## Visiting Professors

**Academic year 2018/2019**

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<td><strong>COURSE TITLE</strong></td>
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### Course summary

The course is dealing with the recent advances in the field of green and sustainable synthesis for the preparation of bioactive compounds and drugs, describing environmental benign conditions, catalytic aspects and modern technologies.

Besides a wide overview on green solvents and eco-friendly reagents with their properties and applications, the main green metrics will be discussed with the aim to evaluate the process greenness. The application of non-conventional techniques will includes: microwaves, radiofrequencies, ultrasound, hydrodynamic cavitation, mechanochemistry, flow chemistry, photochemistry and a number of hybrid techniques.

Selected examples of industrial applications will be discussed.

### Learning objectives

Students have to be familiar with the following topics:
- General concepts of green and sustainable chemistry
- Modern approach to organic synthesis
- Green extraction procedures and purification of natural products
- Non-conventional activation techniques: principles and applications
- Catalysis in non-conventional media
- Green chemistry in the synthesis of API
- Synthesis of API by non-conventional techniques and scaling-up strategies

### Tutorship activities

Students will be invited to read and discuss selected scientific articles and patents.

Experimental thesis of Master students and Ph.D. students can be co-tutored by the visiting professor.

### Lab activities

A short experimental sessions in the laboratory will be organized with little groups of students.

### Other activities besides the course: i.e. seminars and conferences addressed to PhD students and research fellows, dissemination conferences

The visiting Professor will present research seminars to all the Department.
Visiting Professor Profile
The candidate should have a coherent Ph.D. degree and a recognized international research experience in the field of green synthetic chemistry. The candidate should be confident in dealing with interdisciplinary domains from the fundamentals of organic synthesis and catalysis to the technologies of modern non-conventional reactors.
A working experience in different Countries would be highly appreciated.

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