

SHORT COMMUNICATION

Further evidence of nuclear reactions in the Pd/D lattice: emission of charged particles

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Abstract Almost two decades ago, Fleischmann and Pons reported excess enthalpy generation in the negatively polarized Pd/D-D₂O system, which they attributed to nuclear reactions. In the months and years that followed, other manifestations of nuclear activities in this system were observed, viz. tritium and helium production and transmutation of elements. In this report, we present additional evidence, namely, the emission of highly energetic charged particles emitted from the Pd/D electrode when this system is placed in either an external electrostatic or magnetostatic field. The density of tracks registered by a CR-39 detector was found to be of a magnitude that provides undisputable evidence of their nuclear origin. The experiments were reproducible. A model based upon electron capture is proposed to explain the reaction products observed in the Pd/D-D₂O system.

Keywords CR-39. Pd/D Codeposition. Charged particles

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