

# PhD. Eng. MIHAELA DOCHIA

RESEARCH DEVELOPMENT INNOVATION IN TECHNICAL AND NATURAL SCIENCE INSTITUTE OF "AUREL VLAICU" UNIVERSITY OF ARAD

# CURRICULUM VITAE

First name: MIHAELA
Surname: DOCHIA

**Born:** January 03, 1979, ARAD, ROMANIA

Address: 6 Vînători, 5-7, Arad, Romania, tel. +40771315490

Citizenship: Romanian

Marital status: Married (one child)

Current job: "Aurel Vlaicu" University of Arad, Research Development Innovation

in Technical and Natural Science Institute

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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 row and waste cellulosic textile materials"

#### 2005 - Master in "Ecotextile"

Faculty of Engineering, "Aurel Vlaicu" University of Arad

Title of the Master thesis: "Enzimatic 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 criogel".

**November 2009 - - "A.N. Nesmeyanov" Institute**, Moscow, Russian Federation. Research theme: "New biomaterials obtained by immobilizing enzymes on macroporous matrix criogel".

#### **EXPERIENCE:**

March 2019- Present, Senior Researcher II, Research Development Innovation in Technical and Natural Science Institute - "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).
- Textile Finishing advanced finishing treatments (bleaching, functionalization, etc.).
- Physico-chemical and chemical analyses of textile materials.
- UV-Vis Spectroscopy.
- Microscopy.

#### 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.

### 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 CEEX Module I: "Polyoxometalates compounds (POM) with oxidative catalytic activity for the top applications"; subcontract 2465/24.07.2006.
- 7. **2006 2008** National grant CEEX Module III: "Regional Network of excellence in micronano-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".

### **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) 3 National patents (2009, 2010 and 2016).
- 3) 2 International patents submitted (2014)
- 4) 10 ISI papers and 7 ISI proceedings.
- 5) **20** Papers in IDB journals
- 6) 9 Other scientific articles.
- 7) 37 International and national scientific conferences
- 8) Member in 13 research projects.
- 9) Director of 1 research project.

#### PROFESSIONAL MEMBERSHIP:

Romanian Chemical Society

#### **OTHER EXPERIENCE:**

- Member of the Editorial Board of the *Scientific Bulletin of Escorena* journal.
- Member of the Organizing Committee of International Conference FAO-ESCORENA, 21-24 June 2009 "Aurel Vlaicu" University of Arad, Romania.
- Secretary of the Organizing Committee of the 4<sup>th</sup> World Congress FAO ESCORENA, Octomber 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 <u>bioactive and biofunctional medical</u> <u>textiles</u>— within the "Eurotexmed" network a regional network of excellence in micronano 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, 15.12.2019

Senior researcher II PhD Eng. Mihaela Dochia