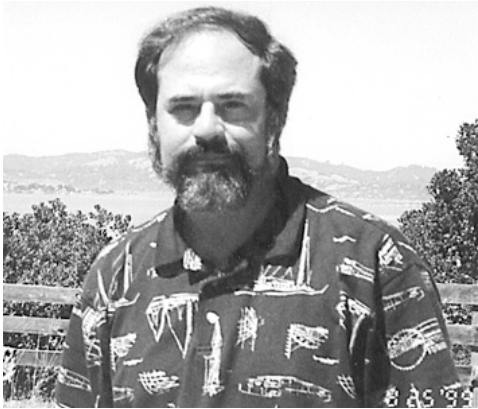


BREAKING THROUGH

Welcome ICCF-8—Liberate Science!



by Eugene F. Mallove, Sc.D.



If you are among the several hundred fortunate enough to be reading this in Lerici, Italy during May 21-26, 2000, you find yourself at the Eighth International Conference on Cold Fusion—ICCF-8. Welcome! It seems that we have returned to the beginning, at least for this magazine. We are back in Europe. It was at ICCF-5 in Monte Carlo, Monaco, April 9-13, 1995, that some readers were introduced to *Infinite Energy*, when Issue No. 1 was distributed free-of-charge to attendees. ICCF-6 (Toya, Japan, 1996) and ICCF-7 (Vancouver, BC, 1998) followed the agreed Asia-North America-Europe rotation, and we continued the policy of complimentary issues at ICCF's. (For those many of you at ICCF-8 who are already subscribers, we are sure your extra copy would help to enlighten a friend back home!) Maybe it is a happy "omen" for our discussions in Italy that "8" represents a kind of vertically aligned infinity or möbius strip sign.

It has been eleven long and difficult years since the announcement by Drs. Fleischmann and Pons at the University of Utah in March 1989. It is appropriate at this time to take stock of where we have been, where we are, and where we are going.

It is gradually dawning on many in the cold fusion field that at least one of the claimed low-energy nuclear reactions in electrolytic and gas-phase systems has been significantly con-

firmed: that of heavy hydrogen fusion leading to helium-4 in and on the metallic palladium lattice plus commensurate thermal energy. The work at SRI International and at the U.S. Navy's laboratory at China Lake, California are fine confirmations, and other results reported at ICCF-8 may lend additional support. So, we can proudly say that the "miracle" of radiationless, deuteron fusion—cold fusion—is a reality. Recalling the eloquent aphorism of the late Nobel laureate Julian Schwinger, who was with us at ICCF-1 and at ICCF-4 (via a paper that I was privileged to read for him): "The circumstances of cold fusion are not those of hot fusion." This has been a very difficult concept for some critics to grasp, but it is the essence of the cold fusion conundrum. As Schwinger also emphasized in his talk in the fall of 1991 at MIT, "The excess energy liberated in cold fusion is not significantly transferred by radiation."

If there had been no other discoveries in this field, that alone should have caused bells to ring around the world to shouts: "Cold fusion is real!" They will ring eventually, when the world realizes what this means: Go to any pond, stream, lake, ocean, or snow bank and capture a gallon (3.79 liters) of water. In that gallon there is enough energy obtainable from the cold fusion of deuterium (heavy hydrogen) to helium-4 to equal the chemical combustion equivalent of about 300 gallons of gasoline. That is more than enough to drive even a heavy American automobile across the United States and back. Only a 1/6,700th of the hydrogen in that gallon would be converted to environmentally benign helium. As world leaders convened in recent times about increases in the price of crude oil, the inevitable insignificance of such concerns should have been the biggest issue on the table: how to plan for the breakout of the Water Fuel Age. Since no bells have been ringing in the general

media, these leaders are clueless about what the future will hold.

The primary confirmed cold fusion reaction is *far* from all that is on the table. With minute resources, compared to what governments and corporations squander each year on prosaic or failed energy research, the cold fusion/new energy community has discovered that the original Pons-Fleischmann system was but the tip of the iceberg of other energy processes derivative from water. Ordinary water electrochemical cells and ordinary hydrogen gas systems have been found to release stupendous energy, by some accounts at least 1,000 times the chemical combustion value of the hydrogen in the system.

A debate has raged since 1991 whether these ordinary hydrogen systems are giving rise to such mind-boggling occurrences as the low-energy transmutation of heavy elements, or whether catalytic shrinkage of the hydrogen below normal ground state (Randell Mills' "hydrino" formation) better explains the energy release. In my view, *both* these processes could be going on in different systems, or even simultaneously within one system. The data supporting both types of products—transmuted elements and hydrinos—are increasingly on stronger ground. The common theoretical framework that encompasses all the data is yet to be worked out. The very good news is that the "coming age of hydrogen power," ordinary chemical fuel cells and the like touted in many fine environmentally aware publications, will be at least 1,000 times more profound than most of them realize.

We still have the question of when all this joy and goodness is likely to happen. "Not soon enough!" is our stock answer, since we have been so disappointed by failures of several companies. What is *indisputably* holding the cold fusion/new energy field back is the lack of tangible embodiments of the science on the

desks and lab benches of entrepreneurs, as well as in college physics/chemistry labs. If some company or inventor leaps ahead with a utilitarian embodiment of a home heater or electric power generator, so much the better.

But even were such a reliable device to arrive tomorrow, it would have virtually no effect on the world if it were not immediately available for sale in large enough numbers to make the *tangible embodiment* of this science undeniable. The professional propagandists and bamboozlers who declaim against the "fraud" of cold fusion and new energy science—you know who they are—will continue to spread their Big Lies with impunity. Sorry to say, the peer-reviewed scientific literature of our field is just no match for their unholy alliance with most of the general science media. The day after the arrival of tangible embodiments, however, these conmen will be sent packing.

The two predictable accomplishments of cold fusion/new energy will be a huge expansion of scientific knowledge and a radical revolution in energy technology. But there is another possible outcome beyond these: a much-needed reformation and *liberation* of the process of science itself. Revolutionaries in other scientific fields are struggling toward that goal too. We share a common purpose.

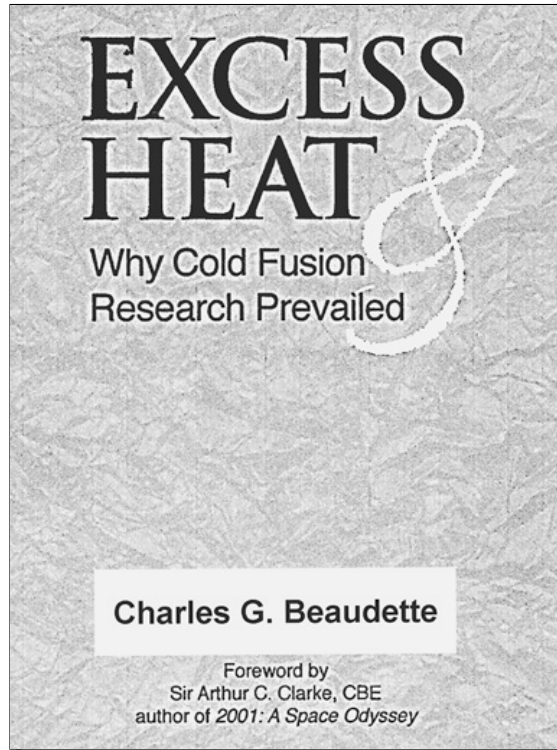
In this issue, I review the books by astronomer Halton Arp (p. 32), which deal with striking anomalous data that could be as revolutionary to cosmology and physics as cold fusion is to chemistry and physics. The process of data denial that Arp and his colleagues have faced is as pernicious as what has befallen cold fusion/new energy people. In *Seeing Red*, Arp writes: "Those friends of mine who also struggle to get the mainstream of astronomy back on track mostly feel that presenting evidence and championing new theories is sufficient to cause change, and that it is improper to criticize an enterprise to which they belong and value highly. I disagree, in that I think that if we do not understand why science is failing to self-correct, it will not be possible to fix it."

Yes, science needs to be fixed. Arp suggests that we need "... a more democratic science with better judgement. . . a more enlightened, more useful activity of society." It would be a wonderful, unexpected outcome, if the scientific and technological success of the cold fusion/new energy field helped lead to that more enlightened *process* of science that humanity so desperately needs.



New Cold Fusion Book Now Available

From Distributor Infinite Energy Press



See excerpt from book on page 34.

Foreword by Sir Arthur C. Clarke
Introduction by David J. Nagel

Published April 2000 • Oak Grove Press • 386 pp.
Hardcover: \$39.95 North America, \$46.95 Foreign
Paperback: \$29.95 North America, \$34.95 Foreign
(Prices Include Postage)

Infinite Energy Press • P.O. Box 2816 • Concord, NH 03302-2816
Ph: 603-228-4516 Fx: 603-224-5975
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"Charles Beaudette has done a remarkable job in untangling and documenting the whole story of cold fusion. Excess Heat is not only a superb record of an extraordinary episode, but is also highly entertaining."

—Sir Arthur C. Clarke