0.963**

**C7.** Mihaela Dochia, Dorina Chambre, **Simona Gavrilaş**, Cristian Moisă, Characterization of the complexing agents' influence on bioscouring cotton fabrics by FT-IR and TG/DTG/DTA analysis. *J. Therm. Anal. Calorim.*, **2018**, 132(3), 1489-1498. **I.F. 2.209**

**C8.** **Simona Gavrilaş**, Michaela Dina Stănescu, Improving the antioxidant properties of wild raspberry juice by enzymatic treatments. *Rev. Chim.-Bucharest*, **2016**, 67, 219-222. **I.F. 1.232**

**C9.** Michaela Dina Stănescu, **Simona Gavrilaş**, 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. **I.F. 1.463**

**C10.** 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. **I.F. 1.530**

**C11.** 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. **I.F. 1.200**

#### **ISI Proceedings:**

**C12.** Dochia Mihaela, **Gavrilaş 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. *16<sup>th</sup> International Multidisciplinary Scientific Geoconference SGEM 2016, Book 6, Nano, Bio and Green-Technologies for a Sustainable Future, Conference Proceedings*, **2016**, III, ISBN 978-619-7105-79-7, ISSN 1314-2704, DOI 10.5593/sgem2016HB63, 223-230.

**C13.** 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 7<sup>th</sup> International Workshop on Soft Computing Applications (SOFA 2016)*, Volume 2, Advances in Intelligent Systems and Computing 634, Springer Publishing, DOI: 10.1007/978-3-319-62524-9\_44, 595-604.

**C14.** Bălaş Marius, Sîrghie Cecilia, Pustianu Monica, Dochia Mihaela, **Gavrilaş Simona**, Tomescu Daniel, Fuzzy method applied on the control of textiles biotechnologies. *Proceedings of the 7<sup>th</sup> International Workshop on Soft Computing Applications (SOFA 2016)*, Volume 2, Advances in Intelligent Systems and Computing 634, Springer Publishing, DOI: 10.1007/978-3-319-62524-9\_45, 605-611.

#### **Reviste indexate în BDI:**

**C15.** Mihaela Dochia, **Simona Gavrilaş**, Eco-friendly method for pretreatment of lignocellulosic textiles. *Proceedings of the XI International Scientific Agricultural Symposium "Agrosym 2020"*, ISBN 978-99976-787-5-1, 651-656.

**C16.** Dochia Mihaela, **Gavrilaş Simona**, Szabo Monica, Study of the experimental conditions in bioscouring treatment of cotton-hemp blended fabrics. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2020**, 21, No. 1, ISSN 1843-813X, 21-26.

**C17.** Szabo Monica, Dochia Mihaela, **Gavrilaş Simona**, The behaviour of rib 1:1 and 2:2 knitted cotton fabrics during different solicitations and treatments. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2020**, *21*, No. 1, ISSN 1843-813X, 127-132.

**C18.** **Gavrilaş Simona**, Improvement of didactic methods used in science domain. *Scien. Tech. Bull-Chem. Food Sci. Eng., Vol. 16(XVII)*, **2019**, 23-28

**C19.** Dochia Mihaela, **Gavrilaş Simona**, Physico-chemical parameters of residual water from different scouring treatments of hemp/cotton fabric. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2019**, *XX*, No. 1, ISSN 1843-813X, 41-46.

**C20.** **Gavrilaş Simona**, Dochia Mihaela, Efficiency assessment of the different scouring conditions of cotton materials by ruthenium red dyeing. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2019**, *XX*, No. 2, ISSN 1843-813X, 39-44.

**C21.** Eugenia Țigan, **Simona Gavrilaş**, Oana Brînzan, Monica Lungu, Anda Ioana Milin, Promoting sustainable development through eco-labelled products, study case for some consumer products. *18<sup>th</sup> International Multidisciplinary Scientific Geoconference SGEM 2018, Energy and Clean Technologies, Conference Proceedings*, **2018**, *17*, Issue 4.3, ISBN 978-619-7408-70-6, doi.org/10.5593sgem2018/4.3, 87-95.

**C22.** **Gavrilaş Simona**, Meşter Mihaela-Georgina, Marty Jean-Louis, Munteanu Florentina-Daniela, Immunological and chemical assay made on traditional dairy. *18<sup>th</sup> International Multidisciplinary Scientific Geoconference SGEM 2018, Nano, Bio, Green and Space-Technologies for a Sustainable Future, Conference Proceedings*, **2018**, *18*, Issue 6.2, ISBN 978-619-7408-51-5, ISSN 1314-2704, doi.org/10.5593/sgem2018/6.2, 237-244.

**C23.** Dochia Mihaela, **Gavrilaş Simona**, Pustianu Monica, Moisă Cristian, Chambre Dorina, Waste water analysis from a new green pretreatment of cotton fabrics. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2018**, *XIX*, No. 2, ISSN 1843 – 813X, 37-42.

**C24.** Pustianu Monica, Dochia Mihaela, **Gavrilaş Simona**, Moisă Cristian, Biotreatment optimization for a cellulosic/lignocellulosic blended fabric. *Annals of the University of Oradea Fascicle of textiles, leatherwork*, **2018**, *XIX*, No. 1, ISSN 1843-813X, 83-88.

**C25.** Monica Pustianu, Mihaela Dochia, **Simona Gavrilaş**, Daniel Tomescu, Comparative study on treatment bioscouring optimization with and without ultrasound for 50 % of cotton + 50 % of flax materials. *Adv. Eng. Forum.*, **2018**, *27*, 111-117.

**C26.** Dochia Mihaela, Pustianu Monica, **Gavrilaş Simona**, Tomescu Daniel, Copolovici Dana Maria, Study of the ultrasound efficiency on bioscouring treatment of hemp-cotton fabrics. *17<sup>th</sup> International Multidisciplinary Scientific Geoconference SGEM 2017, Micro and Nano Technologies Advanced in Biotechnology, Conference Proceedings*, **2017**, *17*, Issue 61, ISBN 978-619-7408-12-6, ISSN 1314-2704, DOI 10.5593/sgem2017/61, 1015-1023.

**C27.** Pustianu Monica, Dochia Mihaela, **Gavrilaş Simona**, Tomescu Daniel, Study of the efficiency of bioscouring by determination of the residual Ca<sup>2+</sup> from flax-cotton fabrics. *17<sup>th</sup> International Multidisciplinary Scientific Geoconference SGEM 2017, Micro and Nano Technologies Advanced in Biotechnology, Conference Proceedings*, **2017**, *17*, Issue 61, ISBN 978-619-7408-12-6, ISSN 1314-2704, DOI 10.5593/sgem2017/61, 1007-1014.

**C28.** Dochia Mihaela, Pustianu Monica, **Gavrilaș 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*, **2017**, XVIII, No. 1, ISSN 1843-813X, 27-32.

**C29.** Pustianu Monica, Dochia Mihaela, **Gavrilaș Simona**, Tomescu Daniel, Copolovici Dana Maria. Study on the bioscouring treatment of 50 % of hemp + 50 % of cotton fabrics. *Annals of the University of Oradea, Fascicle of textiles, leatherwork*, **2017**, XVIII, No. 2, ISSN 1843-813X, 29-34.

**C30.** **Simona Gavrilaș**, 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.

#### **D. Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate)**

**D.1 Simona Gavrilaș**, Violeta Năstuneac, Florentina-Daniela Munteanu. Treatment of hemp retting wastewaters: use of by-products from winemaking industry. International Symposium "The environment and the industry", SIMI, **2019**, Proceeding Book, 107-112, DOI: <http://doi.org/10.21698/simi.2019.fp14>

**D.2** Andreea Bujdei, **Simona Gavrilaș**, Mihaela Dochia, Florentina-Daniela Munteanu, Vegetable food waste for cotton dyeing-new directions for environmental sustainability. International Symposium "The environment and the industry", SIMI, **2019**, Proceeding Book, 113-120, DOI: <http://doi.org/10.21698/simi.2019.fp15>

**D.3 Gavrilaș Simona**, Brînzan Oana, Țigan Eugenia, Circular agri-food models-opportunity for new bio based business models. *6<sup>th</sup> SWS International Scientific Conference on social sciences 2019, Economics & Finance, Business & Management, Conference Proceedings*, **2019**, 6, Issue 2, ISBN 978-619-7408-92-8, DOI 10.5593/SWS.ISCSS.2019.2, 49-55.

**D.4** Brînzan Oana, **Gavrilaș Simona**, Țigan Eugenia, Agriculture as a result of ecosystem service. *6<sup>th</sup> SWS International Scientific Conference on social sciences 2019, Economics & Finance, Business & Management, Conference Proceedings*, **2019**, 6, Issue 2, ISBN 978-619-7408-92-8, DOI 10.5593/SWS.ISCSS.2019.2, 11-16.

**D.5 Simona Gavrilaș**, Florentina-Daniela Munteanu, Determination of ascorbic acid in fruit juices. *Scien. Tech. Bull-Chem. Food Sci. Eng.*, Vol. 14(XV), **2017**, 33-37.

**D.6 Simona Gavrilaș**, Învățarea, afecțiunea socială și jocul, stări dominante în dezvoltarea individuală. Profesorul Florea Voiculescu la 65 de ani-Volum aniversar-Studii de pedagogie, Editura Didactică și Pedagogică. R.A., București, ISBN 978-606-31-0023-9, **2015**, 152-158.

**D.7 Gavrilaș Simona**, Parents "trade" where to?. 3<sup>rd</sup> International Conference "Modernity and competitiveness in Education", Bucharest, 14 May 2014, ISSN 2248-230x.

**D.8 Simona Gavrilaș**, Mirela Gornic, Eleonora Bundiș, Creativity in pedagogical research. Annual Training Conference papers „*Research and practice in modern teaching*“, Alba Iulia, **2013**, ISSN 2344-4142, 142-145.

**D.9** Michaela Dina Stănescu, Dorina Rodica Chambre, **Simona Gavrilaș**, Adina-Maria Bodescu, Thermal degradation of free and immobilized laccase. *Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering*, **2010**, 14, 18-21.

**D.10** Radu Dana Gina, **Gavrilaș Simona**, Stănescu Michaela Dina, Pectinases for improving raspberry and blackberry juice production. *Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering*, **2008**, *13*, 121-124.

**D.11** Chambre Dorina, Szabo Maria-Raluca, **Gavrilaș 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.

#### **E. Brevete obținute în întreaga activitate**

#### **F. Contracte de cercetare în întreaga activitate**

##### *Coordonator partener proiect internațional:*

**E1 06.04.2020-05.04.2022, Project 2019-3-TR01-KA205-080177-**"Green Thinking Entrepreneur Youth"

##### *Director de proiecte naționale:*

**E2 12.11.-10.12.2019, PN-III-P1-1.1-MC-2019-2082.**

**E3 29.06-10.07.2018, PN-III-P1-1.1-MC-2018-0469.**

**E4 31.01-02.03.2018, PN-III-P1-1.1-MC-2017-2337.**

#### **Granturi de mobilitate și cercetare**

**E5 26-28 November 2012, Travel grant at FP7 FCUB-ERA-Belgrade Food International Conference, Belgrad, Serbia.**

**E6 7-10.09.2011, "Travel grant for students and researchers from Central and Eastern Europe at CEEC-TAC1 by CEEC-TAC"** (1<sup>st</sup> Central and Eastern European Conference on Thermal Analysis and Calorimetry), Craiova, Romania.

**E7 31.08-03.09.2011, ESF Student Grant** oferit de European Science Foundation at 4ECCLS (4<sup>th</sup> European Conference on Chemistry for Life Sciences), Budapest, Hungary.

**E8 23-25 September 2009, Travel grant at 3<sup>rd</sup> Annual workshop and Management Committee meeting of COST Action 928, University of Agriculture Congress Centre, Krakow, Poland.**

**E9 15.03-15.05.2009, COST-STSM-928-04562 Grant Utilisation of different types of laccase for improving food quality, Viena, Austria.**

##### *Membru în echipa proiectelor internaționale:*

**E10 2015, Biodiversitatea speciilor cu înaltă valoare funcțională și nutraceutică,** Consiglio Nazionale delle Ricerche-Istituto di Bioscienze e Bioresorse-(IBBR-CNR) Basilicata-Italy.

##### *Membru în echipa proiectelor naționale:*

**E11 01.05.2020-30.11.2020, Laborator de evaluare a calității mediului pentru practica studenților, CNFIS-FDI-2020-0178.**

**E12 2018-2021, Închiderea lanțurilor de valoare din bioeconomie prin obținerea de bioproduse inovative cerute de piață, PN-III-P1-1.2-PCCDI-2017-0569.**

**E13 2017-2018**, *Valorificarea sub-produselor de vinificație-aplicații pentru tratamentul apelor reziduale*, **PN-III-P3-3.1-PMRO-FR-2016-0030**.

**E14 01.03.-30.11.2016, 01.05.-31.08.2017**, *Tehnologii ecologice de tratare a materialelor textile celulozice, lignocelulozice și amestecuri ale acestora*, Proiect **PN-II-RU-TE-2014-4-1370**.

**E15 2008-2009**, *New Biomaterials by Enzyme Immobilization in/on Cryogel-Based Macroporous Carriers* (**#07-03-91682 RA\_a**).

**E16 2007**, *Procedeu îmbunătățit de obținere a fructozei, un îndulcitor natural de calitate superioară pentru persoanele diabetice și obeze*. **Grant C.N.C.S.I.S.**, cod 244.

**E17 2006-2008: Cercetare avansată** consorțiu CEEEX; Afiliere VIASAN: *Determinarea expresiei glicosfingolipidelor complexe în sistemul nervos central prin dispozitive de microcipuri integrate polifuncționale cuplate cu spectrometrie de masă de înaltă performanță*.

**07.12.2020**

**Ș.I. Dr. Ing. GAVRILAȘ Simona**

