



Oana Alexandra Răducu

Nationality: Romanian **Date of birth:** 20/04/2002

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Work: (Romania)

WORK EXPERIENCE

Interdisciplinary Research Institute in Bio-Nano-Sciences – Cluj-Napoca, Romania

Physicist

[10/2023 – 09/2025]

Researching the thermoplasmonic effect of gold nanotriangles for photothermal therapy implementation.

EDUCATION AND TRAINING

Phd Student

Babes Bolyai University [10/2025 – Current]

City: Cluj-Napoca | Country: Romania | Field(s) of study: Physics

Graduate Student in Biophysics and Medical Physics

Babes Bolyai University [2023 – 2025]

City: Cluj-Napoca | Country: Romania

Erasmus+ Traineeship

Institut des Molécules et Matériaux du Mans (IMMM) [01/10/2024 – 31/01/2025]

City: Le Mans | Country: France | Field(s) of study: Natural sciences, mathematics and statistics | Level in EQF: EQF level 7

-Fabrication of anisotropic gold nanoparticles presenting different optical response

-Manipulation of UV-VIS-NIR spectrophotometer for analysing the gold nanoparticles

-Study of thermoplasmonic effect for the synthesised nanoparticles utilising different lasers and a thermal recording camera

Undergraduate Student in Medical Physics

Babes Bolyai University [2020 – 2023]

City: Cluj-Napoca | Country: Romania

Research Practice for Bachelor's Thesis

Interdisciplinary Research Institute In Bio-Nano-Sciences [03/2022 – 06/2023]

City: Cluj-Napoca | Country: Romania | Thesis: The intrinsic photothermal properties of gold nanotriangles

Practical Training at Amethyst Radiotherapy Center

[11/07/2022 – 22/07/2022]

City: Cluj-Napoca

Student

College of Informatics "Carmen Sylva" [2016 – 2020]

City: Petrosani | Country: Romania

PROJECTS

[10/2023 – 09/2025]

Plasmon mediated biology: Exploitation of plasmonics to investigate and enhance biological processes and application to biomedical issues (acronym: BioPlasmonics)

PUBLICATIONS

[2026]

Tunable Gelatin-coated Biosynthesized Gold Nanotriangles: Thermoplasmonic Performance and In Vitro Therapeutic Potential via On-Demand Visible-NIR LED Activation (under review)

Authors: Oana Raducu, Raluca Borlan, Alexandru Holca, Ana-Maria Craciun, Septimiu Tripon, Olga Soritau, Gabriela Chereches, Dana Maniu, Simion Astilean, Marc Lamy de la Chapelle, Monica Focsan | Journal Name: Colloids and Surfaces B: Biointerfaces | Publisher: Elsevier

CONFERENCES AND SEMINARS

[15/05/2025 – 15/05/2025] Cluj-Napoca, Romania

Science Communication Days for Faculty of Physics I conducted an oral presentation regarding the therapeutic and thermoplasmonic effects of gold nanotriangles ("Tunable Biosynthesized Gold Nanotriangles: Thermoplasmonic Performance via On-Demand Visible-NIR LED Activation").

[15/07/2024 – 18/07/2024] Bucharest

ROCAM - 10th INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS I conducted an oral presentation regarding my research activity on thermoplasmonic effects of gold nanotriangles presenting NIR response. ("Biosynthesised Gold Nanoparticles: tunable thermo-plasmonic nanogenerators from Visible region to NIR I and II Biological Windows")

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English (Cambridge English: First)

LISTENING B2 READING C1 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

French

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

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

VOLUNTEERING

[2023]

Saturday Experiments (Sâmbăta Experimentelor)

It is a scientific festival organised by the Faculty of Physics of Babeş Bolyai University.

[2022]

ARGO First Edition

Argo is a scientific festival organised by ASFUBB for the general public.

[2021 – 2023]

Physics Students' Association at Babes Bolyai University

Volunteering in the Scientific and Educational Department

SKILLS

(Data Analysis) MATLAB, ORIGINLAB / Python Language - Basic knowledge / Microsoft Excel / Microsoft Word / Power Point

DRIVING LICENCE

Driving Licence: B