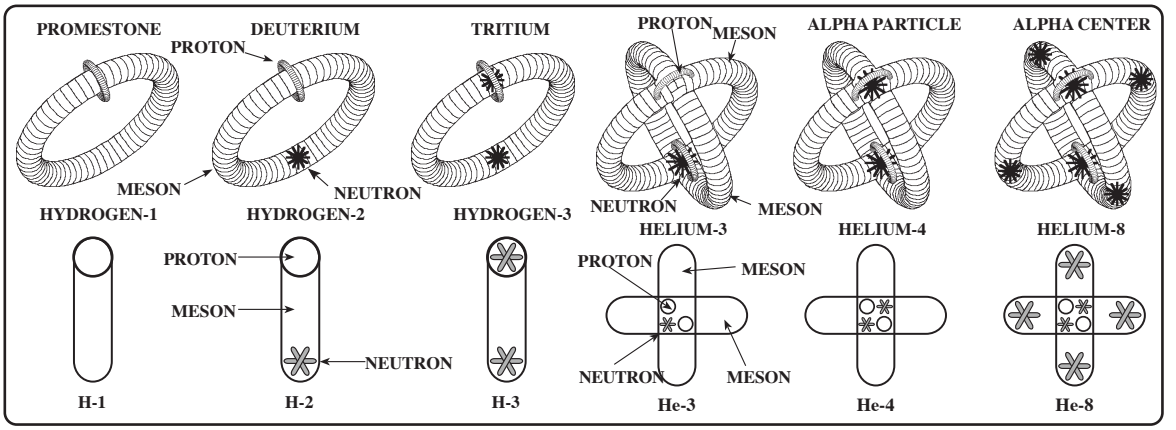
The Invention of the Circlon Model of Nuclear Structure
by James Carter

The circlon shape is a mechanical structure composed of three sets of concentric coils of hollow spinning cosmic mass string. There is no Strong Nuclear Force holding the nuclei of matter together nor is there and a weak force field holding neutrons together. The nucleus is held together mechanically in much the same way that other machines are held together with nuts and bolts.

By 1972, I had convinced myself that gravity was a purely mechanical local interaction and that the gravitational field simply did not exist. Since gravity had always been the classic example of either a "field" or an "aether" interaction, it stood to reason that the other three field interactions, as well as the aether, might also be bogus. To replace the strong nuclear force field, I invented the mechanical structure of the circlon shape to hold the protons and neutrons together within the nucleus. The nuclei were held together by the physical shapes of the protons and neutrons in much the same way that nuts and bolts are held together by their shapes.

While the structure and dynamics of Hydrogen atoms and neutrons can be explained by several models and equations, the circlon shape is the most useful at illustrating the structure and placement of individual protons and neutrons within the isotopes of the elements. The dynamics of the circlon shape only allows nuclear particles to fit together in specific and limited numbers of configurations, and each proton and neutron has an exact location that it maintains within the nucleus. In quantum mechanical equations these nucleons are contained in a shapeless ball in which each particle has an intrinsically uncertain position. One theory is called the "liquid drop" model where the strong nuclear source is seen as analogous to surface tension.

The first link in the proton charge chain is the meson link. A deuteron is formed when a ball-shaped neutron become locked inside a proton's meson link. Tritium is then formed by adding another neutron, while an alpha particle is formed with the addition of a second proton. One by one, the isotopes of all the elements can be formed by adding protons and neutrons to the central structure of this Helium nucleus. Once I had established a few simple mechanical rules to guide their structure, it was quite easy to construct nuclear models for each of the elements. Within just a few hours I was able to construct nuclear models for each of the 282 stable isotopes as well as many of the unstable ones.



The Circlon Model of Neutron Structure

The difference between the Hydrogen atom and the neutron is that the tertiary coils of the proton and electron are physically connected in the neutron, whereas in the atom, they are connected within the tertiary coil of the much larger intermediary Bohr link in their atomic radiation chain.

The discovery of circlon shape to make structural models for dynamics of the neutron combined with the discovery of the primordial decrease in electron mass allowed me to predict the 2.7˚K temperature of the Cosmic Blackbody Radiation. The reasons for why and how the CBR happened becomes clear when we follow the time line of electron mass transformation combined with the evolution of the circlon shapes of the electron, proton, neutron and Hydrogen radiation spectra. The circlon model predicts both the occurrence of the great CBR burst of photons and the precise temperature at which it must have occurred. If the CBR did not occur when it did or if it had a temperature significantly different from 2.7˚K, then the circlon model for the structure of matter would fall apart and be invalidated. To understand how the discovery of the CBR makes the circlon shape into a discovery rather than a theory, we must go far back in the history of the cosmos to examine the circlon shape and structure of some ancient neutrons.

Just as the Hydrogen atom is a mechanical structure that contains an electron and a proton, the neutron is also a mechanical structure that contains a proton and an electron. The difference is that, in the atom, the electron is attached to the outside of the proton, whereas in the neutron the electron is attached to the inside of the proton.

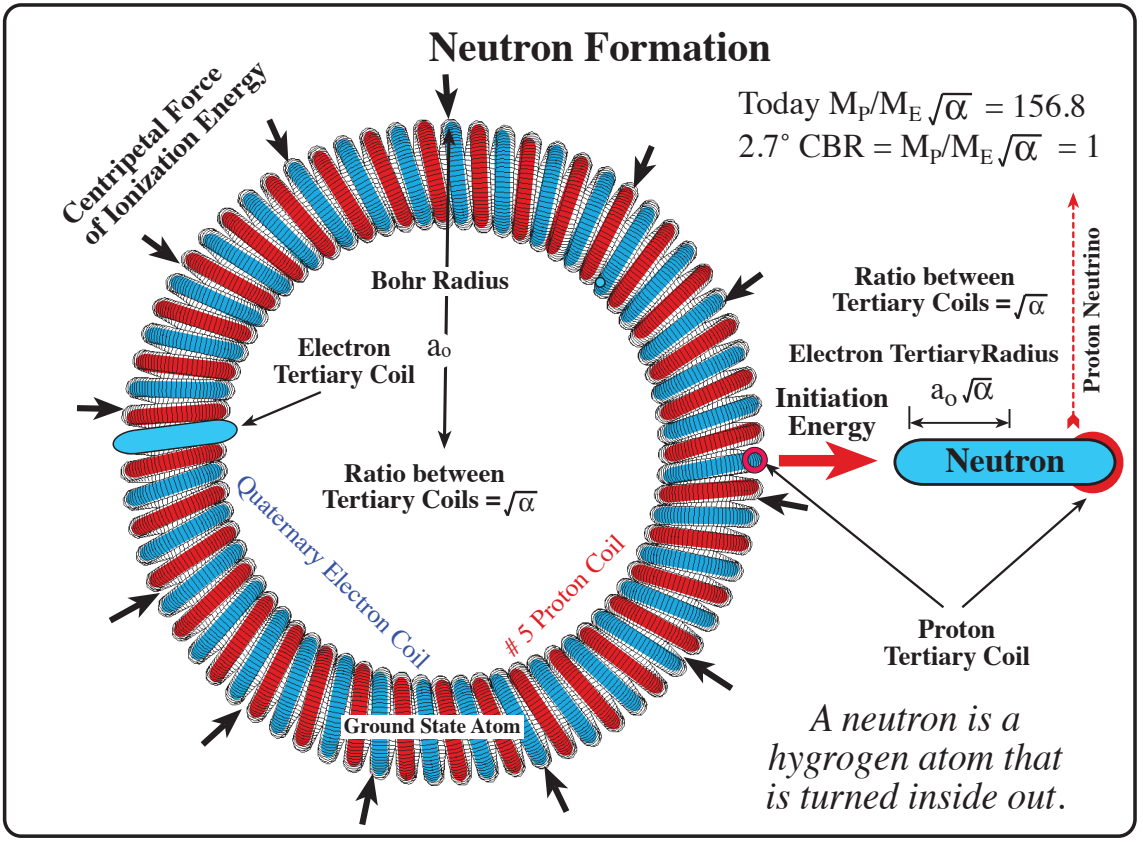
When an electron and proton join to form an atom, the quaternary coil (#4)of the electron surrounds and meshes with the #5 coil of the proton. This interaction is like the meshing of gears in which the two coils spin in opposite directions. When these gears mesh, the larger electron coil structures fit around the outside of the proton's tertiary coil. These spinning gears wind the electron's coils smaller and smaller until they mesh perfectly when the coils are the same size. Further, the electron's quaternary coil radius is reduced to the Bohr radius and a stable ground state is reached.

This process of compressing the size of the electron and emitting photons stops when the coils

reach the same size with a coil radio of $1/\alpha$. With their coils the same size their connection can no longer generate ionization energy.

This energy is released from the atom in photons. The emission of each photon makes the electron smaller and removes a single unit of the atom's angular momentum. The number of photons emitted depends on the random amount of angular momentum between the proton and electron when the atom formed. The atom produces one photon after another until it no longer has enough angular momentum to produce another. At this point the electron has been compressed to the size of the Bohr radius and its secondary coils are now the same size meshing with the proton's tertiary coil through the gear train of the Bohr link. At an atom's ground state, the ratio between the tertiary coils of the proton and electron is $\sqrt{\alpha} = 1/11.7$. The atom remains at its ground state indefinitely until it can acquire more energy and angular momentum from photons or other atoms.

A neutron can be formed when energy is added to a ground-state atom without adding angular momentum. This neutron initiation energy winds down the electron's secondary coils to a size just smaller than the proton's tertiary coil. When this happens, their gears change the way in which they mesh and the proton's tertiary coil switches from being on the inside of the electron's secondary



coils to being on the outside. This shift in the proton's attachment, winds down the Bohr link until it merges with the tertiary coils of the proton and electron. The electron is now inside the proton and a neutron has been formed by essentially turning the Hydrogen atom inside out.

Once the electron's coils are inside of the proton's coils, centripetal force ionization energy is again produced as the electron's coils are pulled smaller. This energy is contained as rotational kinetic energy between the two particles as they are spun in opposite direction on the same axis within the neutron.

This process stops when the electron's secondary coils are wound down to the same size and are now inside the proton's tertiary coil. The size ratio of $1\sqrt{\alpha}$ between the particles' tertiary coils is the same as it was with the ground-state atom but the Bohr link between them has now been eliminated. The neutron has reached a state of equilibrium similar to the ground state of an atom. The difference is that the atom released all its ionization energy in photons, while the neutron retains all its ionization energy in the opposite spins of its two particles. This energy cannot be released until the neutron decays because the opposite spins of the particles on the same axis prevents it from having any net angular momentum to emit a photon.

Neutrons can be formed inside the nuclei of atoms that have too many protons to be stable. The energy contained in such an imbalanced nucleus can be used to compress the electron down into the secondary coils of the proton. This energy is stored within the neutron until it eventually decays and the energy is released in the form of photons and increases in momentum to surrounding bodies.

The Discovery of the Neutrino

A neutrino is essentially a one/half of a photon. A photon is a duality of oppositely spinning electric and magnetic primary coils. A neutrino is a singularity in which either a photon's electric or magnetic coil has been stretched out to the full length of its cosmic string. The neutrino is said to be matter and the antineutrino is said to be antimatter. The real distinction here is between negative electric matter and positive magnetic matter. A neutrino is essentially a straight length of cosmic string moving through zero momentum space at c while it spins either clockwise or counterclockwise at C.

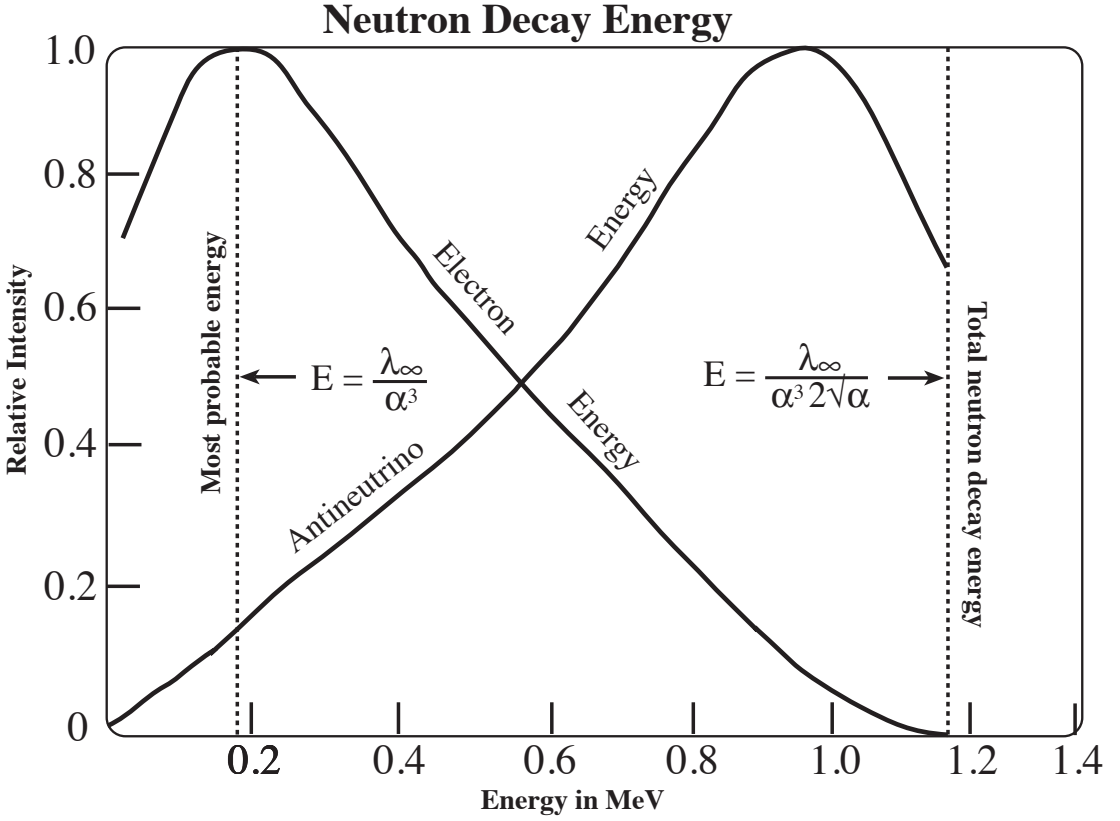
All neutrons decay with the same energy of $E = \lambda\infty/\alpha^3 2\sqrt{\alpha}$. This energy is divided between the energy of the antineutrino $E = m_{\lambda}c^2/2 + I\omega^2/2$ and the kinetic energies $e = mc^2/2$ of the electron and proton. The neutrino's angular momentum is half that of the photon $I\omega = m\lambda C/4\pi$.

In a photon, the energy is divided between the kinetic energy of its mass at c and the rotational kinetic energy of its mass that spins at C while its angular momentum is contained within the wave motion between the two bodies. In a neutrino, the energy is divided between the kinetic energy of its mass that moves at c and the rotational energy of the positive magnetic body that spins at C. Its angular momentum is contained in the spin of its length of primary coils as they travel straight along a spinning vector with no wave motion.

A neutrino is one half of a photon with 137 times its length and no wave. A neutrino can be pictured as a spinning length of hollow cosmic string that moves along a vector at the speed of light.

Neutron formation is the opposite of neutron decay. It requires a minimum amount of energy to push the proton's tertiary coil inside the electron's secondary coils. Once this energy barrier has been passed, ionization energy spins the particles faster and faster in opposite directions until the electron tertiary radius reaches $a_o\sqrt{\alpha}$ *and a neutrino is emitted. At this point of equilibrium, the circlon gears mesh and no more energy can be added to the neutron's structure.*

The energy needed to initiate the collapse of an electron into a proton is $E = \lambda\infty/\alpha^3$ *and the decay energy of a neutron is* $E = \lambda\infty/\alpha^3 2\sqrt{\alpha}$ *If the electron achieves this minimum amount of energy to push it just inside the proton's coils, it then winds up its energy to its point of equilibrium where it stays until it decays. In this example, only a very small neutrino is emitted when the neutron is formed and when it decays an equally small antineutrino is emitted with the electron energy at its maximum. When the amount of energy used to collapse the electron is halfway between minimum and maximum, a neutrino will be emitted with one half of the decay energy. The neutron then needs just half as much ionization energy to wind the neutron up to its point of equilibrium. When this neutron decays, half of its energy will be the emission an antineutrino and the other half will go into electron and proton momenta. When a neutron is formed at the maximum collapse energy, the neutrino emitted will be at near maximum energy. When it decays, the electron will then have almost no kinetic energy and the antineutrino energy will be at its maximum.*



Without a wavelength and only a point-like profile, it is extremely difficult for a neutrino to interact with other particles of matter.

An electric or magnetic neutrino is produced whenever a neutron is formed or decays. The reason and mechanism of how this happens is that when a neutron is formed, the Bohr radius stationary photon of a Hydrogen atom is collapsed into the proton. In order to do this, the Bohr photon's positive magnetic coil is unwound and emitted into zero momentum space as a neutrino. At the same time its electric coil is wound up into secondary coils that are contained between the proton and electron within the structure of the neutron. Just as the Bohr photon holds the atom together, it is the electric coil of the Bohr photon that holds the neutron together.

A neutron decays when its Bohr photon electric coil is spontaneously emitted into space as an antineutrino. Without the negative coil to hold them together, the stored kinetic energy of formation is released to throw the electron and proton apart. The decay energy is randomly divided between the electric neutrino and the momentum added to the proton and electric.

Neutron Formation and Decay throughout History

Just as with the atom's emission of photons, the processes of neutron formation and decay change proportionately with the changing mass of the electron. As we go back in time, the value of (a_o/α) decreases with increasing electron mass, atoms produce photons with less and less energy, and it takes less and less energy to push an electron inside a proton to form a neutron. Eventually, the point is reached where it requires zero energy to form a neutron and stable neutrons are formed whenever electron and protons meet. The sole energy of formation is the release of the magnetic neutrino and this is not enough energy to cause the neutron to decay.

At this stage in matter's evolution, when an atom emits the photon with its last unit of angular momentum, the atom's Bohr link spontaneously winds down as it emits a magnetic neutrino and merges the coils of the electron and proton into a stable neutron. At this stage of matter's evolution, protons and electrons can still couple together and produce photons; however once they have reached their ground state, they continue their collapse into stable neutrons.

This transformation in the circlon model of neutron dynamics occurs when the value of the mass to size ratio between the proton and electron = 146.6/1 times the square root of the fine structure constant equals less than one ($M_P/M_E \sqrt{\alpha} = < 1$). The natural size of the electron's secondary coils is now smaller than the tertiary coil of the proton and thereby the proton requires no outside initiation energy to pull the electron inside its coils other than the electric neutrino to hold them together.

Today the circlon shape of the electron is 1836 times larger than the circlon structure of the proton and the value of the neutron stability number $M_P/M_E\sqrt{\alpha} = 156.8$. If we go back in time, we eventually get to the point in the electron's evolution when the value of the mass ratio of the proton/electron was only 146.6/1 and $M_P/M_E\sqrt{\alpha} = 1$. By using the circlon model for the dynamics of both atomic radiation and neutron stability, we can calculate that this is the only time in our evolution when it would have been possible for all of the atoms to radiate at the same time and produce the CBR. We can also show that 2.7˚K is the only temperature at which the explosion of the CBR photons could have occurred.

