

Abstract Submitted  
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**New Mechanism for Explaining LENR and Certain forms of Technological and Natural Catastrophes** FANGIL GAREEV, Joint Institute for Nuclear Research, Dubna, Russia — We proposed<sup>1</sup> a new mechanism for low energy nuclear reactions (LENR): cooperative resonance processes involving the whole the system - nuclei + atoms + condensed matter can occur at a smaller threshold energies than the corresponding ones on free constituents. The cooperative processes can be induced and enhanced by low energy external fields. The excess heat is the emission of internal energy and transmutations at LENR are the result of a redistribution of internal energy of the whole system. The lack of financial support and ignorance by mainstream physicists has resulted in the LENR field not being accepted. We postulate that LENR can lead to catastrophes, potentially including, the runaway event involving the reactor at the Chernobyl Nuclear Power Plant, the explosion of the twin towers during the 11 September 2001 World Trade Center collapse, in New York, the explosion of transformers in Moscow, catastrophes of submarines, and other phenomena associated with a cooperative resonance synchronization mechanism.

<sup>1</sup>F.A. Gareev and I.E. Zhidkova, Proc. of the 12th international conference on cold fusion, Yokohama, Japan 27 November -2 December 2005.

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