Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Oscillating Mechanical Electron Cloud Due to Nuclear Vibration

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The nucleus is vibrating rapidly thereby creating a mechanical sphere of charge as the electrons vibrate due to the moving electric field. The mechanical sphere of charge reconciles the Bohr concept of a circular orbit with Schrodinger's idea of an electon cloud in which the electron is a DeBroglie wave surrounding the nucleus. If the electron is vibrating rapidly in itself as well as due to the vibrating electric field of the nucleus we also have an electon cloud. The resulting mechanical electron cloud is a combination of the two vibrational components. Effectively, there is a vibrating sphere of electronic charge surrounding the nucleus. If r, the distance to the electron from the center of the nucleus minus the Amplitude of nuclear vibration, Acos2(π)ft, then a spherical shell of charge S = 4 (π)(r - Acos2(π)ft)^2 is created.

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Date submitted: 13 Jan 2006 Electronic form version 1.4