

Abstract Submitted
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Schrödinger-Langevin Equation and its Application to Deuteron Cluster VICTOR CHRISTIANTO, Malang Institute of Agriculture, FLORENTIN SMARANDACHE, University of New Mexico — The Langevin equation is considered as equivalent and therefore has often been used to solve the time-independent Schrödinger, in particular to study molecular dynamics. One of the most reported problem related to the CMNS (condensed matter nuclear science, or LENR), is the low probability of Coulomb barrier tunneling. It is supposed by standard physics that tunneling is only possible at high enough energy (by solving Gamow function). However, a recent study by A. Takahashi (2008, 2009) and experiment by Arata etc. (2008) seem to suggest that it is not impossible to achieve a working experiment to create the CMNS process. In accordance with Takahashi's EQPET/TSC model, we find out some analytical and numerical solutions to the problem of barrier tunneling for cluster deuterium, in particular using Langevin method to solve the time-independent Schrödinger equation. Discussing some plausible implications in Cosmology modeling.

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