**A Unique Journal**

- Focuses on efficient and practical organic synthesis with emphasis on catalysis for environmentally benign chemical processes and sustained development

- Brings together our best scientific efforts for the discovery and development of efficient synthetic methodologies and strategies as one of the highest goals of chemistry today

- Requires essential experimental details to aid in the evaluation and practical application of the methodologies, reagents and catalysts presented

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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.

R. Noyori
Nagoya, Japan
March 2000
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1. General Information

Advanced Synthesis & Catalysis is an international journal dedicated to the advancement of efficient and practical synthesis, which is a joint effort by academic and industrial chemists to meet the global and societal challenges with which chemistry is faced in the 21st Century. Advanced Synthesis & Catalysis brings together a previously heterogeneous group including synthetic organic and organometallic chemists, metal-complex and enzyme catalysts experts, biotechnologists and process engineers. The goals and content of the journal are described in the Aims and Scope. Advanced Synthesis & Catalysis succeeds the time-honored German Journal fuer Praktische Chemie (founded 1828).

Manuscripts in English (four printed copies, three of which may be double-sided) should be submitted to:

Joe P. Richmond
Executive Editor
Advanced Synthesis & Catalysis
by mail: Postfach 120102
D-69065 Heidelberg, Germany
by courier: Kriegsstrasse 11
D-69121 Heidelberg, Germany

Submission by fax +49 (0)6221-455-952 or e-mail (ASC@wiley-vch.de)

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Commentaries are editorial statements by the Editors or by other responsible leaders from academia, industry and government on issues of relevance to the goals of the journal and of importance to the chemical community. The subjects discussed can range widely, from questions directly concerned with synthetic science to those at the interface of chemistry with social and global problems associated with the health, materials, food, energy, environment, and many others.

Reviews are concise overviews of developments in a given area of high interest to the readership. As with other sections of the journal, the areas covered are not restricted to synthesis, but can include theoretical or mechanistic studies, separation science, reaction techniques and other subjects that are of interest to the practical synthetic chemist. In the coverage of a given methodology, not only the scope but also the limitations should be discussed. The practical utility and the future potential of the area should be central themes of the coverage. To the extent possible, the authors are encouraged to provide optimized experimental procedures, which have not been published previously. A biographical sketch (maximum length 800 characters) and a portrait-quality black-and-white photograph of the main author(s) should be submitted.

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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).
First reactions:

“The increasing demand for targeted functions require ever more sophisticated molecular structures. Such structures highlight the need for improved synthetic efficiency. It is not a question of whether a particular compound can be synthesized, but how. To do so whereby use of raw materials is maximized and waste minimized and whereby the number of steps is minimized requires new concepts. The challenges are vast and the opportunities enormous. Providing a forum for this critical area of chemistry by this journal is an important new thrust.”

Barry M. Trost, Stanford University (USA)

“I consider the birth of your journal most timely. Efficient utilisation of feedstock by precision synthesis and catalysis are at the heart of a sustainable development of the modern chemical industry. Partnership of academia and industry is an essential ingredient to achieve that goal.”

Eite Drent, Shell International Chemicals B.V., Amsterdam (The Netherlands)

“Catalysis is a key technology for the future and a high quality journal that explicitly addresses this timely field of research is very welcome.”

Alois Fuerstner, Max-Planck-Institut für Kohlenforschung, Mülheim/Ruhr (Germany)

“Synthesis using catalysis is growing up. Advanced Synthesis & Catalysis is a timely journal which should attract chemists both in Academia and in Industry.”

Tamio Hayashi, Kyoto University (Japan)