



AVVISO DI SEMINARIO

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Heterogenizing Asymmetric Catalysis with
Alginate Gels

Lunedì 24 Febbraio 2025 ore 16:00

Sala del Consiglio - I piano – C11

Tutti gli interessati sono invitati a partecipare.

Abstract:

The benefits of heterogeneous catalysis over its homogeneous counterpart have made it the dominant approach in current chemical production, accounting for approximately 90% by volume. However, heterogeneous asymmetric catalysis is not the method of choice for asymmetric synthesis, highlighting the need for innovative solutions. Our approach to heterogeneous asymmetric catalysis uses alginates, a family of polysaccharides extracted from brown algae, as cornerstone. In the presence of multivalent metal ions, alginates form gels well positioned for catalytic applications. We have used these gels as supports for chiral catalysts, and as intrinsically chiral catalytic materials, thus “harvesting” alginates chirality, for catalytic enantioselective reactions.



CV: Since 2014, Luca Bernardi is Associate Professor at the University of Bologna. His research activities deal mostly with enantioselective organocatalysis and the valorization of marine biopolymers. He has been involved in several industry-oriented projects, and is serving as coordinator of the PRIN2020 project “Natural products-assisted organic synthesis”. He is member of the Editorial Board of Catalysts, co-editor of the Wiley book “Methodologies in amine synthesis: challenges and applications”, and has published >90 articles.

Il Direttore
Prof. Paolo Tecilla