


## Highly skilled Polymer Scientist, Development of sustainable Polyesters from renewable resources

Researcher with strong international network and work experience in several leading European research groups

Peer-reviewed articles: **27** (Complete publications list [here](#)) | **h-Index: 18**, Citations: **865**

**Top Co-authors:** Prof. Dimitrios BIKIARIS (**21**) ([LINK](#)) Prof. George PAPAGEORGIOU (**20**) ([LINK](#))

- Member of [ACS Biomacromolecules Early Career Board](#) (2024)  [LINK](#)
- Scientific Societies:** European network of FURAN based chemicals and materials FOR a Sustainable development (COST Action CA18220, [LINK](#)) ■ Reviewer of Elsevier Q1 journals ([details](#))
- Guest Editor of [Special Issue "Development of High-Performance Biobased Polyesters"](#) in Polymers (Q1)



**A solid scientific background and proven track-record in developing fully biobased polyesters — made from renewable monomers — for sustainable Packaging Materials**

## EXPERTISE /JOB-RELATED SKILLS: ■ Development of sustainable polyester packaging Materials

### ■ Bioplastics based on 2,5-furandicarboxylic acid ■ Chemical recycling of plastics waste 🗑️ :

➡ In-depth knowledge and technical understanding of the Design, Synthesis, and Study of fully biobased polymers, mainly homopolyesters, copolyesters, polyester blends and functionalized branched polyesters derived from [2,5-furandicarboxylic acid \(FDCA\)](#) and other renewable monomers (isosorbide, vanillic acid,...).

➡ Chemical recycling of post-consumer 'polyester-type' plastics to value added circular materials by utilizing dynamic covalent chemistry/Integrating plastic waste in the circular economy/plastic waste management.

➡ Excellent command of several synthesis techniques of Polyesters: Melt Polycondensation, Solid state Polycondensation, Polymer Blending, Ring-Opening Polymerization, In Situ polymerization, etc.

➡ Furan-based Bioplastics: Sustainable polyesters, copolyesters, polyester Blends, Isocyanate-free polyester-urethane networks derived from [FDCA](#) / Investigation of crystallization, melting behavior, mechanical performance, and "enzymatic / in soil" biodegradability of renewable (Co-)polyesters / biobased branched polyesters and polyester-urethanes / Organic chemistry / (Microwave-assisted) organic synthesis

➡ **Teaching experience** of Master's students (104 h) at KTH Royal Institute of Technology in Stockholm.

• Effective supervision skills (acquired through my experience as co-supervisor of MSc and PhD students).

## PRESENTATIONS AT INTERNATIONAL CONFERENCES (Details [here](#))

• **15** communications at **14** international conferences (in Sweden, France, Italy, Greece, Belgium, Portugal)

**AWARDS** (Details [here](#)) : • July 13, 2018 **Best Presentation Award** at the [IUPAC Postgraduate Summer School on Green Chemistry - Venice, Italy](#), awarded by  and [Eni](#) Groups.

## PROFESSIONAL & WORK EXPERIENCE

- 12/2023 – present **R&D project Leader / Polymer Scientist** **Avantium** company ([LINK](#)) - Amsterdam, Netherlands
- 04/2023 – 11/2023 **Researcher**  
Institute Charles Gerhardt Montpellier ([CNRS](#)) - Montpellier, France
- 11/2021 – 11/2022 **Researcher**  
KTH Royal Institute of Technology, Stockholm Sweden  
Research projects: - *Microwave-assisted chemical recycling of post-consumer "polyester type" plastics* ([Research output: LINK](#))  
- *Highly transparent biobased polyurethane thermosets with "on demand" tunable properties and enzymatic degradability* ([LINK](#)).  
- **In 2022:** Teaching "**Polymer Physics course**" (KF2140) to first-year Master students (104 hours) at **KTH**
- 06/2021 – 10/2021 **Research Scientist**  
Helmholtz-Zentrum Hereon, Berlin - Germany  
Research project: *Synthesis of multifunctional polyester-based biomaterials for adaptive and active polymer systems*
- 03/2019 – 04/2021 **Jr. Research & Technology Associate**  
Luxembourg Institute of Science and Technology, Luxembourg  
Research project: *New biopolymers based on renewable building blocks from catalytic deoxygenation of hemicellulose*
- 04/2018 – 10/2018 **Postdoctoral Fellowship**  
[BIKIARIS Group](#) - Aristotle University of Thessaloniki, Greece  
Research project: *Furan-based Polyesters*
- 07/2017 – 03/2018 Temporary Research Fellowship  
[BIKIARIS Group](#) - Aristotle University of Thessaloniki, Greece
- 09/2016 – 06/2017 Mobility **Erasmus+** grant  
[BIKIARIS Group](#) - Aristotle University of Thessaloniki, Greece
- 04/2016–07/2016 **Research Assistant** - Padova University, Italy
- 05/2014 – 04/2016 3 PhD Internships  
Universities of Padova and Bologna, Italy

## EDUCATIONAL QUALIFICATIONS Monastir University, Tunisia

- 03/2018 **PhD in Polymer chemistry** (Merit: Very honorable)  
PhD dissertation: **Valorisation of Isosorbide: Synthesis of new functional polymers**
- 11/2013 **Master's Degree in Organic Chemistry**
- 06/2011 **Bachelor's degree in chemistry**