

**Course offered for the PhD program
in Civil, Chemical and Environmental Engineering
Curriculum in Chemical, Material and Process Engineering –
a.a. 2021/2022 (cycles XXXVII, XXXVI and XXXV)**

(possibility of participation for students in other PhD cycles or other PhD courses)

1. Title

Molten Carbonate Fuel Cells for Power Generation, CO₂ Capture, and Hydrogen Production

2. Course Description

The course aims at providing notions to the future PhD students on Molten Carbonate Fuel Cells (MCFC) and their applications.

The course will include the following topics related to MCFC:

- state of the art
- thermodynamics and kinetics fundamentals
- system integration and process applications
- modelling approaches
- laboratory experience

3. Course Organization

The course will consist of classroom and laboratory lessons.

4. Teacher

The course teacher will be Prof. Barbara Bosio.

5. Duration and credits

The course (15 hours) will consist of 4 classroom lessons and 1 laboratory lesson for a total of 3 credits.

6. Activation mode and teaching period

The course will be held if at least one student will be registered by simple contact with the teacher by email. The course will be held during the period March-June 2022. The exact dates of the lessons will be confirmed by February 2022.

7. Deadline for registration

Registration to the course must be made before January 31st, 2022. Students are requested to inform the teacher by e-mail (barbara.bosio@unige.it) about their registration.

8. Final exam

The final exam will consist in an interview on the topics covered by the course. The students are requested to contact the teacher by email to establish the date of the exam.