Outside emissions

John Fremlin

Journal of Environmental Radioactivity: An International Journal. Editor M.S. Baxter. *Elsevier Applied Science. 4/yr. UK £60, elsewhere £65.*

ALTHOUGH many periodicals will take articles on environmental aspects of radioactivity, there is a good case for a journal specifically concerned with the subject. Now we have one, *Journal of Environmental Radioactivity*. Most of the papers published to date are naturally concerned with radioactive pollution from materials arising from nuclear bomb tests or from the nuclear industry. Good examples of such articles in the first five issues are those dealing with the determination of plutonium in sheep faeces as a sensitive indicator of deposition on vegetation, the behaviour of radiocaesium in Scottish coastal sediments and the take-up by salt-water organisms of effluents from Sellafield.

An especially promising feature of the new journal, however, is that over a third of the contributions has been concerned with natural radionuclides. Even in Britain, with the world's largest discharges of artificial radionuclides into the seas around the coast, the annual collective dose to the population from these sources is 500 times less than that from cosmic rays, internal potassium and natural local gamma radiation.

Two papers which I found particularly interesting described measurements of the natural alpha-emitting nuclide radon-222, in one case arising from New Zealand geothermal power plants and in the other from phosphate fertilizer sludge in India. Neither of these represent a serious hazard, but the papers warrant a good mark for the journal since the potentially controllable radon isotopes oozing from the soil and lingering in the well-draught-proofed houses of Britain must be responsible annually for causing at least 400 times as many cancer deaths as the whole of the British nuclear industry. *Journal*

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of Environmental Radioactivity has appeared at an appropriate time to attract the flood of new articles that ought to be published over the next decade on methods of sealing dwellings against the entry of radon.

Original contributions of 2,000 to 4,500 words (plus tables and figures), review articles and book reviews, notes and conference reports are accepted. The single letter so far published expressed opinions on articles published elsewhere. Text and line-diagrams are clear, there are no page charges and 25 offprints are supplied free. The subscription rate is not unreasonable and altogether the journal seems set for a healthy future. □

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Matters of gravity

C.J.S. Clarke

Classical and Quantum Gravity. Editor M.A.H. MacCallum. *Institute of Physics. 6/yr. North America $215, elsewhere £135.*

AT A time when many libraries are cutting back on acquisitions, doubts inevitably arise when the number of journals devoted to a particular speciality increases. For some time the community of general relativity theorists has been served by *General Relativity and Gravitation*. But this journal has never had the success it deserved, either in sales or contributions (the shortfall in high-quality contributions being due in no small part to the publisher's failure, as compared with competing journals, to give free offprints). Consequently, general relativity papers have been spread over many publications, with an increasing number going to *Journal of Physics A* (published by the Institute of Physics), until the point was reached when the Institute decided to hive them off into this new, separate journal, *Classical and Quantum Gravity*.

The high standards that prevailed before the split have been maintained, and the journal has acquired a particular strength in attracting and publishing a blend of contributions on supergravity, quantum gravity and classical relativity, a mixture which seems to have been carefully fostered by its editor, Malcolm MacCallum, and which sets the journal apart from the predominantly classical *General Relativity and Gravitation*. Supergravity is perhaps the largest single topic covered (coming to dominate the letters sections of some of the later issues), but there is a wide spread of other topics: canonical quantization, cosmology, asymptotic structure and exact solutions are all well covered, with a discriminating selection of a few papers on alternative theories of gravity. A useful book review section is included.

There is evidence that the journal is starting to woo some North American writers away from their traditional outlets. If it succeeds further in this then it is set to become the main vehicle for papers on general relativity and associated areas. □

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Not entirely at sea

R.C. Selley

Marine and Petroleum Geology. Editor-in-chief D.G. Roberts. *Geological Society of London/Butterworths. 4/yr. UK £124, Europe £136, North America $245.*

THE declared editorial policy of *Marine and Petroleum Geology* is "to provide a forum for the exchange of multidisciplinary concepts and techniques of direct relevance" to all concerned with these subjects. Though the journal is published jointly by a British learned society and by a British publisher it boasts an impressive international editorial board, the catholicism of which is reflected in the diversity of the papers that have appeared to date. The scope is broad both in geography and content. Among the contributions published in the five issues available for review, for example, are papers on sea-level changes of the US continental margin, seismic stratigraphy of the Santos Basin, Brazil, the geochemistry of the Kimmeridge clay of Dorset, reflected light microscopy of chitinozoa and the relevance of induced polarization to quantitative formation evaluation.

This list of topics shows that *Marine and Petroleum Geology* is far wider in scope than its title modestly suggests. Moreover it is more than just a vehicle for research papers. It also carries citations of current earth science literature in the form of reference lists divided into headings that include geology, geochemistry (organic and inorganic), geophysics and well logging, and petroleum engineering, platform technology, drilling and pipelines. The first two issues carried an "Underwater Information Bulletin" (sic). This has now been discontinued — perhaps too many readers drowned. Also included are book reviews, conference reports, patents reports, and a calendar of future conferences and symposia.

The editorial board has sensibly adopted a large page size of some 21 by 30 cm. This is essential to allow the satisfactory display of the seismic sections and geophysical well logs with which the journal abounds. Colour printing and folding pages are other features which help to justify the journal's cost — it comes dressed in a brightly coloured cover sure to appeal to younger, more impressionable readers.

One witnesses the appearance of yet another publication to be consulted with mixed feelings. Nonetheless *Marine and Petroleum Geology* will be essential reading not only for geologists and geophysicists dealing with offshore and onshore geology, but also for oceanographers, geochemists, palaeontologists and petroleum explorationists. □

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