



## Il Dipartimento di Scienze Chimiche accoglie il

# dott. Manuel Orlandi

che terrà un seminario dal titolo

## Accessing new reactivity in Cu-catalysis: asymmetric a-arylation of carbonyl compounds

Venerdì 7 Maggio 2021, h. 15:00, https://unipd.zoom.us/j/763282419 Dipartimento di Scienze Chimiche, Via Marzolo, 1.

Transition metal catalysis has emerged over the last century as a fundamental tool in organic chemistry. Nowadays, strategic C-C bond disconnections can be accessed in organic synthesis thanks to catalysts based on Pd, Rh, Ir, Ru, and other 4d/5d metals. However, due to cogent issues related to cost, availability, and toxicity, alternative synthetic strategies are now being explored that involve the use of 3d metals such as Fe, Cr, Ni, and Cu. In this context, the development of new catalytic systems capable of performing C-C crosscoupling reactions is highly desirable, and even more so is the development of their asymmetric variants. In this context, the Pd-catalyzed Buchwald-Hartwig α-arylation of carbonyl compounds is a challenging crosscoupling reaction that, despite its relatively old age, still suffers major limitations and poses mechanistic questions. In this seminar, our efforts into achieving better mechanistic understanding and improved protocols that avoid the use of Pd for this transformation will be presented.















#### La presenza della S. V. sarà molto gradita.

### Il Direttore del Dipartimento Michele Maggini

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