Close relationships

John M. Thomas

Journal of Inclusion Phenomena. Editors Jerry L. Atwood and J. Eric D. Davies. *Reidel. 4/yr. Dfl. 236, $84 (institutional); Dfl. 115, $40 (individual).*

INCLUSION complexes, like so many other materials and physico-chemical phenomena, were first identified in the Royal Institution, London, in the early years of the last century. Both Faraday, who reported the preparation of chlorine clathrate hydrate in 1823, and his mentor Davy worked on the complexes formed by the interaction of hosts and guests.

The *Journal of Inclusion Phenomena* reports original research on systems in which the hosts range from synthetic macromolecules through small heterocylics to natural and synthetic minerals, and the guests from the atomic to molecular to ionic species. That host–guest systems are of immediate practical importance is self-evident: heterogeneous catalysis, especially that which involves zeolites, clays and graphites, is one example; chromatography and the electrochemistry of batteries and other energy storage devices are others. There are several more in the pharmaceutical world. And the whole realm of intercalation, involving inorganic hosts such as metal chalcogenides, or biologically important ones such as DNA, entails inclusion of one kind or another. At the fundamental level, inclusion phenomena offer abundant scope for the thermodynamicist, the preparative chemist, the quantum physicist and computer graphics enthusiasts.

With such a broad territory to cover there is little risk that this journal, unlike many of the ones that have been spawned so freely by publishing houses and their eager academic collaborators, will gradually retreat into a small enclave. By the same token, one wonders why, apart from commercial expediency, a new publication needs to be created when the standard outlets of learned societies are available to all concerned. These days, one should, in all conscience, question whether more new journals devoted to primary rather than secondary (review type) literature serve the best interests of the scientifc community.

My scepticism about new journals is, in this instance, tempered by the commendable quality of the contributions that have appeared in the first three volumes. There has been a number of stimulating articles, but few have scaled the heights comparable to those reached in the evocative account of clathrates by the man who gave them their name, H.M. Powell. Powell tells us why clathrates should have emerged in 1939: they were not recognized as such until his famous paper on the complexes formed by β–quinol was published in 1947. He also writes of his childhood courtship with crystals which started with "glittering pyrites in the local coal and [granulated] sugar on the table". His story encompasses the views of an aged widow of a Welsh quarryman on covetousness; the links between T.V. Barker (renowned for the once famous Barker index, now of blessed remembrance) and Fedorov; and the etymology of the word clathrate. To convey the notion of molecular imprisonment, Powell cites the word *clathri* (from *A Dictionary of Roman and Greek Antiquities*, 1884), which signifies a trellis or grating employed to cover and protect an aperture. He reminds us, too, that the Welsh word for burial ground is *claddfa*.

One can only hope that as well as assembling sound fact and serving as a means of promulgating the acknowledged scientific method of proof by repetition, this journal will also encourage articles possessing the scholarly charm and sweeping erudition of H.M. Powell's opening contribution. □

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Just on the surface

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Adsorption Science & Technology. Editor Paul A. Sermon. *Blackwell Scientific. 4/yr. UK £60, Europe £72, North America $125.*

Physics, Chemistry and Mechanics of Surfaces. Editor-in-chief E.P. Velikhov. *Gordon & Breach. 24/yr in two volumes. Per volume: UK £546 (corporate), £464 (institutional), £232 (individual); North America $656 (corporate), $558 (institutional), $279 (individual).*

ADSORPTION is a crucial phenomenon in gas–solid, liquid–solid and gas–liquid systems, and there are few areas of technology which are not affected by the reactivity of surfaces in some way. In principle, therefore, a new journal entitled *Adsorption Science & Technology*, which claims to "welcome original papers dealing with adsorption theory, measurements and techniques" and "emphasises links between developments in these sciences to their practical and industrial applications", should be of considerable benefit to the scientific community.

The journal commenced publication in January 1984 with an excellent review on the kinetics of adsorption by Aharoni. Since then 30 research papers have appeared in the five issues to January 1985. In general the quality of the work reported is good and the acceptance times have been less than two months. The format and production are also good, although the figures are inordinately large.

Despite these positive impressions, to me the journal seems to be only partly successful in meeting its aims. It is developing into the house publication for the physical adsorption fraternity. Twenty-two of the 30 papers published to date deal with this field; furthermore, of these 22, 16 come from only five research groups, one group having published seven. Most of the remaining papers are concerned with various aspects of chemisorption, and these could naturally have found a place in one of *Journal of Catalysis*, *Surface Science*, *Applications of Surface Science* or *JCS Faraday I*. Moreover there is little to suggest that the journal is realizing its goal of linking applications to the basic science. Thus it appears that *Adsorption Science & Technology* is attracting support from only a very narrow base, which casts doubts on its role and its ultimate chances of survival.

Physics, Chemistry and Mechanics of Surfaces is a cover-to-cover translation of *Poverkhnost'. Fizika, Khimiya, Mekhanika* of the USSR Academy of Sciences. Translations began in 1982, the first issue appearing in November 1983. Although a volume's subscription may seem expensive, it does cover twelve issues of some 300 pages each.

There is great value in this publication because it gives a detailed insight into Soviet surface science. It is well produced, clearly printed and in general the papers are of good quality and useful length. The ideal of bringing together research work on the physics, chemistry and mechanics of surfaces is very commendable — frequently a problem which seems puzzling to a physicist can be solved when the chemist's viewpoint is brought to bear and vice versa. However, despite the high aims, the vast majority of the papers deal with the physics of surface phenomena and the journal is not, I think, as catholic in its coverage as, for example, *Surface Science*.

There is considerable variation in the speed of publication, some papers taking only a few months, others up to two years (a helpful section reproduces the abstracts of forthcoming contributions). There is also considerable variation in the extent to which the Russian authors reference Western journals — some papers refer extensively to the non-Russian literature, others have wholly Russian citations. Whilst one can criticize the parochialism of the latter authors, it is well to remember that without translation journals such as this most Western scientists would be completely ignorant of the very valuable work being done in laboratories in the Soviet Union. □

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