Lattice Energy LLC comments on Mr. Andrea Rossi and so-called "E-Cat" technology

Lewis Larsen, November 26, 2011

The incredible public spectacle of Mr. Andrea Rossi and his Leonardo Corp's flimsily supported claims about the so-called "*E-Cat*" systems producing extraordinary amounts of "*excess heat*" and very recently, claimed sales of MW-output commercial power generation products to third-party customers, have been ongoing for almost a year as of this writing. Even after all that time, given the long series of technically inconclusive, highly publicized 'demos' purporting to show remarkable production of "*excess heat*," it is still unclear to what degree, if any, Mr. Rossi's extremely bold claims represent independently verifiable, testable physical reality. That said, the simple passage of more time and availability of additional detailed technical information will eventually reveal the underlying truth about *E-Cat* claims, one way or another.

Interestingly, the at-times semi-hidden, underlying 'core' of strong supporters of Mr. Rossi who have been incessantly promoting the 'reality' of Rossi's *E-Cat* heat output claims all over the Internet for some time are exactly the same group of publicity-seeking zealots who have been ballyhooing the erroneous scientific notion of "cold fusion" for the past 20 or so years.

For example, some of the more publicly visible members of this tactically cohesive 'core' group of cold fusioneers include, in no particular order, Dr. Edmund Storms, Prof. Peter Hagelstein, Dr. Michael McKubre, Mitchell Swartz, M.D., Prof. David Nagel, Dr. Michael Melich, Prof. Brian Josephson, as well as the textually prolific Internet poster-commenter Mr. Jed Rothwell, among others. The highly coordinated nature of this sub-group's longstanding promotional activities on "cold fusion" can readily be verified by simply Googling on varied combinations of pairs and trios of their last names. Unfortunately, the D+D -> He-4 + heat "cold fusion" process was thoroughly discredited as a scientific concept back in 1989 - 90; it remains just as obviously wrong today as it was then. Nothing has changed in that regard.

Notwithstanding the ongoing Internet theatrics of Mr. Rossi and his frequently shifting array of publicly visible "cold fusion" supporters/promoters, LENR phenomena are in fact real, but LENRs are most certainly not high-Coulomb-barrier nuclear fusion processes of any kind -- hot, 'cold,' warm, or otherwise.

Rather, LENRs in condensed matter involve many-body collective quantum effects with hydrogen-loaded metals that can trigger weak interactions --- e.g., e + p -> n + neutrino --- but that's another highly technical story (detailed answers and extensive analyses of a wide variety of published experimental data are available in a collection of free public documents found at http://www.slideshare.net/lewisglarsen)

In particular, a 21-page "Primer" paper, which provides a high-level overview of the entire expanse of the Widom-Larsen theory of LENRs from the microcosm (very high local *E*-fields on nm-to-micron length-scales on condensed matter surfaces) to the macrocosm (dusty plasmas and magnetic-regime astrophysical phenomena on large length-scales), recently published in a refereed Indian Academy of Science journal as follows (much less mathematically intensive than our *EPJC* paper published in 2006):

"A primer for electroweak induced low-energy nuclear reactions" Y. N. Srivastava, A. Widom, and L. Larsen Pramana – Journal of Physics **75** pp. 617 – 637 (2010) http://www.ias.ac.in/pramana/v75/p617/fulltext.pdf

For inquisitive readers interested in examining recent, somewhat more factually objective news coverage about Rossi *et al.* (as opposed to only seeing the veritable 'blizzard' of what are effectively company PR releases issued by various Rossi promoters and amateur supporters-groupies that magically appear on a growing myriad of new 'pop-up' websites) as well as a fact-based chronology of this continuing saga, please consider going to the *New Energy Times* (*NET*) website at http://news.newenergytimes.net/ and following *NET* webpage which provides a Rossi news timeline with links to related source files & documents at http://newenergytimes.com/v2/sr/RossiECat/Andrea-Rossi-Energy-Catalyzer-Investigation-Index.shtml