



DOMINIK TEREFINKO

Wroclaw University of Science and Technology (WUST)

Department of Chemistry

dominik.terefinko@pwr.edu.pl

phone: +48 518131960; +48 71 3203894

ORCID: 0000-0002-5902-3683

Assistant Professor at WUST, Currently involved in three project realization financed by the National Science Centre. Their aim focuses on the application of novel cold plasma sources for the degradation of water pollutants, preservation and functionalization of food beverages and the generation of new-generation fertilizers. The main field of interest is the development, optimization and new route implementation for cold plasma technology.

EDUCATION

2018 - 2023: WUST, Analytical Chemistry and Chemical Metallurgy. PhD studies with doctoral dissertation under the BioTechNan project entitled "*Biological activity of Cold Atmospheric Pressure Plasma*" Supervisors: Piotr Jamróz and Aleksandra Klimczak

SKILLS

- Statistics for the design of experiment
- Construction of cold plasma systems
- Analytical methods
- for nanoparticles examination
- cells culturing and biological studies

ACADEMIC EXPERIENCE

WUST, Faculty of Chemistry, Wrocław: 03.10.2022 - till present, assistant professor in the Department of Analytical Chemistry and Chemical Metallurgy.

Università degli Studi di Firenze, Department of Chemistry "Ugo Schiff," Florence, Italy: As part of the Canaletto project, internship at the University of Florence in the team of Prof. Massimo Bonini (02.12.2023 - 13.12.2023)

Università degli Studi di Firenze, Department of Chemistry "Ugo Schiff," Florence, Italy: As part of the BioTechNan doctoral studies project, one-month research internship at the University of Florence in the team of Prof. Massimo Bonini (16.11.2021 - 16.12.2021)

Institute of Immunology and Experimental Therapy of the Polish Academy of Sciences, Independent Laboratory of Stem Cell Biology and Oncology, Wrocław, Poland.

As part of the BioTechNan research project, preparation of doctoral dissertation focusing on determining the biological activity of cold atmospheric plasma sources on the ability to proliferate, migrate, and apoptosis induction in three biological models: human breast cancer cells MDA-MB-231, MCF-7, and non-cancerous MCF-10A cells.

Internship in the team of Aleksandra Klimczak (11.02 - 23.02.2019; 03.10.2019 - 27.04.2020; 01.10.2020 - 15.08.2021)

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05TH JUNE 2024

Business Card

Department of Analytical Chemistry and Chemical Metallurgy

PROJECTS INVOLVEMENT

Multivariate optimization of cold plasma systems dedicated to teeth whitening. Internal grant in Department of Chemistry of WUST. Principal investigator. 31.05.2023 - 31.12.2023

Development of new processes for the production and sterilization of functional plant drinks with the use of cold atmospheric plasma technology. Opus 23 financed by the National Science Centre. Investigator. 01.06.2022 - 31.12.2024

Application of cold atmospheric plasmas generated in contact with flowing solution for direct degradation of antibiotics and reducing multidrug resistance in the natural environment. Sonata 15 financed by the National Science Centre. Investigator. 01.05.2021 - 31.03.2024

Application of cold atmospheric plasmas for obtaining and modification of biopolymeric hydrogels and thick layers. Canaletto financed by the National Agency for Academic Exchange (NAWA). Investigator. 01.01.2022 - 31.12.2023

Assessment of antibacterial properties of plasma-activated liquids obtained via cold atmospheric plasma towards economically valuable phytopathogens and their impacts on the growth of crops. Opus 17 financed by the National Science Centre. Investigator. 18.02.2020 - 31.03.2024

Biological activity of Cold atmospheric pressure plasma. BioTechNan financed by the European Social Found. Principal Investigator. 01.10.2018 - 10.02.2023

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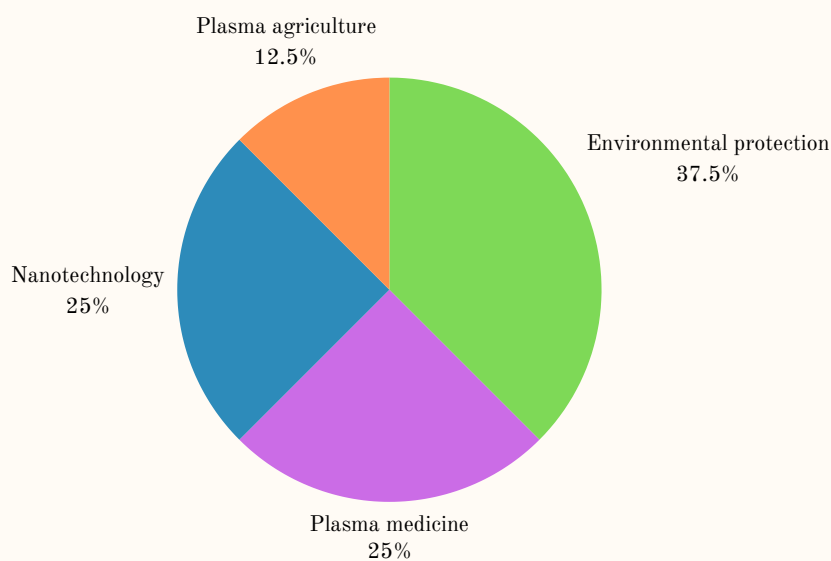
Department of Analytical Chemistry and Chemical Metallurgy

ACADEMIC ACHIEVEMENTS

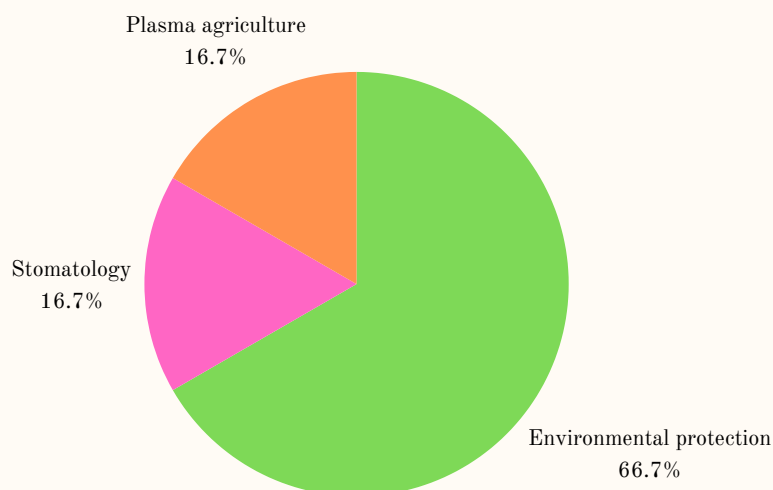
Co-author of **16 papers** with summary impact factor **92.5**. According to Scopus, the total citation count without self-citation was **150**, while the Hirsch index was **8**.

In terms of cold plasma systems construction and a new route for their application, co-author of **6 patent applications**, one international in PCT mode, and one patent.

Science fields of contributed papers



Science fields of patents



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