



Université de Montréal, Montréal, QC, Canada

THIRD INTERNATIONAL SYMPOSIUM  
ON C–H ACTIVATION

May 30 – June 2, 2016

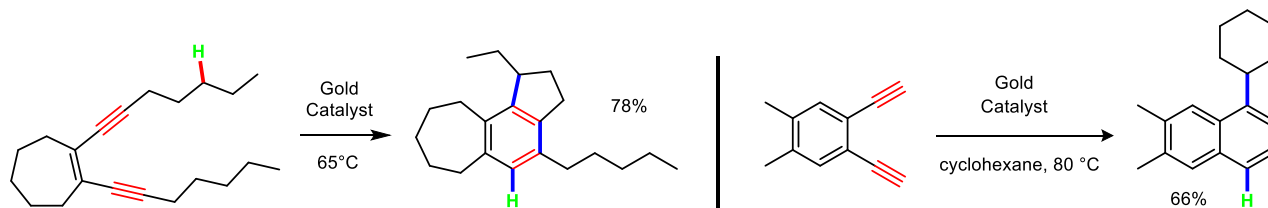
OR06 – Gold Catalysis: New C–H Insertion Processes

A. Stephen K. Hashmi\*

Department of Chemistry and Earth Sciences, Heidelberg University, Im Neuenheimer Feld 270, 69120 Heidelberg, Germany

E-mail: hashmi@hashmi.de

Before 2012 only a few scattered examples of C–H insertion reactions in gold catalysis existed.<sup>1</sup> Then independent work of Liming Zhang's and Hashmi's groups demonstrated that unactivated  $sp^3$ -C–H bonds can efficiently react with highly activated gold carbene species.<sup>2,3</sup> From this a rich and versatile chemistry evolved.<sup>4</sup> Now entirely new catalytic intra- and intermolecular C–H insertion processes of highly reactive gold(I) intermediates, both from dual activation and activation by only one gold center, will be presented.



References

1. Hashmi, A. S. K.; Schäfer, S.; Wölfle, M.; Diez Gil, C.; Fischer, P.; Laguna, A.; Blanco, M. C.; Gimeno, M. C. *Angew. Chem. Int. Ed.* **2007**, *46*, 6184.
2. Ye, L.; Wang, Y.; Aue, D. H.; Zhang, L. *J. Am. Chem. Soc.* **2012**, *134*, 31.
3. Hashmi, A. S. K.; Braun, I.; Nösel, P.; Schädlich, J.; Wieteck, M.; Rudolph, M.; Rominger, F. *Angew. Chem. Int. Ed.* **2012**, *51*, 4456.
4. Hashmi, A. S. K. *Acc. Chem. Res.* **2014**, *47*, 864.