Journée d'Electrochimie 2024
1er – 5 Juillet 2024
Saint-Malo, France

# Electrooxidative Isocyanide-Based Reactions

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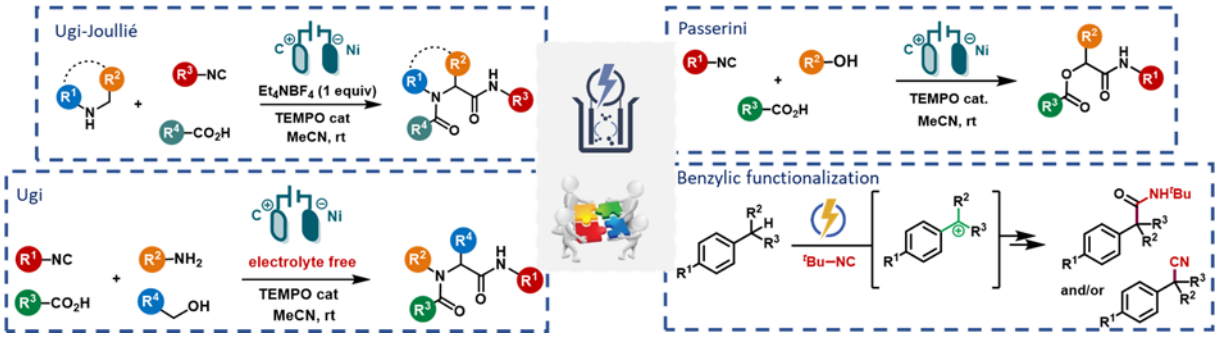
Isocyanide-based Multicomponent Reactions (IMCRs) are well-known tools for the efficient preparation of elaborated chemicals, starting from relatively simple carbonyl or imines derivatives. Since the first report of the oxidative 3-component Passerini reaction[1] by employing a stoichiometric oxidant, oxidative IMCRs have attracted much attention as they allow to generate extensive chemical diversity from stable and commercially available alcohols and amines. By merging electrosynthesis with IMCRs, we first developed a TEMPO-catalyzed C($sp^3$)-H α-carbamoylation of free cyclic secondary amines according to a Ugi-Joullié reaction in mild and sustainable conditions.[2] Capitalizing on these results, we developed the first electro-induced 3-component Passerini reaction and the more challenging 4-component Ugi reaction.[3] In collaboration with Dr G. Vincent, we recently developed a benzylic C-H functionalization based on the combination of electrosynthesis and isocyanide chemistry.[4]




**References**

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(2) Pan, N.; Ling, J.; Zapata, R.; Pulicani, J.-P.; Grimaud, L.; Vitale, M. R. *Green Chem.* **2019**, *21*, 6194-6199.

(3) Pan, N.; Lee, M. X.; Bunel, L.; Grimaud, L.; Vitale, M. *ACS Organic & Inorganic Au* **2021**, *1*, 18-22.

(4) Tang, S.; Guillot, R.; Grimaud, L.; Vitale, M. R.; Vincent, G. *Org. Lett.* **2022**, *24*, 2125-