

Multicomponent Reactions: Creating Complexity via Sustainable Catalytic Transformations

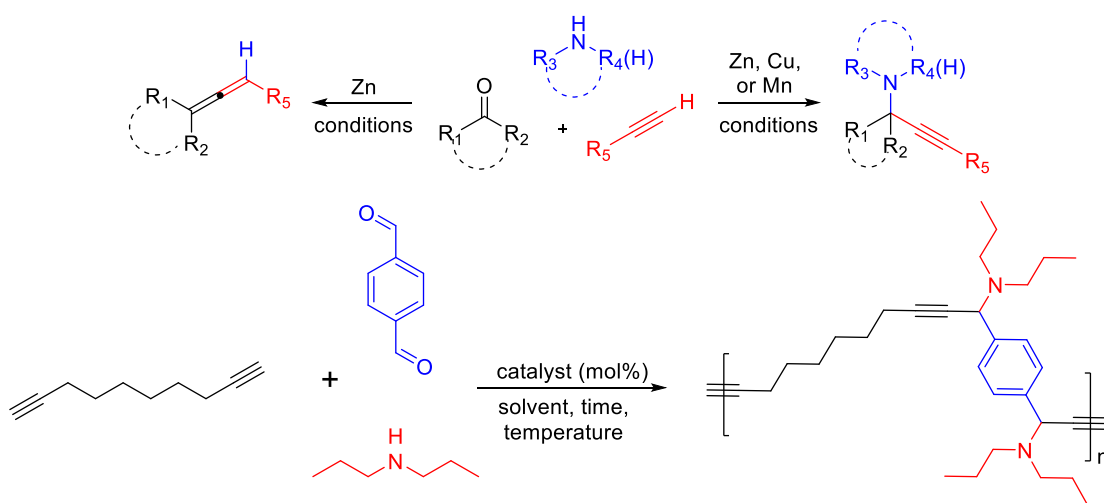
Georgios C. Vougioukalakis

Laboratory of Organic Chemistry, Department of Chemistry

National and Kapodistrian University of Athens, Greece

E-mail: vougiouk@uoa.gr, Web Page: <http://users.uoa.gr/~vougiouk/>

Sustainable catalysis is one of the most active research fields, both in industry and academia [1,2]. After a brief introduction to our research group and current projects/interests, some recently developed sustainable catalytic protocols, employing Cu, Zn, Mn, or N-heterocyclic carbene (NHC) catalysis, will be presented. These include the multi-component reactions between ketones, amines, and alkynes, leading to propargylamines, allenes, or polymeric scaffolds [3-9].



References:

- [1] Tzouras, Stamatopoulos, Papastavrou, Liori, Vougioukalakis *Coord. Chem. Rev.* **2017**, *343*, 25-138.
- [2] Pinaka, Vougioukalakis *Coord. Chem. Rev.* **2015**, *288*, 69-97.
- [3] Tzouras, Neofotistos, Vougioukalakis *ACS Omega*, **2019**, *4*, 10279-10292.
- [4] Neofotistos, Tzouras, Pauze, Gomez-Bengoia, Vougioukalakis *Adv. Synth. Catal.* **2020**, *362*, 3872-3885.
- [5] Zorba, Vougioukalakis *Coord. Chem. Rev.* **2021**, *429*, 213603.
- [6] Zorba, Egana, Gomez-Bengoia, Vougioukalakis *ACS Omega*, **2021**, *6*, 23329-23346.
- [7] Giannopoulos, Zorba, Zisis, Pitsikalis, Vougioukalakis *Eur. Pol. J.*, **2023**, *191*, 112056.
- [8] Chalkidis, Vougioukalakis *Eur. J. Org. Chem.* **2023**, e202301095.
- [9] Zorba, Stylianakis, Tsoureas, Kolocouris, Vougioukalakis *J. Org. Chem.* **2024**, *89*, 7727-7740.