Advanced Synthesis & Catalysis

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. The journal brings together chemists from various areas of research including synthetic organic chemistry, organometallics, metal-complex catalysis, organic catalysis, biocatalysis, biotechnology, and process chemistry. *Advanced Synthesis & Catalysis* succeeds the time-honored German »Journal für Praktische Chemie« (founded 1828).

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Prepare your manuscript in keeping with the guidelines given below (§3 and §4). Manuscript templates are available on the *Advanced Synthesis & Catalysis* website at http://asc.wiley-vch.de/.

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Manuscripts containing **animal experiments** must include a statement in the Experimental Section to state that permission was obtained from the relevant national or local authorities. The institutional committees that have approved the experiments must be identified and the accreditation number of the laboratory or of the investigator given where applicable. If no such rules or permissions are in place in the country where the experiments were performed, then this must also be clearly stated.

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2. 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, multiphase 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.

3. Categories of Contributions

Commentaries are editorial statements by the Editors or by other responsible leaders from academia, industry and politics 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. Commentaries are generally written upon invitation. Unsolicited manuscripts are welcome, as long as they fit into the concept of the journal.

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Communications report results of scientific studies that have not previously been published and whose immediate significance to the readership justifies their urgent publication. The

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Unless stated otherwise, the following instructions apply to all sections of the journal, except for Commentaries and Book Reviews.

Title page: Series title and number, if applicable; title; authors names and alphabetical references ([a], [b], [c], etc.) referring to addresses, and an asterisk to denote the correspondence author; affiliations of all the authors including the full postal address, fax number, and e-mail address of the correspondence author; dedication if applicable; footnote referring to the previous paper in the series, if applicable. The title should not contain chemical formula.

Abstract should be brief (600 – 2000 characters) and not too technical.

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Experimental Section (Full Papers, Updates and Communications) should be given in sufficient detail to enable others to repeat your work. In so far as practical, authors should use a systematic name for each title compound in the experimental section. Equipment and conditions used for the measurement of physical data as well as any enzymes or nucleic acids used should be described at the beginning of the experimental section. For catalytic methodologies, the catalyst preparation and characterization should be described in detail (unless it is commercially available). In the individual experimental procedures, quantities of reactants, solvents etc. should be included in parentheses rather than in the running text [e.g., triphenylstannyl chloride (0.964 g, 2.5 mmol) in toluene (20 mL)]. Information on catalyst loading (or S/C ratio or TON) and on reaction times (or TOF or rate) must be included. Physical data (using SI units whenever possible) should be

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Miscellaneous: [5] a) T. Aratani, H. Yoshihara, G. Susukamo (Sumitomo Chemical Company), *US Patent* 4552972, 4603218, **1985**; *Chem. Abstr.* **1985**, *103*, 71551m; b) A. Student, *PhD thesis*, University of Cambridge (UK), **1998**; c) P. Knochel, *Science of Synthesis* **2004**, Vol. 3, pp. 5 – 90; d) M. T. Reetz, X. Li, *Synthesis* **2005**, 3183 – 3185; e) D. E. Bergbreiter, J. Li, *Top. Curr. Chem.* **2004**, *242*, 113 – 176.

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