

COST Action CA18112 MechSustInd Training School 2022

Call for trainees

Mechanochemical synthesis and kinetics

Date and location: June 13th to June 16th, 2022

Local host: Francesco Delogu, Università degli Studi di Cagliari

Address: Cagliari, Italy

About the school

This course will enable participants to gain basic training in carrying out solid state reactions in general using normal laboratory ball mills. The main aims of the school are:

1. To familiarize less experimented users to mechanochemical processes, using diverse milling equipment.
2. Learn on how to make use of standardized mechanochemical reaction conditions.
3. To get familiar with kinetics of mechanochemical reactions.

The presented knowledge should increase the use of mechanochemistry for APIs synthesis and its applications in catalysis. The TS is organized in the week immediately following the INCOME2022 conference, co-organized by the Action.

The school is organized in a hybrid format — the theoretical lessons will be also accessible online for anyone. The experimental sessions are available only for the physically present participants. Travel grants for trainees are available.

The school capacity for the experimental part is 10 trainees, can be increased to 20 if feasible under COVID restrictions.

About MechSustInd

COST action CA18112 Mechanochemistry for Sustainable Industry (MechSustInd) aims at community building of mechanochemists across Europe. Education of young researchers, training of specialised scientists, engineers and technologists, promoting excellence and cross-fertilization among different fields is one of the important objectives of the Action.

Practical details

The training school starts on Monday, June 13th 2022 and finishes on Thursday, June 16th 2022.

Application process

Researchers at different ranks are eligible to apply for the training school, including graduate and PhD students, postdoctoral researchers and independent researchers. However, priority will be given to early career investigators (PhD + 8), as well as to trainees from inclusiveness target countries (see [COST ITC](#)), respecting the gender balance.

Applications for the admission to the training school should contain:

- A motivation letter, that provides a clear indication of experience relevant to the topic of the training school; provide a rationale of why you are interested in the training school and how you envisage the training school to contribute to your learning, career and research objectives. (maximum one page)
- A short CV (maximum one page)

Commitment for successful applicants for grant prepare after the training school:

- Follow-up report (maximum one page)
- Feedback for the public website of the action (one paragraph)

Apply by filling the google form available at <http://bit.ly/TSCagliariApp>. For more information contact Training School coordinator Martin Krupička (Martin.Krupicka@vscht.cz). Please, include **CA18112 TS Application** in the subject field.

Deadline Sunday, April 17th 2022.

Announced lectures

Ana Belenguer

Steady-states in mechanochemical transformations

Elena Boldyreva

Mechanochemistry: Retrospect, challenges, prospects

Duncan Browne

Examples of metal-catalysed cross-coupling processes under ball-milling conditions

Evelina Colacino

Mechanochemical synthesis of Active Pharmaceutical Ingredients

Francesco Delogu

Bridging the gap between the global and local kinetics of mechanochemical transformations

Michael Felderhoff

Mechanically activated solid-gas reactions

Felipe Garcia

Main group mechanochemistry: Synthesis of compounds and materials

Koji Kubota

Mechanochemical synthesis of Grignard reagents and other related organometallics

Andrea Porcheddu

Rearrangements in mechanochemistry: a matching puzzle game

Pier Carlo Ricci

Optical properties of mechanochemical reactions:
From single impacts to continuous monitoring