

Abstract Submitted  
for the MAR07 Meeting of  
The American Physical Society

**Anomalous Nuclear Phenomena Associated with Ultrafast Processes** XINGLIU JIANG, XIAOPING ZHOU, LIJUN HAN , LIYIN WANG, Department of Physics, Beijing University of Aeronautics and Astronautics, Beijing, China, 100083 — Localized nuclear reactions on the tips of the surface of electrodes in electrolysis cells have been observed by using solid detectors CR-39 and autoradiography in our laboratory at the period of May, 1989. A physical model<sup>1</sup> of transient vortex dynamics with torsion coherence with the zero point energy has been proposed by Xingliu Jiang based on the ultrafast processes of tripple phases area of tip effect on the electrode surface. Considering the large equivelent capacitance of electrochemical double layer, it is presumed that the double layer can exhibit nonlinear electrical response with spatial and temporal variations confined to microscopical areas by tip effect. Recent work<sup>2</sup> reveals that nuclear reactions which usually occur at the field of high energy states, could be created in the systems of far from equilibrium with nonlinear behavior at room temperature. Our current understanging of science is like a puzzle with a large missing piece-zero point energy.

<sup>1</sup>Jiang Xingliu, Lei Jinzhi, Torsion field and tapping the zero-point energy in an electrochemical system, J. of New Energy, 4(2), 93(1999).

<sup>2</sup>B. Naranjo, J.K. Gimzewski & S. Putterman, Observation of nuclear fusion driven by a pyroelectric crystal, Nature, 434, 1115(2005).

Scott Chubb  
Naval Research Laboratory

Date submitted: 03 Dec 2006

Electronic form version 1.4