



**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. 0771315490  
**Citizenship:** Romanian  
**Marital status:** Married (one child)  
**Current job:** “Aurel Vlaicu” University of Arad, Research Development Innovation in Technical and Natural Science Institute  
**Address:** 310330 Elena Dragoi, 2-4, ARAD, ROMANIA,  
Tel./fax: 004/0257/369.091  
e-mail: dochiamihaela@yahoo.com  
**Position:** Senior Researcher III

### **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:**

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

**Dec. 2012 – July 2015**, Scientific secretary of 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 analyzes of textile materials.
- UV-Vis Spectroscopy.
- Microscopy.

## **PROJECTS**

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. **2006 – 2007** - National grant CEEX - Module III: “**Scientific Partnership in nano-sciences and nanotechnologies applied in textile**”; Contract no. 68/2006.
4. **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.
5. **2006 – 2008** - National grant CEEX - Module I: “**Polyoxometalates compounds (POM) with oxidative catalytic activity for the top applications**”; subcontract 2465/24.07.2006.
6. **2006 – 2008** - National grant CEEX - Module III: “**Regional Network of excellence in micro-nano-bio technology and textiles for medical applications**”; subcontract 381/29.07.2006.
7. **2007 – 2009** - National grant PNCD II- Module IV: “**Integrated optic system for defect management in textile industry**”.
8. **2008 – 2009** - Bilateral project Romania - Russian Federation: „**New biomaterials by enzymes immobilisation on cryogel based macroporous carriers**”.

9. **2010 – 2013** - National grant POS-CCE 2.1.2 **“Bast plants - renewable strategic resources for European Economy”**.
10. **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.
11. **2014 – 2015** – National grant POS-CCE 2.2.1 – **“Research Center in Technical and Natural Sciences”**.

#### **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) **2** National patents (2009 and 2010).
- 3) **1** International patent (2016).
- 4) **1** International patent submitted (2014)
- 5) **7** ISI papers and **5** ISI proceedings.
- 6) **10** papers in IDB journals
- 7) **11** other papers.
- 8) **24** International and national scientific conferences
- 9) Member in **11** research projects.
- 10) 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-SCORENA, 21-24 June 2009 - “Aurel Vlaicu” University of Arad, Romania.
- Secretary of the Organizing Committee of the 4<sup>th</sup> 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.

#### **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. Kozłowski, Z. Roskwitalski, Woodhead Publishing House, Series in Textiles, Editor Ryszard M. Kozłowski, 2012, granted by The Textile Institute.**

#### **LANGUAGES SKILLS:**

- English