



Daniel Cristea

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Gender: Male **Date of birth:** 25/01/1983 **Nationality:** Romanian

WORK EXPERIENCE

[2023 – Current]

Professor

Transilvania University, Faculty of Materials Science and Engineering

City: Brasov

Country: Romania

[2022 – 2023]

Associate Professor

Transilvania University, Faculty of Materials Science and Engineering

City: Brasov

Country: Romania

[2015 – 2022]

Lecturer

Transilvania University, Faculty of Materials Science and Engineering

City: Brasov

Country: Romania

[2012 – 2015]

Associate Teaching Staff

Transilvania University, Faculty of Materials Science and Engineering

[2009 – 2010]

Mechanical technician, mechanical engineer

SC Organe de Asamblare SA

City: Brasov

Country: Romania

EDUCATION AND TRAINING

[04/2014 – Current]

Postdoctoral researcher

Transilvania University, Faculty of Materials Science and Engineering

Address: Braşov, Romania

Project title: *Tantalum oxynitride multifunctional thin films applications*

Main topics: Thin films synthesis and characterization. Practical applications

[02/2012 – 08/2012]

Research internship

Minho University, Department of Physics

Address: Minho/ Guimaraes, Portugal

[2010 – 2013]

PhD student

Transilvania University, Faculty of Materials Science and Engineering

Address: Braşov, Romania

Thesis title: *Research on the synthesis and characterization of MeOxNy system thin films deposited by reactive magnetron sputtering*

Main topics: Thin films synthesis. Thin films characterization

[2009 – 2011]

Master's degree

Transilvania University, Faculty of Materials Science and Engineering

Address: Braşov, Romania

[2009]

Materials Science Engineer

Transilvania University, Faculty of Materials Science and Engineering

Address: Braşov, Romania

Main topics: Materials science, materials engineering

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

DIGITAL SKILLS

Microsoft Office | Microsoft Word | Microsoft Excel | Social Media | Microsoft Powerpoint | Google Drive

DRIVING LICENCE

Cars: B

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- communication abilities, individual and team work

JOB-RELATED SKILLS

Job-related skills

Thin film research and development, mainly by Physical Vapor Deposition (sputtering, PLD, etc.), surface characterization (nanoindentation, wear and tribology, adherence of thin films to substrates, corrosion resistance, biocompatibility, photocatalysis, electrical, and optical analysis.

SCIENTIFIC ACHIEVEMENTS

Scientific papers

- 5 books at national level, 1 book chapter at international level (Elsevier)

- ISI-WOS (Clarivate) indexed papers: 63, of which 13 as lead author (FI > 1)

- BDI indexed works: 13

- habilitation in the field of Materials Engineering (2021)

535 citations in ISI journals, over 300 non-ISI citations, Hirsch indexes: Clarivate: 13, SCOPUS: 15, GS: 16

RESEARCH PROJECTS

Contracts

1. SFERA III: Concentrated solar radiation fast sintering of novel metastable Al-Si-Ni alloys, as potential raw materials for additive manufacturing (European Commission nr. ctr: 823802 2019)
2. SFERA III: Novel Ti-based biocompatible alloy coatings from powders sintered onto Ti6Al4V substrates using concentrated solar radiation (European Commission nr. ctr: 823802 2020)
3. DAAD Grant: Corrosion resistant Me-Mg nitrides (Host: Research Institute for Precious Metals and Metal Chemistry (fem Forschungsinstitut Edelmetalle + Metallchemie) Schwäbisch Gmünd, Germania
German Academic Exchange Service nr. ctr.: 57442043 2020
4. Magnetron sputtered Me-Me binary oxynitride multifunctional thin solid films. 431898 RON, UEFISCDI nr.ctr: TE 59 31/08/2020 (PN-IIIP1-1.1-TE-2019-1209) 2020-2022
5. Hardness Test, Scratch Test, Pin/Ball on Disk Tribometer Test. 72000 RON IFIN-HH nr.ctr: 13440 16/11/2020 2020-2021
6. Young Researchers Grant (Transilvania University of Brasov) 8022/2017 – “Wear resistant thin solid films”.

Member of 8 national and international research projects.

TRAINEESHIP OR RE-SEARCH EXCHANGE PROGRAMS

Traineeship or research exchange programs

- 2017 - Instrumented indentation at Queen Mary University of London, United Kingdom;
- 2019 - Simulated concentrated solar energy experiments at Middle Eastern Technical University, Ankara, Turkey, 2019;
- 2019 - Sputtering deposition chamber maintenance and repair at Minho University, Physics Department, Portugal;
- 2019 - Additive manufacturing summer school at University of Modena and Reggio Emilia, Italy;
- 2020 - Dual magnetron sputtering and corrosion analysis at the Research Institute for Precious Metals and Metal Chemistry, Germany;
- 2020 - Concentrated solar energy experiments at PROMES-CNRS, Odeillo, France;