

and poor, old and young, beginning student or grand old master? Who, then, is expected to shell out for four issues a year when virtually all journals are free, or essentially free, in electronic form? Who has the optimism to believe that authors will choose to publish in a journal that may have no free electronic distribution, no listing in Science Citation Index or Web of Science, and no fewer than three months' delay between issues? In short, how can any new journal survive?

It is thus truly remarkable that the editors of *Advances in Complex Systems* have undertaken to initiate a new journal in a field in which there are already a number of journals publishing papers. This journal corrects the unfortunate situation faced in many fields that are truly multidisciplinary. Papers published by, say, a physicist in a physics journal are unlikely to be found by, say, a psychologist who normally does not scan the pages of physics journals — except by using Web of Science or other electronic media that can be searched by keyword.

The list of editorial board members, as well as the authors of the papers appearing in the first few issues, is truly outstanding, with computational scientists, biologists, physicists, chemists, an economist, a political scientist, a psychologist, a cognitive scientist and even a nuclear engineer thrown in for good measure! The journal's editor-in-chief, Eric Bonabeau, heads the Santa Fe Institute, which has made its mark on world science by creating a unique environment where scholars can meet to think and discuss in an idyllic setting, isolated both culturally and geographically from the competitive hustle of traditional science research centres that have to obtain funding for specific projects.

The bottom-line question is whether this journal is a worthwhile addition to a typical library which may be in the throes of reducing, not augmenting, its list of journal

subscriptions. The quick answer is "yes", at least for a year, to see if there is as much interest among the library users as there is among this reviewer and his colleagues. □

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Quick work but variable quality

Pattern Analysis and Applications

Editor-in-chief S. Singh
Springer. 4/yr. £156 plus postage

Martin A. Giese

Pattern recognition has been under investigation for more than 30 years. This interdisciplinary subject has a lot of interesting technical applications, for example in image processing, robotics and multimedia systems. A number of different journals cover pattern recognition in general and in the context of different specialized disciplines, such as computer vision, neural networks, cognitive science and machine learning.

Within this growing body of literature, the new journal *Pattern Analysis and Applications* tries to focus in particular on novel techniques and industrial applications of pattern recognition. Additionally, it wants to offer a forum for the publication of benchmark studies and comparisons of different methods. Each issue contains four to six original articles (without length constraints), one or two book reviews and a calendar of conferences and workshops on related topics. Abstracts are accessible through the Internet.

The issues so far have provided a good balance of contributions from laboratories in different nations, and between articles

about theory and about applications. A number of articles that compared and evaluated different methods seemed to me to be particularly useful. With turn-around times between four and seven months, it is definitively among the fastest-publishing journals in the field.

The quality of the contributed articles has been variable but reasonable — though it seems that many authors do not contribute their most influential work. *Pattern Analysis and Applications* will only be able to fulfil its aim to become one of the leading journals in the field if more authors are willing to provide articles of central general relevance. A subscription can be recommended, in particular for institutions that are working on applied aspects of pattern recognition. □

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New developments in an old discipline

Inorganic Chemistry Communications

Editors U. Belluco, A. S. C. Chan, D. G. Nocera
Elsevier Science. 12/yr. DFI 705, \$358 (institutional); DFI 212, \$107 (personal)

Dante Gatteschi

Inorganic chemistry is a very old discipline. One of humanity's greatest leaps forward corresponds to the early implementation of chemical techniques for the treatment of metals and ceramics. In recent years, inorganic chemistry has renewed itself by exploring its frontiers with biology, materials science and environmental science.

Metallo-proteins and metallo-enzymes, metal ions in medicine, ceramic superconductors and organometallic precursors for semiconductors, the role of heavy metals in the environment — these are just some of the many different themes that are of interest to inorganic chemistry. At the same time the traditional areas of catalysis and reactivity have been extended, taking advantage of the most recent experimental and theoretical techniques for the investigation of molecules and their interactions. New synthetic routes for traditional compounds have been developed that are more environmentally friendly. Furthermore, the inorganic contribution to the development of supramolecular chemistry cannot be overlooked.

The monthly periodical *Inorganic Chemistry Communications*, first published in January 1998, complements journals such as *Inorganica Chimica Acta*, *Polyhedron* and *Journal of Organometallic Chemistry*. It is



DAVID NEWTON

dedicated to the rapid publication of important reports or original advances in inorganic and organometallic chemistry: in its first year about 130 papers were published within three months of the submission date.

Inorganic Chemistry Communications is also available online through the ScienceDirect programme. This journal, though pricey, is of a comparable standard to others in the field. With its rapid publication of new manuscripts, there is no doubt that it is a useful tool for all researchers who want to keep up to date with the latest developments in an old discipline. □

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Materials with added value

Journal of Electroceramics

Editor-in-chief Harry L. Tuller
Kluwer. 4/yr. \$255, Df1510 (institutional); \$105, Df1198 (personal)

Robert W. Cahn

A number of established broad-spectrum ceramics journals already exist — such as *Journal of the American Ceramic Society* and *Journal of the European Ceramic Society* — as well as some broader-spectrum materials journals such as *Journal of Materials Science*. They all include papers concerned with such materials as ferroelectrics, magnetic ferrites, solid electrolytes, piezoelectrics and semi-conducting and superconducting oxides. According to the editor's preface in the first issue of the new journal, this group of ceramics is collectively termed 'electroceramics'; he judges that the literature related to these materials is too widely scattered, so that the various research communities involved remain unaware of much of it. This is the declared motive for inaugurating *Journal of Electroceramics*.

The journal shows every sign of covering the full range of electroceramics. Indeed, it goes a little beyond: one issue is devoted to sensors, and includes a paper on giant magnetoresistance, a property of metallic multilayers. Another special issue is most interestingly devoted to "nanostructured materials for energy applications", and includes a paper on nanostructured catalysts — again, an extension of the electroceramics concept. I point out these innovations in admiration, not criticism. 'Mainline' papers include several on processing innovations, non-stoichiometry and associated defects, impedance spectrometry, ionic conductors and ceramic superconductors.

A point of concern is the institutional subscription price. It is usual for publishers

to tempt little fishes in with gently smiling jaws, and for their crocodilian propensities to be manifested only later. *Kluwer*, it seems, is revealing itself as a crocodile from the word go. Nevertheless, the new journal warrants a place in those technical libraries that can afford it and whose readers include a posse of electroceramicists. □

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Earthquakes — the grand and the gritty

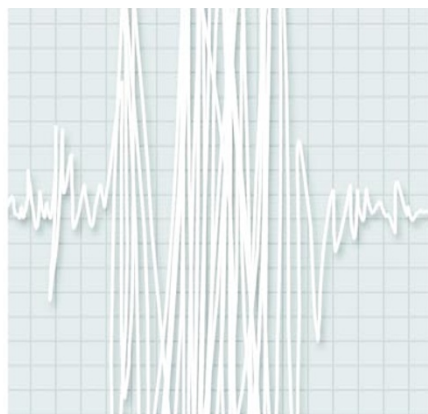
Journal of Seismology

Editor-in-chief A. Udías
Kluwer. 4/yr. \$265, Df1 530 (institutional); \$99, Df1 150 (personal)

George Helffrich

As a discipline, seismology is both grand and gritty. The gritty part is where seismology happens — the rock, soil, mud and water that moves during and between earthquakes. The grand part is the underlying theory and the reward gained by applying that theory in order to understand the behaviour of inaccessible parts of the Earth. While there are controversies, the drive uniting seismologists to increase the general understanding of the Earth comes from the communities dealing with seismic hazard and with seismic source discrimination. Seismology journals publish an intriguing blend of practice, theory and planetary observation that informs a diverse community united by a need to know.

On account of its diversity, I think the discipline is best served by placing seismology in the broader context of Earth science (or planetology/astrophysics, to include helioseismology). The two-year-old *Journal of Seismology* takes the opposite view, focusing on the subdiscipline rather than the context. The most informative elements in my present seismological reading list are broadly constituted geophysical journals, plus



Science and *Nature*, but the list also includes some specialized seismological society-sponsored journals such as *Bulletin of the Seismological Society of America* and *Seismological Research Letters*.

The list is crowded, and the *Journal of Seismology* competes for an increasingly pressed personal subscription budget. Its institutional subscription rate exacerbates the distressingly noxious negative-sum game involving my university's library budget too much to permit me to warmly commend it to my colleagues. □

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Bugs, glorious bugs

Current Opinion in Microbiology

Editors Julian Davies and Stanley Falkow
Current Biology. 6/yr. £500, \$822 (institutional, print only); £125, \$206 (personal, print only); £150, \$247 (personal, print plus online)

Peter H. Williams

There has rarely, if ever, been a more exciting time to be a microbiologist. Microbes do such interesting things (metabolically speaking), live in such interesting places, respond to their environments, communicate with one another — and 99% of microbes haven't even been discovered yet. Gone is the complacency of the antibiotic era. Infectious diseases continue to wreak havoc in the poorer regions of the world, while in the West tuberculosis is back and 'new' infections drive us to panic. Microbes also play crucially important roles in the manufacture of food and drink and in the pharmaceutical, agrochemical and biotechnology industries.

But perhaps most exciting is that microbiology is in the grip of a technological revolution that is fundamentally changing how we study and exploit microbes. Genomics, proteomics, DNA arrays and the associated developments in bioinformatics have ignited an information explosion that I am sure (and this is the *really* exciting bit) will raise at least a hundred times as many new questions as it answers.

How will microbiologists get their heads round all the new data, make sense of flawed hypotheses, come down off hobby-horses, release bees from their bonnets? I recommend they try *Current Opinion in Microbiology*. Eight major aspects of microbiology are covered each year in six issues: host-microbe interactions in bacteria; cell regulation; ecology and industrial microbiology; techniques; host-microbe interactions in fungi/viruses/parasites; antimicrobials; genomics; and growth and development. Each aspect