



CONTACT ME

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EDUCATION

Physics of Condensed Matter

Doctoral Studies

Faculty of Physics - University of Bucharest

2020 - Present

Physics of Advanced Materials and Nanostructures MSc

Faculty of Physics - University of Bucharest

2018 - 2020

Engineering of Applied Sciences BS

Faculty of Physics - University of Bucharest

2014 - 2018

Psycho-Pedagogical Training

Programme Levels I, II

University of Bucharest

2014 - 2017 Level I

2018 - 2020 Level II

Gheorghe Lazăr National College

Bucharest

Mathematics & Informatics Science

Programme

2010 - 2014

SKILLS

General Skills:

- LaTeX, Origin, Ms Office, Canva

Languages:

- English (proficient)
- French (DEL F B2)
- Spanish (beginner)
- Romanian (native)

Programming Languages:

- C/C++ (beginner)

Ana - Maria Panaitescu

WORK EXPERIENCE

Physics Teacher

2021 - Present

“Miguel de Cervantes” Bilingual Theoretical Highschool | Bucharest

Teaching Classical Mechanics, Introductory Electricity and Magnetism, Thermodynamics, Geometrical Optics, Introductory General Relativity, Atomic and Nuclear Physics, Solid State Physics.

Gymnasium (6th-8th grade) and Highschool (9th-12th grade).

Research Assistant

2020 - 2022

MDEO R&D Centre University of Bucharest | Măgurele

Research Project:

NANODELL - Nanostructured Back-Contact Electrodes for Highly Efficient Solar Cells

Solar cells fabrication via Evaporation (TVE), Sputtering (RF-MS) and Electrochemical (ECD) techniques using All-BVI compounds.

Morphological (SEM, AFM), Structural (XRD), Optical (UV-VIS Spectroscopy), Electrical (2 points probe current-voltage measurement, Transport Mechanism identification) Investigations.

Private Tutor

2015 - Present

Physics for gymnasium and highschool pupils, for Romanian Bacalaureate and Technical Universities admission.

Mathematics for gymnasium pupils.

VOLUNTEERING

Romanian Physics Society (SRF)

2017

- National Conference “Exact Sciences: Strategies, efficient practice and solutions for a competitive economy”
- National Conference “Teaching Physics Reform”

Physics Students Association (ASF-UB)

2014 - 2016

- Finance Department Coordinator - Member of ASF-UB Board

EXTENSIVE EDUCATION

Doctoral Studies in Physics of Condensed Matter

University of Bucharest I Măgurele

2020 - Present

THESIS - Nanostructured thin films for optoelectronic devices applications

MSc in Physics of Advanced Materials and Nanostructures

University of Bucharest I Măgurele

2018 - 2020

THESIS - CdTe-embedded Cu nanowire arrays for improved absorber layer/holes collector interfaces in superstrate-type photovoltaic cells

BS in Engineering of Applied Sciences

University of Bucharest I Măgurele

2014 - 2018

THESIS - Fabrication and characterisation of Cu nanowire arrays for photovoltaic applications

COURSES

3rd Autumn School on Physics of Advanced Materials (PAMS-3)

TEI of Crete I Heraklion, Greece

22-28.09.2018

Erasmus ELBYSIER Intensive Course on Electronics Beyond Silicon Era

TEI of Crete I Chania, Greece

1-8.07.2018

Erasmus ELBYSIER Intensive Program in Spintronics, Valleytronics & Applications

University of Warsaw I Poland

10-24.04.2018

Erasmus ELBYSIER Intensive Program in Graphene Technologies & Nanoelectronics

Cenimat - FCT University of New Lisbon I Portugal

9-13.10.2017

International Student Practice in JINR Fields of Research

Joint Institute for Nuclear Research I Dubna, Russia

3-24.07.2016

Study of morphological properties of various materials via SEM technique

ARTICLES

A. M. Răduță, **A. M. Panaitescu**, et al., *Effect of Deposition Working Power on Physical Properties of RF-Sputtered CdTe Thin Films for Photovoltaic Applications*, *Nanomaterials* **2024**. <https://doi.org/10.3390/nano14060535>

A. M. Panaitescu, V. A. Antohe, *Study of Optical and Electrical Properties of RF-Sputtered ZnSe/ZnTe Heterojunctions for Sensing Applications*, *Coatings* **2023**. <https://doi.org/10.3390/coatings13010208>

A. M. Panaitescu, et al., *Morphological, optical and electrical properties of RF-sputtered zinc telluride thin films for electronic and optoelectronic applications*, *AIP Advances* **2022**. <https://doi.org/10.1063/5.0116999>

A. M. Panaitescu, et al., *Effect of the Cadmium Telluride Deposition Method on the Covering Degree of Electrodes Based on Copper Nanowire Arrays*, *Applied Sciences* **2022**. <https://doi.org/10.3390/app12157808>

O. Toma, V. A. Antohe, **A. M. Panaitescu**, et al., *Effect of RF Power on the Physical Properties of Sputtered ZnSe Nanostructured Thin Films for Photovoltaic Applications*, *Nanomaterials* **2021**. doi:10.3390/nano11112841

AWARDS

First Prize - The most inovative Poster of a Young Researcher at PAMS -3

TEI of Crete I Heraklion, Greece

22-28.09.2018

POSTER - Novel Cu nanorod arrays for optoelectronic devices

Scholarship for academic performance

2014-2023

Highschool (4 yrs)

University (Bachelor-4 yrs, Master-2 yrs, Doctoral Studies-3yrs)

ORAL PRESENTATION

- Annual Scientific Conference of the Faculty of Physics
University of Bucharest | Măgurele onsite 26.05.2023
 Study of Optical and Electrical Properties of RF-Sputtered ZnSe/ZnTe Heterojunctions for UV detecting applications
- 14th International Conference of Physics of Advanced Materials (ICPAM 14)
Dubrovnik | Croatia online 8-15.09.2022
 Fabrication and characterization of Cd-free All-BVI heterojunctions for sensing applications
- Annual Scientific Conference of the Faculty of Physics
University of Bucharest | Măgurele onsite 24.06.2022
 Study of All-BVI zinc-based thin films for sensing applications
- European Materials Research Society Spring Meeting (E-MRS)
Strasbourg | France online 30.05-3.06.2022
 Study of Cadmium Telluride-Embedded Copper Nanowire Interfaces for Photovoltaic Applications
- Annual Scientific Conference of the Faculty of Physics
University of Bucharest | Măgurele online 18.06.2021
 Effect of RF power on structural, morphological, optical and electrical properties of RF-sputtered ZnSe thin films for electronic and optoelectronic applications
- International Balkan Workshop on Applied Physics and Materials Science (IBWAP)
Constanța | Romania onsite 16-19.07.2019
 On the fabrication and characterization of CdTe embedded Cu nanowire arrays for photovoltaic applications
- 12th International Conference of Physics of Advanced Materials (ICPAM 12)
TEI of Crete | Heraklion, Greece onsite 22-28.09.2018
 Fabrication and characterization of Cu nanowire arrays for photovoltaic applications
- International Workshop on Advances in Nanomaterials
National Institute for Materials Physics (NIMP) | Măgurele onsite 09.2018
 Fabrication and characterization of Cu nanowire arrays for photovoltaic applications
- Annual Scientific Conference of the Faculty of Physics
University of Bucharest | Măgurele onsite 06.2018
 Fabrication and characterization of Cu nanowire arrays for photovoltaic applications

POSTER

- 4th Autumn School on Physics of Advanced Materials (PAMS-4)
Sant Feliu de Guixols | Spain online 24-30.09.2021
 Physical properties of ultra-thin photovoltaic structures based on All-BVI compounds
- European Materials Research Society Spring Meeting (E-MRS)
Strasbourg | France online 31.05-4.06.2021
 Effect of the applied power on the structural, morphological, optical and electrical properties of RF-sputtered ZnSe thin films
- 3rd Autumn School on Physics of Advanced Materials (PAMS-3)
TEI of Crete | Heraklion, Greece 22-28.09.2018
 Novel Cu nanorod arrays for optoelectronic devices