An increased utilization of feedstock materials in catalytic endeavours holds great promise to revolutionize approaches in organic synthesis for preparing added-value building blocks. In this regard, catalytic protocols for incorporating carbon dioxide (CO$_2$) into organic matter has recently attracted considerable attention in carbon-carbon bond-forming reactions.\(^1\) Among the different alternatives, the ability to design catalytic CO$_2$ fixation en route to carboxylic acids would be particularly appreciated, as these motifs are important structural elements in a myriad of pharmaceuticals and agrochemicals, among others.\(^2,3\) In recent years, our research group has reported some progress directed towards the catalytic reductive carboxylation of organic matter with CO$_2$ (Scheme 1).\(^4\) These methods are characterized by their simplicity, wide substrate scope, including challenging substrate combinations with particularly sensitive functional groups and a diverse set of substitution patterns.

References:


