



PhD. Eng. MIHAELA DOCHIA

INSTITUTE FOR INTERDISCIPLINARY RESEARCH OF „AUREL VLAICU” UNIVERSITY OF ARAD

CURRICULUM VITAE

First name: MIHAELA
Surname: DOCHIA
Born: January 03, 1979, ARAD, ROMANIA
Address: 6 Vînători, 15-17, Arad, Romania, tel. 0771315490

Citizenship: Romanian
Marital status: Married (one child)

Current job: “Aurel Vlaicu” University of Arad, Institute of Interdisciplinary Research
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Position: Senior Researcher II
Researcher ID: N-1664-2013.
BrainMap ID: U-1700-036Y-1335.

EDUCATION:

2014 - PhD in Chemical Engineering, University POLITEHNICA of Bucharest - Faculty of Applied Chemistry and Materials Science (supervisor: Prof. Michaela Dina Stănescu)

PhD thesis: “*Application of biotechnologies for processing raw and waste cellulosic textile materials*”

2005 - Master in „Ecotextile”

Faculty of Engineering, “Aurel Vlaicu” University of Arad

Title of the Master thesis: “*Enzymatic scouring of cotton materials*”

Supervisor: Prof. Michaela Dina Stănescu)

2002 - Bachelor in Chemical Engineering - Chemical Textile Finishing

Faculty of Engineering, “Aurel Vlaicu” University of Arad

RESEARCH STAGES:

October 2008 – „A.N. Nesmeyanov” Institute, Moscow, Russian Federation. Research theme: „New biomaterials obtained by immobilizing enzymes on macroporous matrix cryogel”.

November 2009 - – „A.N. Nesmeyanov” Institute, Moscow, Russian Federation. Research theme: „New biomaterials obtained by immobilizing enzymes on macroporous matrix cryogel”.

EXPERIENCE:

March 2019- Present, Senior Researcher II, Institute of Interdisciplinary Research - “Aurel Vlaicu” University of Arad, Romania.

July 2015 - March 2019, Senior Researcher III, Research Development Innovation in Technical and Natural Science Institute - “Aurel Vlaicu” University of Arad, Romania.

Dec. 2012 – July 2015, Researcher, Research Development Innovation in Technical and Natural Science Institute - “Aurel Vlaicu” University of Arad, Romania.

Oct. 2008 - Dec. 2012, Engineer at Faculty of Engineering, “Aurel Vlaicu” University of Arad, Romania.

Sept. 2006 - Oct. 2008, Research Assistant, “Aurel Vlaicu” University of Arad, Romania.

Aug. 2003 - Sept. 2006, Engineer at Faculty of Engineering, “Aurel Vlaicu” University of Arad, Romania.

Feb. 2003 - Aug. 2003, Probationer engineer at Faculty of Engineering, “Aurel Vlaicu” University of Arad, Romania.

EXPERTIZE:

- Chemical Textile Finishing - Textile Biotechnology (enzymatic treatments applied on cellulosic/lignocellulosic materials).
- Enzyme immobilization.
- Textile Finishing - advanced finishing treatments (bleaching, functionalization, etc.).
- Physico-chemical and chemical analyses of textile materials.
- Textile wastewaters analyses.
- UV-Vis Spectroscopy.
- Microscopy (Optical microscopy, SEM+EDX).

PROJECT LEADER

1. **2015-2017** - Grant **PN-II-RU-TE-2014-4-1370** – „*Ecological technologies for treating celluloses, lignocelluloses textile materials and mixtures thereof*”, Contract **334/01.10.2015**.
2. **Contract no. 635/11.08.2021** - „*Studiul tehnologiilor de reciclare chimică; tehnologii chimice de transformare a semifabricatelor în produs finit pentru valorificarea deșeurilor textile printr-o economie circulară*”. Beneficiary: S.C. TECHTEX S.R.L.

PROJECTS MEMBER

1. **2002 – 2004** - National grant BIOTECH: „**Development of biotechnologies for processing natural fibre fabrics, in order to reduce environmental pollution**”; sub-PED 02.3 -443/2002.
2. **2004 – 2006** - National grant BIOTECH: ”**Technologies for bio-reusing of textile waste**”; sub. 3-PED.
3. **2005 – 2007** - Bilateral project Romania - Slovenia: Biotechnology for textile wastewater treatments.
4. **2006 – 2007** - National grant CEEX - Module III: “**Scientific Partnership in nano-sciences and nanotechnologies applied in textile**”; Contract no. 68/2006.
5. **2006 – 2008** - National grant CEEX - Module I: “**New technologies applied to materials from bast fibers using chemical and enzymatic processes in ultrasound for the production of performant materials**”; Contract no. 55/2006.

6. **2006 – 2008** - National grant CEEEX - Module I: **“Polyoxometalates compounds (POM) with oxidative catalytic activity for the top applications”**; subcontract 2465/24.07.2006.
7. **2006 – 2008** - National grant CEEEX - Module III: **“Regional Network of excellence in micro-nano-bio technology and textiles for medical applications”**; subcontract 381/29.07.2006.
8. **2007 – 2009** - National grant PNCD II- Module IV: **“Integrated optic system for defect management in textile industry”**.
9. **2008 – 2009** - Bilateral project Romania - Russian Federation: **„New biomaterials by enzymes immobilisation on cryogel based macroporous carriers”**.
10. **2010 – 2013** - National grant POS-CCE 2.1.2 **“Bast plants - renewable strategic resources for European Economy”**.
11. **2012 – 2014** - International research project ERA-NET, PN II program: **“Improving natural dyeing with enzymes ”**, Contract UEFISCDI Nr.: 7-068/2012, 7-069/2012, 7-070/2012.
12. **2014 – 2015** – National grant POS-CCE 2.2.1 – **“Research Center in Technical and Natural Sciences”**.
13. **2016 – 2018** - PNIII-P2-2.1-28PTE/2016 project – **„Demonstrative processing plant for innovative hemp retting”**.
14. **2020 - 2022** - Project 2019-3-TROI-KA205-080177 – **„Green Thinking Entrepreneur Youth”**.
15. **2021 – 2023** - PN-III-P4-ID-PCE-2020-0410 project – **„The impact of abiotic and biotic stresses on plants due to climate changes”**.
16. **2022 – 2024** - PN-III-P4-PCE-2021-0639 project, Contract no. 98 / 2022 – **„Cell-penetrating peptides-containing systems as a potential platform for the use in breast and prostate cancer treatment” - CPPS-CANCER**.

SCIENTIFIC ACTIVITY:

- 1) **2** Book chapters in:
„Handbook of natural fibres, Volume 1: Types, properties and factors affecting breeding and cultivation, Chapter 2 – Cotton fibres (2012) and
„Natural fibers: properties, mechanical behavior, functionalization and applications”, Chapter 1 ”Cotton dominant natural fibre: production, properties and limitations in its production” (2017).
- 2) **4** National patents (2009, 2010, 2012 and 2016).
- 3) **2** International patents submitted (2014)
- 4) **23** ISI papers and papers in ISI proceedings.
- 5) **36** Papers in IDB journals
- 6) **11** Other scientific articles.
- 7) **54** International and national scientific conferences
- 8) Member in **16** research projects.
- 9) Director of **2** research projects.

PROFESSIONAL MEMBERSHIP:

Romanian Chemical Society
 ModTech Professional Association
 European Federation of Biotechnology

OTHER EXPERIENCE:

- Member of the Editorial Board of the *Scientific and Technical Bulletin, Series Chemistry, Food Science & Engineering* journal.
- Member of the Editorial Board of the *Scientific Bulletin of Escorena* journal.

- Member of the Organizing Committee of International Conference FAO-SCORENA, 21-24 June 2009 - “Aurel Vlaicu” University of Arad, Romania.
- Secretary of the Organizing Committee of the 4th World Congress FAO SCORENA, October 2007, “Aurel Vlaicu” University of Arad, Romania. Member of Editorial Board of the Congress Proceeding.
- Contribution to the founding of a research network entitled “PARTEXNET” in Nano - science and Nano – technologies applied in textile field.
- Scientific workshop – Analytik Jena – 17.03.2008 Timisoara, Romania.
- Round Table – Seminar „Natural Renewable Fibrous Raw Materials, Production and Application”, Lecturers: Prof. Dr. Ryszard KOZLOWSKI and Maria Mackiewicz Talarczyk - Institute of Natural Fibres, Poznan, Poland held in 17-18 May 2006, Organizer “Aurel Vlaicu” University of Arad – Faculty of Engineering – Department of Textile Products Technology and Physics.
- Round Table – Seminar “External partnerships in biotechnology, Senior Lecturer Dr.Ing. Vincent Nierstrasz – University of Twente- Olanda held in 22-24 May 2006, Organizer “Aurel Vlaicu” University of Arad – Faculty of Engineering – Department of Textile Products Technology and Physics.
- Contribution to the founding of a research group on *bioactive and biofunctional medical textiles*– within the “Eurotexmed” network – a regional network of excellence in micro-nano biotechnology and textiles for medical applications.
- Participation at the regional salon of research fair called "ECOMEDIU" organized by the Chamber of Commerce, Industry and Agriculture Arad and Expo Arad International during 23 to 25 November 2011.
- Participation at the XI edition of the International environment fair called “ECOMEDIU” organized by the Chamber of Commerce, Industry and Agriculture Arad and Expo Arad International during 16 to 18 October 2013.
- Reviewer for **Journal of Natural Fibers** journal.

AWARDS

January 2013- „**Book of The Month**” for „**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 House, Series in Textiles, Editor Ryszard M. Kozlowski, 2012, granted by **The Textile Institute**.

LANGUAGES SKILLS:

- English

Arad, 03.10.2024

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