

Editorial

Full speed ahead on cold fusion

On Nov. 24, a meeting was held in Asti, Italy on cold fusion research. What was unusual was not the announcement of any special scientific breakthrough nor the quality of technical discussion, but the fact that it was convened jointly by the two largest Italian industrial conglomerates, Montedison and Fiat. Not only did they sponsor the event, they gave a prize amounting to just under \$5,000 to Russian physicist Yan Kucherov, for his inventive experiment in cold fusion.

Major European media were alerted about the meeting, and it received wide coverage not only in Italian newspapers, but also in the German tabloid *Bild Zeitung*, and the British Reuters wire service.

It does not take an enormous imaginative leap to suppose that on the eve of the Dec. 5-9 Fourth International Conference on Cold Fusion, hosted by the Electric Power Research Institute (EPRI) and Stanford Research Institute (SRI), someone finally decided that Europe cannot afford to let this new frontier of science pass them by.

A corroborating signal: Just ten days earlier, Carlo Rubbia convened a meeting to discuss what he called a revolutionary breakthrough in the field of nuclear fission. He has invented a thorium reactor which he says would be extremely cost-effective, and which would forestall the danger of proliferation of nuclear weapons. At this meeting, the two discoverers of cold fusion, Drs. Martin Fleischmann and Stanley Pons, were invited to hold a cold fusion panel. Rubbia is the director general of the European Center for Nuclear Research (CERN), which up until now has been renowned for harboring such vehement critics of cold fusion as Dr. Douglas Morrison.

On Dec. 1, the Japanese Ministry of International Trade and Industry (MITI) held a press conference to announce that a Fleischmann-Pons cold fusion cell had been delivered to them by Technova Corporation, the sponsor of the two scientists. They will be testing it along with another cell given to them from the cold fusion laboratory of IMRA Japan. This is a first milestone along the road of an elaborated four-year MITI

cold fusion research program.

Press coverage of the Asti meeting quoted Dr. Pons out of context, to the effect that he may be able to offer the world home heaters within six years. The reality, as he and Dr. Fleischmann assert, is that there is no reason that such practical applications cannot occur, but the present stage of the work is still basic science. Of course, there are still many breakthroughs being reported on cold fusion, some more plausible than others; but fundamentally, the experiment still needs to be understood and controlled under a variety of conditions.

This is as it should be with such a revolutionary discovery, which challenges many scientific preconceptions. Even were cold fusion to be proven impractical in the end for technical applications, or in the worst case simply wishful thinking; even should it occur (which seems increasingly unlikely) that the high temperatures generated by the experiment, which appear to indicate a non-chemical generation of excess heat from an atomic process, are indeed chemical in origin: Still, not to have a fully elaborated program of cold fusion research at this time is a crime.

This is so, regardless of the technical applications, if the phenomena are finally determined to be atomic in origin. Not only are the gains to be realized from cold fusion processes potentially enormous, but the insight into solid state physics gained by ongoing research, is bound to spill over into many areas of solid state physics. Should cold fusion by some strange chance prove not to be atomic in origin, it would still in all likelihood lead to important possibilities for energy storage.

We welcome the participation of major industries abroad in offering support to cold fusion research. But it is high time the U.S. Department of Energy face the enormity of its mistake when it refused to underwrite a major cold fusion research effort, and instead lent support to the witchhunt climate which drove Fleischmann and Pons out of the United States and forced them to lose precious years while they had to reassemble their work abroad.