



Vasile-Adrian Surdu

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● WORK EXPERIENCE

2025 – CURRENT Braşov, Romania

ASSOCIATE PROFESSOR TRANSILVANIA UNIVERSITY OF BRAŞOV

2020 – 2025 Bucharest, Romania

LECTURER NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY POLITEHNICA BUCHAREST

2015 – 2020 Bucharest, Romania

ASSISTANT PROFESSOR NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY POLITEHNICA BUCHAREST

2024 – CURRENT Bruxelles, Belgium

EXPERT EUROPEAN RESEARCH EXECUTIVE AGENCY

Projects evaluation HORIZON-WIDERA-2023-TALENTS-01 and HORIZON-EIC-2024-ACCELERATOR-01

● EDUCATION AND TRAINING

2020 – 2022 Bucharest, Romania

POSTDOCTORAL RESEARCHER University Politehnica of Bucharest

2015 – 2019 Bucureşti, Romania

PHD University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science

Field of study Chemical Engineering | **Final grade** Summa cum laude | **Thesis** BiFeO₃ based multiferroic materials

2013 – 2015 Bucharest, Romania

MASTER DEGREE University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science

Field of study Chemical Engineering: Advanced Composite Materials with Special Destinations

2009 – 2013 Bucharest, Romania

BACHELOR OF ENGINEERING University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science

Field of study Chemical Engineering: Science and Engineering of Oxide Materials and Nanomaterials

● CERTIFICATES

2019

Certificate of participation

Summer school: „ECers Summer School”, Politecnico di Torino, Italia, 14-15 June 2019.

2017

Certificate of participation

Winter school: „ACerS Winter Workshop”, Orlando, Florida, 11-22 January 2017

2016

Certificate Bruker, Mecro System

Atomic Force Microscopy for Materials and Life Science

2016

Certificate of participation

Structural and Local Spectroscopic Studies on Hybrid/Hetero Nanomaterials by TEM (Raul Arenal - Laboratorio de Microscopias Avanzadas (LMA) at the Instituto de Nanociencia de Aragon (INA), Zaragoza University, Spain)

2015

Certificate FEI

Transmission Electron Microscopy

2015

Certificate Xenocs

Small Angle X-ray Scattering

2015

Certificate Milestone

Microwave-assisted synthesis

2014

Certificate of participation

Autumn School „1st Autumn School on Physics of Advanced Materials”, Alexandru Ioan Cuza University, Iași, România 2014

2014

Certificate of participation

Bragg-BrentanoHD: Setting a new standard for high-quality powder diffraction data... and more (webinar PANalytical)

2013

Certificate PANALYtical BV Europe

X-ray diffraction

2013

Certificate FCT Systeme GmbH

Spark Plasma Sintering

2012

Certificate Romanian Chemical Society

Introduction to processes safety

● **LANGUAGE SKILLS**

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **DIGITAL SKILLS**

Microsoft Office (Microsoft) | Software de prelucrare a datelor - Origin Lab | X-Pert HighScore Plus | Digital Micrograph | Fiji (Image J)

● **PROJECTS**

2022 – 2024

Oxide perovskites designed by configurational entropy

Project Leader - Ministry of Research, Innovation and Digitization, CNCS-UEFISCDI (PN-III-P1.1-PD-2021-0625)

Link <https://www.micronanotech.ro/en/oxide-perovskites-designed-by-configurational-entropy/>

2023 – 2024

Machine learning for computer generated phase equilibria diagrams from X-ray diffraction data

Project Leader - Academy of Romanian Scientists

Links <https://www.aosr.ro/wp-content/uploads/2023/08/Raport-1-1.pdf> | <https://www.aosr.ro/wp-content/uploads/2024/01/2-1.pdf>

2021 – 2021

Complex oxide materials of ZrO₂-HfO₂-CeO₂-RE₂O₃ (RE=La, Y, Yb, Nd, Gd) type

Project Leader - Academy of Romanian Scientists

Link <https://www.aosr.ro/wp-content/uploads/2023/10/Materiale-oxidice-complexe.pdf>

2014 – 2016

National Center for Scientific Research for Food Safety (POSSCE-A2-O2.2.1.-2013-1, Nr 1970, Cod SMIS – CSNR 48652)

Technical Responsible

2020 – 2022

PN-III-P2-2.1-PED-2019-4813, Exploitation of the magnetic nanoparticles in developing magnetic micro-devices

2020 – 2022

PN-III-P2-2.1-PED-2019-4018, Evaluation of the exploitation potential Potential of Porous Materials in the tREatment of Microbiota-related dISEases

2020 – 2022

PN-III-P2-2.1-PED-2019-1375, Development of novel antiseptics based on zinc oxide for clinical wound management

2020 – 2022

PN-III-P2-2.1-PED-2019-3409, Development of nanosized coatings for steel strips with high resistance to corrosion and abrasion

2019 – 2023

ERANET-ERAMIN-RECEMENT, Re-generating (raw) materials and end-of-life products for re-use in Cement/Concrete

2018 – 2022

PN-III-P4-ID-PCCF-2016-0047, Controlling the electronic properties in heterostructures based on ferroelectric perovskites: from theory to applications

2018 – 2022

PN-III-P4-ID-PCCF-2016-0114, Selection and dissemination of antibiotic resistance genes from wastewater treatment plants into the aquatic environment and clinical reservoirs

2018 – 2021

PN-III-P1-1.2-PCCDI-2017-0749, Bioactive nanostructures for innovative therapeutic strategies

2018 – 2021

PN-III-P1-1.2-PCCDI-2017-0629, Innovative bionanomaterials for treatment and diagnosis

2017 – 2019

PN-III-P4-ID-PCE-2016-0072, Controlled functionalities in multiscale BaTiO₃-based systems by combining microstructural design and doping strategy

2017 – 2018

PN-III-P2-2.1-PED-2016-0952, Biomimetic 3D-printed porous scaffolds for bone tissue engineering

2017 – 2018

PN-III-P2-2.1-PED-2016-0630, Proton exchange membrane fuel cells based on nitrogen-doped nanocarbons

2016 – 2018

PN-III-P2-2.1-PTE-2016-0177, Composite hydrogels based on inorganic nanoparticles and collagen with prolonged antimicrobial activity for the prevention of wound infections

2016 – 2018

PN-III-P2-2.1-PTE-2016-0146, New nanostructured polymeric composites for centre pivot liners, centre plate and other components for the railway industry

2016 – 2018

PN-III-P2-2.1-PTE-2016-0156, Recovery of recycled thermoplastic polymers by reinforcement with functionalized natural fibres to obtain new added value products

2015 – 2018

ERA-MANUNET-ARHNANOTPV, Multiphase elasto-plastic architectures dynamically vulcanized and reinforced with nanoparticles for specific products used in food and pharmaceutical industries

2014 – 2017

PN-II-PT-PCCA-2013-4-1268, RFID device for food traceability

2014 – 2017

PN-II-PT-PCCA-2013-4-1780, Improved production methods to minimize metallic nanoparticles' toxicity – less classic, more green

2014 – 2017

PN-II-PT-PCCA-2013-4-0006, Studies using immunofluorescence regarding the effect of functionalized iron oxide nanoparticles on malignant rectal tumor cells

2014 – 2017

PN-II-PT-PCCA-2013-4-0891, Innovative dental products with multiple applications

2014 – 2017

PN-II-PT-PCCA-2013-4-0584, New ocular implant with high biocompatibility and proliferation rate

2014 – 2017

PN-II-PT-PCCA-2013-4-0005, Bioceramic composites with local applications in antibacterial therapy

2014 – 2017

PN-II-PT-PCCA-2013-4-0270, Reconstruction of the ligaments using advanced structured materials based on ligasint natural and synthetic polymers

2014 – 2017

PN-II-PT-PCCA-2013-4-0470, Optimized pyroelectric materials through the polarization gradient concept and experimental model for a pyroelectric detector with potential for applications in monitoring high power/energy lasers

● EDITORIAL EXPERIENCE

2024 – CURRENT

Nanomaterials, MDPI

Guest Editor

2023

Materials, MDPI

Guest Editor

2023 – CURRENT

Materials, MDPI

Topical Advisory Panel Member

2021 – CURRENT

Peer Reviewer

Ceramics International, Inorganic and Nano-Metal Chemistry, Journal of Functional Biomaterials, Inorganics, Materials, Nanomaterials, Coatings, Crystals, Ceramics, International Journal of Molecular Sciences, Romanian Journal of Materials, UPB Scientific Bulletin

● PUBLICATIONS

Scientific publications

- 101 ISI journal articles
- 3 BDI journal articles
- 1 proceeding article
- 1 patent
- 803 citations (excluding self-citations of all co-authors): 764 ISI citations and 39 BDI citations
- WOS h-index:
- Scopus h-index: 21

● NETWORKS AND MEMBERSHIPS

2020 – CURRENT

The American Ceramic Society

Member

2017

European Ceramic Society

Member

2017 – CURRENT

Societatea Română de Ceramică CEROM

2014 – CURRENT

European Microscopy Society

Member

2014 – CURRENT

Societatea de Microscopie Electronică din România

Founding member