

One page resume **Nejib KASMI** | Mail: nejibkasmi@gmail.com | Current address: Montpellier, France |

PhD in Polymer Chemistry | Website: <https://nejibkasmi.com/> | Tel: +33773521966 | (Detailed CV: [here](#)) |



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: **26** (Complete publications list [here](#)) | **h-Index: 16**, Citations: **700**

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

Three written research proposals (a detailed long-term research program "4-5 years") ready for implementation or submission to EU/national funding agencies. **Research scope:** Development of next-generation circular smart materials (e.g. Sustainable Covalent Adaptable Networks; *vitrimers*) with on-demand built-in repeatable recyclability, designed from post-consumer biobased polyester packaging materials / Integrating non-biodegradable polyester-type plastic waste in the circular bioeconomy.

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 13 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 L'ORÉAL Group and Eni Group.

PROFESSIONAL & WORK EXPERIENCE

04/2023 – present **Researcher**
Institute Charles Gerhardt Montpellier (CNRS) - Montpellier, France
Ongoing research: *Development of reversibly designed crosslinked polymers based on dynamic covalent chemistry (Horizon Europe project)*

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](#))*
- *Biobased polyester-urethane networks with tunable biodegradability and mechanical performance, derived from hemicellulose sugars*

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**