Alternatives To Calorimetry

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Since the first publication of Martin Fleischman and Stanley Pons in 1989, the majority of articles in the LENR field have focused on calorimetry. [1] This is true for both electrolysis experiments and gaseous loading experiments. [2]

Many calorimetry experiments are masterpieces of science [3] Nevertheless, despite the experimental evidence, the results indicating excessive heat have not convinced the scientific community. Well-designed calorimetry experiments are slow to develop. It's an issue, because it would be good to test many alloys systematically. It is likely that there are still unknown alloys whose ability to generate what Ed Storms calls a "Nuclear Active Environment" [4] is greater than that of palladium. It is certain that low concentrations of elements such as lithium, boron, beryllium in these alloys will have undoubtedly positive effects. We need fast and reproducible tests to sort all these alloys and select the most promising samples. Several authors have suggested that the quantum condensation of deuterium nuclei is at the root of the appearance of "NAE" [5] [6] [7] [8]

For this purpose, we propose three simple techniques to implement:

1) The "Fusion Diode" effect: deuterated alloys in contact with a semiconductor cause the appearance of an easy-to-measure electrical voltage. If this voltage is actually due to the direct conversion of LENR, we have a simple method to select the most promising alloys.

2) The Reifenschweiler effect [9]: the variation of tritium beta-rays bremsthralung conversion efficiency as a function of temperature is also a simple method for sorting the most efficient alloys. [10]

3) The magnetic alignment of the tritium pairs: this effect, which we have postulated, but not yet observed, would make it possible to very quickly test many new alloys. [11]

4) The rare neutrons observed are one of the most indisputable proofs of the reality of LENR. A new and extremely sensitive method of detecting neutrons in the 4Pi of space around a LENR device will also be discussed, along with two new improved calorimetry methods.

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