AIMS AND SCOPE

Although total synthesis reached extraordinary levels of sophistication in the last century, the development of practical and efficient synthetic methodologies is still in its infancy. Achieving chemical reactions that are highly selective, economical, safe, resource- and energy-efficient, and environmentally benign is a primary challenge to chemistry in this century. Realizing this goal will demand the highest level of scientific creativity, insight and understanding in a combined effort by academic, government and industrial chemists and engineers.

Advanced Synthesis & Catalysis promotes that process by publishing high-impact research results reporting the development and application of efficient synthetic methodologies and strategies for organic targets that range from pharmaceuticals to organic materials. Homogeneous catalysis, biocatalysis, organocatalysis and heterogeneous catalysis directed towards organic synthesis are playing an ever increasing role in achieving synthetic efficiency. Asymmetric catalysis remains a topic of central importance. In addition, *Advanced Synthesis & Catalysis* includes other areas that are making a contribution to green synthesis, such as synthesis design, reaction techniques, flow chemistry and continuous processing, multi-phase catalysis, green solvents, catalyst immobilization and recycling, separation science and process development.

Practical processes involve development of effective integrated strategies, from an elegant synthetic route based on mechanistic and structural insights at the molecular level through to process optimization at larger scales. These endeavors often entail a multidisciplinary approach that spans the broad fields chemistry, biology, and engineering and involve contributions from academic, government, and industrial laboratories.

The unique focus of *Advanced Synthesis & Catalysis* has rapidly made it a leading organic chemistry and catalysis journal. The goal of *Advanced Synthesis & Catalysis* is to help inspire a new era of chemical science, based on the efforts of synthetic chemists and on interdisciplinary collaboration, so that chemistry will make an even greater contribution to the quality of life than it does now.

Advanced Synthesis & Catalysis

succeeding Journal für praktische Chemie
(founded in 1828)

2009, *351*, 9, **Pages 1169 – 1452**

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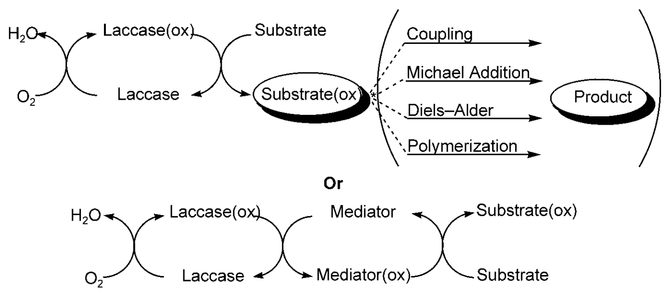
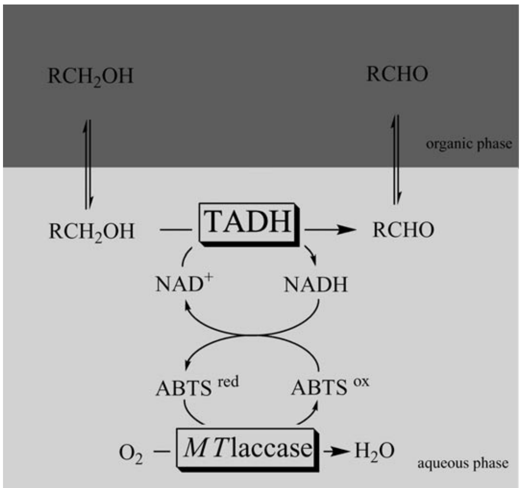
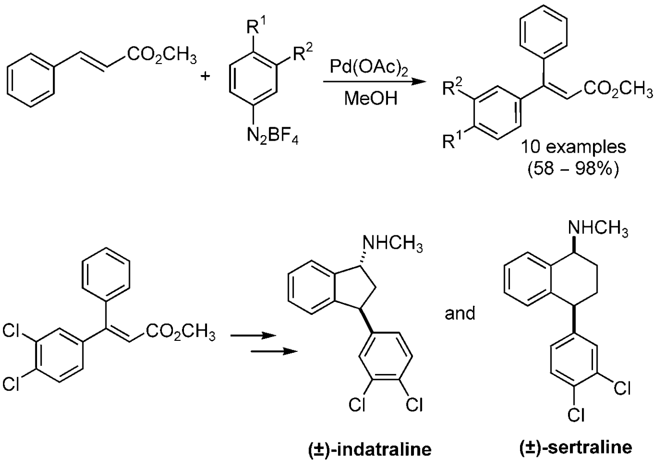
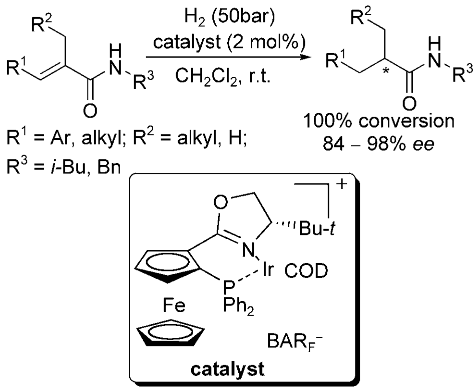
REVIEW

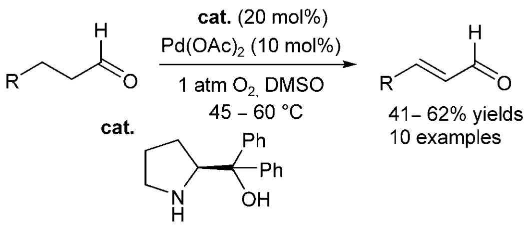


COMMUNICATIONS



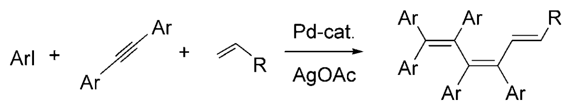






FULL PAPERS

UPDATES



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Pd-cat.
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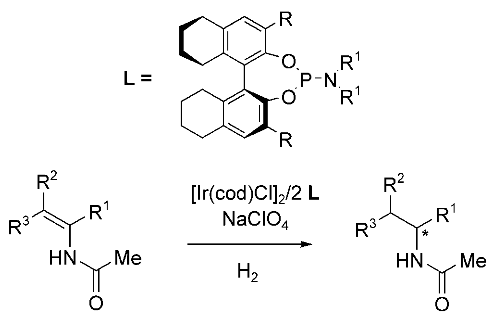

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R1
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H2
R2
R1
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Me
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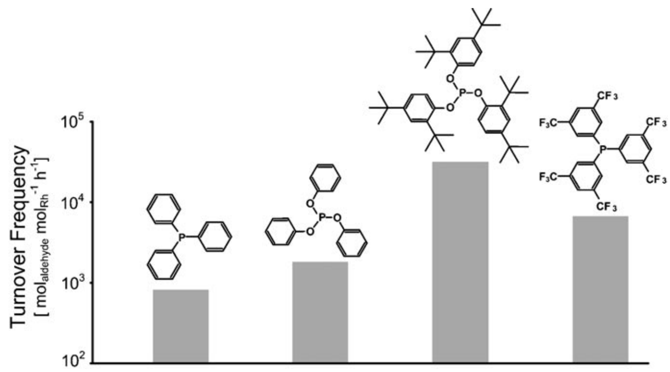
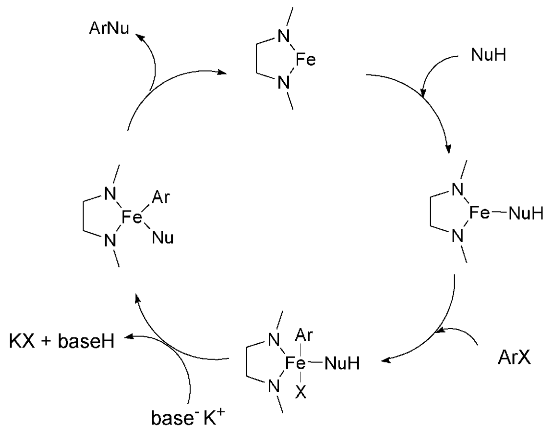


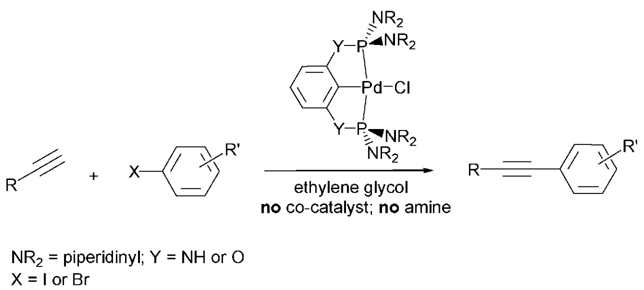
Turnover Frequency
10^5
10^4
10^3
10^2
CF3

CORRIGENDA

In the paper by Yong-Chua Teo in Issue 5, 2009, pp. 720–724 (DOI: 10.1002/adsc.200800746), the author failed to make direct reference to very similar work published by Correa and Bolm in 2007 (reference 4r: A. Correa, C. Bolm, *Angew. Chem.* **2007**, *119*, 9018; *Angew. Chem. Int. Ed.* **2007**, *46*, 8862). The paper by Correa and Bolm had already reported very similar screening for the same reaction in toluene with the same starting materials and had already disclosed the best catalyst system, $FeCl_3$ (10 mol%), dmeda (20 mol%), K_3PO_4 (2 equiv.), the same optimized catalyst system reported by Teo for the reaction in water. Tables 3 and 4 in the paper by Correa and Bolm report almost all the substrates and products subsequently reported in the Teo paper in Tables 2 and 3; again the difference being that Teo used water as solvent instead of toluene. The tolerance of the cross-coupling process to water had also been disclosed in the paper by Correa and Bolm.
In addition, the author also failed to cross reference very similar work using a cobalt catalyst system, which he simultaneously published in Chemistry, a European Journal (Y.-C. Teo, G.-L. Chua, *Chem. Eur. J.* **2009**, *15*, 3072). The cobalt paper and the iron paper report similar goals, reactions, ligand scanning, starting materials, products, and conclusions.
The author apologizes for these oversights and agrees that the record be set straight by means of this corrigendum.
Finally, in Scheme 1 on page 723, the structure at the top of the catalytic cycle should be without "X". The correct scheme is as follows:



In the paper by Jeanne L. Bolliger and Christian M. Frech in Issue 6, 2009, pp. 891–902 (DOI: 10.1002/adsc.200900112), the graphic abstract in the table of contents of the issue on page 809 incorrectly shows two methyl groups bound to palladium in the pincer complex, which should be removed. The correct graphic abstract is as follows:



Supporting information on the WWW (see article for access details).

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