14C026  TRANSITION METALS IN ORGANIC SYNTHESIS AND CATALYSIS
Clément MAZET

PhD-chemistry
Autumn  2h/sem, total 28h  3 ECTS
Monday 10:15-12:00  Sciences III, 0013

Objectives:
Organometallic reagents and catalysts play a pivotal role in organic synthesis. This course will focus on the fundamental principles of organometallic chemistry. It will then highlight the use of transition metal catalysts in organic synthesis with reference to the most recent literature. This includes fundamental aspects of asymmetric catalysis illustrated by recent achievements.

Contents:
1. Basics and fundamental principles
2. Mechanisms
3. Cross-coupling
4. Heck reactions
5. Olefin metathesis
6. Hydrogenation
7. Asymmetric hydrogenation
8. CO insertion chemistry
9. Cycloadditions
10. Wacker-type reactions
11. p-allyl chemistry
12. C-H activation

Documentation and bibliography:

E-learning : https://chamilo.unige.ch/home/courses/14C026/

Requirements: Chimie organique II (13C003), Chimie organique III (13C004), or equivalent Preparation for PhD in chemistry
Exam sessions: January-February + August-September
Evaluation: Written exam (4h)

14C026  TRANSITION METALS IN ORGANIC SYNTHESIS AND CATALYSIS. EXERCISES
Clément MAZET

PhD-chemistry
Autumn  1h/sem, total 14h
Home exercises

Contents:
Exercises related to course 14C026 (Transition metals in organic synthesis and catalysis).

E-learning : https://chamilo.unige.ch/home/courses/14C026/

Evaluation : -