

## Technology by EIR Staff

### A chronology of cold fusion results

*In the space of one month, a worldwide pattern of astounding experimental results.*

**T**his week's *Feature* (see page 22) reports on the promise of room-temperature fusion technology to transform the way we think about a series of fundamental issues in science, not to mention the potential for revolutionizing the world economy. What follows here is a rundown of developments, mainly laboratory results, that have occurred in the month since March 23, 1989, when the news of the Fleischmann-Pons experiments first broke:

**March 23**—Electrochemists Martin Fleischmann of Southampton University, U.K., and Stanley Pons, University of Utah, hold a press conference in Salt Lake City to report the achievement of fusion at room temperature.

**March 31**—Dr. Steven Jones, from Brigham Young University in Provo, Utah, presents his cold fusion experiment to a forum and press conference at Columbia University. Jones, a fusion scientist who specialized in muon-catalyzed fusion, had independently taken up exploration of electrolytic fusion using a wide variety of materials. He reported seeing minute amounts of fusion at rates of about 100 trillion times less than those found by Fleischmann and Pons in much shorter-run experiments.

**April 1**—Researchers at Birmingham University, U.K. and the Rutherford Lab near Oxford put forward an advanced fuel reaction hypothesis to explain the unusual results of the Fleischmann-Pons experiments.

**April 3**—Professor Pons, inter-

viewed on ABC's "Good Morning America" national TV broadcast, notes that the basic process involved in cold fusion was not yet understood.

**April 5**—Various scientists speculate on why the tritium and neutron fusion product output in the Fleischmann-Pons experiments were far below that expected with such large energy outputs.

**April 11**—Texas A&M and Georgia Tech report confirmations of the Utah cold fusion experiments.

**April 12**—Soviet scientists report duplicating the Fleischmann-Pons experiment at Moscow University.

**April 12**—Dr. Pons addresses 7,000 scientists at the Dallas meeting of the American Chemical Society. "I am absolutely certain" of the fusion reaction, Pons said.

**April 13**—One hundred scientists meet at Erice, Sicily to discuss the cold fusion.

**April 13**—Georgia Tech reports that a faulty instrument used to measure neutrons necessitated further experiments to clarify their previously announced results.

**April 18**—A research team of the Italian state nuclear energy agency, ENEA, headed by Prof. Francesco Scaramuzzi, reports a successful cold fusion experiment over a ten-day period without utilizing an electric current and using titanium instead of palladium.

**April 18**—Two researchers, Humberto Arriola and Jesús Soberón, announce that they have also been able to reproduce the cold fusion experiment of Pons and Fleischmann in their

Mexico City laboratory at the National Autonomous University of Mexico.

**April 18**—Prof. Robert A. Huggins at Stanford University announces that he has duplicated the Fleischmann-Pons experiment. Huggins ran two fusion experiments side by side, one with heavy water and the other with light water, and the heavy water experiment produced 50% more heat than it consumed. These results were replicated five times over a two-week period, Huggins said.

**April 19**—Dr. Spero Pehna Morato of Brazil reports success in cold fusion experiment. "I would tear up my PhD if it is not a nuclear reaction," Pehna Morato told the press.

**April 19**—Indian scientists at the Indira Gandhi Center for Atomic Research report successful experiments with cold fusion, using titanium and platinum as the electrodes and nickel and palladium chlorides in place of the lithium salts used by Fleischmann and Pons.

**April 20**—A Japanese team reports new level in ultra-low-temperature muon-catalyzed fusion.

**April 23**—Scientists at Lawrence Livermore National Laboratory issue a paper that attempts to explain cold fusion, "Catalysis of Deuterium Fusion in Metal Hydrides by Cosmic Ray Muons." Authors are M.W. Guinan, G.F. Chapline, and R.W. Moir.

**April 23**—Dr. Coey of Dublin, Ireland, reports that he successfully duplicated the Fleischmann-Pons cold fusion experiment.

**April 23**—The *Gainesville Sun* reports that two University of Florida researchers have attained a partial confirmation of the Fleischmann-Pons cold fusion.

**April 26**—Drs. Pons and Fleischmann describe their cold fusion experiments in hearings before the full House Committee on Science and Technology in Washington.