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Dana Maria Copolovici

Aurel Vlaicu University of Arad, Romania

Chem bio route in climate change Era

The climate change that we faced due to anthropogenic activities has high impact on plants and animals leading to dramatic ecological changes. Our research contributions is focused on two directions: (i) the evaluation of the influence of abiotic and biotic stresses on plants grown at elevated carbon dioxide concentration, that include the volatile emission in global models and the determination of the modifications in secondary metabolites synthesis pathway, and (ii) the evaluation of the chemical composition, antioxidant capacity and biological activities of plant extracts (essential oils and hydrolates).

The presentation of new/improved techniques, including the chromatographic methods coupled with mass spectrometry, for separation, identification, quantification, and practical characterization of biological molecules like polyphenols, proteins, pigments, carbohydrates, and further, along with their biological applications, are presented.

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Biography

Dana Maria Copolovici has a main research interest focused on using products (polyphenols, peptides, proteins, nanoparticles, etc.) obtained from plants or synthesis/green synthesis, with biological activity. Also, her interest is to contribute to drug discovery, develop drug delivery systems, and use new phytochemicals and nanoparticles in diverse formulations. The obtaining of new molecules/blend of molecules both from the plant kingdom and from synthesis with potential biological activities are her objectives exhibited in publications of research articles and book chapters. She has years of experience in research, evaluation, teaching, and administration in the education and research institutions (Babes-Bolyai University, Cluj-Napoca, Romania; University of Tartu, Estonia; Aurel Vlaicu University of Arad, Romania). She has published more than 46 papers in scientific journals and has been serving as guest editor for Molecules.

dana.copolovici@uav.ro