

Energy and matter creation: The Poynting Vortex

Richard Lawrence Norman,
Editor in chief, *Mind* magazine *Journal of Unconscious Psychology*
Scientific Advisor Thunder Energies Corporation
editor@thejournalofunconsciouspsychology.com

Jeremy Dunning-Davies,
Departments of Mathematics and Physics (retd),
University of Hull, England;
Institute for Basic Research, Palm Harbor, Florida, USA.
j.dunning-davies@hull.ac.uk

Abstract.

As has been pointed out on several occasions, misinterpretations of experimental results and the concealment – sometimes actual suppression – of scientific work deemed to be outside the bounds of perceived conventional wisdom have been allowed to go unchecked. This attitude has undoubtedly blocked some avenues of approach to the solution of present day problems. Here it is intended to attempt to bring attention to some new avenues of research which may prove fruitful in the future in solving at least some of the problems facing humanity concerning energy production and shortage.

Introduction.

Two seemingly unshakable errors have befallen modern science:

(i) the unquestioning acceptance of particular misinterpretations of scientific experiment and current theory

and

(ii) the concealment and suppression of vital new scientific works of what some may perceive as of a revolutionary nature.

It is the aim of this brief text hopefully to open up the previously concealed pathway and begin to illuminate the possibilities which have been hidden. Although necessarily speculative due to the unrealized nature of such work, it is the intention here to attempt to point the way forward toward clear avenues of scientific advancement which could possibly allow the race of man to exist within the province of his available means without causing further harm and degradation to the environment which sustains him. To that end analysis will be provided leading to specific new directions based upon the suppressed works of Tesla, Santilli (2007, 2016/2017; 2017a; Norman et al. 2017; Norman, Dunning-Davies, 2017) and other unacknowledged sources. Errors in current theory will be corrected and new theory offered. These hypotheses may eventually lead to human freedom from want and deprivation based on the correction of longstanding errors within existing theory and subsequent application of new theory then derived.

Theoretical positions, basics and adjustments: preliminary necessities.

It is not the intention of this work to dispute systematically current theoretical conclusions and beliefs but see the following for a detailed and stepwise examination and derivation of at least some errors, causes and alternatives (Dunning-Davies, 2007; Dunning-Davies, Norman 2016; 2018). There are numerous other sources which reveal more of the suppression of ideas in science but amongst these may be noted the books by H. Dingle (*Science at the Crossroads*, Martin Brian & O’Keeffe, London, 1972), Lopez Corredoira & Castro Perelman (*Against the Tide*, Universal Publishers, Boca Raton, Florida, 2008), Pecker & Narlikar (*Current Issues in Cosmology*, C.U.P., Cambridge, 2006) and Hoyle, Burbidge & Narlikar (*A Different Approach to Cosmology*, C.U.P., Cambridge, 2000). We will instead begin by listing in a cursory way some of the theoretical interpretive

inconsistencies, suppressions of science and changes implied which are indeed necessary to adjust for us to accomplish our stated aims.

Within the freely available early works of Tesla [Martin (1995 p. 148, 275 and others)] it is clearly mentioned that the surrounding energy density, or aether as it was known, is in a bound state around mass and in an unbound state away from mass and in both cases it is to be treated as an incompressible fluid. This implies aether as a bound, therefore moving, medium around massive objects, meaning the medium moves with the object and could not possibly demonstrate the stationary characteristics of reference needed to ascertain absolute motion, behaving just as the Michelson-Morley experiment found. Those Michelson-Morley experimental results then, do not contradict the presence of aether. It seems the basic theory was not rightly considered in interpretation of the experimental results.

Thornhill (1984) may be followed and the error corrected by reintroducing the medium (aether) to the physics and specifying the correct Total Time Derivative to then be used in calculations specifying the medium's system dynamics as *bound to mass*, and so implying a return to a partial time derivative in the medium's unbound stationary state.

From Thornhill (1984), it is seen that

For general unsteady motion of a gas in three space- variables x_i , ($i = 1, 2, 3$) when the fluid velocity components are denoted by u_i , the governing equations may be written, again using the summation convention,

$$\text{(Mass)} \quad \frac{Dv}{Dt} - \frac{v\partial u_i}{\partial x_i} = -Av^2 \quad (3.3)$$

$$\text{(Momentum)} \quad \frac{Du_i}{Dt} + \frac{v\partial p}{\partial x_i} = B_i v \quad (3.4)$$

$$\text{(Energy)} \quad \frac{DS}{Dt} = v(H - Apv)/T \quad (3.5)$$

Here p denotes, pressure, v specific volume, S specific entropy, T absolute temperature and the total time-derivative, moving with the fluid, is given by

$$\frac{D}{Dt} = \frac{\partial}{\partial t} + u_i \partial / \partial x_i \quad (3.6)$$

In the assembly of Maxwell's equations, the time-derivatives which occur in Ampère's rule and in the laws of induction have invariably been interpreted as the partial derivative $\partial/\partial t$. This is not acceptable in the concept of a gas-like ethereal medium, where the

ethereal velocity may vary from point to point and with time, and the Newtonian frame of reference may be chosen so that its origin moves at any constant speed, independent of the ethereal motion. To satisfy the requirements of a gas-like ether unambiguously, the time-derivative in Ampère's rule and the laws induction can only be interpreted as the total time-derivative moving with the ethereal flow, namely D/Dt , as defined in Eq. (3.6) above.

Note that the above referenced work (Thornhill, 1984) brings forward not only the information concerning the total time derivative but also the important fact that oscillations within the medium form longitudinal condensations along a transverse wave front. These ideas are brought out best by studying the original paper in detail but, basically, Thornhill points out that, in a gas-like aether, the duality between the oscillating electric and magnetic fields, which are transverse to the direction of propagation of electromagnetic waves, becomes a triality with the longitudinal oscillations of motion of the aether, if electric field, magnetic field and motion are coexistent and mutually perpendicular. He points out that, therefore, it must be shown that, if electromagnetic waves comprise also longitudinal condensational oscillations of a gas-like aether, analogous to sound waves in a material gas, then all three aspects of such waves must propagate together along identical wave fronts. To this end, the full characteristic hyperconoids must be derived for the equations governing the motion and the electric and magnetic field-strengths in a gas-like aether, in three space variables and time. All that is required is achieved in the cited article.

Also, the reader should note that in adjusting the total time derivative to account for a *bound* condition, where the medium moves with associated mass, a physical basis for charge itself follows, as the aether/energy density is itself bound to the matter with which it is associated. Charge may now be given a sensible physical basis as mobile aethereal expressions bound to molecular motion as a moving medium.

This correction and specification then allows for the correction of a piece of vital physics, *presented within CIA released documents as closely associated with Tesla*, that has finally been revealed, although with flaws, from behind the cloak of state secrecy: a new solution to the equations of Maxwell allowing the representation and derivation of scalar wave phenomenon. Referring to the relevant equations in the released CIA document "CIA-RDP96-00792R000500240001-6",

<https://www.cia.gov/library/readingroom/docs/CIA-RDP96-00792R000500240001-6.pdf>,
it follows that with

$$\bar{E} = -\nabla\phi - \frac{1}{c} \frac{D\bar{A}}{Dt} \text{ and } \bar{B} = \nabla \times \bar{A},$$

where ϕ is the scalar (electric) potential and \bar{A} is the vector (magnetic) potential.

The modified Maxwell equations, which have been derived from first principles (Dunning-Davies, 2002) in an article which also clarifies the position of the dynamo mechanism for providing an explanation for the origin of planetary magnetic fields, then predict

$$\nabla^2\phi - \frac{1}{c^2} \frac{D^2\phi}{Dt^2} = 0$$

and

$$\nabla^2\bar{A} - \frac{1}{c^2} \frac{D^2\bar{A}}{Dt^2} = 0$$

As pointed out in the quoted article, a solution appears to exist for the case

$$\text{when } \bar{E} = 0,$$

$\bar{B} = 0$ and $\nabla \times \bar{A} = 0$ for a new wave satisfying

$$\bar{A} = \nabla S \text{ and } \phi = -\frac{1}{c} \frac{DS}{Dt},$$

with S then satisfying

$$\nabla^2 S - \frac{1}{c^2} \frac{D^2 S}{Dt^2} = 0.$$

These modified equations still assert that S is a potential with a wave equation – albeit a progressive wave equation – mathematically, which suggests the propagation of this wave even though $\bar{E} = \bar{B} = 0$ and the Poynting theorem implies no electromagnetic power flow. Note that, for convenience, the same notation for vectors has been adopted here as is used in the original quoted article.

To understand the Poynting Vortex hypothesis it is entirely *necessary to grasp the paper*, Norman, Dunning-Davies (2017) Hadronic paradigm reassessed: neutroid and neutron synthesis from an arc of current in Hydrogen gas, *Hadronic Journal*. 40; 119 - 148.

https://www.researchgate.net/publication/317267278_Hadronic_paradigm_reassessed_neutroid_and_neutron_synthesis_from_an_arc_of_current_in_Hydrogen_gas

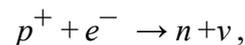
Within those few, important pages, we see rigorous empirical demonstration and analysis revealing the neutroid, an intermediate spin zero state, becoming a neutron with the addition of 0.78 MeV of energy, derived as a longitudinal impulse from the energy density itself: from the aether. There was insufficient energy to produce neutrons in experiments from Sternglass, Borghi, Santilli, and Trounson which demonstrated (delayed) neutron detections, indicative of preliminary neutroid synthesis, an intermediate spin zero state.

To condense from the reference above, with additional analysis, it follows that,

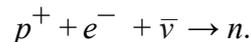
To synthesize neutrons in nuclear transmutation within neutron detector materials 0.78 MeV is induced as pieces of longitudinal impulse seen to scatter in experiments, not neutrinos. This is why no neutrino has ever been directly observed; only *associated effects* from gamma ray production involving electron positron annihilation and also gamma ray production stemming from cadmium neutron interactivity, allowing signature-specific timing differentiation between two *supposedly neutrino induced* gamma sources has been observed.

Logical inconsistencies in existing neutrino theory.

As is well known Fermi suggested that neutron synthesis proceeds by way of emission of a neutrino, or absorption of an antineutrino:



or



However, logically this cannot be the case.

Note here that

$$E_p = 938.272 \text{ MeV}, \quad E_e = 0.511 \text{ MeV}, \quad E_n = 939.565 \text{ MeV},$$

$$E_n - (E_p + E_e) = 0.782 \text{ MeV} > 0,$$

clearly indicating the rest energy of the neutron is 0.782 MeV larger than the combined rest energies of the proton and electron, requiring a “positive

binding energy” and “mass excess” both of which are strictly *counter indicated* by quantum mechanics.

1. Recall the necessity for a positive binding energy to account for the 0.782 rest energy difference between the neutron and its experimentally demonstrated constituents, the electron and proton. Note that positive binding energies are NOT accounted for within the Schrödinger equation’s proper quantum application, which does not admit positive binding energies for a bound state such as the electron being bound within the hyper-dense medium of the proton.
2. Although a positive binding energy is indicated by experiments, the antineutrino is ascribed negative energy in classical antimatter theory, and so, cannot account for the empirical facts.
3. The antineutrino cross section for proton and electron interactions is null, again insuring demonstrated effects are not accounted for.
4. Paradoxical results seem to indicate neutrino scattering effects implying some “particle” mass, yet no particle is detected. Such “particle scattering” sans particle implies another solution: a longitudinal impulse moving through a substantial surrounding energy density interacting with targets: *the Aetherino* (symbolized as: “*a*”) (Santilli, 2007).

The Aetherino carries mass and charge zero, spin 1/2 and 0.78 energy according to the synthesis $p^+ + a + e^- \rightarrow n$.

Next the neutroid must be briefly understood. See (Norman, Dunning-Davies 2017).

Don Borghi and his scientific associates coined the name "neutroid" (symbolized here as \tilde{n}), where the neutroid was proposed as an intermediate particle mutation preceding synthesis of actual neutrons. Neutroids have also been experimentally created by Santilli, where he defines the proposed neutroid as a (spin zero) particle having the values (in standard nuclear units: A = total number of nucleons; Z = number of protons; (N = number of neutrons); J the total angular momentum; with $amu.$ = mass),

$$A = 1, Z = 0, J = 0, m = 1.008amu.$$

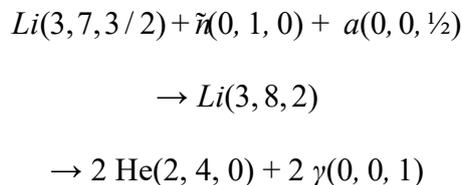
Santilli then writes:

$$p^+ \uparrow + e^- \downarrow \rightarrow \tilde{n}(1, 0, 0, 1.008)$$

where $J = 0$ avoids a spin anomaly in the synthesis (Burande, 2016).

Observed scattering effects are rightly ascribed to longitudinal impulses denoted as aetherinos within the theory of Santilli (2007), not to inferred unobservable neutrino particles that are in fact, as we will see, pieces of *directed* scalar wave. *Directed*, meaning a (scalar) wave should be *without* directionality of energetic transfer [direction and intensity (flux density)] in the usual sense, as it lacks a Poynting vector. Such directionality then has been dynamically induced. We may simply apply the same mechanism demonstrated within Nature as she derives energy from the surrounding energy density to satisfy physical conditions, and empirically derive the same dynamic, and extract power thus.

The *Li*-activated detectors in Santilli's experiment function as mediators of aetherino and neutroid interactivity yielding neutrons by:



It appears clear that the neutroid within the lithium atom above constitutes a vortex through which an energetic quantum of 0.78 MeV and spin 1/2 (aetherino) (Santilli, 2007) is induced to achieve nuclear transmutation.

Now it is possible to offer a hypothesis based on copious experimental evidence concerning neutron synthesis and working theory (Norman, Dunning Davies, 2017).

The genius of Tesla has been suppressed and concealed. That vision however, was articulated countless times, even if its specifics have been withheld to the profound detriment of mankind. Here it is seen within the experiments of Santilli and others, *energy extracted from the energy density*

itself, and mass created: energy inducement and mass creation (Santilli, 2007, 2016/2017, 2017a; Norman et al. 2017; Norman, Dunning-Davies, 2017). The power of the energy density might be harvested as Nature herself does so clearly demonstrate.

In early lectures Tesla states (Martin, 1995):

p. 196. “But there is a possibility of obtaining energy not only in the form of light, but motive power, and energy of any other form, in some more direct way from the medium. The time will be when this will be accomplished, and the time has come when one may utter such words before an enlightened audience without being considered a visionary.”

p. 235. [in the future] “We shall have no need to *transmit* power at all. . . . our machinery will be driven by a power obtainable at any point in the universe.”

p. 197. Then, with the light obtained from the medium, with the power derived from it, with every form of energy obtained without effort, from the store forever inexhaustible, humanity will advance with giant strides.”

Brief schematic of direct energy extraction and matter creation via induced scalar process: the Poynting vortex.

1. Insufficient arc energy to create neutrons in Santilli’s and other experiments demonstrates **neutroid to neutron transformation and necessary addition of 0.78 MeV energy, likely in the form of longitudinal impulse (aetherino) (Santilli, 2007), a piece of directionalized, induced scalar wave.**

2. Scalar waves lack a Poynting vector, so the mechanism of induction may be deduced: "The vibrational qualities of a neutroid within substance specific nuclear transmutation create condensational oscillations that function as a “Poynting Vortex” [as a Poynting vector but delineated by a receptive vortical surface] so as to receive/induce longitudinal impulses at 0.78 MeV, a directionally induced scalar of that quantum.”

3. The schematic basis mechanism of matter and energy extraction may now be deduced as follows:

If VVP is *Vortical Voltage Potential*: The amount of work required to induce a given directed scalar quantum of MeV over infinite distance to a given Poynting vortex,

If *Swp* is the *Scalar wave potential* of a given system state of aether. *Swp* defines system conditions to perform the work [VVP] necessary to induce a directed scalar wave of a given quantum from the surrounding aether,

If *Ae* is Aether, *Pv* is Poynting vortex, *S* is Scalar wave, then

$$Pv = [Swp(Ae) \rightarrow S \rightarrow E \rightarrow M]$$

It is important to note that it is, of course, entirely possible that *energy* may best be derived using the *matter* specification below, while draining off the arriving energy from the vortical surface.

Energy extraction via the Poynting vortex is derived from aethereal vibrational oscillatory condensations of the neutroid and may be represented schematically by

$$[Swp(Ae) \rightarrow S \rightarrow E]$$

Implication:

Energy may be derived at a quantum of 0.78 MeV to artificially create the resonant oscillatory condensations of a neutroid, then functioning as a Poynting vortex to induce a directionalized scalar wave of that quantum toward that vortical receptive surface.

Matter creation Poynting vortex derived from associative aethereal refractive patterning, vibrational oscillatory condensations of the neutroid within *Li* atom (matter must reflect neutroid *within* mass/vibratory relations of the *Li* atom (*Li* is most simple to model), meaning its gravitational/EM refractive matrix. Ergo, add gravitational refractive matrix (bound aethereal condensations) defining an object to energy for matter creation of said object.)

$$[Swp(Ae) \rightarrow S \rightarrow E \rightarrow M]$$

The implication is that the refractive qualities (gravitational and EM relations within the medium) defining an object, such as the necessity of the neutroid nested in a *Li* atom, along with induced added scalar energy sufficient to account for transmutation, create matter (neutron).

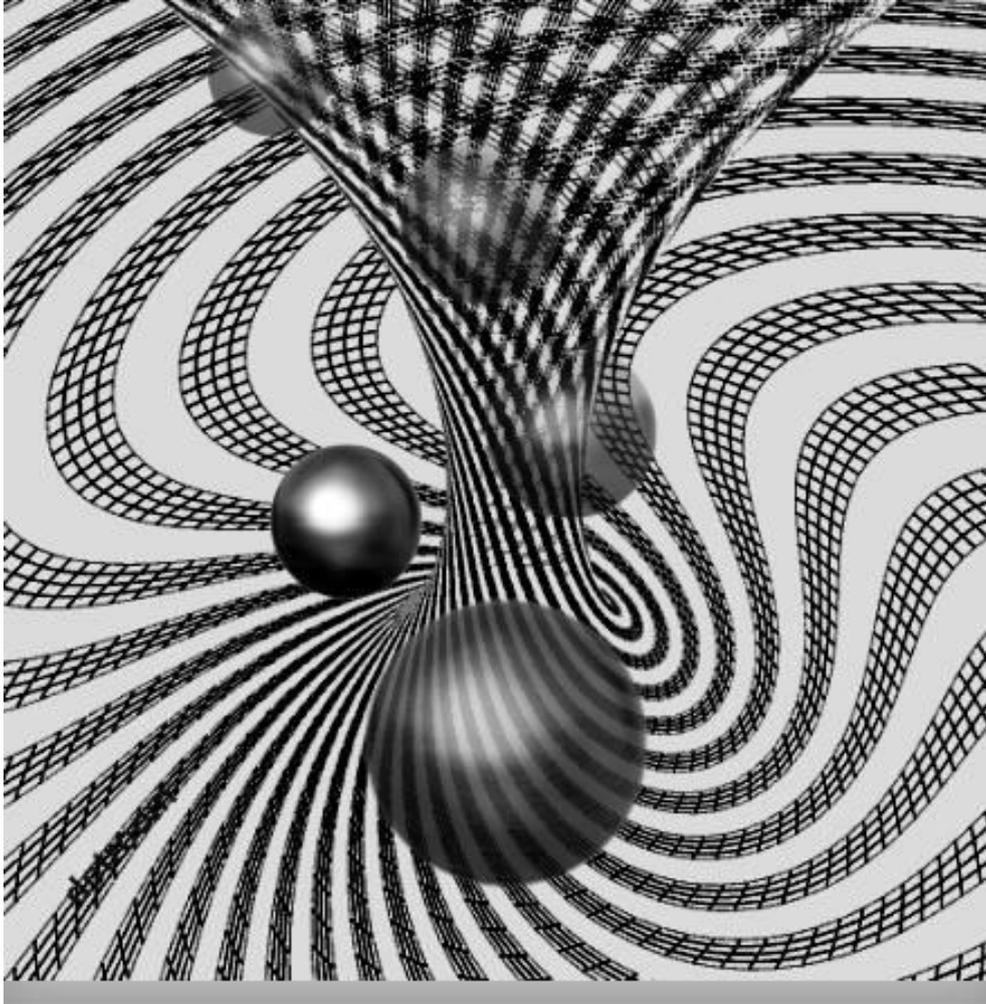
Gravitational/EM refractive signature defining object + energy = object.

A few comments may be made concerning the above theorizing,

It is believed that the longitudinal condensations within electromagnetic transverse oscillations provide directionality to induce scalar processes.

Hence the speculation that the vortex created appears to be an informational allocation indicative of systemic dis-equilibrium, indicating the requirement for energetic transfer of 0.78MeV as a directed/induced scalar to create the neutron, and restore overall systemic equilibrium and, stability within the atomic structure. The vortex then, projects “dis-equilibrium information” and so, could possibly have an “informational value” (meaning the condensational wave form associated with positron) of 0.78MeV, deriving 0.78MeV as inductive (charge reversed) compensation.

The idea of Vortical Voltage Potential is related to electrical potential but pertaining to the work ascribed to *induce* a scalar wave, and as an inverse concerning charge.



Artist's conceptualization of particulate and energy creation by vortical processes. *Arthur Fletcher*

Conclusion.

To lift the suppression which has concealed the science of Tesla and held back the science of Santilli, as well as the work of others, could open a doorway to a new world free from want, a human future once forbidden by ignorance. In the extraction of energy from the density which surrounds us we follow our first and finest teacher, Nature. Just as neutrons are synthesized from neutroids using too little energy for direct neutron synthesis, so does the proposed Poynting Vortex tap the infinite store within

the medium which surrounds us. In this piece of theory, should it be realized, could possibly be seen the end of human want and shortage. The Santilli and other experiments appear to allow inference toward the suppressed promise of Tesla:

Matter and energy creation by mathematical modeling and implementation of the dynamic atomic condensational surfaces of nuclear processes and transmutation as matter and energy Poynting vortices.

References.

C. S. Burande; (2016), *American Journal of Modern Physics*. Special Issue: Issue II: Foundations of Hadronic Mechanics. Vol. 5, No. 2-1, pp. 37-45.

J. Dunning-Davies; (2002), *Hadronic Journal*, **25**, 251-260.

J. Dunning-Davies; (2007), *Exploding a Myth*, Horwood, Chichester.

Dunning-Davies, J., and Norman, R. L.; (2016), *Beyond the Veil: Deception Truth and the Hidden promise of Science*, Standing Dead Publications, O'Brien, OR. ISBN: 978-0-9845693-7-3
https://www.researchgate.net/publication/307508001_Beyond_the_Veil

J. Dunning-Davies, R. Norman; (2018), *Truth in Paradigm*, Standing Dead Publications, O'Brien, OR. ISBN: 9781983853173
https://www.researchgate.net/publication/321533251_Truth_in_Paradigm

T.C.Martin; (1995), *The inventions, researches and writings of Nikola Tesla*. Barnes and Noble, NY.

Norman, Dunning-Davies; (2017), Hadronic paradigm reassessed: neutroid and neutron synthesis from an arc of current in Hydrogen gas *Hadronic Journal*. 40; 119 - 148.
https://www.researchgate.net/publication/317267278_Hadronic_paradigm_reassessed_neutroid_and_neutron_synthesis_from_an_arc_of_current_in_Hydrogen_gas

Richard Norman, Anil A. Bhalekar, Simone Beghella Bartoli, Brian Buckley, Jeremy Dunning-Davies, Jan Rak, Ruggero M. Santilli "Experimental Confirmation of the Synthesis of Neutrons and Neutroids from a Hydrogen Gas", *American Journal of Modern Physics*, Vol. 6(4-1), page 85-104 (2017)

Santilli, R. M.; (2007), *Foundations of Physics*, 37, 670. The Etherino and/or the Neutrino Hypothesis
<https://www.researchgate.net/publication/225145789>

R. M. Santilli "An introduction to the new sciences for a new era," Invited paper, SIPS 2016, Hainan Island, China Clifford Analysis, *Clifford Algebras and their Applications* Vol. 6, No. 1, pp. 1-119, 2017
<http://www.santilli-foundation.org/docs/new-sciences-new-era.pdf>
[2017a, links below]
<http://www.santilli-foundation.org/docs/confirmation-neutron-synthesis-2017.pdf>

Two minute movie on the operation of the neutron source
<http://thunder-energies.com/docs/MagnaPower.mp4> ;
neutron counts per Seconds detected by the Ludlum detector model 375
<http://thunder-energies.com/docs/Ludlum-Alarms.mp4>
confirmation of such detection by the Berkeley Nucleonics SAM 940
<http://thunder-energies.com/docs/Sam-Alarms.mp4>
confirmation of neutron detectors by the Polimaster PM170
<http://thunder-energies.com/docs/polimaster-reading.pdf>

C. K. Thornhill; (1984), The triality of electromagnetic-condensational waves in a gas-like ether, *Speculations in Science and Technology*, Vol. 8, No. 4, pages 273–280.

Web reference:

Web Document: CIA-RDP96-00792R000500240001-6,
<https://www.cia.gov/library/readingroom/docs/CIA-RDP96-00792R000500240001-6.pdf>