Organic Process Research & Development

EDITORIAL

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Invited Review

It is our pleasure to introduce an invited contribution from Professor Michael J. Krische of University of Texas at Austin featuring work from his laboratories on hydrogenation for C−C bond formation.

This account highlights the progress made in his laboratories on utilizing very simple building blocks such as alkynes and alkenes in coupling reactions with aldehydes and imines under hydrogenation conditions to build more complex structural motifs utilizing rhodium and iridium catalysts. Furthermore, the methodologies described have proven capable of achieving high levels of enantioselectivity. In some cases, alcohols have served as capable starting materials in redox neutral processes no longer requiring the presence of hydrogen to accomplish these transformations.

The synthetic methods presented have already been employed in natural product synthesis, and we believe that they will also find utility for process chemists seeking practical synthetic methods for industrial applications.

We thank Professor Krische for his contribution to OPRD.

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Members of the Editorial Advisory Board, OPRD

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