

Cold fusion keeps its head just above water

In the 1955 Alfred Hitchcock film "The Trouble with Harry," Harry's corpse just won't stay buried, recounts Robert L. Park, executive director of the American Physical Society's Office of Public Affairs. "We seem to be having the same trouble with cold fusion."

That's a skeptic's view of two cold fusion symposia held last week. Yet other researchers say they are more convinced than ever that strange things really occur in cold fusion experiments.

Over 40 scientists assembled in Washington, D.C., for a three-day, closed-door workshop that now is attracting attention as much for its breach of normal scientific conduct as for the research presented. The Workshop On Anomalous Effects In Deuterated Metals, sponsored by the National Science Foundation and Electric Power Research Institute, was by invitation only and included an unorthodox gag order from its organizers barring participants from telling the press what they had learned. "The entire cold fusion episode has been played out against a backdrop of academic misconduct," Park says.

Although workshop organizers held a press briefing at the end of the meeting, the panel members refused to reveal details of any report and confined their remarks to generalities and prepared statements. Avoiding the term "cold fusion" both in naming the meeting and at the briefing, workshop co-chairmen John Appleby of Texas A&M University in College Station and Paul C.W. Chu of the University of Houston said some scientists had reported evidence potentially supporting the two chemists, B. Stanley Pons of the University of Utah and British co-worker Martin Fleischmann, who last March claimed to have developed an electrochemical method of forcing atomic nuclei to fuse with an accompanying release of heat.

Hundreds of labs have since tested those claims. By May, a handful had reported measuring inexplicable surges of heat in experiments or detecting tritium or neutrons, possible products of nuclear reactions. Similar observations reported in Washington, D.C., and at a meeting of the Electrochemical Society in Hollywood, Fla., come largely from the same handful of scientists, who now express more confidence their observations are not experimental artifacts.

Joining this small cadre of yeah-sayers is chemical engineer Richard A. Oriani of the University of Minnesota at Minneapolis-St. Paul. Like Pons and Fleischmann, he placed palladium electrodes caged by another electrode in containers of heavy water and lithium ions. When a current passes between the electrodes, the water molecules break apart and spectacular amounts of deu-

terium nuclei (a heavy hydrogen isotope) cram into the palladium metal, where Pons and Fleischmann continue to argue fusion occurs. At both meetings, Oriani reported that two such cells in his lab consumed less energy as electricity than they yielded as heat.

The most energetic cell contained a palladium rod used by Texas A&M chemist John O'M. Bockris, who has reported detecting excess heat and intermittent signs of tritium — the heaviest hydrogen isotope — in a number of experiments. Another Texas A&M group, led by physicist Kevin Wolf, reported tritium appearing in their ongoing experiments. He says contamination remains a possible but

Soviets reenter world psychiatric society

The World Psychiatric Association (WPA) conditionally readmitted the official psychiatric society of the Soviet Union last week, giving a big boost to the image and prestige of an organization that resigned from the world body six years ago rather than face charges of systematic psychiatric abuse of political dissidents (SN: 2/19/83, p.116).

At a meeting in Athens, Greece, the WPA membership voted 291 to 45 to readmit the Soviet All-Union Society of Psychiatrists and Narcologists. A WPA review committee, whose members have yet to be appointed, will investigate psychiatric hospitals in the Soviet Union after one year. If the committee concludes political abuse of psychiatry continues, a special WPA session will consider suspension of the Soviets.

While the vote represents a major victory for the All-Union Society, human rights activists and psychiatric critics within the Soviet Union opposed the WPA action.

"Recent changes in Soviet society have not extended to Soviet psychiatry," Semyon Gluzman, a Soviet psychiatrist imprisoned until recently for his efforts to expose abuses in his country's psychiatric system, told SCIENCE NEWS. "Our foreign colleagues [at WPA] did not take this moral issue into account. They made a political decision."

The WPA also voted to admit — without conditions — a splinter group of Soviet psychiatrists known as the Independent Psychiatric Association. The group, founded earlier this year, opposed WPA membership for the All-Union Society until extensive reforms take place.

The American Psychiatric Association (APA) supported the conditional readmittance of the All-Union Society because it appeared the Soviets might otherwise have the votes to return with no strings attached, says APA's director of international affairs Ellen Mercer. She

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unlikely source of the tritium. More vexing is the lack of gamma rays or neutrons that shower from the known tritium-producing fusion reactions.

Although the meetings bolstered the optimism of researchers who have reported positive results, they failed to sway many scientists who feel some people too readily believe experimentally questionable results that defy accepted science. In an interim report released in July, a Department of Energy cold-fusion advisory panel stated that "the evidence for the discovery of a new nuclear process termed cold fusion is not persuasive." Says John R. Huizenga, a nuclear chemist at the University of Rochester (N.Y.) and co-chairman of the panel: "I don't think things have changed so much." — I. Amato

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Officials of the All-Union Society at the Athens meeting hinted changes in their leadership and adoption of international diagnostic standards may occur within the next year, Mercer says. The present leadership came to power in the 1960s and 1970s, when severe abuses allegedly occurred. The Soviet diagnostic system includes categories such as "sluggish" schizophrenia, which may be characterized only by the wish to reform society.

A delegation of U.S. psychiatrists that visited the Soviet Union in February found some signs of improvement in Soviet psychiatry. But of 27 currently or formerly hospitalized patients interviewed, 14 were deemed never mentally ill and another three had mild disorders not requiring involuntary hospitalization. The delegation also reported continuing use of antipsychotic drugs and other medications in large doses to punish those consigned to hospitals.

The delegation's report cites new legal protections for involuntarily hospitalized patients, but delegation member Peter Reddaway of George Washington University in Washington, D.C., says most Soviet psychiatrists and patients remain unaware of the safeguards. "The changes in the Soviet psychiatric system are timid and probably reversible," Reddaway says. "The WPA decision will slow down reform efforts."

In the coming year, the APA will monitor reported instances of psychiatric abuse independently and refer individual cases to the WPA review committee. If the review committee recommends permanent membership for the All-Union Society despite clear evidence of psychiatric abuse, the APA will lodge a formal complaint with the WPA, Mercer says.

— B. Bower