

On the beam

Watson Fuller

Journal of Synchrotron Radiation. Editors S. S. Hasnain, J. R. Helliwell and H. Kamitsubo. *Munksgaard*. 6/yr. North America DKr2,845, elsewhere DKr2,750 (institutional); North America DKr595, elsewhere DKr500 (personal).

THIS is the most recent addition to the well-established and highly regarded journals and reference volumes published on behalf of the International Union of Crystallography. The editorial board reflects the now wide geographical distribution of synchrotron-radiation facilities and their users. Papers are invited on the whole range of synchrotron-radiation techniques and their application in biology, chemistry, materials science and physics. The emphasis is, however, intended to be on techniques rather than detailed analysis of the implications of the results for particular fields of study.

Although the journal has been going since October 1994, it is still fairly slim, each issue containing about half-a-dozen articles. But the quality of the articles is high, with a good representation of synchrotron sources and principal users from Western Europe, Russia, Japan and North America. The high-class presentation includes colour illustrations, offered free of charge.

Developments in the application of synchrotron research have benefited

Flagship journal for a field at sea

William H. Casey

Aquatic Geochemistry. Editor-in-chief John W. Morse. *Kluwer*. 4/yr. \$253 (institutional); \$124 (personal).

THE dissipation of my field amuses me. More than a century ago, Jacobus Van't Hoff estimated the composition of Permian sea water by examining minerals in ancient evaporite beds. This effort failed, partly because of the high temperatures of rock formation, which he did not appreciate, and partly because a century of work would have been required to accumulate the necessary thermodynamic information about the important minerals and solutes. Now, however, geochemists, oceanographers, soil scientists, atmospheric chemists, environmental engineers and even the odd (aren't we all just a bit?) physical chemist can make reasonable predictions about minerals paragenesis and natural-water chemistry. The field has expanded well away from the Earth sciences, and this is enormously useful.

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Close-up of polarized-proton generator.

enormously from fertilization between otherwise distinct research areas, and there is no doubt that this new journal will play an important part in furthering such interdisciplinary interactions.

All the articles published in 1996 appeared within seven months of receipt. This speed, together with the quality of the contributions so far and the high standard of production, makes the journal attractive to authors and required reading for workers in what worldwide is still a rapidly expanding field. □

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Aquatic Geochemistry reflects this very healthy expansion: John Morse, the editor-in-chief, has wisely established an editorial board by drawing on all of these lineages.

The articles range from the crustal cycling of elements on a geological timescale to the seasonal cycling of metals in lakes and to particular aspects of the toxicity of metals in water. The material is heavily biased towards inorganic processes, but this emphasis will change as new information is acquired about the distribution of soluble organic acids in nature.

The breadth of articles in *Aquatic Geochemistry* distinguishes it from the flagship journal in the field, *Geochimica Cosmochimica Acta*, and serves this protean community well. □

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Open channels

Brian Martin

Science and Engineering Ethics. Editors Stephanie J. Bird and Raymond Spier. *Opragen*, PO Box 54, Guildford, Surrey GU1 2YF, UK. 4/yr. \$130, £77 (institutional); \$66, £42 (personal).

DENIAL of authorship, misrepresentation in a *curriculum vitae*, misuse of grant money, denial of access to biological specimens, theft of patent rights — these are just some of the things I have been informed about over the past several months in long discussions with a few scientists and engineers. They provided plenty of documents too. In my studies of fraud and misrepresentation in science, it is apparent that the few publicized cases are the tip of an iceberg of ethical problems.

There is certainly plenty of material to be dealt with by *Science and Engineering Ethics*. Some topics receive a fair bit of attention, such as questions of authorship and data selection, with Millikan's oil-drop experiment the subject of much comment. But there are many others, including decision-making about genetic engineering, the hazards of whistleblowing, research on HIV infection, creative accounting and the right to die in dignity. Some important areas have not yet been treated, such as the ethics of weapons research. Imbalances are only to be expected; academic scientists and engineers, who have the greatest intellectual freedom, write most often about ethical issues that concern them personally.

As well as publishing papers — selected by double-blind refereeing, what else? — the journal includes articles about teaching ethics to scientists and engineers, reports on conferences and meetings and book reviews. One of its best features is the comments on papers, often giving strongly contrasting views.

The editors set out to get practising scientists and engineers to write about the ethical challenges they encounter on the job. A resulting weakness is an occasional lack of focus and unevenness in quality. More than compensating for this is the journal's accessibility and relevance. With contributors writing from a range of disciplines, often aimed at practical interventions to improve scientific practice, there are actually several articles that could usefully be given to colleagues or students. So the journal has kept open channels of communication and avoided becoming an in-group of professionals writing for each other. May it continue to do so. □

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