

Farewell (not fond) to cold fusion

A year after the famous Utah press conference, cold fusion is a diminishing focus for professional belief. The authors of last year's fuss now have a responsibility to make the details of their work public.

If the long history of scientific endeavour is ever written, the past year's fuss about cold fusion will deserve a waspish footnote. Here, without copyright charge, is a model with which historians may conjure:

On 23 March, 1989, two chemists — one British, one American — told a press conference at the University of Utah that they had demonstrated the reality of thermonuclear fusion in a simple electrochemical cell. Even the journalists present would not have believed them were it not for their claims to have detected tell-tale neutrons and γ -rays, which claims were quickly withdrawn or shown to be insubstantial. Even so, the search for what was called "cold fusion" continued for several years, much as the search for the Philosophers' Stone (*q.v.*) persisted in the face of repeated failure and enlarging common-sense, in this case sustained by cash from the State of Utah and grant-making agencies that should have known better. The incident is remembered as that which most directly gave the lie to the doctrine, often then referred to as a cornerstone of late twentieth century science, that the first duty of researchers claiming new discoveries is to make the details available for the scrutiny of others.

The last sentence may have to be modified if Pons and Fleischmann do indeed make a clean breast of their work at the conference that will now have begun at Salt Lake City, and which closes on Saturday this week.

Even so, as the article on page 375 makes plain, the cold fusion fuss is discreditable to the scientific community as a whole. The reasons are plain. First, it has licensed magic in the particular sense that reports of remarkable phenomena — it could next be unicorns again — claim equal credence even when they fly in the face of expectation. Second, by extension, it has shown up the frailty of the collective confidence in theoretical science; why else should so many serious people have been bamboozled for so long? Third, it has revealed the malign influence of extraneous considerations in modern science; Pons and Fleischmann would surely have published a full account of their work long before this if they had been concerned with the general understanding. Nobody will blame them for having hugged what they considered a great discovery to themselves (although that is the chief reason why they were themselves misled) or for having held a press conference, but it is mystifying that they have met scepticism mostly with silence. Finally, it is a shabby example for the young; who can now hope to go about the world telling the tale that science is a collective enterprise in which all shoulders are bent to the same wheel of winning understanding from a common literature without fearing the shout "What about cold fusion?"?

In all the circumstances, it is remarkable that the first year has passed off more or less peacefully, and with good humour. Even those diverted from previous pursuits by attempts at replication have mostly been philosophical about the time wasted. Palladium saturated with its atomic equivalent of hydrogen or deuterium is, after all, an interesting material, electrochemistry is an important field in which too few people are engaged, while the intricacies of nuclear measurements at the limits at which particles can be detected have been, for many people, absorbing. If there had been more information to go on, the chase might have been less interesting, if no more rewarding. But there is a limit to people's patience, which has probably been reached with the organization of the first "annual" cold fusion conference.

In short, the time has come when Pons and Fleischmann should say openly, and in as much detail as their interlocutors in Utah this week require, exactly what they had done a year ago, what they have been doing since and what reason they have in which others can have confidence for believing that cold fusion is still to be taken seriously. The suggestion at the press conference a year ago was that a means of extracting energy from deuterium had been found. Persisting believers restrict themselves to more modest claims for phenomena which are, above all, not regularly reproducible. What has irretrievably foundered is the notion that cold fusion has great economic potential. The time has come to acknowledge that. It would be a cruel deception of a largely amused public not to admit that simple truth. And it would be a serious perversion of the process of science to obfuscate the failures of the past year by reference to the difficulties of measurement in an admittedly difficult field. □

More AIDS turmoil

The visa row surrounding this summer's AIDS conference may be a storm in a teacup.

THE US government has been painted into an uncomfortable corner on AIDS by its policy on visas for those infected with HIV wishing to attend the Sixth International AIDS Conference, planned for San Francisco in June. Formally, US law would exclude from the United States those who suffer from certain listed infectious diseases, or