

Pro and con fusion

V.S. Crocker

Journal of Fusion Energy. Editor L.M. Lidsky. 6/yr. (Plenum.) \$30 US, \$35 elsewhere (personal); \$80 US, \$91 elsewhere (institutional). *Nuclear Technology/Fusion*. Editor R.G. Post. 4/yr. (American Nuclear Society/European Nuclear Society.) \$100 US, \$127 elsewhere.

THE current situation in fusion has many similarities with that of fission in the 1950s. The subject is burgeoning — a wide variety of fusion devices are being studied, and an even greater number of blanket designs for breeding tritium, producing fissionable isotopes, and for extracting the resulting heat and producing electricity are under investigation. However, there is one difference. No fusion system has yet fully ignited, and perhaps this accounts for the increasing number of articles and meetings on all aspects of fusion technology.

Until 1981 no one publication adequately catered for papers within this wide field, but two — *Journal of Fusion Energy* (JFE) and *Nuclear Technology/Fusion* (NTF) — appeared early in that year to fill this gap.

The content of the journals is almost identical, though NTF normally contains

more pages of text — and costs more. Both magnetic and inertial confined systems are covered, and the range of topics includes plasma engineering, laser developments, magnet technology, tritium handling, blanket neutronics and engineering, materials problems, safety and so on. In general, every aspect of fusion technology for energy — as opposed to basic research — is catered for in both journals.

NTF is a journal of the American Nuclear Society and the European Nuclear Society, and a daughter publication of their *Nuclear Technology*. Besides technical papers, it contains book reviews, technical notes, correspondence and comments on meetings. Also there is a "gallery" of authors' photographs, with potted histories; a feature of doubtful value. Prospective contributors should note that page charges (\$125 per page) are not demanded, though if a cheque is not forthcoming no reprints are available and some delay in publication might occur. At present contributions appear to be published quickly.

JFE seems to be a little more formal with less emphasis on material which questions present ideas (and no photographs of contributors). It has no page charges, and though papers are apparently published rapidly the appearance of issues over the first year has been erratic. Both journals are almost indispensable for scientists and engineers working on fusion.

The standard of papers in the two journals is varied, but usually high. Many contributions contain a number of acronyms, which are hard to decipher; perhaps a start should be made to index these at the end of papers. At present papers from the United States dominate both NTF and JFE and the editors are undoubtedly making efforts to rectify the situation, though the bulk of this type of work is in any case undertaken in the USA.

With fully fledged systems not envisaged until the 1990s and demonstration devices even later, it will be interesting to see if the journals' present momentum can be maintained or if it will fade from exhaustion, as might fusion power reactors! □

V.S. Crocker is Head of the Materials Physics Division at the Atomic Energy Research Establishment, Harwell.

Sieving on a molecular scale

Rodney P. Townsend

Zeolites: The International Journal of Molecular Sieves. Assistant editor Gill Dawson. 4/yr. (Butterworths.) £80 UK, \$208 US.

TO LAUNCH a journal on any subject in the current economic climate is a risky venture; to launch one which deals nearly exclusively with the properties and applications of just one group of porous crystals called zeolites might seem plain foolhardy.

There are exceptions to every rule, however, and *Zeolites* should be one. The growing industrial importance of zeolites in many diverse fields, such as catalytic cracking, gas separation, detergency and pollution control, has resulted in the formation of a large international community of research workers, both academic and industrial. *Zeolites* should therefore provide a natural vehicle for publications on this subject, although many of the more fundamental papers are likely to continue to find their way into well-established journals in physical and inorganic chemistry.

At the time of writing, eight short papers, forty-six full papers and one review had been published since the journal made its debut in April 1981. A good sign is that

contributions are being attracted from established research groups all over the world, especially Belgium, France, Japan and the USA. Papers from most other countries in Western and Eastern Europe have also appeared. In addition to details of research work, each issue contains a very useful Patent Report; the last of these summarized nearly 60 recent patents on zeolites, especially in the areas of catalysis, separation and detergency. Another regular feature is the calendar, which covers forthcoming conferences in related fields.

Presentation is good, with publication times of about six months (which is reasonable, bearing in mind the journal is issued quarterly), although surely it would be possible to publish short papers containing especially interesting new material in the issue immediately following submission.

Zeolites will be near-essential to workers in the field and to many industrial departmental libraries. It is likely, however, to be too specialized for subscriptions to be forthcoming from many university libraries. □

Rodney P. Townsend is a Lecturer in Physical Chemistry at the City University, London.



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