

Maria Zoumpanioti

Principal Research Scientist
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http://www.eie.gr/nhrf/institutes/icb/research_groups/ZoumpaniotiMaria_group_en.html

Education

1999: Chemical Engineering Diploma, National Technical University of Athens

2007: PhD in Biotechnology, Chemical Engineering Dept., National Technical University of Athens

Position

2008-2013: Junior Research Scientist, Institute of Biological Research and Biotechnology, National Hellenic Research Foundation

2013-2019: Senior research Scientist, Institute of Biology, Pharmaceutical Chemistry & Biotechnology, National Hellenic Research Foundation

2019- : Principal research Scientist, Institute of Chemical Biology, National Hellenic Research Foundation

Scientific interests – Activities

Nutrients from microalgae cultivations – Isolation and exploitation of valuable constituents from microalgae cultivation medium and biomass, including proteins, exopolysaccharides and lipids. This project focuses on protein/lipid extraction and isolation from microalgae biomass or cultivation medium.

Enzymatic Bioconversions in non-conventional systems (microemulsions, hydrotropic mixtures, organogels, hydrogels) – This project focuses on the production of high added value products e.g. phenolic acid esters, fatty acid esters or production of other

products of industrial interest e.g. flavours, emulsifiers, using low water content systems such as microemulsions and related organogels.

Enzyme Immobilization (matrices based on natural polymers, silica materials, colloids based on block copolymers) – This project focuses on the development of novel immobilization matrices. It involves the study of the activity of enzymes entrapped in microemulsions based on surfactant e.g. lecithin, AOT or surfactant-free microemulsions as well as the study of enzymes immobilized in solid or semi-solid matrices such as organogels, hydrogels or polymeric films.

Structural studies of microemulsions, organogels and enzymes - Structural studies of empty and enzyme-containing microemulsions and hydrotropic mixtures using the fluorescence energy transfer technique, fluorescence spectroscopy, EPR spectroscopy, SEM microscopy.

Research management

- Principal Investigator of 2 Research Projects funded by Program National Strategic Reference Framework and co-financed by Greece and EU (European Regional Development Fund) with total budget for the team 215.000 €.
- Principal Investigator of 1 Research Project funded by the Alliance of National Research Organization (ANSO) with budget for the team \$ 12.000.
- Participation in 13 Research Projects including Bilateral Cooperation projects (Greece-Spain, Greece-Germany, Greece-France)
- (co)supervising of 3 post-doc, 5 PhD thesis, 3 MSc thesis and 21 interns
- Member of the Evaluation Committee for Scientific Proposals

Publications

23 publications in international peer reviewed journals

650 times cited (ISI-WOS, SCOPUS, Google Scholar)

h-index: 16

1 Patent

70 oral and poster presentations at International and National Conferences

Collaborations with industries – SMEs

Food Industries: GIOTIS SA, ALGAE SA

Chemical Industries: NEOKEM SA, VIORYL SA

Pharmaceutical Industries: PHARMATHEN SA

Other: Public Power Corporation (DEI)

Awards

- Poster Presentation Award, 2nd Food Chemistry & Biotechnology ERA (FCUB), Serbia
- The publication Vassiliadi et al. (2020) NANOMATERIALS doi.org/10.3390/nano10112204 was Editor's Choice Article in December 2020.

Other

- Referee for 11 international journals, Member of the Editorial Board of 1 journal
- Member of the Organizing Committee for several national as well as international conferences
- Reviewer of National Research Grants