



Figure 3-17. These are photographs not of real electrons but of models carefully constructed according to our observations and calculations.

**Figure 5 – Electron Energy States**

we see that the higher we go in frequency (or energy), the finer the pattern becomes, the smaller are the distances between the ups and downs. The wave length becomes shorter. If one goes to very high frequencies (energies), the pattern is so varied and fine-grained that it looks almost smooth and continuous. Hence the motion it describes will be nearly the one of an ordinary particle without wave properties. Here again we see that our wave picture exactly reproduces what we have found in atoms. When the energy is high, the quantum phenomena cease to be important and the atom behaves as if it were an ordinary planetary system. The transition to the “plasma” conditions at high energy is also contained in the wave nature of the electron.

[Victor Weisskopf, “Atomic Structure and Quantum Theory”. In *The Mystery of Matter*, edited by Louise B. Young. New York: Oxford University Press, 1965. Originally published in Victor Weisskopf, *Knowledge and Wonder* (Garden City, New York: Doubleday & Company, Inc., 1962). Pages 110–111]

The patterns of Figure 3-17 and their inherent symmetries determine the behavior of the atoms; they are the basis of the orderly arrangement in molecules and also of the symmetric arrangement of atoms or molecules in crystals. The simple beauty of a crystal reflects on a larger scale the fundamental shapes of the atomic patterns. Ultimately all the regularities of form and structure that we see in nature, ranging from the hexagonal shape of a snowflake to the intricate symmetries of living forms in flowers and animals, are based upon the symmetries of these atomic patterns.

Looking at the patterns,

Is the electron really a particle, or is it a wave, as double slit experiments have often confirmed; and if it qualifies as a wave under the Heisenberg Uncertainty Principle of wave particle duality in probabilistic quantum mechanics—how can it have mass? The answer is that the electron is both a wave and a particle, and, when accelerated, does exhibit inertial mass. How can this be? No one really knows, although I think I now do, but I don’t intend to postulate it in this work, as it’s tough enough to explain why ARV and UFOs are very likely the same universal design concept.