

# Ismayil Safarli

**Research & Development Engineer | Process Engineer | Materials Engineer**

Strasbourg, France | ismayil.safarli@outlook.com | +33766278528 | 12 Sep 1998

## SUMMARY

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PhD in Physico-Chemistry of Materials, with the background in Chemical Engineering. Have experience in process development for industrial applications. Skilled in membrane fabrication, mechanical characterization, and polymer processing, with experience collaborating with industrial R&D teams.

## WORK EXPERIENCE

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### PhD Candidate | Michelin

Strasbourg, France | October 2022 – October 2025

- Development of electrospun fibrous reinforcements for hydrogen fuel cell membranes
- Optimization of electrospinning and solution casting processes, and material characterization methods (SEM, TGA, FTIR, Uniaxial tensile tests)
- Processing of polymers such as polysulfone, poly(ethylene oxide), Aquivion and Nafion.
- Close collaboration with R&D teams and execution of experiments on-site at Michelin
- Organization of social and scientific events as a part of the Office of Young Researchers
- Supervision: Prof. Guy Schlatter and Dr. Marie Vandesteene

### Research Intern | Charles Sadron Institute

Strasbourg, France | February 2022 – July 2022

- Production of functionalized PLGA particles incorporating gold nanoparticles via microfluidics, and study of their light-induced stimulation.
- Supervision: Dr. Madeline Vauthier and Dr. Karine Mougín

### Research Intern | Charles Sadron Institute

Strasbourg, France | March 2021 – May 2021

- Preparation of porous materials by electrospinning of PEDOT:PSS for thermoelectric applications.
- Supervision: Dr. Laure Biniek and Dr. Anne Hébraud

## EDUCATION

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### Industrial PhD in Physico-Chemistry of Materials

University of Strasbourg, France | 2022 - 2025

### MSc Materials Science and Engineering

University of Strasbourg, France | 2020 – 2022

High Honors, Scholarship by TotalEnergies

### BSc Chemical Engineering

University of Strasbourg, France | 2016 – 2020

Highest Honors

## SKILLS

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- **Fabrication techniques:** Electrospinning, Polymer solution casting, Microfluidic mixing, Synthesis of gold nanoparticles
- **Characterization techniques:** SEM, DLS, TGA, FTIR, DSC, UV/Vis, Uniaxial tensile testing, Rheology, Surface tension measurements
- **Computing:** MS Office, Programming (Java, Python), COMSOL, ImageJ, ChemDraw, Origin, Zotero
- **Interpersonal skills:** Critical thinking, Adaptability, Detail-oriented, Active listening

## LANGUAGES

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Azerbaijani (Native), Russian (Bilingual), English (Fluent), French (Fluent)

### Scientific Articles

I. **Safarli**, M. Vandesteene, A. Hébraud, E. Lobry, G. Schlatter, "Recent Advances in Electrospun Fiber-Reinforced Composites: Focus on Mechanical Properties", *Materials & Design*, under revision (2025)

### Posters

I. **Safarli**, A. Hébraud, E. Lobry, M. Vandesteene, G. Schlatter; "Elaboration of patterned polysulfone mats: relationships between the surface potential during electrospinning and the fibrous structure"

*HiFunMat Summer School : Materials for the Environment and the Society*, July 2024, Strasbourg (France)

I. **Safarli**, A. Hébraud, E. Lobry, M. Vandesteene, G. Schlatter; "Elaboration of patterned polysulfone mats: relationships between the surface potential during electrospinning and the fibrous structure"

*8th international conference on Electrospinning*, June 2024, Krakow (Poland) – **Best Poster Prize**

I. **Safarli**, A. Hébraud, E. Lobry, M. Vandesteene, G. Schlatter; "Morphological control of electrospun reinforcements for H2 fuel cell membranes"

*HiFunMat Summer School : Materials for Health*, July 2023, Strasbourg (France)