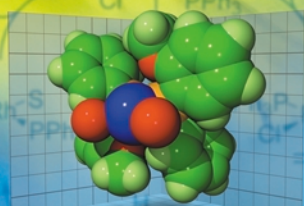


Advanced  
Synthesis &  
Catalysis



Review:  
Practical Considerations  
in Kinetic Resolution Reactions  
Eric N. Jacobsen

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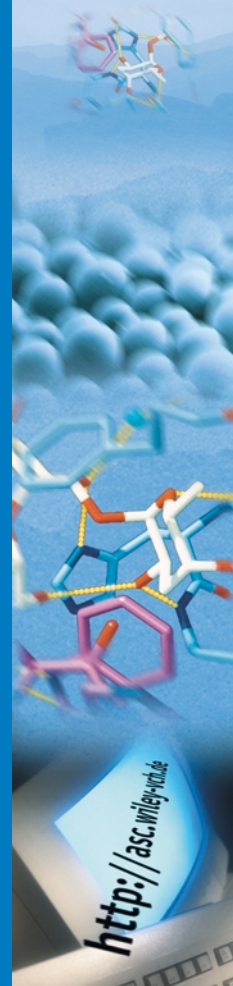
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Dear Colleagues,

“Practical Chemical Synthesis” is crucial for the sustainable development of global society in the new millennium. Chemists have an immense responsibility to assist in solving a wide range of social and global problems associated with the health, materials, food, energy, environment, and many others. In this effort, chemical synthesis, especially catalytic methods, will assume a central position.

The advanced chemical process of the future needs to be economical, safe, environmentally benign, and resource- and energy-saving. Chemists need new catalytic systems effecting “perfect chemical reactions” that give only the desired products, with 100% selectivity and 100% yield without unwanted wastes. Chemical and biological technologies are complementary for this goal. Unfortunately, many currently accessible methods remain impractical.

Chemical synthesis not only produces useful known compounds, it also triggers an upsurge of research. For this purpose, we need a wide variety of new reagents and catalysts, efficient synthetic methods either chemical or biological, nonclassical reaction media, unique energy sources for synthetic reactions, polymer-based means, efficient combinatorial synthesis, convenient analytical methods, high-throughput screening methods, and useful isotope labeling techniques, among others. All areas of research that spur the advancement of chemical synthesis are welcome to *Advanced Synthesis & Catalysis*.

Furthermore, the cooperation of academia and industry is crucial for the development of both sectors in the new century. Contributions from industrial and governmental laboratories will certainly stimulate research activities in the academic community.

Synthetic chemists will need to initiate a new era of chemical science, based on their own efforts and on interdisciplinary collaboration. Then I am certain that chemistry will make an even greater contribution to the quality of life than does it now.

As Chairman of the Editorial Board, I am proud to work with a superb team of colleagues: Stephen L. Buchwald, Mark J. Burk, Eric N. Jacobsen, Shū Kobayashi, Andreas Pfaltz and Chi-Huey Wong. The Advisory Boards also include many of the leading authorities in this important scientific field. Their support and the input of all those concerned with the future of chemistry in our global society will help *Advanced Synthesis & Catalysis* play a key role in achieving the goals outlined above.

Finally, I would add that having Wiley-VCH as publisher will guarantee the implementation of state-of-the-art publishing technology and a high international visibility for authors.

A handwritten signature in black ink that reads "R NOYORI". The "R" is large and stylized, and the name "NOYORI" is written in a cursive, slightly slanted font.

Ryoji Noyori, Nagoya, Japan  
March 2000

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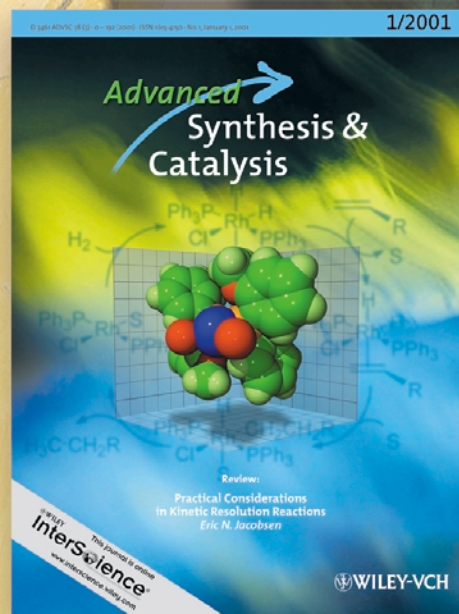
While total synthesis reached extraordinary levels of sophistication in the last century, the development of practical and efficient synthetic methodologies is still in its infancy. The goal of achieving chemical reactions that are economical, safe, environmentally benign, resource- and energy-saving 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 catalytic methods based on metal complexes or enzymes 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* succeeds the "Journal fuer Praktische Chemie" (founded 1828).



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