## Abstract Submitted for the MAR08 Meeting of The American Physical Society

Compound Nucleus Reactions in LENR, Analogy to Uranium Fission HEINRICH HORA, GEORGE MILEY¹, KARL PHILBERTH², Department of Theoretical Physics, University of New South Wales, Sydney 2052, Australia — The discovery of nuclear fission by Hahn and Strassmann was based on a very rare microanalytical result that could not initially indicate the very complicated details of this most important process. A similarity is discussed for the low energy nuclear reactions (LENRs) with analogies to the yield structure found in measurements of uranium fission. The LENR product distribution measured earlier in a reproducible way in experiments with thin film electrodes and a high density deuteron concentration in palladium has several striking similarities with the uranium fission fragment yield curve. This comparison is specifically focussed to the Maruhn-Greiner local maximum of the distribution within the large-scale minimum when the fission nuclei are excited. Implications for uranium fission are discussed in comparison with LENR relative to the identification of fission a hypothetical compound nuclear reaction via a element  $^{306}X_{126}$  with double magic numbers.

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