



UNIVERSITÀ DEGLI STUDI DI TORINO

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VP02\_DIP\_CHI

## Visiting Professor Program Academic year 2019/2020

**DEPARTMENT OF CHEMISTRY**

**TEACHING COMMITMENT: 24 hours**

### COURSE TITLE

Applied Organic Chemistry

### TEACHING PERIOD

2nd term

### SCIENTIFIC AREA

Organic Chemistry

### LANGUAGE USED TO TEACH

English

### COURSE SUMMARY

The course will be dealing with the application aspects of the knowledge of organic chemistry. In particular, recent development of fluoro-organic chemistry will open a new prospective for applied organic chemistry.

Introduction of highly fluorinated functional group in organic molecules (organic dyes, pharmaceuticals, crop protection agents, just to cite a few) is a very hot topic in modern organic industrial chemistry. The course will examine these class of material from a synthetic (briefly) and from the applicative point of view. A small section of the course will be on the review of patent literature relevant to the teaching material.

### LEARNING OBJECTIVES

The student will be exposed to the practical application of novel fluoro-organic chemistry in the field of material (organic dyes), pharmaceuticals and crop protection agents. Discussion on the benefit of these new approaches to the industrial process with respect to older approaches will implement the critical thinking of the student. For example, the student will be able to judge if and when the introduction of a fluorinated motif will enhance and improve the properties of the molecules in

question (pharmaceuticals, crop protection agents). The Discussion of the patent literature will give the student an important tool to evaluate how feasible an industrial process could be based on current patent protections.

#### **OTHER ACTIVITIES BESIDES THE COURSE**

Seminars for Students of PhD course in Chemical and Materials Sciences could also be offered during the visit. Joint research with interested colleagues of Chemistry Department would also be fostered.

#### **VISITING PROFESSOR PROFILE**

The successful candidate will have a solid research experience in organic chemistry with particular focus on pharmaceuticals, surfactants or organic dyes. Focus of his/her research on fluoro-organic chemistry will also be desirable. Because of the relevance to the industrial environment publication records that will include patents on the thought material will also be relevant.

#### **CONTACT PERSON AT THE DEPARTMENT**

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