

Abstract Submitted  
for the APR13 Meeting of  
The American Physical Society

**Introducing a Room-Temperature Controllable Continuous Fusion Method Using Low Energy Photon ( $< 3\text{eV}$ ) Based on Quantum Mechanics Reinterpretation and the Discovery of Quantum Structure** MEGGIE ZHANG, AISRO — My Research found wave-particle duality has made an assumption, which is not being aware nor documented. At sub-macro level wave behaves as a composite phenomenon comprising large amount of particles but individual particle does not form a wave pattern. This is true for both classical wave and electromagnetic wave. This suggests that wave is a group property. Quantum mechanics associates a wave equation with a particle and let it be a photon, a neutron or whatever. This treatment use a wave packets represent a particle assumes a wave packet – a group of particles, has the same property with a single particle. Therefore wave-particle duality really assumes that a group of particles and a single particle has the same property. Since a group can be represent by a mathematical set, for such assumption to stand mathematically speaking it requires the system to be a fractal. Therefore wave-particle duality really assumes matter as fractals. Fractals are nowhere differentiable and cannot be analyzed using transitional method. My research found evidence supporting a fractal nature of matter and universe and approximation using continuous function have caused problems theories therefore reinterpretation of quantum mechanics is needed. Based on the reinterpretation of quantum mechanics I was able to discover the quantum structure. Based on these understanding I designed and succeeded a room-temperature controllable fusion experiment using low energy photon.

Meggie Zhang  
AISRO

Date submitted: 14 Jan 2013

Electronic form version 1.4