Project proposal for exchange students

Topic : Characterization of the nanostructure induced upon crystallization in the case of polymer based nanocomposites

Keywords : polymers, nanocomposites, nanostructure, structural characterization

Host laboratory : Unité Matériaux Et Transformations (UMET) / CNRS

http://umet.univ-lille1.fr/index.php?&lang=en

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Laboratory: Unité Matériaux Et Transformations (UMET) / CNRS

Group Polymer Systems Engineering : http://umet.univ-lille1.fr/Polymeres/index.php?lang=en

Level of studies :

Bachelor's level (undergraduate)

Master's level (postgraduate) x

Duration :

3 months ¤
4 months ¤
5 months ¤

Type of evaluation
Written report and oral defense

Project description:

Recent works carried out in our research group highlighted the fact that a local nanostructuration can occurs in the case of polymer based nanocomposites. Indeed for well-chosen polymer-clay couple, an epitaxial crystallization process of the polymer onto the clay surface can be induced leading to the formation of peculiar structure. In this way the goal of this project is to determine the influence of both the shape and the chemical nature of the filler on the crystalline morphology induced upon crystallization with the aim of designing tailored nanostructured materials.

No funding available from the laboratory.