

LIST OF PUBLICATIONS

PhD.Eng. MIHAELA DOCHIA

ISI ARTICLES and ISI PROCEEDINGS

1. **M. Dochia**, S. Gavrilaş, 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
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, *lucrare în curs de indexare*.
2. M. Pustianu, **M. Dochia**, C.Șirghie, S. Gavrilaş, 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, *lucrare în curs de indexare*.
3. C. Șirghie, **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.
4. 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.
5. I.V. Iștoc, M. Pustianu, **M. Dochia**, Cecilia Șirghie, 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. Șirghie
Enzymatic finishing of blended textile materials from cottonised flax and cotton fibers
Industria Textilă, 2014, Vol.65, No. 3, 129-133.
7. **M. Dochia**, M. D. Stănescu, C. Constantin
Calcium Content Indicator of Scouring Efficiency
FIBRES & TEXTILES in Eastern Europe, 2013; 21, 3(99), 22-25.
8. M.D. Stănescu, **M. Dochia**, D. Radu, C. Șirghie
Green solution for cotton scouring
FIBRES & TEXTILES in Eastern Europe, 2010, 18, 3(80), 109-111.
ISSN 1230-3666
9. M.D. Stănescu, M. Fogorasi, **M. Dochia**, S. Mihuța, V.I. Lozinsky
Biotechnology for Textile Waste Valorization
Revista de Chimie, 2009, 60, nr.1, 59-62
ISSN 0034-7752.

BOOK CHAPTERS

1. **Handbook of natural fibres, Volume 1: Types, properties and factors affecting breeding and cultivation, Chapter 2 – Cotton fibres**, authors: **M. Dochia**, C. Sîrghie, R.M. Kozlowski, Z. Roskwitalski, **Woodhead Publishing Limited** Publishing House, Series in Textiles, Cambridge, UK, Editor Ryszard M. Kozlowski, **2012**.

OTHER PUBLICATIONS

1. **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, p. 91-117, P-ISSN: 1843-813X.
2. 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, p. 89-111, P-ISSN: 1843-813X
3. 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 p. 93-98, P-ISSN: 1843-813X.
4. **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 p. 99-102, P-ISSN: 1843-813X.
5. A. Popescu, C. Sîrghie, **M. Dochia**, D. M. Copolovici, L. Chirila
Aspects regarding natural dyeing of enzymatically pre-treated cellulosic blended yarns
ICAMS **2014** – 5th International Conference on Advanced Materials and Systems.
6. I.V. Iştoc, 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. 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 Efficiency of the Dyeing treatment
Analele Universității din Oradea, Fascicola Textile&Pielarie, **2013**, vol XIV, 123
P-ISSN: 1843-813X.
8. **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.
9. 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
10. R.M. Kozłowski, 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.
11. R.M. Kozłowski, **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.
12. 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.
13. R.M. Kozłowski, 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.
14. 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**, VOL, 21-28.
15. 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.
16. **M. Dochia**, M.D. Stanescu
Biotechnology Applications in Cotton Processing
Scien. and Techn. Bull. Chemistry, Food Sciences & Engineering, **2006**, 11, 223-231.

17. 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, 39-43.
18. M.S. Fogorasi, M.D. Stănescu, **M. Dochia**
Studiul influenței pretratamentului enzimatic asupra vopsirii materialelor din bumbac
Scien. and Techn. Bulletin, **2004**, 10, 53 - 57
ISSN 1582 – 1021.

INTERNATIONAL AND NATIONAL CONFERENCES

1. M. Pustianu, **M. Dochia**, C. Sîrghie, S. Gavrițaș, 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.
2. M. Bălaș, C. Sîrghie, M. Pustianu, **M. Dochia**, S. Gavrițaș, D. Tomescu
Fuzzy Methods Applied on the Control of Textile Biotechnologies
7th International Workshop on Soft Computing Applications (SOFA 2016)", 24-26 August 2016.
3. **M. Dochia**, S. Gavrițaș, M. Pustianu, D. Tomescu
Physico-chemical parameters of the wastewaters resulted from the bioscouring treatment of the cellulosic/lignocellulosic fabrics – prezentare.
A XXXIV-a Conferință Națională de Chimie, 4-7 Octombrie 2016, Secțiunea 5, pagina 9.
4. **M. Dochia**, S. Gavrițaș, 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 noiembrie 2016 - lucrare în curs de indexare (ISI Proceedings).
5. M. Pustianu, **M. Dochia**, S. Gavrițaș, D. Tomescu
Comparative study on treatment bioscouring optimization with and without ultrasound for 50 % of Cotton + 50 % of flax materials - poster
"4th International Conference ADVANCES IN ENGINEERING & MANAGEMENT - ADEM", 17-18 Noiembrie 2016.
6. **M. Dochia**, S. Gavrițaș, M. Pustianu, D. Tomescu, C. Sîrghie, D. M. Copolovici
Determination of the residual pectin from a bioscoured flax/cotton fabric using Ruthenium Red method - poster
6th International Symposium “Research and Education in an Innovation Era”, 8-10 Decembrie 2016.
7. S. Gavrițaș, **M. Dochia**, M. Pustianu, D. Tomescu
Calcium spectrophotometric determination from flax-cotton fabrics after bioscouring treatment – poster
6th International Symposium “Research and Education in an Innovation Era”, 8-10 Decembrie 2016.

8. M.S. Bucur, M. Szabo, C. Sîrghie, **M. Dochia**, M. Dan
The influence of the treatment with POM compounds on the elongation of hemp fibers
Proceedings of the International Symposium “Research and Education in an Innovation Era”,
Engineering Sciences, **2008**, 447-456
ISSN 2065 2569.
9. M. Bucur, C Sîrghie, **M. Dochia**– UAV Arad, A. Botar– SC Jialex SRL Cluj
*Whitening possibilities with polioxometalates of natural fibers of flax and hemp materials -
„Advanced tetile materials obtained by enzyme technologies from flax fibers with poor
quality”* ARAD 29-30.08 **2008**.
10. C. Sîrghie, **M. Dochia**
*Advanced materials obtained from wastes of flax and hemp fibers by applying special
ultrasono-enzymatic-catalytic of cottonisation procedures - „Advanced tetile materials
obtained by enzyme technologies from flax fibers with poor quality”* ARAD 29-30.08 **2008**.
11. M. D. Stănescu, M.Fogorasi, **M. Dochia**
Enzymatic Treatments of Cotton- Improvement of Properties and Environmental Aspects
DWI Reports, **2006**, 130, P8.
12. 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
13. M. Fogorasi, M.D. Stanescu, **M. Dochia**
Enzymes in Cotton Dyeing
3rd International Conference on Textile Biotechnology, Graz, Austria, 13-16 iunie **2004**, P16.
14. M.D. Stanescu, M.S. Fogorasi, M. Bucur, M. Pustianu, S. Mihuta, **M. Dochia**
Influence of Reaction Parameters on Cotton Bioscouring
Simpozionul EU COST 847 “Textile Biotechnology and Quality, WG4, WG5,
Pavoa do Varzim, Portugalia, 11-12 noiembrie 2004.
15. M.D. Stanescu, M.S. Fogorasi, M.Bucur, M. Pustianu, **M. Dochia**
Enzymes in Cotton Bioscouring
13th International Conference on Chemistry and Chemical Engineering
Bucuresti, Romania, vol. 3, septembrie **2003**, 43-48
ISBN 973-652-825-1.

NATIONAL PATENTS

1. Sîrghie Cecilia, Botar Alexandru, Dinca Nicolae, Craciun Grigore, **Dochia Mihaela**, –
*“Bleaching ecological process of natural fibers through catalytic oxidation with
polyoxometalates compounds”*, patent no. 122728/30.12.2009, Romania.
2. Stănescu Michaela Dina, Cărpuș Eftalea, Fogorasi Magdalena, Popescu Alina, **Dochia
Mihaela**, Mihuța Silvia, *“Ecological process for polyester recovery from textile waste
polyester/cotton blends”* patent no. 122919/30.04.2010, Romania.

INTERNATIONAL PATENTS

1. Sirghie Cecilia, Radu Dana Gina, Munteanu Florentina Daniela, Pag Andreea, **Dochia Mihaela**, Tomescu Daniel, „*Process for melting bast fiber plants, such as: flax, hemp, jute etc consists in treating the stems with a mixed inoculum of microorganisms from a sublayer of fruit wastes and a bakery yeast*” - RO128837-A0 – 30 Septembrie 2013, EP2703527-A1 – 05 March 2014.
2. Sirghie Cecilia, Botar Alexandru, Bodescu Adina Maria, **Dochia Mihaela**, „*Process for peroxy-polyoxomethalates whitening of textile materials (yarns, cloths and knitted fabrics) from cellulosic fiber mixtures such as: flax-cotton, hemp-cotton*”, RO128839-A0 – 30 Septembrie 2013, EP2703553-A1 – 05 March 2014.