

Open PhD positions for TEAM (Training Experts in Light-Based Additive Manufacturing) a Marie Skłodowska-Curie Actions (MSCA) Doctoral Network

Renewable Polyester Vitrimers for Hot-Lithography

The TEAM project is a multinational European Horizon MSCA doctoral network. In the last 20 years Additive Manufacturing, also known as 3D printing, has emerged and is becoming more and more popular. VAT based 3D Printing is based on photopolymerizable formulations that can be printed with very high resolutions.

The main aim of this doctoral network is to provide green monomers and photoinitiators to the consortium and test them in light based additive manufacturing.

In detail, this PhD project will focus on renewable polyester vitrimers for hot-lithography, where higher temperatures allow fast curing of such biocompatible and biodegradable polymer networks. With that, a low migration system should be developed that is ready for recycling. Using cationic or anionic ring opening polymerization such networks should be formed using high resolution vat-based 3D-printing. With that, promising materials for reducing plastic waste and contributing to a more circular and sustainable economy will be developed

Starting date: from 1.2.2027 until 1.12. 2027

Duration: 3 years

Employment: 40 hours per week

Salary:

Living Allowance: Base amount of around €4,400

Mobility Allowance: A fixed €710 per month to support personal mobility expenses.

Family Allowance: An additional €660 per month if there is a family status.

Employment criteria: Completed diploma or master's degree in the field of Chemistry or equivalent university studies

Qualification criteria: In-depth knowledge of the synthesis and characterization of organic compounds and in the field of macromolecular chemistry. Knowledge in the field of photopolymerization is an advantage. We expect good communication and team skills. For the supervision of students in laboratory exercises and bachelor theses sufficient knowledge of the English or German language is required.

Background information:

www.ias.tuwien.ac.at/research-units/mc/polymer-chemistry-and-technology/

For further information please don't hesitate to contact:

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