



MASTER STUDENT INTERNSHIP IN POLYMER CHEMISTRY AND POLYMER PROCESSING (M/F)

Internship | 4-6 months | Fulltime/40h | Bascharge

Context

The internship position will assist our ongoing investigations on polymer blending and polymer modification. Focus will be put on the following tasks:

- Polymer blending
- Polymer reactive modification and blending
- Characterization of the properties of the resulting materials
- Potentially: ageing resistance characterization of those blends

This internship will consist in exploring a new aspect of our investigations: the addition of biobased polymers (such as aliphatic polyesters: PLA, PBS or potentially starch) in matrices of commodity plastics (e.g. PVC, PET, PVDF, PMMA, PC, etc.) will be evaluated. Besides reactive compatibilization will be run.

Functional properties (mechanical, transparency, fire resistance, scratch resistance, UV resistance, etc.) shall be connected to physico-chemical structure using different techniques (e.g. GPC, IRTF, DSC, TGA, etc.).

Finally, a selection of potential applications for the best blends should be envisaged.

Description

A presentation in English of results.

Profile

Education

- Master 1 or 2

Competencies

- Polymer processing and/or chemistry

Language

- Fluent English and/or French (spoken and written) is mandatory

Job reference: MRT-2018-Intern-010

Application file:

- A CV
- A motivation letter

Apply online: [LIST-Internships](#)

Contact: jobs@list.lu

Your working environment

The research department

The Materials Research and Technology department (MRT) focuses on two key enabling technologies: nanotechnologies and advanced materials, and investigates research questions related to transducing materials and actuators, photocatalysis and energy harvesters, transparent electronics and smart nanocomposites, point-of-care and drug delivery, modeling and design of structures and multifunctional composites, bio-based polymers and composites, adhesion and compatibilization of fibres/matrix, process engineering and advanced manufacturing.

> [LIST.lu/MRT](#)