Raluca Tarcan

Date of birth: | **Nationality:** **Gender:** |

Phone number: () | **Email address:**

| **LinkedIn:** |

Google Scholar: **Address:** |

ABOUT ME

I am a science enthusiast with three years of experience in scientific research as a PhD Student at the Faculty of Physics in Cluj-Napoca, Romania, and four years of experience as a Scientific Editor, with a solid background in open access publishing model, article publication process, journal management, and publication ethics.

EDUCATION AND TRAINING

1 OCT 2012 – 1 JUL 2015 Cluj-Napoca, Romania

BACHELOR'S DEGREE IN CHEMISTRY Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University

1 OCT 2015 – 1 JUL 2017 Cluj-Napoca , Romania

MASTER'S DEGREE IN CLINICAL CHEMISTRY Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University

1 OCT 2017 – 31 MAY 2024 Cluj-Napoca, Romania

PHD IN PHYSICS Faculty of Physics, Babes-Bolyai University

- Investigated the processability of reduced graphene oxide (RGO) in water and organic solvents as well as its applicability in developing new polymer-based composite materials for thermal interface materials.
- Aimed to maximize RGO's stable dispersion concentration in water.
- Developed a novel synthesis method for RGO in N,N-dimethylformamide (DMF), yielding homogeneous RGO dispersions in DMF within 30 minutes of heating under microwave irradiation, without using additional reducing or stabilizing agents.
- Demonstrated the applicability of the RGO dispersions in DMF by blending them with poly(methyl methacrylate) (PMMA) to develop composites with enhanced thermal properties, promising for thermal management in electronics.

Field of study Physics |

Thesis A new solvothermal synthesis method for reduced graphene oxide and its potential in development of new polymer-based composites for thermal interface materials

WORK EXPERIENCE

15 JUL 2015 – 15 DEC 2017 Cluj-Napoca, Romania

ANALYTICAL CHEMIST TERAPIA S.A.

- Testing drugs (finished products) by physico-chemical analysis;
- Generating and interpreting data from HPLC, UV-Vis, etc.
- Managing the working standards, placebos, and impurities, keeping a monthly record;
- Was awarded a prize for proficiency, dedication, implication, and pro-activity in the testing of finished products.

2 MAR 2020 – 10 JUL 2023 Cluj-Napoca, Romania

EDITOR AND JOURNAL RELATIONS SPECIALIST MDPI - NANOMATERIALS (IF 5.3)

- Overseeing the peer-review process and the editorial decisions;
- Handling the communication between the parties involved in the publication process;
- Managing Special Issues and Special Issue submissions;
- Managing the Editorial Board
- Attending conferences as a journal representative;
- Hosting webinars organized by the journal;
- Solving different problems related to published papers, publications ethics, etc.
- Solving sensitive/complex communication issues and complaints received from external collaborators.

Other roles: Section Training Assistant; Tutor

14 AUG 2023 – CURRENT Cluj-Napoca, Romania

PUBLISHING MANAGER ACADEMIA.EDU

- Managing two new open-access journals: *Academia Materials Science* and *Academia Nano*
- Monitoring the key performance indicators of the journals
- Overseeing the editorial process
- Communicating with the Editorial Board and Editor-in-Chief for journals' development
- Establishing and developing collaborations with academics and researchers

PROJECTS

11 NOV 2019 – 6 DEC 2019

Research Director - UEFISCDI Mobility project for researchers: PN-III-P1-1.1-MC-2019-1557

- Accessed the research infrastructure at POLYMAT - University of the Basque Country in Donostia - San Sebastian, Spain;
- Collaborated with researchers from POLYMAT in order to study the effect of reduced graphene oxide on T1:PCBM hybrid system;
- Was trained on how to operate a Mettler Toledo Flash Dynamic Scanning Calorimetry 1 instrument.

PUBLICATIONS

List of ISI Publications

1. **Tarcan, R.**; Handrea-Dragan, M.; Leordean, C.-I.; Cioban, R.C.; Kiss, G.-Z.; Zaharie-Butucel, D.; Farcau, C.; Vulpoi, A.; Simon, S.; Botiz, I. Development of PMMA/RGO Composite Films as Thermal Interface Materials, *Journal of Applied Polymer Science*, 2022, e53238; AIS: 0.363; IF: 3.0.
2. **Tarcan, R**; Handrea-Dragan, M.; Todor-Boer, O.; Petrovai, I; Farcau, C.; Rusu, M; Vulpoi, A.; Todea, M.; Astilean, S.; Botiz, I. A new, fast and facile synthesis method for reduced graphene oxide in N, N-dimethylformamide. *Synthetic Metals*. 2020, 269, 116576; AIS: 0.479; IF: 4.4.
3. **Tarcan, R.**; Todor-Boer, O.; Petrovai, I.; Leordean, C.; Astilean, S.; Botiz, I. Reduced graphene oxide today. *Journal of Materials Chemistry C,* 2020, 8, 1198-1224; AIS: 1.163; IF: 6.4.
4. Todor-Boer, O.; Petrovai, I.; **Tarcan, R.**; Vulpoi, A.; David, L.; Astilean, S.; Botiz, I. Enhancing Photoluminescence Quenching in Donor–Acceptor PCE11: PPCBMB Films through the Optimization of Film Microstructure. *Nanomaterials*, 2019, 9 (12), 1757; AIS: 0.7071; IF: 5.3.
5. Todor-Boer, O; Petrovai, I.; **Tarcan, R.**; David, L.; Astilean, S.; Botiz, I. Control of microstructure in polymer: Fullerene active films by convective self-assembly. *Thin Solid Films*, 2019, 697, 137780; AIS: 0.315; IF: 2.1.
6. Todor-Boer, O.; Petrovai, I.; **Tarcan, R**.; Craciun, A.M.; David, L.; Angyus, S.B.; Astilean, S.; Botiz, I. Altering the optoelectronic properties of neat and blended conjugated polymer films by controlling the process of film deposition. *Journal of Optoelectronics and Advanced Materials*, 2019, 21, 367-372; AIS: 0.053; IF: 0.5.

CONFERENCES AND SEMINARS

Conference Participation

1. **R. Tarcan**, O. Todor-Boer, I. Petrovai, L. David, S. Astilean, I. Botiz, "A study on reduced graphene oxide dispersion in water and influence of concentration on film quality", in *12th International*

Conference on Physics of Advanced Materials (ICPAM), Heraklion, Greece, 22–28 September 2018 – poster presentation

2. **R. Tarcan**, M. Potara, O. Todor-Boer, I. Petrovai, S. Astilean, I. Botiz, "Dispersing reduced graphene oxide in organic solvent for optoelectronic devices", in *Interfaces in Organic and Hybrid Thin-Film Optoelectronics (INFORM Final Meeting)*, Valencia, Spain, 5–7 March 2019 – poster presentation.
3. **R. Tarcan**, M. Handrea-Dragan, O. Todor-Boer, I. Petrovai, C. Farcau, M. Rusu, A. Vulpoi, M. Todea, S. Astilean, I. Botiz, "Synthesis of reduced graphene oxide in N,N-dimethylfomamide for future polymer-based composites", in *International Congress of Apollonia University XXXI Edition*, Iasi, Romania, 2 March 2021 – oral presentation (virtual session).
4. **R. Tarcan**, M. Handrea-Dragan, C.I. Leordean, R.C. Cioban, C. Farcau, A. Vulpoi, S. Simon, I. Botiz, "Improving thermal properties of PMMA/RGO composite thin films for thermal interfaces", in *International Congress of Apollonia University XXXII Edition*, Iasi, Romania, 28 February – 2 March 2022 – poster presentation.

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2

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