

are likely to profoundly influence the speed with which the human and mouse genomes can be applied to prevent, diagnose and treat cancer, cardiovascular disease, diabetes and other important illnesses. Such advances are likely to be reported in this journal.

I encourage readers to sample all four journals, and to include them as resources for their research. ■

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► www.ashley-pub.com/html/journal_home.asp?JournalID=13

JournalID=13

► www.bentham.org/cg/index2.html

► www.wiley-vch.de/publish/en/journals

► www.the-aps.org/publications/journals/pub_pg_home.htm

The Earth cubed

Geochemistry, Geophysics, Geosystems (G³): An Electronic Journal of the Earth Sciences

Editors William White, Henry Elderfield & Richard O'Connell

American Geophysical Union. Access free

Donald E. Canfield

I, for one, greatly enjoy thumbing through my favourite journal. As a research scientist I already spend too much of my time in front of the (stupid) computer, and I am reluctant to concede the joy of the bound hard copy. But despite my old-world attitudes, I am very positively impressed with the new all-electronic journal *Geochemistry, Geophysics, Geosystems (G³)* from the American Geophysical Union.

The journal serves a broad audience within the geosciences, from biogeochemistry to cosmology, and emphasizes cross-disciplinary approaches to understanding the Earth, and indeed the Solar System, as functioning, evolving, systems. The journal is backed by an extremely strong group of editors and associate editors who, together with the editorial advisory board, represent some of the top researchers in the geosciences.

Papers may be published as Articles, Research Letters (short papers with significant findings), Reviews, Data Briefs

(unpublished data with minimal interpretation), Technical Briefs (methods including computer programs), Characterizations (models with minimal documentation), Commentaries and Editorials. G³ is clearly striving to maximize the dissemination of scientific information by embracing forms of publication, such as the Data Briefs and Characterizations, that previously had little place in the traditional literature. These formats, however, have not yet been exploited by authors in G³.

A particularly innovative aspect of G³ is the publication of 'special issues' whose papers are posted as they are accepted for publication. Thus, the special issues assemble papers as they become ready, eliminating the frequent frustration surrounding the delayed publication of thematic issues in traditional journals.

As a principal goal, G³ offers authors numerous potential advantages unique to web-based publishing. These include the publication of large databases, and innovative graphics such as movies, virtual-reality images and sound. Another particularly attractive feature is a short turnaround time from submission to publication. Research Letters can find their way into 'print' within a couple of months, whereas Articles are posted, on average, six months after submission, with about three months between acceptance and publication.

When posted, papers are assigned a volume number, a paper number (including number of words) and a publication year, and this is how the papers are to be referenced. No page numbers are assigned. The current citation format, however, is likely to be revised by the end of the year. To find a paper, one must either scroll through the posted papers or browse either the author index or the publication-date index. I find this somewhat cumbersome, and a more inter-active search engine is promised in the near future.

All in all, G³ is an innovative step into the future of journal publishing, and has been embraced by the geosciences community, with a number of first-rate publications already posted. The advantages of rapid publication, low cost (currently, the journal is free of charge) and non-traditional publication formats should ensure the continued growth and expansion of G³. I only wish I could put it on my shelf. ■

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► <http://g-cubed.org>



Towards a common future

Environment, Development and Sustainability: A Multidisciplinary Approach to the Theory and Practice of Sustainable Development

editors Bhaskar Nath, Luc Hens & David Pimentel

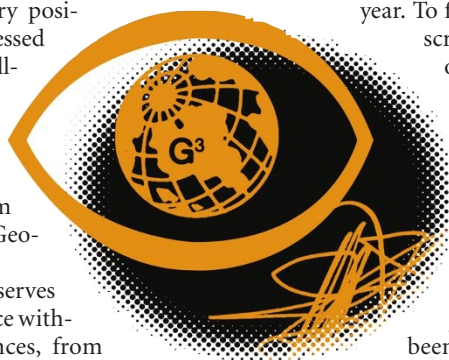
Kluwer. 4/yr. 263 euros, \$263 (institutional); 70.50 euros, \$88 (individual)

David R. Brown

Conflicts between development and the environment first significantly permeated the public consciousness in the 1960s, catalysed by such prophetic texts as Rachel Carson's *Silent Spring* and Paul Erhlich's *The Population Bomb*. The world's population was burgeoning, resources were belatedly recognized as exhaustible, and the two following decades recorded a mounting roll-call of environmental degradation — acid rain, ozone depletion, deforestation, loss of biodiversity.

Against this backdrop, in 1987 the World Commission on Environment and Development published its summary report, *Our Common Future*, ushering in the goal of sustainable development, and famously defining it as "development that meets the needs of the present generation without compromising the need of future generations".

A laudable goal, undoubtedly, but where are the goalposts? With more than 100 extant definitions of sustainable development, and countless words written about it, *Environment, Development and Sustainability*, launched in 1999, seeks to make its own contribution. The first issue included papers that returned to fundamental but unanswered questions from the 1960s: is



there enough spare land for food production in developing countries, and will the limits of Earth's resources control human numbers?

The journal's stated aims are exceptionally broad, but are intended to provide a multidisciplinary appraisal of the theory and practice of sustainable development. It achieves this with an interesting range of generally high-quality articles. Its international remit is realized, although with an emphasis on developing countries. Topics addressed to date include environmental and socio-economic aspects of forest land allocation and deforestation in Vietnam, the ecological impacts of Chile's neo-liberal policies and tropical coastal organisms as indicators of mercury pollution in India.

Although such research could be published in a range of outlets, the thread of sustainable development is woven through the papers and the journal stands up well as an integrated whole. This is reinforced by the inclusion of work related to policy (renewed efforts by the Organisation for Economic Co-operation and Development to address sustainable development are documented) and theory. Specific methodologies offering the potential to chart progress towards (or away from) sustainability are addressed, with a robust defence of ecological footprinting—a technique to try to link the land-area resource requirements to per capita consumption for different societies. Training initiatives also fall within the journal's remit, with an account of a simulation model for vulnerability to climate change.

Each issue comprises between four and six papers of variable length (submission to acceptance times are typically six to ten months), followed by a book review. Given the wide range of subjects encompassed, any particular issue of the journal can touch on only a few, but the selections presented are well balanced and will appeal to those wishing to keep abreast of current sustainability-related topics. Special issues look set to become a feature, with the first—"Local knowledge in the tropics: Relevance to conservation and management"—being the proceedings of the annual meeting of the Association for Tropical Biology.

Environment, Development and Sustainability was launched in the last year of a century during which, by any definition, development had become increasingly unsustainable. Whether it will document continued decline or positive progress remains to be seen, but the journal shows the potential to offer a valuable commentary. ■

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▶ www.wkap.nl/journalhome.htm/1387-585X

Room for one more on board?

Advanced Synthesis & Catalysis

executive editor Joe P. Richmond
Wiley-VCH. 8/yr. 428 euros, \$498
(institutional)

Amir Hoveyda

Catalysis and synthesis are two of the most important areas of investigation in modern organic chemistry. These fields have critical implications for medical and pharmaceutical research as well as for materials science. Not surprisingly, many outstanding, internationally recognized journals dedicate a notable portion of their pages to describing advances in these areas. *Journal of the American Chemical Society* and *Angewandte Chemie* are among at least ten respected publications that regularly cover the latest research in catalysis and synthesis. Such publications deal with novelty of approach and with issues of practicality, scale and environmental friendliness.

It has become an accepted dictum that a new method in synthesis must strive to satisfy some or all of the above criteria; and papers introducing a new catalyst or synthesis method generally include discussions of these issues. After all, some of the most important aspects of catalysis concern issues of economy and the environment. Papers in the journals mentioned above frequently cover attempts to develop recyclable supported catalysts, those that do not require a solvent, or processes that have a high turnover number and/or frequency. And several journals regularly publish symposia-in-print that cover exciting new related topics.

It is therefore difficult to understand immediately what niche *Advanced Catalysis & Synthesis* is expected to fill. The publishers state that the new publication focuses on "chemical reactions that are economical, safe, environmentally benign, resource- and energy-saving". But such attributes have always been part of the yardstick by which papers in catalysis and synthesis are measured. For example, the incisive and thought-provoking review article on catalytic kinetic resolution that appears in the first issue could easily have been accommodated

in *Angewandte Chemie*, a journal produced by the same publisher—one might argue that the latter venue would have allowed the article to reach a wider audience.

Most of the remaining reviews and communications in the journal's first four issues address questions of efficiency and selectivity. A few others are directed more towards the practical aspects of synthesis and catalysis, but all could have been submitted to any of several existing journals.

Perhaps the most striking feature of this new publication is its illustrious editor-in-chief and editorial board; a more respected and better-qualified group would have been difficult to assemble. Such a talented and accomplished editorial ensemble clearly have a valid

reason for supporting the journal. But if there is such a mission, it has unfortunately not yet emerged from the first 400 pages of *Advanced Catalysis & Synthesis*. Furthermore, in thinking about the need for new journals in these important and well-represented sub-disciplines of chemistry, and

considering the truncated budgets and rising costs that face most of our libraries, one is reminded of the words of the great twentieth-century architect, Ludwig Mies van der Rohe, that "less is more". ■

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Forum for the genomic onslaught

GenomeBiology.com

editor Theodora Bloom
BioMed Central. \$300, £190 (library, print only), \$130, £80 (laboratory, print & online), \$120, £75 (individual, print & online); \$95, £60 (individual, online only)

John D. McPherson

The past few years have witnessed an explosion of publicly accessible data on the genomes of a wide variety of organisms. These data sets now include physical maps and DNA sequence and annotation of complete genomes. The analyses of such data sets are increasingly large and complex. To better serve the research community, many journals offer a complementary website providing supplemental material that is inappropriate for a printed format.