

By Eugene F. Mallove, Sc.D.

Outrageous—Squared!

We have a lot to deal with as 1996 slides into 1997. Let's see: we have a small company based in Texas and Florida (CETI) selling (actually *leasing*) a table-top, very safe, nuclear reactor for do-it-yourself transmutation experiments. Got \$3,750 left over from holiday shopping? It's yours for a year.

This used to be called *alchemy*. Has it really risen from the graveyard of scientific history? It has, and with a vengeance! Look at this month's **Experimenter's Corner** (p.55). It starts right out with two abstracts from a *Fusion Technology* of two years ago: two scientific groups reporting the production of iron from carbon-arc discharge under water. If it was not Fe contamination from the water or air or the ultra-pure starting carbon, where did this iron come from? Can iron be made from carbon, oxygen, and maybe a dab of hydrogen? Sure looks that way.

Well, *try it yourself*—this time in air, with no water. Folks in Japan and Boston, Massachusetts say that you can pull the iron right out of the brew with a magnet from the hardware store. If you don't have \$3,750, it's the next best thing—maybe better.

Iron from air and terrestrial life's favorite element, carbon, eh? Maybe that's why we take seriously Dr. Vysotskii's paper on a confirmed biological transmutation—Mn⁵⁵ to the relatively rare (in nature) Fe⁵⁷. His group did its work with bacteria. Hey, if bacteria can really do this trick—and the group checked isotopic production with Mossbauer spectroscopy—then you can bet your mitochondria that

lots of living systems are doing it all the time. Surprised that we've gotten so outrageous? Wait, it gets better!

Off in Yellow Springs, Ohio, John Schnurer seems to have confirmed the "gravity-shield" effect in high-temperature superconductors. We don't have an article about this in this issue, but in *Infinite Energy* #9, we reported the development, which apparently started in Finland and now has NASA struggling to keep up. Yes, NASA is going to try it with a larger HTSC disc. Meanwhile, Schnurer has already filed a patent application for this effect, which, if real, is already in the several percent weight reduction range.

Do we know enough about gravity to say this can't be done? I think not. We'll have more to tell you about this as soon as the inventor can release details. He's hell-bent to sell demonstration kits. Buy one to go with your table-top nuclear reactor.

Had enough "miracles," maybe one or two too many, you say? Well, hold on. It looks as though Bill Richardson's AquaFuel (introduced in *IE* #9) and the similar or identical gas made differently by another group (DW Energy Research, LLC) is suspiciously over-unity in its energetics! Calorimetry done by DW, comparing the volumetric heating value of propane to "COH₂"—as DW calls it—they find that the output chemical energy substantially exceeds the input electrical energy.

Even more amazing: take into account the arc-heating of the water in the synthesis gas generation unit, and the total output

energy (thermal plus chemical) radically exceeds the input energy (chemical energy in carbon plus electrical energy). How's them potatoes, or apples? In fact, you could use rotten apples or rotten potatoes—biomass—to make this gas! Run your car on apple-juice, eh? Damned right you may be!

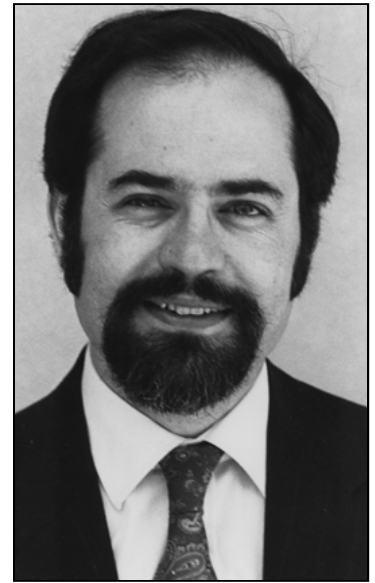
We'll have to contain our glee just a little bit longer, but we really do cherish the thought of telling Saddam Hussein—and Texaco, Mobile, and Exxon—where to put it, once we start using water and garbage to run our cars!

Well, Paul Pantone of Price Utah (a brief mention of him in *IE*#7, pp.15-16) is really doing it! He has just started to sell 10 horsepower demonstration units that have an ultra-pure exhaust and get claimed increased energy output from mixtures of gasoline or diesel fuel with anything from water, to pickle juice, to battery acid, to something we all carry aboard...

We just bought one and are getting a loaned dynamometer to check it out. Since we're now confirmed "alchemists," what we really want to see is where all that carbon in the fuel is going. Why is the exhaust so clean?

This GEET development is something to watch. Paul now has his own newsletter and is gaining commercial support daily, he says.. Write to him at P.O. Box 439, Price, Utah 84501, if you are curious.

Well, maybe we won't use garbage or pickle juice to run our cars. Maybe we'll just buy a Galtech motor/generator for our new generation of electric vehicles. You know, the super-mod-



els that will have maybe just one battery that never needs recharging. Galtech, a little semiconductor materials company in Mesa, Arizona thinks it can put one of these in a dune-buggy early in 1997. We hope it goes much further than the Takahashi scooter, which disappointed us all: it didn't work any better than an ordinary scooter when Magnetic Power, Inc. tested it. Something about a bad diode connection—or maybe it was all nonsense to begin with. But why are serious people all over the place working so furiously on this magnetic motor idea if they have never seen even a tad of legitimate "over-unity." Theory says these motors *can* work without violating energy conservation—see Tom Bearden's explanation in *IE* #5&6, or read Dr. Harold Aspden's rationale in this issue (p. 50).

Oh, we can't forget fuddy-duddy old "conservative" cold fusion. It's alive, but moving all too slowly toward large heating systems. There are, however, some excellent new technologies that came out of ICCF6, despite Jed's disappointment with the scientific hierarchy there. Evan Ragland has a wonderful triode configuration cell, which should be selling

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Japanese Translation of Jed Rothwell's
Open Letter to the NHE (Translation by Jed Rothwell)

NHE研究に対する公開批評

Jed Rothwell

過去三年間にわたって、すでにNHE 常温核融合プロジェクトが進行していますが、その計画について、私は少なからず不安を感じていました。というのは、NHEのプログラムは前途有望のようですが、現実にはうまくいっていないのではないかということです。今回、ICCF6 で NHE 研究所を訪問し、Fleischmann、Kennel、浅見氏らと話す機会を得ましたので、その際に感じたことを述べたいと思います。ここで率直に私の意見を述べることによって、それがいくばくかでも NHE の研究の助力になればと思います。

私の拝見したところ、NHE 研究所の設備はすばらしく、研究者たちも優秀で、大変積極的でした。しかし、実験そのものに、いくつかの問題があり、特にその進め方に、基本的な間違いがあるのではないかと不安を感じたことです。これに関しては、Fleischmann も私と同意見であったことを付け加えたいと思います。まず初めに、NHE の研究者は、池上、Storms、Fleischmann、Celani や他の先進的な研究者の論文に記述された技術的な報告をあまり見ていないのではないかと思います。それに関しましては、ICCF6 で の発表の後、私はその研究者たちに直接お会いして、実験についてお話をうかがいましたが、文献をあまり重視してはいないと感じました。池上は応用物理学会誌(1)で過剰熱発生には四つの条件が再現性のために必要だと述べています。すなわち、1.パラジウム陰極表面で電解の電流密度を十分高くし、2. 重水素吸蔵率(D/Pd)は 0.85 以上、3. 適当なパラジウム電極の表面修飾、4. パラジウムの温度は摂氏 80 度以上にするということ等です。さらに Celani は 5 番目の条件を加えています。それは均衡を破る誘因、たとえば温度の変化が必要だということです。(ただし、Storms はこの誘因の条件には同意していませんが、他の多くの専門家は誘因が必要だと述べています。) Storms(2) と Cravens(3) はどのような特性を持つパラジウムを使用すれば良いか、電解実験前にその特性を持つか否かを見分ける方法、さらにはパラジウムの状態を改善する方法を述べています。NHE は池上の最初の 1. と 2. の条件は取り入れています、他はほとんど考慮されていません。

第2にこれは McKubre が ICFF6 の閉会の言葉の中でいみじくも指摘していましたが、SRI 式の流動式熱量計は、平衡状態を保つために一定温度とし、電極を逆に冷却するように設計されています。このことは私が以前から指摘していたことなのですが、もし CF 効果が起こる実験装置を設計するならば、SRI 方式は適当ではないと考えます。その他の多くの研究者たちも SRI 式のデザインの不適切をいっているのに、なぜ著名な SRI の McKubre がそのようなことに長い間気が付かなかったのか理解できません。これに加えて、ICCF3、ICCF4 さらにICCF5 で Fleischmann(4. 5. 6)は高温であることが反応を起こす重要な誘因となっているこ

とを指摘しました。この現象をつぎのように名付けています、"Positive feedback between the temperature and the rate of enthalpy generation (発熱量と温度との正のフィードバック関係)" ICFF4 で Storms(7)が温度と過剰熱との関係の明確なデータを発表しました。SRI の McKubre(8)は 1993 年に起こった劇的な、急激な熱発生を説明しました。これは装置の故障によって冷却水の流れが止められ、その結果、装置の温度が設定されていた以上に上がり、急激な過剰熱が発生したのです。(Fleishmann がいったとおり、高温が反応を引き起こしたことが、実際にあったわけです。) McKubre はこれが Fleischmann の仮説の裏付けになると指摘していました。NHE はなぜこのような優れた研究者が何年も繰り返し述べている温度の効果を考慮しないのでしょうか。

文献を重視していないということで起こった、他の基本的な間違いは、専門家が材料と技術的な内容について批評を行っているのに気が付いていないのではないかと思います。たとえば ICFF6 で Fleischmann が私に話したのですが、ガラスセルはテフロンセルより、長期間の実験には格段に優れているということです。NHE が今のままの研究方針であれば、数年内に研究費は打ち切られるのではないかと懸念します。正直に言って、もし私がこの研究の総括責任者であれば、直ちに研究費の配分を考え直します。そして他の独創的な結果を出しているグループの研究費を増やすことをするでしょう。NHE は重大な転機に直面していると感じます。このようなときに、私ならば、「リヤ王」の終章のアルパニ卿の台詞の教えに従うでしょう。

(「The weight of this sad time we must obey, speak what we feel, not what we ought to say.」「この悲しい時代の重荷に耐えていくほかあるまい。感ずるままを語り合おう。儀礼の言葉は口に出すまい。」)

NHE は文献を重視しないだけでなく、もっとやりやすく、より良い方法を採用せず、一途に、重水中で一つのパラジウムの固まりを使う方法だけにこだわっています。将来的に見込みのない、難しい材料と技術しか試していません。これでは失敗するのが目に見えています。ニッケルや金の薄いフィルムのように、ほとんどの場合に反応を起こす有力な材料、あるいは高温のプロトン導電性のセラミックスのように、かなりの頻度で反応を起こす材料を使う代わりに NHE は低温で、かつまた、パラジウムの固まりのみを使う方法を繰り返してきました。そのやり方は何年か前に先駆者のSRIでのみ成功した方法ですが、今ではSRIでも再現できていません。NHEは何年か前に自分の研究方針をしっかりと決めてしまい、他の研究所での進行状況に目を向けず、また SRI でさえも再現できないと言う報告も省みてはいません。科学研究には柔軟性が必要だと思います。三年先までの計画をがっちり決定してしまい、選択の余地なく、また他の研究者の進み具合にも注意をはらわないと言うことは私にはまったく理解できません。

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very shortly on the new energy demo market. He even suggests that he can make a scaled-up 2-kilowatt reactor in the near term. Francesco Celani and his group in Italy has pioneered electromigration effects, which show fantastic promise for high-power generation by simple means.

Of course, all of this is simply too outrageous to be happening, right? No, it's outrageous-squared and it is happening!