Internship Offer

Green Chemistry Research - Synthesis of a Library of New Phenol-Based Molecules for Application in Epoxy Resins

URD Agro-Biotechnologies Industrielles (ABI) – AgroParisTech
European Centre for Biotechnology and Bioeconomy
3 Rue des Rouges-Terres, 51110 Pomacle

In the pursuit of sustainable development, green chemistry is transforming the way materials are synthesized, used, and recycled. Epoxy resins, renowned for their strength, chemical resistance, and thermal stability, are widely used across various industries. However, traditional epoxy resins rely on non-renewable resources and create materials that are difficult to recycle due to their permanent covalent bonds, posing significant environmental and sustainability challenges.

To address these challenges, we are offering an internship opportunity that focuses specifically on the green synthesis of new phenol-based molecules capable of forming reversible bonds within the resin matrix. **While the main focus will be on *organic synthesis*, the intern will also have the opportunity to learn valuable skills related to the formulation and reprocessing of the synthesized molecules, supporting the overall goal of creating sustainable, recyclable epoxy resins**.

Host Laboratory:
The research will be conducted at **URD ABI – AgroParisTech**, situated within the Pomacle-Bazancourt biorefinery. **URD ABI** specializes in the valorization of agroresources and biorefinery byproducts, focusing on white biotechnologies, green chemistry, and process engineering. Its research spans multi-disciplinary projects aimed at developing new industrial processes, including the transformation of agricultural byproducts into high-value polymers, materials, fine chemicals, additives, and cosmetics.

Profile of the Candidate:
This internship is ideal for individuals with a ***strong background in organic chemistry*** who are passionate about green chemistry and sustainable development. **Please note that to be eligible for this internship, candidates must be currently enrolled in a master's program or equivalent**.

Application Process:
Interested candidates should submit a CV, a cover letter, and copies of academic transcripts.

A driving license and a car are not required, as the **CEBB is accessible by carpooling** (17 km from Reims) **and public transportation** (TER + bus shuttle).

Deadline:
Applications will be accepted until the position is filled, before mid-December 2024.

Starting Date: February 2025

Contact Information: For application submissions, please contact:

Dr. Sami FADLALLAH, sami.fadlallah@agroparistech.fr
Dr. Amandine FLOURAT, amandine.flourat@agroparistech.fr