RECENT DEVELOPMENTS IN LOW PRESSURE CARBONYLATIONS

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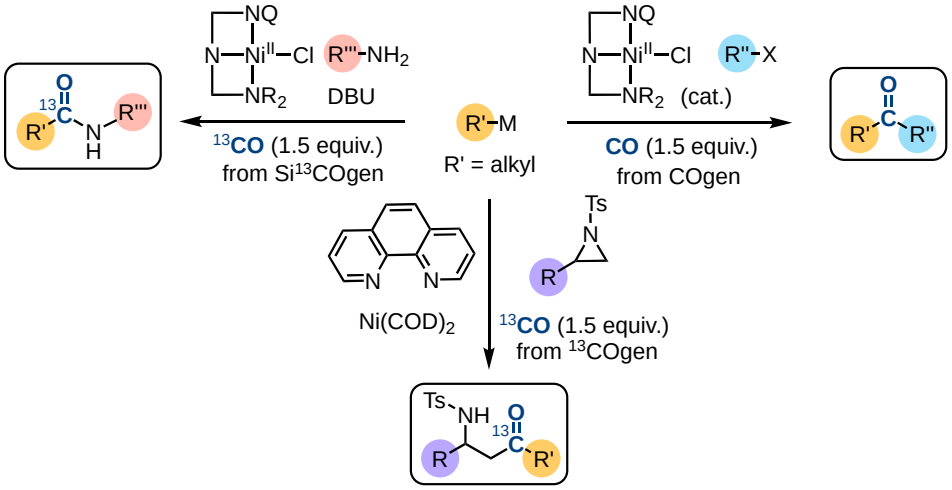
Carbon monoxide (CO) represents an important C1 building block for the construction of some of the most fundamental chemical functionalities carrying a carbon-oxygen single or double bond. Transition metal catalysis plays a key role in promoting such transformations with CO. We have earlier shown that the combination of palladium catalysis with CO releasing molecules and the two-chamber reactor, COware, provides both a convenient and safe means for performing traditional but low pressure Pd-catalyzed carbonylative couplings, and a platform for discovering new carbonylation reactions and carbon isotope labeling techniques [1–3]. In this talk, I provide a short overview of our latest findings in this area, but also discuss our efforts to develop viable Ni-mediated carbonylations with alkyl substrates [4].



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