Introduction to the Tron Theory

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The Tron Theory is proposed for unifying physical science. It presents a new fundamental particle called the *tron*. The tron is several orders of magnitude smaller than the electron. Trons are premised to be everywhere, their physical involvement thorough. Each tron is composed of even smaller particles called rons. Adjacent trons attract each other with an elemental force that is neutral of charge. The inter-tron force is inversely proportional to the distance between tron cores. The fundamental particles are constructed with trons closely pressed together. Tenuous arrays of trons cohere to form the respective imponderable physical fields. Micro-particle action is revealed as a causal discipline. Particles are presented in determinate activity. The composition and dynamic properties of the tron and ron are set forth in seven axiom forming the Tron Postulate.

Despite its comprehensive scope this theory requires relatively few theorems, and is not highly mathematical. It is essentially mechanistic. It presents a physical base for matter; for gravitation; for the electric and the electromagnetic fields; for nuclear binding and chemical bonding.

Duality between wave and particle is dispelled for micro-particle movement. The wave nature of micro-particles is revealed to be a harmonic perturbation of the velocity of a micro-particle. Photons are shown to be pulses of electromagnetic radiation. This insight is derived from the Tron Postulate and is the basis for explaining and deriving the phenomena of Quantum Mechanics. It provides a view of micro-particle behavior that is mechanistic, causal, and deterministic.

The Tron theory presents a way of describing the physical world that is comprehensive and consistent. It enables one to visualize particles and fields and their interactions. The electric, electromagnetic, and the gravitational fields of space are interrelated through their common tron basis. Tron-space is very different from the pervasive stationary entity that produced the Michelson and Morley dilemma.

The tron theory presents a new basis for the physical fields as rarified mediums that are orderly tron assemblies. There is a distinctive tron-array for each respective type of field, including gravitational space. Collectively they are termed *tronos*. All radiant energy is shown to be wave trains propagated through the tenuous tronos.

The construction of physical fields and gravitational space as individual tronos configurations provides these significant gains:

1. Matter is derived elementally out of a tronos by the concentration of trons from the tronos into structured cores for the particles. Trons thereupon directly surround each core in successive tron layers, forming a relatively less dense *parfield* to complete each particle.
2. A radius of the parfield inherently oscillates harmonically in its ambient tronos. This causes the microparticle to move in a surging manner. This vibra motion is causal and cyclic.
3. Wave-particle duality is resolved by considering the incessant wavelike movement of microparticles in the vibra mode. The length of each particle surge is the same as its concurrent de Broglie wavelength.
4. The parameters of microparticles in their vibra movement are continuous and sinusoidal in nature. An important new one is revealed, particle frequency. These parameters involve all of their quantum type of activities.
5. Surging particles generate radiant waves in the tronos, ahead of their movement. The frequencies of these waves are the same as the concurrent frequencies of their associated particles.
6. Radiant phenomena becomes a mechanistic process, involving the generation of continuous waves; as well as truncated trains of continuous waves. Such waves propagate through the tronos at electromagnetic speed. They are equivalent to what are today called photons.

The Tron Theory may appear to be an attempt to reintroduce the concept of ether. The Tron Theory does assert that electromagnetic fields have a material basis. It is asserted that the Tron Theory can account for the phenomena of classical as well as contemporary physics.

The diameter of a tron is that of its surrounding ron cloud, and is readily physically changeable. The size of a tron is influenced by the number of trons in its immediate region; namely by the tron density thereat. Nuclear binding energy is the enhanced force among tron groups that are highly compressed together at the core.

The interface of a parfield with its tronos field is shown to continually fluctuate, resulting in the incessant vibra behavior of the particle as a whole in the tronos. The causal continuous surges of microparticles can be analytically tracked. Such cyclic movements of micro-particles generate corresponding electromagnetic waves in their ambient tronos field, at the particle frequencies. Spectral radiation involves photons that are interrupted continuous wave trains, such as 10^6 waves long , and even longer. Such trains result from shifts of electrons in orbital vibra about their nuclei. Continuous spectra result from the vibra activity of a group of particles that generate waves in a tronos. The trons and tronos, matter and fields and waves, interactions and interfaces…are interrelated by the tron theory, and are the basis of the vibra theory.

The Tron Theory provides fresh insights into atomic and sub-atomic processes: atoms in closer focus; microparticles in causal movement; the generation, propagation and transfer of radiant energy in determinate display. The versatility of the Tron Theory unfolds as it is applied to physical disciplines. The forces of nature, including nuclear binding force, emerge from the simple postulated characteristics of the trons and the rons. Matter does not appear

or disappear from the universe. In a fusion reaction, trons belonging to the nucleons are squeezed out from where the nucleons join. They become disassociated from the nucleons and become part of the local tronos. A part of the potential energy of the released trons is transferred to the tronos - the local tron density (which is proportional to its potential energy) is increased. The other part of the potential energy is converted into kinetic energy – the motion of trons in the tronos (including electromagnetic waves) and the motion of the microparticles involved in the fusion reaction. Fundamental particles, including electrons and nucleons, are created when trons from the tronos are concentrated and bound together.

The Tron Theory accomplishes these physical insights and correlations:

(a) It provides a consistent basis that unifies matter, the fields, and the fundamental forces of Nature, with a common underlying substance…trons.
(b) It resolves the duality of radiant waves versus photons and particle mass versus particle waves.
(c) It formulates quantum phenomena in causal format with continuous parameters for the dynamic actions of particles…via Vibra Mechanics. Micro-particle action can be analyzed deterministically.
(d) It presents the essence of Nature's phenomena and processes in a way that can be clearly visualized. It is congruent with real observations and determinations.

With the Tron Theory one may view the universe with its physical parts interrelated on a tron basis. The theory starts with trons and proceeds from the infinitesimal to the galactic cluster. When one formulates Nature's basic entities and processes in their tron settings, a three-dimensional universe is realized. One also finds a calmer cosmology: The red shift is seen to result from an imperceptible but nonetheless continual energy loss occurring in stellar radiant waves as they propagate through the intergalactic tronos. The energetic cauldron found at the cores of galaxies provides the extreme conditions where trons are condensed into electrons and nucleons. The density of the tronos is proportional to its potential energy. It is inversely proportional to its distance from a center of mass and is proportional to the magnitude of the mass:

$d = k M / r$

d = tronos density (trons/cm^3), M is the magnitude of the mass center, r is the distance, and k is a constant (to be determined).

It is asserted that the minute mass of individual trons in the interstellar tronos adds up to account for the observed "missing mass" of the universe. The explanation for not being able to obs The velocity of electromagnetic waves is inversely proportional to the density of the tronos. This accounts for the bending of light by a star.

Is it not reasonable to surmise that matter, fields, and the basic forces of Nature all derive from a common underlying tiny entity? Multitudes of such entities would be involved in the formation of an electron or nucleon. Each such entity would be much smaller than the electron, and have a most minute mass. Myriads of such particles would form into arrays as the respective physical fields. Also, these particles would possess a generic form of attraction that would constitute electromagnetic, nuclear and gravitational force. Such an underlying entity is shown to be the tron; its involvement in Nature is the Tron Theory.

The tron is presented as a universal dynamic particle. Trons are premised as inherently contiguous, filling up the cosmos. The Tron Theory is built from the Tron Postulate. It asserts that everything physical is made up of trons and that Nature's fields, forces, and interactions involve trons. The tiny tron could well be the primordial material. The tron theory reveals insights that expand one's knowledge and perspective of physical Nature.

This paper presents the fundamental description of the tron, and the Tron Postulate. Future papers will explore the topics presented here in detail.

The Tron Postulate

The tron is presented as the as a universal dynamic particle. Myriads of them are shown to construct the atoms, bind them into observable matter, and also form the imponderable physical fields. Trons are premised as inherently contiguous, filling up the cosmos. The tron concept could possibly present the primordial material that underlies physical Nature. The Tron Theory provides significant correlations of known physical phenomena and data. Elemental physical processes are visualizable through the dynamic tron constructs. The tron theory views physical Nature as a logical process, seen to evolve from the fundamentals in common sense ways.

The tron is itself composed of even minuter particles called rons. a spherical-like array. The ron is similarly made up of infinitely minuter *on*s. Each tron is much tinier than an electron, and has a central mass-core. Its ron surround is arranged like onion-layers, and relatively soft. The physical characteristics and behavior of the tron (and ron) are set out in seven axioms, termed the Tron Postulate. It is necessarily in axiom form. Yet it is remarkably adaptive and generative…potentially universal in scope.

Why should we consider a radical new approach to the structure and operation of Nature? One cannot alter the facts and factors of physical phenomena. However, let us consider: A new theory may better penetrate the micro-world, or view the cosmos with more meaning. The tron theory does both, and much more. With the seven-axiom Tron Postulate, a unified approach for matter, the fields, and the forces and energies of Nature is developed. It provides a firm basis for radiant energy generation and its propagation; for electrical, magnetic and chemical phenomena, and atom formation. It does not require the doctrines Indeterminacy or Complementarity, and is basically causal. The tron theory amalgamates

scientific disciplines meaningfully. It provides a simplicity to atoms and molecules, to electrons and elementary particles, to the structures and actions of the very fields themselves.

In the Tron Theory basic phenomena are interrelated through their common tron heritage. Atoms have compressed trons as their cores and individual tron-surrounds about the cores. Matter is immersed in ambient tron-fields, termed *tronos*. Microparticles are shown to interact continually with tronos in causal activity. Electric and gravitational fields are gradients of the density of trons in the tronos. Radiant energy is generated by surging particles that create corresponding waves in their tronos, and propagate with transverse components. Physical processes and phenomena of the universe are presented as combinations arrays of tron… from the atoms to the galaxies, in electric, magnetic, and gravitational tronos. The tron-universe is the sum of its tron-constructed parts; see Axiom-7.

It is exciting to contemplate that a universe full of trons might have over the eons generated the universe that we know. This treatise presents a coordinated approach to phenomena and processes that interrelate the physical disciplines, towards unifying science. Because it is so new and so basic, it may be hard for one to realize the immense significance of the underlying Tron Postulate merely from its exposition. However, its versatility and dominance unfolds as the tron's ways are successively unfolded and applied. It will be shown that the fountainhead of the basic energies, as well as the ultimate source of the basic forces including nuclear binding energy, derive from trons and their physical characteristics. Its elemental phenomena and matter are developed in three-dimension form, and in causal relationship.

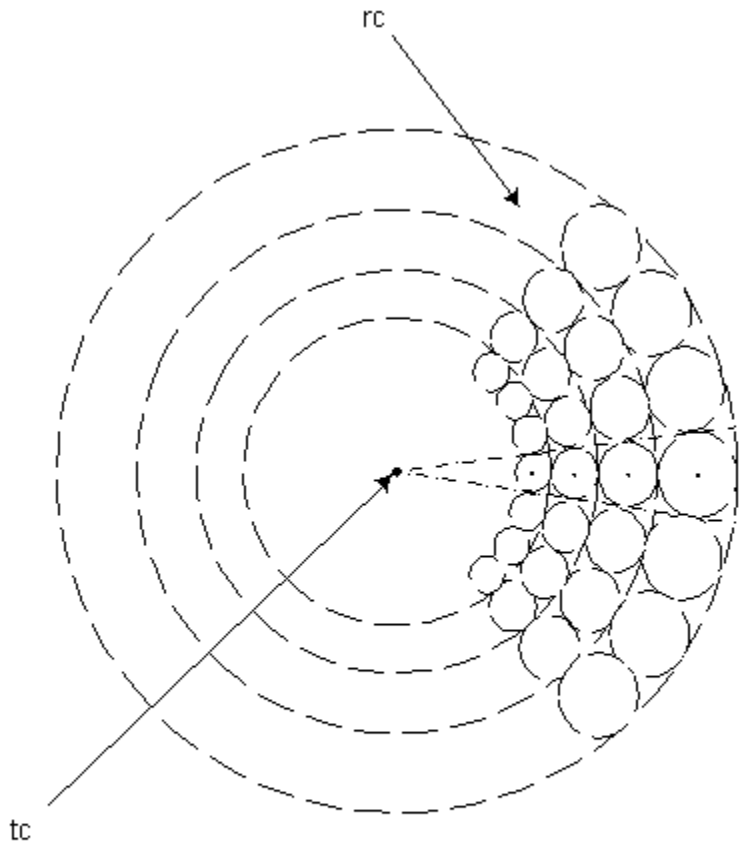

Fig 1.

Trons are represented in tron diagrams as small circles with a dot in the center. Their diameters indicate their relative "size". A larger tron has more ron layers and is thereby "softer" at its peripheral region than a smaller diameter tron. The ron is composed of successive *on*-layers, in similar relation. Fig 1-1 shows a cross section of a spherical tron. Its ron diameters increase with their radial position. There are innumerable ron-layers. The same number of rons are in each ron shell. The actual tron is tiny, with a most minute core (tc). The core (tc) is formed of compressed rons. The cloud (rc) of successive ron-layers is of generally spherical shape, as is the tron. See Axioms 1,2,3.

Note, the concentric circles are only meant to represent ron layers and are not really part of a tron's structure. Also note that the outer boundary of a tron is not fixed. It is effectively the radius where the rons in a ron layer reach a maximum diameter. Beyond that point the rons begin to decrease in diameter as they are associated with the core of adjacent trons.

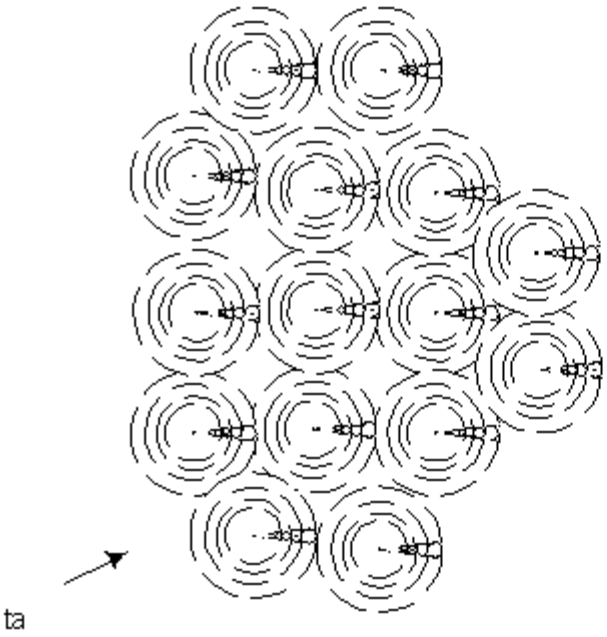

Fig. 2

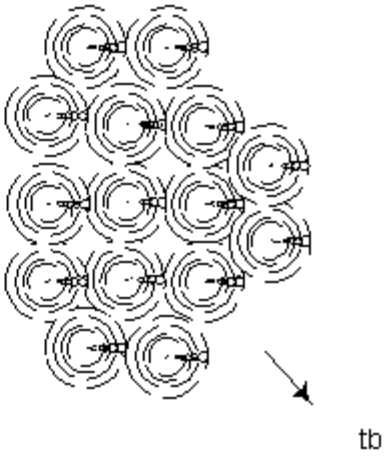

Fig. 3

Trons will be seen to be very adaptable. The Tron Postulate sets each tron as attracting rons onto itself, onto its ron cloud (rc). This force of ron attraction increases as the diameter of the tron's cloud (rc) decreases, and vice versa. It is a mechanical force, neutral of charge, Axiom-4. The tron attraction of rons is a characteristic of fundamental importance. It is the elemental force that trons exert to cohere with adjacent trons. Fig 2 is a plane view of cohering trons ta. Fig 3 is a denser tron group tb, its trons being smaller. A tron array is formable into a physical field. The electromagnetic and gravitational fields of space are diverse tron arrays, termed *tronos*.

When a group of trons are pressed together more compactly, as from ta of Fig 2 to smaller trons per Fig 3, rons are released. The diameters of the ron-clouds (rc) of the trons ta reduce; rons flow out as ron-flux (rf), as indicated in Fig 4. The released rons are directly acquired by the adjacent outer trons tb. Such ron absorption reduces the tron density of the outer tronos tb, as the density of inner trons ta increases. Such displacement process or ron-flux (rf) and tron density change is significant, as in the generation and propagation of radiant waves through the tronos.

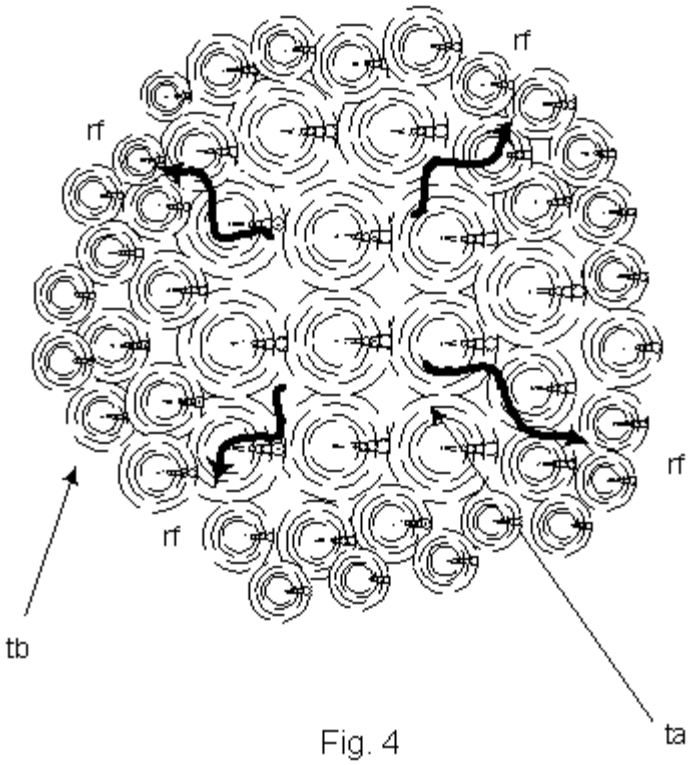

Fig. 4

The ron-flux slows and then reverses when the inner tron group ta reaches its maximum density (minimum tron diameter) and the outer group tb reaches its minimum density (maximum tron diameter). The result is Figure 5. The inner trons of group ta exert their ron attraction potential on the surrounding larger diameter tron group tb. Rons flow from the outer layers of the larger diameter trons tb to the outer layers of the smaller diameter trons ta in the center. The trons of inner tron group ta become larger in diameter and less dense while the trons of outer tron group tb become smaller in diameter and more dense until we return to the configuration of Figure 4. This dynamic interaction continues: the array of Fig 4 alternates with Fig 5. The amplitude of this exchange slowly decreases over time. Eventually an equilibrium is reached where the effective tron density is substantially uniform within the region; see Axiom-5. It is to be understood that these two dimensional tron diagrams actually represent three-dimensional entities and tron actions. The circles and lines of the diagrams are c

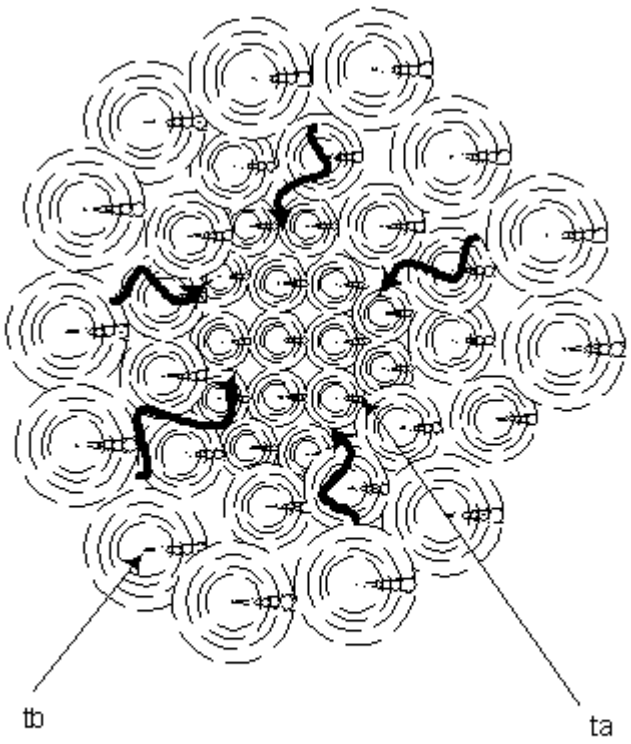

Fig. 5

The Tron Theory of the physical world is constructed from a set of Axioms for the unseeable trons and rons, is developed therefrom in congruence with established phenomena and data. Only seven interrelated tron-ron Axioms are required, as the Tron Postulate:

THE TRON POSTULATE

1. Trons are particles that are very tiny, far tinier than electrons. Each tron is constructed in the same manner, with a miniscule mass-core that is embedded in a pliant cloud. Trons exhibit minute mass, and are neutral of charge. (Axiom-1)

2. The tron's cloud is an array of numerous *ron*s. Rons are particles similar to trons, but much minuter in size. The tron's core is formed of compressed rons. Rons thus underlie and support the trons. The rons in turn are similarly supported by even tinier *on*s. (Axiom-2)

3. Rons are arranged around a tron core as a cloud of successive shells generally spherical in shape. The size of each ron is proportional to its distance from the tron's center. Each full ron-layer about a tron is made up of the same number of rons regardless of radial position. A tron's size or diameter is determined by the number of its ron-layers. (Axiom-3)

4. An intrinsic characteristic of each tron is its continual potential to attract rons onto itself, and make its ron cloud bigger. Such ron attraction potential by each tron is inversely proportional to the radial position of its outer rons. Rons attract *on*s onto themselves in a similar manner. (Axiom-4)

5. The size and shape of a tron stabilizes when its peripheral rons are the same size as the boundary rons that are contiguous to the tron; and similarly for a ron as to contiguous *on*s. (Axiom-5)

6. Tron displacements are communicated swiftly by corresponding displacements of the rons that are thereby peeled off the trons. The ron displacements are along paths of contiguous trons. The ron displacements are similarly telegraphed ahead by *on* displacements along ron paths. In the density of tron space adjacent to the earth's surface the speed of ron transmission is the electro-magnetic *c*. This speed is lower through regions of higher tron density, and vice versa. (Axiom-6)

7. The Universe is filled with myriads of trons. All trons are contiguous with other trons, throughout. Rons fill the interstices between contiguous trons. Ons fill the interstices between contiguous rons. (Axiom-7)