

BREAKING THROUGH

The Corruption of Physics

by Eugene F. Mallove, Sc.D.



Some may regard the extremely difficult birthing that cold fusion has been experiencing for the past thirteen years as an ordinary, expected, and even desirable obstacle course for the newly emerging physics paradigm of low-energy nuclear reactions. “Boys will be boys,” so to speak; what cold fusion has been experiencing is just the natural and

healthy conservatism in the process of science.

In my view, the situation is quite the contrary. The physics establishment’s abandonment of the most rudimentary tenets of science during the cold fusion war suggests a much deeper problem for the physics that emerged during the twentieth century: 1) A deep-rooted corruption on every level, beginning with the fanatical zeal of its defense of supposedly sacrosanct dogma; 2) The virtual stranglehold over the scientific and general media that the physics establishment maintains on any departures from its wishes; and 3) The concentration of power in the form of massive white-collar welfare for indefensible research programs that seek not to expand our scientific horizons, but to circumscribe them.

For an illustration of the corruption of physics, which is at once sad and humorous, examine the cover story in *Discover* magazine, April 2002, “Where Did Everything Come From?” Right near a red glass marble (“actual size”) picture of “The universe at about 10^{-34} seconds” is this message of received wisdom from the Physics Establishment: “The universe burst into SOMETHING from absolutely NOTHING—zero, nada. And as it got bigger, it became filled with even more stuff that came from absolutely NOWHERE. How is that possible? Ask Alan Guth. His theory of inflation helps EXPLAIN EVERYTHING.” [Capitals are *Discover* magazine’s emphasis.]

Professor Guth of MIT is the physics establishment *wunderkind* of the month, who, the article hints, is very close to winning a Nobel Prize for originating ideas of “cosmic inflation.” These inflated ideas help prop up another of Physics’ indefensible dogmas, the Big Bang. (In the March 2002 issue of Dr. Tom Van Flandern’s *Meta Research Bulletin*, one finds “The Top 30 Problems with the Big Bang”—as expected, not a hint of any of those concerns in the *Discover* article.) An especially provocative and dogmatic prediction of Guth is highlighted by *Discover* author Brad Lemley, “. . .any cosmological theory that does not lead to the eternal reproduction of universes [from our own] will be considered as unimaginable as a species that cannot reproduce.” So “science” has come to this: An actual-size picture of the our universe at 10^{-34} seconds on the cover of a Disney-owned publication (how appropriate!) and the dispensed certainty by guru-of-the-month Guth that this red marble is only one of an infinity of universes that eternally bud-off from our own. Take it from Guth, it’s the truth.

In recent issues, *Infinite Energy* has tried to show that rational critiques of the dogmas of relativity, quantum mechanics, and thermodynamics exist, which could mean that modern physics is nothing but a house of cards teetering on the brink of collapse. (That’s precisely what I think it is, but let’s give this *deflationary experiment* enough time to run its course.) In this issue, Donald

Hotson’s review of the history of the Dirac’s equation, a possible major wrong turn in physics that occurred in the 1930s, is in our tradition of airing rational critiques about issues of overarching importance to new sources of energy. Ditto for our literally “demonic” examination of the many flaws in the Second Law of Thermodynamics. Not to forget our coverage of what was breaking news in our last issue, the sonofusion experiments at Oak Ridge National Laboratory. These have appeared in *Science*, the wishes of the Physics Establishment notwithstanding. No more perfect example of the deep corruption of physics could be found than the anti-sonofusion hysteria, which erupted on this occasion. So let’s examine it in more detail.

Science magazine’s publication of the Taleyarkhan *et al.* paper, “Evidence for Nuclear Emissions During Acoustic Cavitation” and associated commentary in its March 8, 2002 issue provoked unusual criticism and controversy—even before the actual appearance of the article. (See our coverage in this issue, pp. 8-11.) It is reminiscent of what followed the March 23, 1989 announcement of cold fusion by Fleischmann and Pons. Actually, after the Utah announcement there was a relatively polite “grace period” of a few weeks (at least in most public pronouncements) before the behind-the-scenes rabid critics came out with guns blazing and accused Fleischmann and Pons of incompetence and/or fraud—a stigma which has lasted more than thirteen years.

There was no grace period this time, even though the subject of the *Science* paper makes no claims of cold fusion (though it may well be that these results reflect, in part or in whole, some cold fusion reaction connection). The authors discuss their evidence for neutron emissions and tritium elevation above background in the context of D + D hot fusion occurring at elevated temperature within the collapsing cavitation bubbles.

The vehemence of the attack on this table-top fusion claim surprised many people, including some in the cold fusion field. After all, why should a new potential *hot* fusion method be criticized? As a long-time participant in the cold fusion war, I’d like to suggest some of the “whys” for the vicious attacks that have already occurred—not necessarily in order of their relative importance in the current furor; there is surely much overlap and interaction among them.

• Similarities to Cold Fusion

This has to be a very big factor. The current “*Science*-sonofusion” (to distinguish it from other sonofusion efforts, especially in the cold fusion community) is “table-top” in size, was done in a deuterated liquid (acetone, not heavy water), and is of relatively modest expense—just like cold fusion; the *Science*-sonofusion is being purveyed mainly by nuclear engineers, not plasma physicists (cold fusion was prompted by chemists, not physicists), and thus outsiders to the hot fusion/physics community; there is evidence of neutron emission and tritium—the early and continuing claims in cold fusion. Because of these similarities, the critics—who were part of the anti-cold fusion camp already—feared and will continue to fear a possible new openness to classical cold fusion by the media and from funding sources. In the general confusion of the recent events, this possible confusion of *Science*-sonofusion with cold

fusion has already occurred (e.g. the headline in the UK *Sunday Times* of March 3, 2002). It may not actually be a confusion; coherent cold fusion-like processes may be at work in *Science-sonofusion*, at least in part. After all, the process is occurring in the environment of sonoluminescence (SL), which was a mysterious process to begin with. There is no generally accepted explanation for the light emission and coherent processes that have been implicated in SL. The late Nobel Laureate Julian Schwinger, a cold fusion theorist, had suggested similarities between cold fusion and sonoluminescence in "A Progress Report: Energy Transfer in Cold Fusion and Sonoluminescence" [a lecture at MIT, November 11, 1991; reprinted in *Infinite Energy*, March-April 1999].

• Impact on Hot Fusion Funding

There is nothing worse for the hot fusioners than any suggestion that alternative paths to fusion energy might reasonably be considered. Alternative paths, such as cold fusion or *Science-sonofusion*, might mean losing some hot fusion funding to the alternative modes—or a cancellation of hot fusion projects generally. Hundreds of millions of dollars per year in hot fusion funding are at stake. Furthermore, in the immediate time period the hot fusioners have been orchestrating to get the U.S. back into the multi-billion dollar ITER hot fusion project. This news about sonofusion in a very prestigious publication, *Science*, is the last thing the hot fusioners wanted anyone to hear about at this time.

• Intellectual Arrogance of Physicists—NIH (Not Invented Here) Syndrome

Cavitation bubbles, sonoluminescence, postulated very high temperatures in these collapsing bubbles, and even the possibility of fusion occurring in cavitation bubbles has been around since at least the early 1990s. Therefore, the physicists who are attacking *Science-sonofusion* must have given this possibility some thought, and even some testing from time to time. They evidently concluded that it was not a feasible process—on theoretical or experimental grounds—and now someone comes along to tell them that there is a way to make it work! This is a challenge to their vaunted intellects—as it was in 1989. "Why didn't we think of that? Wait, it's got to be a stupid/invalid idea because we didn't think of how to do it! Now let's prove that it is wrong and can't be real. We'll be heroes!"

• Suspicions of "Pathological Science"

The scientific community has been conditioned by the likes of CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal) and the bashing of cold fusion to look at any very surprising results in terms of the possibility that the new claim is "pathological science"—what they believe cold fusion to be. They thus fear a new outbreak of this alleged disease.

• The Cheerleader Effect

The scientific establishment has its boosters, spokesmen, and cheerleaders. Unfortunately for the American Physical Society, it has one of the biggest and most ignorant mouths in science on its web page—pseudoscientist Robert Park with his weekly "What's New" column. So intent was Park to lead the troops against the *Science-sonofusion* claim, that he jumped the gun on the March 7 news embargo by *Science* and on March 1 revealed the emerging story and the behind-the-scenes attempt to kill it. Park both follows and leads. He gathers faulty information from sources, like the late Douglas Morrison or the hot fusion people in this instance, and then spreads it around. Park's groupies then use this as a signal to move in for the kill against the offending new idea. Journalists are especially susceptible to this. One monkey sees Park spouting off in Outlet A and soon Outlet B and many other outlets have other physicist monkeys chiming in.

• Fear of Errors and Mistakes

Closely related to the crackpot idea of "pathological science" as a major ailment of science that must be guarded against, is the creeping notion that it is not OK to make errors in science. There is an imagined "contest" going on to make sure that no scientific paper published by *Science* or *Nature* is wrong in some fundamental way. This, of course, is completely against the spirit of true science. The history of science is permeated by errors that have taught us how to move forward in the right direction. Furthermore, many revolutionary concepts that were initially roundly criticized as error, later became acknowledged as true. Still, the message of this history is not getting through to the general community and there is a palpable fear of publishing something that might be wrong—and thus open to attack by science-bigot cheerleaders like Park.

• Peer Review = Sneer Review

The fact that this *Science* paper was almost killed by its opponents, and even after it came out is being attacked for its very existence, is a good case study for the scientific community that its so-called "peer-review" system has completely broken down—if it ever had been a truly legitimate process. "Peer review" today accomplishes two things: A) It fixes many minor and/or major mistakes in articles in an accepted field of study (and that part is to the good) and B) It completely weeds out topics that are forbidden, e.g. cold fusion, while allowing such "acceptable" discussions as how to create baby universes and whether the universe has 10 or 26 dimensions.

• Fear of Loss of Reputation

Much is at stake today in the scientific community in being always right with such opinions as "cold fusion is nonsense," "homeopathy can't work," "all UFO reports are bogus," etc. Thus, as soon as any purported evidence comes to light that hints directly or indirectly that the purveyors of CSICOP-like myths might be in for a big crow-eating, out go the defensive statements to the press. The most ludicrous one so far in this *Science-sonofusion* affair is from cold fusion-basher Gary Taubes: "If history is any indication, just the existence of this kind of brouhaha and the criticism from very competent experts is good evidence that the results are just dead wrong. And, if it's dead wrong, then *Science* probably shouldn't have decided to publish it." (*USA Today*, March 5, 2002)

• "Good Scientists" Proved It Wrong Already

As soon as the Chief Cheerleader put out the notion that "good physicists with much better equipment" can't seem to find the claimed *Science-sonofusion* effect, this is taken as encouraging news to the attacking troops. More groups form to perform hatchet jobs and receive new honors for helping to slay "pathological science." Never mind that the first group of "good scientists" did not measure tritium—a key observation in the *Science* paper!

• Fear of "Free Energy"

This is the basic reason that all laboratory claims of a new kind of robust energy that could have a vanishingly small "fuel" cost, or actually zero fuel cost, face an uphill battle. The idea that energy could become free is as alien a concept to Corrupt Physics as the notion in the fifteenth century that celestial lights might be other worlds. Anything that touches the idea of free energy is rejected by society at an extremely primitive level—a knee-jerk reaction carefully nurtured by the Physics Establishment. There is a subconscious understanding by everyone of what free energy would mean, even if it hasn't been thought out carefully by each individual. The average mind recoils from it; it is too unsettling. People who want business as usual aren't interested in hearing that their world could turn upside down and be unrecognizable. "It's too good to be true, therefore it can't be true." □□□