

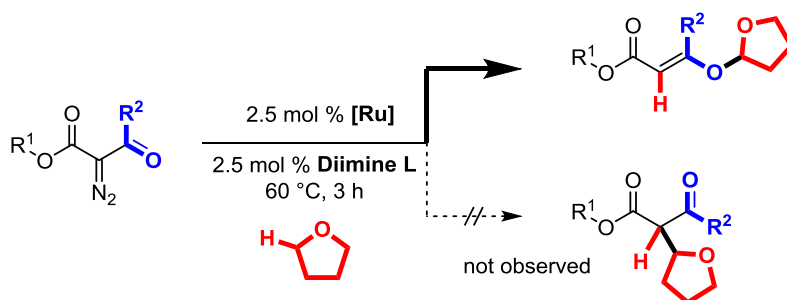
Stereoselective synthesis & catalysis with metal carbenes

Jérôme Lacour

Department of Chemistry & Biochemistry, University of Geneva, Geneva 1211, Switzerland

jerome.lacour@unige.ch

In the context of the Frontiers in Chemistry conference, recent studies on metal-catalyzed reactions and processes will be presented – and those involving Rh(II)- and Ru(II)-catalyzed decompositions of α -diazocarbonyls in particular.¹⁻⁷ An attention will be given to routes affording functionally rich midsize and macrocyclic polyether derivatives. Against traditional wisdom, the processes couple up to four separated components in one-pot under high concentration (≥ 1 M) and non-templated conditions.^{3,5,7} Also, THF derivatives may react and lead to original products of 1,4-C–H insertion. In contrast with previous results, only novel enol-acetal motifs are obtained through intermolecular C–O instead of C–C bond forming reactions.¹ Mechanistic investigations will be particularly detailed during the lecture.



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