UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Structure-Property Relationships in Porous Crystalline Materials for Gas Storage

2324-116R-M10

Title

Structure-Property Relationships in Porous Crystalline Materials for Gas Storage

Teacher(s)

Prof. Len Barbour
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Language

English

Short description

The course aims at giving an introduction to porous materials with particular attention to porous molecular crystals and metal organic frameworks (MOFs) and their applications. The course will address the most advanced characterization techniques for the study of crystalline porous materials.
The following topics will be discussed:

1. Introduction to porosity
2. Porous molecular materials
3. Porous metal-organic frameworks
4. Applications of porous materials
5. Measuring gas sorption isotherms
6. Adsorption calorimetry
7. Crystallography under gas pressure - apparatus
8. Crystallography under gas pressure - interpretation of structures

CFU / Hours

2 CFU / 16 ore

Teaching period

The course will take place from 3 to 14 June 2024

Sustainable Development Goals

AFFORDABLE AND CLEAN ENERGY | INDUSTRY, INNOVATION AND INFRASTRUCTURE | RESPONSIBLE CONSUMPTION AND PRODUCTION