

LISTĂ DE LUCRĂRI CS II DR. ING. DOCHIA MIHAELA

I. Articole indexate în reviste cotate ISI Thomson Reuters și în volumele unor manifestări științifice indexate ISI Thomson Reuters.

1. M.D. Stănescu, M. Fogorasi, **M. Dochia**, S. Mihaela, V.I. Lozinsky
Biotechnology for Textile Waste Valorization
Revista de Chimie, **2009**, 60, nr.1, 59-62
ISSN 0034-7752
2. M. D. Stănescu, **M. Dochia**, M. Fogorasi, M. Pustianu, M.S. Bucur
Enzymes in Cotton Bio-Scouring
U.P.B. Scientific Bulletin Series B: Chemistry and Materials Science, 2010, 72(3), 21-28.
3. M.D. Stănescu, **M. Dochia**, D. Radu, C. Sîrghie
Green solution for cotton scouring
FIBRES & TEXTILES in Eastern Europe, **2010**, 18, 3(80), 109-111.
ISSN 1230-3666
4. **M. Dochia**, M. D. Stănescu, C. Constantin
Calcium Content Indicator of Scouring Efficiency
FIBRES & TEXTILES in Eastern Europe, **2013**; 21, 3(99), 22-25.
5. I.V. Iștoc, M. Pustianu, **M. Dochia**, Cecilia Sîrghie, A. Popescu
Study Regarding the Optimization of the Bioscouring Treatment with Ultrasound on 100 % Cotton Materials
Industria Textilă, **2014**, Vol.65, No. 2, 70-74.
6. I. V. Iștoc, **M. Dochia**, I. Dumitrescu, C. Sîrghie
Enzymatic finishing of blended textile materials from cottonised flax and cotton fibers
Industria Textilă, **2014**, Vol.65, No. 3, 129-133.
7. A. Sanislav, M. Fogorasi, M. D. Stănescu, S. Muntean, **M. Dochia**
Ultrasound Effect on Dyeing Wool Fibers with Two Anthraquinone Dyes
Fibers and Polymers, **2015**, Vol.16, No.1, 62-66.
8. C. Sîrghie, **M. Dochia**, I. V. Istoc, D. Chambre, L. Copolovici
A comparison of a new method mediated by molybdenum complex with an enzymatic method for bleaching flax fibers
Journal of Natural Fibers, **2015**, 12:4, 378-387.
9. **M. Dochia**, S. Gavrilas, M. Pustianu, D. Tomescu, D.M. Copolovici
Comparative study regarding the influence of the complexing agents EDTA and sodium citrate on the 50% flax-50% cotton fabrics during the bioscouring treatment
Proceedings of the 16th International Multidisciplinary Scientific Geoconference SGEM 2016, Book 6, Nano, Bio and Green-Technologies for a Sustainable Future, Conference Proceedings, **2016**, Volume III, 223-230, ISBN 978-619-7105-79-7, ISSN 1314-2704, DOI 10.5593/sgem2016HB63.

10. M. Pustianu, **M. Dochia**, C. Sîrghie, S. Gavrilăş, D. Tomescu
Treatment optimization for bioscouring in ultrasound of cotton/cottonised hemp blended fabrics
Proceedings of the 7th International Workshop on Soft Computing Applications, Advances in Intelligent Systems and Computing 634, **2017**, Vol. 2, 595-604, doi: 10.1007/978-3-319-62524-9.
11. M. Bălaş, C. Sîrghie, M. Pustianu, **M. Dochia**, S. Gavrilăş, D. Tomescu
Fuzzy method applied on the control of textiles biotechnologies
Proceedings of the 7th International Workshop on Soft Computing Applications, Advances in Intelligent Systems and Computing 634, **2017**, Vol. 2, 605-611, doi: 10.1007/978-3-319-62524-9.
12. **M. Dochia**, D. Chambre, S. Gavrilăş, C. Moisă
Characterization of the complexing agents' influence on bioscouring cotton fabrics by FT-IR and TG/DTG/DTA analysis
Journal of Thermal Analysis and Calorimetry, **2018**, 132, 1489–1498,
<https://doi.org/10.1007/s10973-018-7089-y>.
13. **M. Dochia**, M. Pustianu, C. Moisă, D. Chambre, S. Gavrilăş
Sodium citrate as an eco-friendly complexing agent for the bioscouring treatment of the cellulosic/lignocellulosic fabrics
Chemical Papers, **2018**, 72(8), 1881-1888, ISSN 2585-7290, <https://doi.org/10.1007/s11696-018-0455-1>.
14. I. Barbu, S. M. Fogorasi, **M. Dochia**, M. Pustianu, A. Bucevschi, D. Farima
A comparative study on the comfort and safety of the seat cover fabrics
Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018). Proceedings in Automotive Engineering. Springer, Cham, **2018**, 429-436.
 Print ISBN 978-3-319-94408-, Online ISBN 978-3-319-94409-8.
15. D. Chambre, **M. Dochia**, S. Gavrilăş
TG/DTG analysis of an eco-friendly scoured fabric
Revue Roumaine de Chimie, **2019**, 64(5), 453-460, Doi: 10.33224/rch.2019.64.5.09.
16. L. Indrie, Z. Zlatev, J. Ilieva, D. C. Ilies, A. Sturza, **M. Dochia**, M. Gozner, G. Herman
Implementation of image processing techniques as a tool for form analysis of romanian folk elements
Industria Textilă, **2020**, Vol.71, No. 5, 492-498.
17. S. Gavrilăş, C. S. Ursachi, **M. Dochia**, S. Perta-Crisan, F. D. Munteanu
The influence of different vacuum impregnation solutions on the colour of fresh-cut apple slices
Scientific Study & Research – Chemistry & Chemical Engineering, Biotechnology, Food Industry, **2020**, 21(4), 523-531.
18. R.M. Beiu, V.F. Duma, C.A. Mnerie, A.C. Beiu, **M. Dochia**, L. Copolovici, G. Dobre, A. Bradu, A. Podoleanu
Optical Coherence Tomography versus Microscopy for the Study of Aloe Vera Leaves
Proceedings Volume 12138, Optics, Photonics and Digital Technologies for Imaging Applications VII; 121380A (2022) <https://doi.org/10.1117/12.2620766>; SPIE Photonics Europe, **2022**, Strasbourg.

19. A. Lupitu, C. Moisa, S. Gavrilas, **M. Dochia**, D. Chambre, V. Ciutină, D. M. Copolovici, L. Copolovici
The influence of elevated CO₂ on volatile emissions, photosynthetic characteristics, and pigment content in Brassicaceae plants
Plants-Basel, **2022**, 11(7), 973.
20. A. Lupitu, C. Moisa, F. Borteş, D. Peteleu, **M. Dochia**, D. Chambre, V. Ciutina, D.M. Copolovici, L. Copolovici
The Impact of Increased CO₂ and Drought Stress on the Secondary Metabolites of Cauliflower (Brassica oleracea var. botrytis) and Cabbage (Brassica oleracea var. capitata)
Plants, **2023**, 12, 3098.
21. R. Kaminszky, D. Avram, M. S. Fogorasi, **M. Dochia**, I. Barbu, A. Popa, A. Bucevschi
Innovative Solution for Reducing Yarns Hairiness on Ring Spinning Machines
Journal of Natural Fibers, **2023**, 20(2), 2248386.
22. A. M. Tolos (Vasii), C. Moisă, **M. Dochia**, C. Popa, L. Copolovici, D. M. Copolovici
Anticancer Potential of Antimicrobial Peptides: Focus on Buforins
Polymers, **2024**, 16(6), 728.
23. S. Gavrilas, **M. Dochia**, A. R. Sărsan, B. D. Chereji, F. D. Munteanu
Use of VegetableWaste for New Ecological Methods in Wool Fibre Treatments
Clean Technologies, **2024**, 6, 1326–1339.

II. Articole indexate în alte baze de date internaționale (IDB journals)

1. M.D. Stănescu, M.S. Fogorasi, F. Chiraleu, **M. Dochia**, E. Heine
Spectroscopic Tools for Monitoring Enzyme Action in Textile Finishing
DWI Reports, **2004**, 128, B,1-5, ISSN 0942301X.
2. M.D. Stănescu, M.S. Fogorasi, **M. Dochia**
Enzymatic treatments of cotton-improvement of properties and environmental aspects
DWI Reports, **2006**, 130, 9p, ISSN 0942301X.
3. M.D. Stănescu, M.S. Fogorasi, **M. Dochia**, S. Mihuța
Biodegradation of textile waste based on cotton
DWI Reports, **2007**, 131, P53, ISSN 0942301X.
4. F.D. Munteanu, **M. Dochia**, C. Sirghie
Studies on the stability of a laccase used in ultrasound or in presence of emollient
Analele Universitatii din Oradea, Fascicola Textile&Pielarie, **2007**, vol VIII, 62-67
ISSN 1582-5590.
5. M. Pustianu, M. Chindriș, A. Popa, E.t Airinei, A. Bucevschi, C. Sîrghie, **M. Dochia**
Study Regarding the Optimization of Wool Dyeing with Natural Dyes Extracted from Green Walnuts Part 1: Determination of the Eficiency of the Dyeing treatment
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2013**, vol XIV, nr. 1, 167-170,
P-ISSN: 1843-813X.

6. I.V. Iștoc, M. Pustianu, A. Bucevschi, **M. Dochia**, C. Sîrghie
Study Regarding the Optimization of the Bioscouring Treatment on 100% Cotton Materials
Proceedings of the 2nd International Conference on Energy and Environment Technologies and Equipment (EEETE '13), Energy, Environmental and Structural Engineering Series, Braşov, România, 1-3 Iunie 2013, 258-262, ISSN: 2227-4359, ISBN: 978-1-61804-188-3.
7. M. Pustianu, **M. Dochia**, M.S. Pernevan, C. Sîrghie
Study Regarding the Influence of the Bioscouring Treatment in Ultrasound on 60% cotton + 40% hemp materials. Part I. Study Regarding the Optimization of the Bioscouring Treatment
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2014, vol XV, Nr. 1, 93-98, P-ISSN: 1843-813X.
8. **M. Dochia**, C. Sîrghie, M.S. Pernevan, M. Pustianu,
Study Regarding the Influence of the Bioscouring Treatment in Ultrasound on 60% cotton + 40% hemp materials. Part II. Study Regarding the Influence Bioscouring Treatment Followed by a Whitening Treatment Using Various Methods
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2014, vol XV, Nr. 1, 99-102, P-ISSN: 1843-813X.
9. A. Popescu, C. Sîrghie, **M. Dochia**, D. M. Copolovici, L. Chirila
Aspects regarding natural dyeing of enzymatically pre-treated cellulosic blended yarns
Proceedings of the 5th International Conference on Advanced Materials and Systems – ICAMS, 2014, 373-378, ISSN: 2068 – 0783.
10. M. Szabo, **M. Dochia**, M. Lungu
Research study on the dimensional stability of interlock 1:1 knitted fabrics made of cotton yarns
Scientific Research and Education in the Air Force-AFASES, Mechanical Engineering. Materials and Technology, 2016, 367-376, DOI: 10.19062/2247-3173.2016.18.1.50.
11. M. Pustianu, C. Sîrghie, G. Böhm-Révész, **M. Dochia**
Part I. study regarding the optimization of the bioscouring treatment in ultrasound on 60 % cotton + 40 % cottonised flax materials
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2016, vol XVII, 89-111, P-ISSN: 1843-813X.
12. **M. Dochia**, C. Sîrghie, M. Pustianu
Part II. Study regarding the influence of bioscouring treatment on 60 % cotton + 40 % cottonised flax materials followed by a whitening treatment using alternative methods
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2016, vol XVII, 91-117, P-ISSN: 1843-813X.
13. M. Pustianu, **M. Dochia**, S. Gavrilăş, D. Tomescu, D. M. Copolovici
Study on the bioscouring treatment of 50 % of hemp + 50 % of cotton fabrics
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2017, vol XVIII, Nr. 2, 29-34, P-ISSN: 1843-813X.
14. **M. Dochia**, M. Pustianu, S. Gavrilăş, D. Tomescu, D. M. Copolovici
Study on the influence of ultrasound in bioscouring treatment of 50 % of flax + 50 % of cotton fabrics
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, 2017, vol XVIII, Nr. 1, 27-32, P-ISSN: 1843-813X.

15. M. Pustianu, **M. Dochia**, S. Gavrilăş, D. Tomescu
Study of the efficiency of bioscouring treatment by determination of the residual Ca^{2+} from flax-cotton fabrics
Proceedings of the 17th International Multidisciplinary Scientific Geoconference SGEM 2017, Nano, Bio, Green and Space-Technologies for a Sustainable Future, **2017**, Vol. 17, Nr. 61, 1007-1014.
16. **M. Dochia**, M. Pustianu, S. Gavrilăş, D. Tomescu, D. M. Copolovici
Study of the ultrasound efficiency on bioscouring treatment of hemp - cotton fabrics
Proceedings of 17th International Multidisciplinary Scientific Geoconference SGEM 2017, Nano, Bio, Green and Space-Technologies for a Sustainable Future, **2017**, Vol. 17, Nr. 61, 1015-1023.
17. M. Pustianu, **M. Dochia**, S. Gavrilăş, D. Tomescu
Comparative Study on Treatment Bioscouring Optimization with and without Ultrasound for 50 % of Cotton + 50 % of Flax Materials
Advanced Engineering Forum, **2018**, ISSN: 2234-991X, Vol. 27, 111-117.
<https://doi.org/10.4028/www.scientific.net/AEF.27.111>.
18. M. Pustianu, **M. Dochia**, S. Gavrilăş, C. Moisă
Biotreatment optimization for a cellulosic/lignocellulosic blended fabric
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, **2018**, vol XIX, Nr. 1, 83-88, P-ISSN: 1843-813X.
19. **M. Dochia**, S. Gavrilăş, M. Pustianu, C. Moisă, D. Chambre
Waste water analysis from a new green pretreatment of cotton fabrics
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, **2018**, vol XIX, Nr. 2, 37-42, P-ISSN: 1843-813X.
20. **M. Dochia**, S. Gavrilăş
Physico-chemical parameters of residual water from different scouring treatments of hemp/cotton fabric
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, **2019**, vol XX, Nr. 1, 41-46. P-ISSN: 1843-813X.
21. S. Gavrilăş, **M. Dochia**
Efficiency assessment of the different scouring conditions of cotton materials by ruthenium red dyeing
Analele Universităţii din Oradea, Fascicola Textile&Pielarie, **2019**, vol XX, Nr. 2, 39-44. P-ISSN: 1843-813X.
22. A. Bujdei, S. Gavrilăş, **M. Dochia**, F. D. Munteanu
Vegetable food waste for cotton dyeing-new directions for environmental sustainability
Proceedings of the 22nd International Symposium "The Environment and Industry" SIMI, **2019**, 113-120. ISSN-L: 1843 - 5831, <https://doi.org/10.21698/simi.2019.fp15>.
23. **M. Dochia**, S. Gavrilăş
New ecological method for pretreatment of lignocellulosic textiles
Proceedings of the XI International Scientific Agricultural Symposium "Agrosym 2020", **2020**, 651-656, ISBN 978-99976-787-2-0. 2020.

24. M. Szabo, **M. Dochia**, S. Gavrilas
The behaviour of rib 1:1 and 2:2 knitted cotton fabrics during different solicitations and treatments
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2020**, vol XXI, Nr. 1, 127-132.
25. **M. Dochia**, S. Gavrilas, M. Szabo
Study of the experimental conditions in bioscouring treatment of cotton-hemp blended fabrics
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2020**, vol XXI, Nr. 1, 21-26.
26. **M. Dochia**, D. Chambre
Pectin quantification from cellulosic/lignocellulosic raw materials by FT-IR ATR analysis
Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering, **2020**, vol. 17(XVIII), 20-25.
27. **M. Dochia**, S. Gavrilas
Characteristics of wastewater from different pretreatments of flax/cotton fabrics
Advanced Engineering Forum, **2021**, ISSN: 2234-991X, Vol. 42, 143-150.
doi:10.4028/www.scientific.net/AEF.42.143.
28. **M. Dochia**, S. Gavrilas, M. Szabo
Dyeing of cotton materials after bioscouring and enzymatic bleaching treatments
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2021**, vol. 22, Nr. 2, 33-38.
29. M. Szabo, **M. Dochia**, S. Gavrilas
Comparative study between polyamide/elastane and cotton/polyamide/elastane socks
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2021**, vol. 22, Nr. 1, 83-88.
30. I. Barbu, A. Bucevschi, A. Komjaty, M. S. Fogorasi, **M. Dochia**, M. Pustianu
Teaching and E-Learning about Draw Frame Machine
Proceedings of 17th eLearning and Software for Education Conference – eLSE, **2021**, Volume 2, 99-106. DOI: 10.12753/2066-026X-21-152.
31. D. Chambre, **M. Dochia**
FT-IR characterization of cellulose crystallinity from raw bast fibers
Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering, **2021**, vol. 18(XIX), 10-17.
32. **M. Dochia**, N. Dincă, S. Gavrilas
Comparative study of the chelating agents influence on the weight loss of cotton fabrics during enzymatic scouring
Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering, **2021**, vol. 18(XIX), 3-9.
33. **M. Dochia**, R. Kaminszky, M. S. Fogorasi, A. Bucevschi, I. Barbu, A. Popa, C. Nicolaescu
Aspects regarding the behaviour and comfort of reusable wool protective masks in the context of the COVID 19 pandemic
IOP Conference Series: Materials Science and Engineering, Volume 1182, **2021**, 012018, doi:10.1088/1757-899X/1182/1/012018.

34. **M. Dochia**, R. Kaminszky, M. S. Fogorasi, D. Farima, I. Barbu, C. Nicolaescu, M. Pustianu, A. Popa, A. Bucevschi
Study on the behaviour and comfort of reusable knitting suits of wool blends in the context of the Covid 19 pandemic
IOP Conference Series: Materials Science and Engineering, Volume 1182, **2021**, 012019, doi:10.1088/1757-899X/1182/1/012019.
35. M. Szabo, **M. Dochia**, V Müller, L. Jitaru
The study of the physico-mechanical properties of fashion tights compared to medicinal tights
International Journal of Modern Manufacturing Technologies, **2022**, Nr. 2, 251-256, <https://doi.org/10.54684/ijmmt.2022.14.2.251>.
36. L.A. Cioban, **M. Dochia**, C. Mureşan, D. Chambre
Weathering and deterioration of carbonate stones from historical monuments: a review
Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering, **2022**, vol. 19(XX), 15-33.

III. Articole publicate în reviste neindexate

1. M.S. Fogorasi, M.D. Stanescu, **M. Dochia**
Studiul influenței pretratământului enzimatic asupra vopsirii materialelor din bumbac
Scien. and Techn. Bulletin, **2004**, 10, 53 – 57, ISSN 1582 – 1021.
2. M.S. Bucur, M. Szabo, C. Sirghie, **M. Dochia**, A.M. Bekesi
Eficiența tratământului enzimatic “Bioscoursing” asupra tricoturilor din bumbac 100%
Scien. And Techn. Bull., Food Textile Science, **2005**, Vol. 11, nr. 1, 223-231
 ISSN 1454 – 8917.
3. **M. Dochia**, M.D. Stanescu
Biotechnology Applications in Cotton Processing
Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering, **2006**, 11, 223-231.
4. M.S. Bucur, M. Szabo, C. Sirghie, **M. Dochia**, M. Dan
Influenta tratământului cu compusi de tip POM asupra alungirii la rupere a fibrelor de canepa
Proceedings of the International Symposium „Research and Education in an Innovation Era” – Engineering Sciences, **2008**, pp. 447- 456
 ISSN 2065 2569.
5. F.D. Munteanu, **M. Dochia**, C. Sîrghie
Sonolysis of DeniLite laccase: effects on enzymatic activity
Scientific Bulletin of ESCORENA, Vol. 2, **2011**, pp. 43-45
 ISSN-L 2066-5687, ISSN 2069-8070.
6. R.M. Kozlowski, M. S. Pernevan, **M. Dochia**
Fire retardant composites made of flax and hemp. Lignocellulosic wastes and mineral vermiculite
Scientific Bulletin of ESCORENA, Vol. 3, **2011**, pp. 31-37
 ISSN-L 2066-5687, ISSN 2069-8070.

7. R.M. Kozlowski, W. Konczewicz, R. Kaniewski, M. Dochia, M.S Pernevan
The methods of degumming bast fibrous plants
Scientific Bulletin of ESCORENA, Vol. 4, **2012**, pp. 17-31
ISSN-L 2066-5687, ISSN 2069-8070.
8. R.M. Kozlowski, M. Dochia, M.S. Pernevan, M. Elena
Possibilities of bonding lignocellulosic materials by enzymatic system
Scientific Bulletin of ESCORENA, Vol. 4, **2012**, pp. 33-41
ISSN-L 2066-5687, ISSN 2069-8070.
9. M. Dochia, C. Sîrghie, L. Copolovici
Degumming process of flax at industrial pilot scale
Scientific Bulletin of ESCORENA, Vol. 8, **2013**, pp. 09-16
ISSN-L 2066-5687, ISSN 2069-8070.
10. M. Pustianu, M. Chindriș, C. Sîrghie, M. Dochia
Natural dyes in green walnut shells for textile materials dyeing
Scientific Bulletin of ESCORENA, Vol. 8, **2013**, pp. 16-22
ISSN-L 2066-5687, ISSN 2069-8070.
11. D.R. Chambre, M. Dochia
Characterization of alkaline and enzymatically treated hemp fibers by FT-IR ATR spectroscopy
Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering, **2018**, vol. 15(XVI), 18-22.

IV. Teza de doctorat

Titlul tezei: **“Aplicarea biotehnologiilor în prelucrarea materiilor prime și a deșeurilor textile cu conținut celulozic”**

Universitatea “POLITEHNICA” din București

Facultatea de Chimie Aplicată și Știința Materialelor.

Coordonator: Prof.Dr.Ing. Michaela Dina Stănescu.

V. Cărți în edituri internaționale

1. **Handbook of natural fibres, Volume 1: Types, properties and factors affecting breeding and cultivation, Capitolul 2 – Cotton fibres**, autori: M. Dochia, C. Sîrghie, R.M. Kozlowski, Z. Roskwitalski, Editura **Woodhead Publishing Limited**, Series in Textiles, Cambridge, UK, Editor Ryszard M. Kozlowski, **2012**, pp. 11 - 23.
2. **Natural fibers: properties, mechanical behavior, functionalization and applications, Capitolul 1 - Cotton dominant natural fibre: production, properties and limitations in its production**, autori: M. Dochia, M. Pustianu, Editura Nova Science Publishers Inc., New York, Editori Ryszard M. Kozlowski și Malgorzata Muzyczek, **2017**, pp. 1 - 15.

VI. Proprietate intelectuală, brevete de invenție și inovație naționale.

1. Sîrghie Cecilia, Botar Alexandru, Dinca Nicolae, Craciun Grigore, Dochia Mihaela, **“Procedeu ecologic de albire a fibrelor naturale prin oxidare catalitica cu polioxometalati”** - Brevet nr. 122728/30.12.2009, Romania.
2. Stănescu Michaela Dina, Cărpuş Eftalea, Fogorasi Magdalena, Popescu Alina, Dochia Mihaela, Mihuța Silvia, **“Procedeu ecologic de recuperare a poliesterului din deseuri textile poliester/bumbac”** Brevet nr. 122919/30.04.2010, Romania.

3. Sîrghie Cecilia, Botar Alexandru, Bodescu Adina Maria, **Dochia Mihaela**, „*Procedeu de albire cu peroxo-polioxometalati a materialelor textile (fire, tesaturi și tricoturi) din amestecuri de fibre celulozice cum ar fi: in-bumbac, canepa-bumbac*” – Brevet nr. 128839A0/04.09.2012, Romania.
4. Sîrghie Cecilia, Radu Dana Gina, Munteanu Florentina Daniela, Pag Andreea, **Dochia Mihaela**, Tomescu Daniel, „*Procedeu de topire a plantelor liberiene ca de exemplu: in, canepa, iuta, etc.*” - Brevet nr. 128837/30.06.2016, Romania.

VII. Participări la manifestări științifice internaționale

1. M.D. Stanescu, M.S. Fogorasi, M.Bucur, M. Pustianu, **M. Dochia**
Enzymes in Cotton Bioscoursing
13th International Conference on Chemistry and Chemical Engineering
Bucuresti, Romania, vol. 3, septembrie 2003, 43-48.
ISBN 973-652-825-1.
2. M. Fogorasi, M.D. Stanescu, **M. Dochia**
Enzymes in Cotton Dyeing
3rd International Conference on Textile Biotechnology, Graz, Austria, 13-16 iunie 2004, P16.
3. M.D. Stanescu, M.S. Fogorasi, M. Bucur, M. Pustianu, S. Mihuta, **M. Dochia**
Influence of Reaction Parameters on Cotton Bioscoursing
Simpozionul EU COST 847 “Textile Biotechnology and Quality, WG4, WG5,
Pavoa do Varzim, Portugalia, 11-12 noiembrie 2004.
4. M. D. Stănescu, M.Fogorasi, **M. Dochia**
Enzymatic Treatments of Cotton- Improvement of Properties and Environmental Aspects
DWI Reports, 2006, 130, P8.
5. M.D. Stanescu, M. Fogorasi, S. Mihuta, **M. Dochia**
Biotreatments of textile waste based on cotton
International Symposium on Environmental Biotechnology
9-14 Iulie 2006, Leipzig, Germania, P462.
6. M.S. Bucur, M. Szabo, C. Sîrghie, **M. Dochia**, M. Dan
Influența tratamentului cu compuși de tip POM asupra alungirii la rupere a fibrelor de cânepă
Proceedings of the International Symposium “Research and Education in an Innovation Era”,
Engineering Sciences, 2008, 447-456.
ISSN 2065 2569.
7. M. Pustianu, C. Sîrghie, G. Böhm-Révész, **M. Dochia**
Part I. study regarding the optimization of the bioscoursing treatment in ultrasound on 60 % cotton + 40 % cottonised flax materials
"Innovative solutions for sustainable development of textiles and leather industry", 27-28 May, 2016, Oradea, Romania.
8. **M. Dochia**, C. Sîrghie, M. Pustianu
Part II. Study regarding the influence of bioscoursing treatment on 60 % cotton + 40 % cottonised flax materials followed by a whitening treatment using alternative methods
"Innovative solutions for sustainable development of textiles and leather industry", 27-28 May, 2016, Oradea, Romania.

9. M. Bălaș, C. Sîrghie, M. Pustianu, **M. Dochia**, S. Gavrilăș, D. Tomescu
Fuzzy Methods Applied on the Control of Textile Biotechnologies
 7th International Workshop on Soft Computing Applications (SOFA 2016)", 24-26 August
 2016, Arad, Romania.
10. M. Pustianu, **M. Dochia**, C. Sîrghie, S. Gavrilăș, D. Tomescu
Treatment optimization for bioscouring in ultrasound of cotton/cottonised hemp blended fabrics
 7th International Workshop on Soft Computing Applications (SOFA 2016)", 24-26 August
 2016, Arad, Romania.
11. **M. Dochia**, S. Gavrilăș, M. Pustianu, D. Tomescu
Physico-chemical parameters of the wastewaters resulted from the bioscouring treatment of the cellulosic/lignocellulosic fabrics
 A XXXIV-a Conferință Națională de Chimie, 4-7 October, 2016, Căciulata, Romania,
 Secțiunea 5, pagina 9.
12. **M. Dochia**, S. Gavrilăș, M. Pustianu, D. Tomescu, D. M. Copolovici
Comparative study regarding the influence of the complexing agents EDTA and sodium citrate on the 50% flax-50% cotton fabrics during the bioscouring treatment
 "SGEM Vienna GREEN 2016 Scientific Conference", 02-05 November, 2016, Vienna,
 Austria.
13. M. Pustianu, **M. Dochia**, S. Gavrilăș, 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", 17-18
 November, 2016, Drobeta-Turnu Severin, Romania.
14. **M. Dochia**, S. Gavrilăș, M. Pustianu, D. Tomescu, C. Sîrghie, D. M. 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, Arad Romania.
15. S. Gavrilăș, **M. Dochia**, M. Pustianu, D. 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, Arad Romania, abstracts book p. 24.
16. M. Pustianu, **M. Dochia**, S. Gavrilăș, D. Tomescu, D. M. Copolovici
Study on the bioscouring treatment of 50 % of hemp + 50 % of cotton fabrics
 "Innovative solutions for sustainable development of textiles and leather industry", 26-27
 May, 2017, Oradea, Romania.
17. **M. Dochia**, M. Pustianu, S. Gavrilăș, D. Tomescu, D. M. Copolovici
Study on the influence of ultrasound in bioscouring treatment of 50 % of flax + 50 % of cotton fabrics
 "Innovative solutions for sustainable development of textiles and leather industry", 26-27
 May, 2017, Oradea, Romania.

18. M. Pustianu, **M. Dochia**, S. Gavrilas, D. Tomescu
Study of the efficiency of bioscouring treatment by determination of the residual Ca^{2+} from flax-cotton fabrics
 17th International Multidisciplinary Scientific Geoconference SGEM 2017, Nano, Bio, Green and Space-Technologies for a Sustainable Future, 27 June-06 July, **2017**, Albena, Bulgaria.
19. **M. Dochia**, M. Pustianu, S. Gavrilas, D. Tomescu, D. M. Copolovici
Study of the ultrasound efficiency on bioscouring treatment of hemp - cotton fabrics
 17th International Multidisciplinary Scientific Geoconference SGEM 2017, Nano, Bio, Green and Space-Technologies for a Sustainable Future, 27 June-06 July, **2017**, Albena, Bulgaria.
20. **M. Dochia**, S. Gavrilas, M. Pustianu, D. Tomescu, D. 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, 28-31 August, **2017**, Chişinău, Republica Moldova, Abstracts book p. 471.
21. S. Gavrilas, **M. Dochia**, M. Pustianu, C. Moisă, D. 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, 28-31 August, **2017**, Chişinău, Republica Moldova, Abstracts book p. 169.
22. **M. Dochia**, S. Gavrilas, M. Pustianu, D. 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, 6-9 September, **2017**, Poiana Braşov, Romania.
23. S. Gavrilas, **M. Dochia**, C. Moisă, M. Pustianu
Physicochemical methods used to determine residual calcium and pectines from cotton fabrics after pectinolytic treatment
 „EASTWEST Chemistry Conference”, 12-14 October, **2017**, Skopje, Macedonia.
24. **M. Dochia**, S. Gavrilas, M. Pustianu, C. Moisă
Characterization of waste waters from different bioscouring technologies for cotton materials
 "Environment & Progress" Symposium, 10 November, **2017**, Cluj-Napoca, Romania.
25. **M. Dochia**, D. Chambre, S. Gavrilas, M. Pustianu, I. Tolan, G. Onofrei
Experimental conditions influence on the thermal behaviour of cotton-flax fabrics after an eco-friendly pretreatment
 7th International Symposium Research and Education in an Innovation Era, 17-20 Mai, **2018**, Arad, Romania.
26. **M. Dochia**, S. Gavrilas, M. Pustianu, D. Chambre, C. Sîrghie
Physico-mechanical properties of the cotton/flax blended fabrics after a green scouring treatment
 7th International Symposium Research and Education in an Innovation Era, 17-20 Mai, **2018**, Arad, Romania.

27. D. Chambre, **M. Dochia**, C. Sirghie, I. Tolan, G. Onofrei, A.M. Bodescu
Thermal and FT - IR analysis of bioscoured cellulosic fabrics
 7th International Symposium Research and Education in an Innovation Era, 17-20 Mai, **2018**, Arad, Romania.
28. M. Pustianu, **M. Dochia**, S. Gavrilas, C. Moisă
Biotreatment optimization for a cellulosic/lignocellulosic blended fabric
 "Innovative solutions for sustainable development of textiles and leather industry", 25-26 Mai, **2018**, Oradea, Romania.
29. **M. Dochia**, S. Gavrilas, M. Pustianu, C. Moisă, D. Chambre
Waste water analysis from a new green pretreatment of cotton fabrics
 "Innovative solutions for sustainable development of textiles and leather industry", 25-26 Mai, **2018**, Oradea, Romania.
30. I. Barbu, S. M. Fogorasi, **M. Dochia**, M. Pustianu, A. Bucevschi, D. Farima
A comparative study on the comfort and safety of the seat cover fabrics
 "IVth International Congress of Automotive and Transport Engineering", 17–19 Octombrie, **2018**, Cluj-Napoca, Romania.
31. **M. Dochia**, S. Gavrilas
 Ecotreatment for hemp/cotton materials to reduce wastewater pollution
 "5th International Conference Advances in Engineering & Management (ADEM 2018)", 1-2 Noiembrie, **2018**, Drobeta-Turnu Severin, Romania.
32. **M. Dochia**, D. Chambre, S. Gavrilas, I. Tolan, G. Onofrei
 Characterization of the enzymatically pretreated cellulosic/lignocellulosic woven fabric by FT-IR ATR and TG/DTG analyses
 8th International Symposium Research and Education in an Innovation Era, 23-25 Mai, **2019**, Arad, Romania.
33. D. Chambre, **M. Dochia**, S. Gavrilas, I. Tolan, G. Onofrei
 Quantification of residual pectin from bioscoured hemp/cotton fabric by FT-IR ATR analysis
 8th International Symposium Research and Education in an Innovation Era, 23-25 Mai, **2019**, Arad, Romania.
34. S. Gavrilas, A.R. Sărsan, **M. Dochia**, L. Copolovici, D.M. Copolovici, L.N. Lazăr, F.D. Munteanu
 Natural dyes extracted from food by-products with applications for natural fiber dyeing
 8th International Symposium Research and Education in an Innovation Era, 23-25 Mai, **2019**, Arad, Romania.
35. **M. Dochia**, S. Gavrilas
 Physico-chemical parameters of residual water from different scouring treatments of hemp/cotton fabric
 Innovative solutions for sustainable development of textiles and leather industry", 23-24 Mai, **2019**, Oradea, Romania..
36. S. Gavrilas, **M. Dochia**
 Efficiency assessment of the different scouring conditions of cotton materials by ruthenium red dyeing

- Innovative solutions for sustainable development of textiles and leather industry", 23-24 Mai, **2019**, Oradea, Romania.
37. A. Bujdei, S. Gavrilas, **M. Dochia**, F. D. Munteanu
Vegetable food waste for cotton dyeing-new directions for environmental sustainability
22nd International Symposium "The Environment and Industry" SIMI, 26–27 Septembrie, **2019**, București, Romania.
 38. **Dochia, M.**, Gavrilas, S., Szabo, M.
Study of the experimental conditions in bioscouring treatment of cotton-hemp blended fabrics, Innovative solutions for sustainable development of textiles and leather industry, 21-22 Mai, **2020**, Oradea, Romania.
 39. Szabo, M., **Dochia, M.**, Gavrilas, S.
The behaviour of rib 1:1 and 2:2 knitted cotton fabrics during different solicitations and treatments, Innovative solutions for sustainable development of textiles and leather industry, 21-22 Mai, **2020**, Oradea, Romania.
 40. **Dochia, M.**, Gavrilas, S., New ecological method for pretreatment of lignocellulosic textiles, XI International Agriculture Symposium "AGROSYM 2020", 8-9 Octombrie, **2020**, Jahorina, Bosnia and Herzegovina.
 41. **Dochia, M.**, Gavrilas, S., Characteristics of wastewater from different pretreatments of flax/cotton fabrics, 6th International Conference "ADVANCES IN ENGINEERING & MANAGEMENT – ADEM 2020", 10-11 Decembrie, **2020**, Drobeta –Turnu Severin, Romania.
 42. Barbu, I., Bucevschi, A., Komjaty, A., Fogorasi, M. S., **Dochia, M.**, Pustianu, M., Teaching and E-Learning about Draw Frame Machine, 17th eLearning and Software for Education Conference - eLSE 2021, 22-23 Aprilie, **2021**, București, Romania.
 43. **Dochia, M.**, Kaminszky, R.; Fogorasi, M. S.; Farima, D.; Barbu, I.; Nicolaescu, C.; Pustianu, M.; Popa, A.; Bucevschi, A., Study on the behaviour and comfort of reusable knitting suits of wool blends in the context of the Covid 19 pandemic, 9th International Conference Modern Technologies in Industrial Engineering – ModTech, **2021**, 23–26 Iunie, **2021**, Eforie Nord, Romania.
 44. **Dochia, M.**, Kaminszky, R.; Fogorasi, M. S.; Bucevschi, A.; Barbu, I.; Popa, A.; Nicolaescu, C., Aspects regarding the behaviour and comfort of reusable wool protective masks in the context of the COVID 19 pandemic, 9th International Conference Modern Technologies in Industrial Engineering - ModTech 2021, 23–26 Iunie, **2021**, Eforie Nord, Romania.
 45. Beiu, R.M.; Duma, V.F.; Mnerie, C.A.; Beiu, A.C.; **Dochia, M.**, Copolovici, L.; Dobre, G.; Bradu, A.; Podoleanu, A., Optical Coherence Tomography versus Microscopy for the Study of Aloe Vera Leaves, Proceedings Volume 12138, Optics, Photonics and Digital Technologies for Imaging Applications VII; 121380A (2022) <https://doi.org/10.1117/12.2620766>; SPIE Photonics Europe, 3-7 Aprilie **2022**, Strasbourg.
 46. M. Szabo, **M. Dochia**, V Müller, L. Jitaru, The study of the physico-mechanical properties of fashion tights compared to medicinal tights, 10th International Conference Modern Technologies in Industrial Engineering - ModTech 2022, 22–25 Iunie, **2022**, Eforie Nord, Romania.

47. Cioban, L.A.; Moisa, C.; **Dochia, M.**; Mureșan, C.; Chambre, D., Characterization of limestone weathering compounds from an historical wall in Arad by FTIR and TG/DTA methods, Simpozionul ENVIRONMENT & PROGRESS „Dezvoltarea durabilă: abordări și soluții pentru comunități reziliente”, 18-19 Mai, **2023**, Cluj-Napoca, România.
48. Cioban, L.A.; Moisa, C.; **Dochia, M.**; Mureșan, C.; Chambre, D., Spectrophotometric characterization of the limestone's “black patina”, PhD Students' Days, the Third Edition, Faculty Of Food Engineering, Tourism And Environmental Protection, 29-30 Mai, **2023**, UAV, Arad, Romania.
49. Copolovici, L.; Gostăviceanu, A.; Gavrilăș, S.; Radu, D.G.; **Dochia, M.**; Moisa, C.; Lupitu, A.I.; Copolovici, D.M., Peptide-based therapeutics, The Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology, 13-15 Septembrie, **2023**, Cluj-Napoca, Romania.
50. Copolovici, D.M.; Moisa, C.; Radu, D.G.; Lupitu, A.I.; Gavrilăș, S.; **Dochia, M.**; Copolovici, L., Peptides with Antimicrobial Properties, 6th International Conference on Recent Trends in Multi-Disciplinary Research Innovation In Multidisciplinary Research & Practice, 10-11 Noiembrie, **2023**, Istanbul, Turcia.
51. Fogorasi, M. S; **Dochia, M.**; Chambre, D. R.; Stănescu, M. D., The influence of different enzymatic treatments on cotton dyeing, “National Conference of Chemistry”, XXXVII Edition, 25-27 Septembrie, **2024**, Târgoviște, România.
52. Copolovici, D. M.; Moisă, C.; Lupitu, A.; Bojin, F.; Gavrilăș, O.; **Dochia, M.**; Chambre, D.; Copolovici, L., Buforin-derived synthetic peptides with potential applications in medicine, 37th European Peptide Symposium and 14th International, Peptide Symposium, 25-29 August, **2024**, Florența, Italia.

VIII. Participări la manifestări științifice naționale

1. M. Bucur, C Sîrghie, **M. Dochia**– UAV Arad, A. Botar– SC Jialex SRL Cluj
Posibilități de albire a materialelor din fibre naturale de in si cânepă cu compuși Polioxometalați - „Materiale textile avansate realizate din fibre inferioare de in prin tehnologii enzimatică” ARAD 29-30 August **2008**.
2. C. Sîrghie, **M. Dochia**
Materiale avansate obținute din deșeuri de fibre de in și cânepă prin aplicarea unor procedee speciale ultrasono-enzimatică –catalitice de cotonizare - „Materiale textile avansate realizate din fibre inferioare de in prin tehnologii enzimatică” ARAD 29-30 August **2008**.

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