

SUMMER INTERNSHIPS 2017

TITLE: Fabrication and Characterization of Functional Polymer-Inorganic Fibers

DESCRIPTION (Objectives, tasks, materials, equipment,...):

Functional polymeric fibers play an important role in the development of a variety of current and future applications. In the course of this offered internship, the candidate will participate in a running project which investigates novel routes for functionalization of polymer fibers with inorganic materials. The objectives will include fabrication of the materials applying an infiltration strategy based on the coating technology atomic layer deposition (ALD). After successful fabrication, the characterization of the functionality of the materials will be performed. In dependence on the character of the inorganic component and the resulting expected chemical or physical properties, either catalytic, electronic or mechanical properties of the fibers will be evaluated for which the candidate will receive training in the respective methodology and instrumentation.

SUPERVISOR: Dr. Mato Knez, CIC nanoGUNE

SHORT DESCRIPTION OF THE GROUP: The Nanomaterials group at CIC nanogune is currently working in two research lines: (1) application of nanoscale coatings through various infiltration procedures for the fabrication of new functional materials; and (2) encapsulation and immobilization of biomacromolecules using inorganic compounds in order to improve their stability and fabricate new biomaterials. Thus, the research of the group is interdisciplinary and includes aspects of chemistry, materials science, biochemistry, physics and engineering.

TIMETABLE: 9:00-13:00, 15:00-17:00

COMMENTS: Internship duration from 1.5 to 2 months (to be discussed). Applicants should send an email to jm.pitarke@nanogune.eu including their academic record.
More info: <http://www.nanogune.eu/summer-internship>
Deadline for applications: 5 February 2017

SUITABLE FOR: Chemists, Materials Scientists, Physicists, Engineers