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. The goal of achieving chemical reactions that are economical, safe, environmentally benign, resource- and energy-saving will demand the highest level of scientific creativity, insight and understanding in a combined effort by academic and industrial chemists.

Advanced Synthesis & Catalysis is designed to stimulate and advance that process by focusing on the development and application of efficient synthetic methodologies and strategies in organic, bioorganic, pharmaceutical, natural product, macromolecular and materials chemistry. The targets of synthetic studies can range from natural products and pharmaceuticals to macromolecules and organic materials. While metal catalysis, biocatalysis and organocatalysis play an ever increasing role in achieving synthetic efficiency, all areas of interest to the practical synthetic chemist fall within the purview of Advanced Synthesis & Catalysis, including synthesis design, reaction techniques, separation science and process development.

Contributions from industrial and governmental laboratories are highly encouraged. It is the goal of the journal to help initiate 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

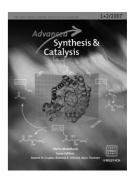
succeeding Journal für praktische Chemie (founded in 1828)

2007, 349, 1+2, Pages 1-268

Issue 18/2006 was published online on December 15, 2007

Cover Picture

The cover picture results from the seminal mechanistic work on DERA, deoxyribose-5-phosphate aldolase, a widely distributed catabolic enzyme, by Chi-Huey Wong and co-workers.



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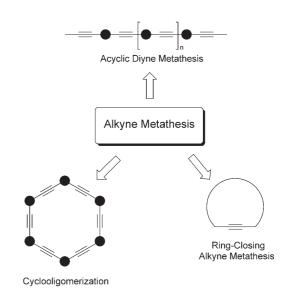
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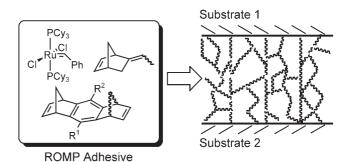
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 $H_2C = CH_2 + CH_3(CH_2)_5CH = CH(CH_2)_5CH_3$

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through bonds electronwithdrawing effect

geometrical withdrawing by structural constraints

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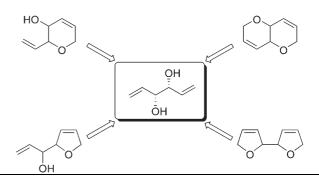
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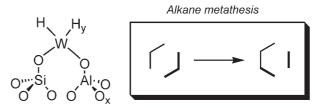
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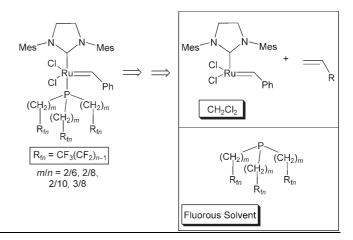
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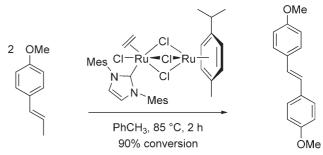
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Supporting information on the WWW (see article for access details).

*Author to whom correspondence should be addressed.