

## Super Conductor for 50hz Electricity current by accelerated Cold Vortex Tunnel

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### Abstract

*It is known that the Electric field moves along Classical Conductor as real fluid. This means that it accounts friction, adhesion and cohesion. Due to this the Electric field is stratified into lamellas with different speeds. Because frictions increase, speeds decrease in direction from the center to the periphery. If we connect lamellas from center to periphery, a Reverse wave is formed from the center to the periphery of the Classical Conductor: This Reverse wave is named internal Electricity current.*

*The author applies her Open Vortex Theory. It contains 2 new Axioms and 8 Laws. This report uses 1 Axiom and 3 Laws only. In **Classical Conductor**, according Open Vortex Theory the described above Reverse wave continues as decelerating external Electric Current along surface of Classical conductor but in opposite direction. It emits Primary decelerating open vortices (decelerating hot Quanta) outwards and warms environment (Law 5). An Open vortex is obtained always whenever there is uneven motion (decelerating or accelerating) along a curve(Axiom1). The decelerating transverse vortices rolled up in plane generate in their center the perpendicular accelerating vortices (Law 1). They formed external Magnetic field the decelerating external Electricity current and external Magnetic Field lose Energy by warming environment.*

*The author proposes a structure of a **Super Conductor** that has just orthogonal structure to the Classical Conductor. In the periphery, the material has minimal resistance and, in the center, the material has maximal resistance. So in the periphery, the Electric field will have a maximum speed and in center it has minimal speed. The external Electric current along surface will have the same direction as Electric field and electrons. Thus the internal Electric current will have the opposite direction to the Electric field and electrons(e-).*

*First invention is that the internal **Electric current is accelerated**, together with its internal Magnetic field. This is constructed by alternating the layers with minimal, with more and finally layer most maximum Resistance in decreasing widths of the layers. Because the Reverse wave as internal Electricity current is accelerated, it sucks in from out to inward (Law 6) accelerating Primary vortices (accelerating cool Quanta) and cools the central Tunnel. Thus the losses will tend to zero.*

*Second invention is the effect of cooling is stabled, if we run an Electric current with 50 hertz pulses, the losses also tend to zero. The reason is that the leading edge of the pulse which is decelerating and emits heat to the Tunnel (Law 5) is **balanced** by the trailing edge of the pulse which is accelerating and cools the Tunnel (Law 6).*

*As a result it is not necessary to increase **the Voltage** (to  $N \cdot 10^6$  volts) for the Super Conductor with an accelerating Central Cold Vortex Tunnel, that conducts 50 hertz, **in order to reduce losses**.*

## 1. Introduction

### 1.1. Axiom 1, Law 1, Law 5 and Law 6 according Open Vortex Theory

#### a) Axiom1 describes Open vortex

The decelerating motion of the real fluid as an Electric field contains a new phenomenon. It claims that decelerating vortex emits Open vortices outwards to the environment or to the neighboring lamellae .The Open vortex that is emitted to the environment is described by a new Axiom 1.

**Axiom1: For every Open vortex with tangent vector (E): div (rot E) is not (0).** Therefore, an Open vortex that is described as a divergence from the rotor of the vector E always is different from zero. Thus an Open vortex is described by monotonically variable velocity (Vvar) or velocity always is not constant.

**Result: An Open vortex is always uneven or velocity is not constant.**

#### b) Law1 for volume 3D

The open decelerating transverse vortex ( $E_{2D}^-$ ) from outward to in generates in center of 2D plane an perpendicular open accelerating longitudinal vortex ( $H_{3D}^+$ ) upward. This action takes place from the Gravity center (G) of decelerating cross vortex ( $E_{2D}^-$ ) through a particular transverse-longitudinal operator for transformation ( $\Delta 1$ ):

$$\Delta 1- \\ \text{Vor}(E_{2D}^-) \Rightarrow \text{Vor}(H_{3D}^+).$$

The particular transverse -longitudinal transformation ( $\Delta 1$ ) describes phenomena of Full Resonance -resonance in Space and Time, or resonance by amplitude phase and frequency.

#### c) Law 5 for volume 3D

The 3D longitudinal **decelerating** vortex is described by a multitude of 4 nonparametric equations in which: longitudinal velocity (V) decreases in (n) portions ( $1/f^n$ ) times; the amplitude (W), the angular velocity ( $\omega$ ) and the number (N) of transverse decelerating vortices in current wheel increase in (n) portions (f n) times:

$$V - V_0 / V = -1, W - W_0 / W = 1, \omega - \omega_0 / \omega = 1, N - N_0 / N = 1,$$

where linear velocity  $V_0$  is the starting value of  $v_n$ , amplitude of transverse vortex  $W_0$  is the starting value of  $w_n$ , angular velocity  $\omega_0$  is starting value of  $\omega_n$ , number  $N_0$  is starting value of  $n_n$ ,  $[n_n]$  is the closest integer:  $v_n, w_n$  and  $\omega_n$  are periodic roots with period n;  $v_n, w_n$  are mutual orthogonal that fulfill the orthogonal requirement:  $v_n \cdot w_n = V_0 \cdot W_0$ ;  $v_n, \omega_n$  are mutual orthogonal that fulfill the orthogonal requirement:  $v_n \cdot \omega_n = V_0 \cdot \omega_0$ ;  $n = 0 \div \infty$ ; the roots  $v_n, w_n$  and  $\omega_n$  and  $n_n$  are expressed as:  $v_n = (1/f_n) \cdot V_0, w_n = f_n \cdot W_0, \omega_n = f_n \cdot \omega_0, [n_n] = f^n \cdot N_0$ , (f) is Golden proportion that fulfills the requirement:  $f - (1/f) = 1$ , (Figure 1a) [2,3].

**Definition: An equation is nonparametric if it do not depend on external parameters.**

**Result: Decelerating vortex is described by 4 nonparametric equations that depend only of Golden proportion (f) [5].**

**Definition: For decelerating vortex the square of Golden proportion is:  $(f^2)^n = (w_n / v_n)$  equals the ratio between result and reason, or between current amplitude of the transverse vortex ( $W_n$ ) (as result) to the current longitudinal vector ( $V_n$ ) (as reason) [5].**

This means that after first point ( $n = 1$ ) amplitude of transverse vortex ( $W_n$ ) increases from (1) to (f) ( $f = 1,62$ ), but velocity of longitudinal vortrx ( $V_n$ ) decreases from (1) to  $(1/f)$  ( $1/1,62 = 0,62$ ).

**Result: The decelerating vortex transforms maximal velocity ( $V_1$ ) from starting ( $n_1$ ) point to a transverse wheel vortex with maximal radius ( $W_n$ ) in final (nth) point, and an angular velocity ( $\omega_n$ ) and radius of rotating wheel ( $W_n$ ) to maximal in final ( $n^{\text{th}}$ ) step.**

**Result: An decelerating vortex emits the Primary decelerating vortices (called decelerating Quanta) from itself to the outside or they emit warm to environment.**

#### d) Law6 for volume 3D

The longitudinal **accelerating** vortex in 3D is described by a multitude of 4 nonparametric equations in which: longitudinal velocity (V) **increases** in (n) portions ( $f^n$ ) times, the amplitude (W), the angular velocity ( $\omega$ ), and the number (N) of loops of transverse vortices **decrease** to zero in (n) portions ( $1/f^n$ ) times:

$$V - V_0 / V = 1, W - W_0 / W = -1, \omega - \omega_0 / \omega = -1, N - N_0 / N = -1,$$

where the linear velocity  $V_0$  is the starting value of  $V_n$ , amplitude of transverse vortex  $W_0$  is the starting value of  $w_n$ , angular velocity  $w_0$  is starting value of  $w_n$ , number  $N_0$  is starting value of  $n_n$ , the roots:  $v_n, w_n, \omega_n$  are periodic roots with period (n):  $v_n, w_n$  and  $\omega_n, n_n$  are expressed as:  $v_n = (f^n) \cdot V_0, w_n = (1/f^n) \cdot W_0, \omega_n = (1/f^n) \cdot \omega_0, n_n = (1/f^n) \cdot N_0$ ; (f) is a Golden proportion that fulfills the requirement:  $f - (1/f) = 1$ , (Figure 2a) [1,2].

**Definition: For accelerating vortex the square Golden proportion is:  $(f^2)^n = v_n / w_n$  equals the ratio between result to reason, or between the current longitudinal vector ( $V_n$ ) (as result) to current amplitude of the transverse vortex ( $W_n$ ) (as reason) [5].**

**Result: An accelerating vortex sucks in the Primary accelerating vortices (called accelerating Quanta) from the outside , environment towards itself.**

## 2. Super Conductor according new Open Vortex Theory

### 2.1. Construction of Super Conductor

**a) Super Conductor is orthogonal to the construction of Classical Conductor**

We saw that in the Classical Conductor central lamella has

maximal velocity due to minimal friction and Resistance, but in periphery lamella has minimal velocity due to maximal friction and Resistance [4]. Next we will construct the inverse Conductor: In the Super Conductor central material should has maximal Resistance, but in periphery (in border to environment) material should has minimal Resistance (Figure1a).

**Result: Construction of Super Conductor is just orthogonal to the construction of Classical Conductor**

Maximal Resistance in center we can achieve by using special alloy (kanthal) or ceramic. Minimal Resistance in periphery we can achieve by using conductive metals (copper).

**b) Inverse De-lamination**

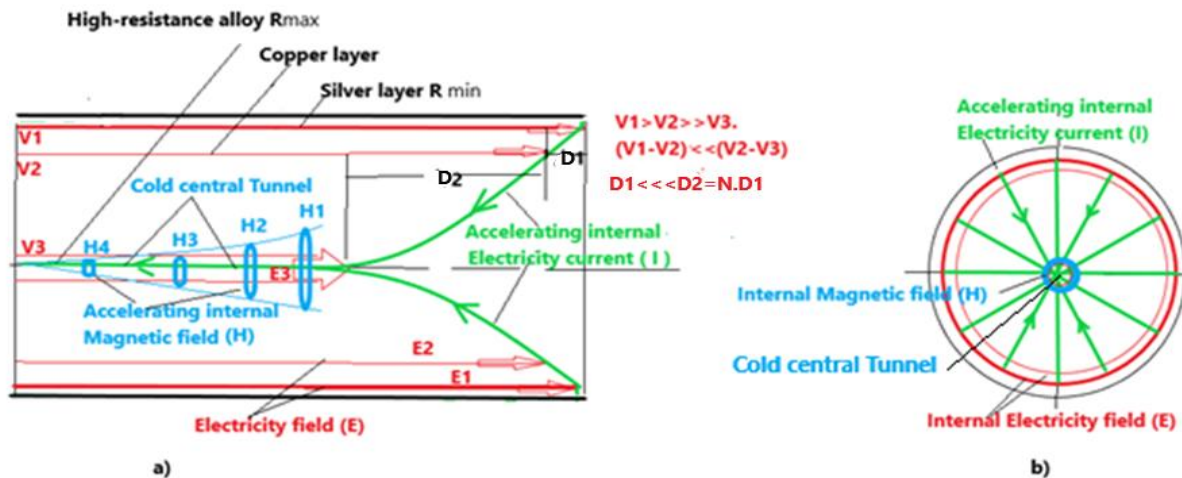
In Super Conductor the internal Electricity field de-laminates at vectors with different speeds. But inverse to Classical Conductor in center velocity  $V_1$  is minimal. It flow through so called internal Tunnel. The reason is that in center is displaced the material of high Resistance alloy (kanthal).

On both symmetrical sides are displaced two sharp bigger velocities  $V_2$ , because of less Resistance (suitable metal or alloy). On both symmetrical outer sides are displaced two biggest velocities  $V_3$ , because of least Resistance metal (copper) (Figure1a,b).

**Result: In Super Conductor the Electric current and corresponding Magnetic field are concentrated in central Tunnel instead in outside of Classical Conductor.**

**c) Accelerating Internal Electricity Current**

This invention introduces another improvement to the Super Conductor. This invention significantly increases the effect of Super Conductor by **reducing energy losses to zero**. This improvement consists in constructing and arranging the metal layers so that the internal Electric current in the form of a Reverse wave to become accelerating, rather than decelerating as in previous construction [4].



**Figure 1:** a) Accelerating internal Electricity current (I) and accelerating Magnetic field (H), b) Cold central Tunnel

**3. Case of a 50 hertz signal of Electricity current in Super Conductor**

**3.1. Skin Effect in Super Conductor**

**a) Skin Effect in Central Tunnel**

In case of 50 hertz impulses is appeared well known skin effect. In case of Classical Conductor this **skin effect** is expressed in concentration of Electric field pulsating with high frequency to surface of Conductor [1].

In the Super Conductor so called skin effect is expressed in concentration of Electric field pulsating with high frequency to central Tunnel of Super Conductor. The reason is that in central Tunnel is constructed by material with **maximal Resistance**. It concentrates internal Electric current pulses now to the left, now to the right along the central Tunnel. In fact it almost stands still.

**Result: The skin effect in Super Conductor is demonstrated by concentration of Electricity current in central Tunnel.**

**b) Skin effect in 50 hertz Electricity current**

Skin effect in 50 hertz Electricity current explains by the sequential cooling and heating of the Tunnel by the slopes of the pulses. This means that the lead front of pulse that is decelerating and warms (Law 5) the central Tunnel is **compensated** by trailer front of impulse that is accelerating and cool (Law 6) the central Tunnel. Therefore the skin effect of internal Electric current concentrates in central Tunnel and does not change the temperature of the Tunnel, because neither heats nor cools.

**Result: At 50 hertz Electric current in the central Tunnel is alternately cooled and heated**

At the **leading edge** of the pulse there is a negative acceleration.

The internal Electric current becomes decelerating. It emits Primary transverse decelerating vortices (decelerating Quanta) from the central Tunnel of the Super Conductor outward (Law 5) and it heats the medium. At the **trailing edge** of the signal pulse there is a positive acceleration. The internal Electric current becomes accelerating. It sucks in Primary transverse accelerating vortices (accelerating Quanta) from the environment around Tunnel of the Super Conductor towards itself (Law 6) and it cools the medium.

Therefore in the presence of 50 hertz pulses, this internal Electric current successively emits and heats then sucks and cools the central Tunnel.

**Result: The Super Conductor conducts 50 hertz the Electric current without losses.**

The 50Hz current has almost no effect on energy losses in the form of heating. The most important factor is the acceleration of the internal electric current. In previous developments, the internal electric current represented as a reverse wave was delayed. The reason is that:  $D1 > D2 = N \cdot D1$  [4]. Let the lamellae be constructed in the direction from the periphery to the center from the corresponding metals (or alloys) with increasing Resistances and decreasing thicknesses, so that:  $D1 < D2 < D3$  (Figure 1a). Then an accelerating internal Electric current will be obtained in the role of a Reverse wave.

### 3.2. Accelerating Internal Electricity Current

#### a) The Previous Decelerating Internal Electric Current

The thickness of the layers inside the Super conductor can be such that the internal Electric current with a direction from the periphery to the central Tunnel to be decelerating. But it has a small losses along central Tunnel according Law 5 [4].

If the internal Electric current is decelerating, it will slightly heat the central Tunnel. This heating will not be compensated by the action of the front decelerating and rear accelerating fronts of the 50 Hz pulsed electric current.

**Result: When 50 hertz Electric current is decelerating there is small Energy losses as warming.**

#### b) The New Proposal of Accelerating Electric Current

If the internal Electric current is accelerating, it will cool the central Tunnel. This cooling will not be change by decreasing (the cooling) of the accelerating rear front, neither will be change by increasing (warming) of the decelerating head front of the 50 Hz pulsed electric current (Figure 1a, b).

This effect is achieved by making the first peripheral layer of metal with minimum Resistance ( $R_{\min}$ ) and maximum thickness ( $D_{\max}$ ). The second layer of metal with slightly higher Resistance and slightly lower thickness. And the third (central) layer of metal or alloy that is with (N) times higher Resistance ( $N \cdot R_{\min}$ ) and (N) times lower thickness ( $D_{\max}/N$ ).

When we subtract the path of the second layer (S2) from the path

of the first layer (S1), we get:  $S2 - S1$ . When we subtract the path of the third layer (S3) from the path of the second layer (S2), we get:  $S3 - S2 = N(S2 - S1)$ . If:  $D1 = S2 - S1$ ,  $D2 = S3 - S2$ . In order for the Reverse wave to be accelerated, we must make:  $D2 = S3 - S2 \ll D1 = N \cdot (S2 - S1)$ . Thus the Reverse wave accelerates only in Space, not in Time (Figure 1a).

**Result: When second layer D2 lags behind in D1 (and so on):  $D2 \gg D1$ ,  $D2 = N \cdot D1$ , than the Reverse wave accelerates.**

This means that the Reverse wave that forms the internal Electric current is accelerated from the lamella to the lamella in Space, but not in Time.

**Result: The Reverse wave and the internal Electric current is accelerated in Space.**

According Law 6 of Open Vortex Theory during accelerating move the Reverse wave and internal Electric current suck in to themselves the accelerating Primary vortices as accelerating Quanta. Thus they cool the medium of central Tunnel and it becomes Cold.

This unique phenomenon is described by the Theory of Open Vortices when generating the proton. According to Law 2 of this Theory, the proton is generated by a longitudinal decelerating vortex in a 3D volume, which roles from the geometric center (G) outwards by an accelerating transverse vortex in a 2D plane from the inside-out. This transverse vortex is accelerating in Space (but not in Time), analogous to the accelerating Reverse wave in the Super Conductor.

**Result: When 50 hertz Electric current is accelerating the Energy losses tend to zero.**

If the internal Electric current is accelerating, it will cool the central Tunnel. This cooling will not be increased by the cooling of the accelerating rear front of the 50 Hz pulsed Electric current (Figure 1a, b).

**Result: The Super Conductor conducts 50 hertz accelerating Electric current through internal Cold Tunnel without losses.**

### 4. Conclusions

It is not necessary to increase the Voltage (for example to X.1000 kilovolts) in order to transport 50 hertz Electric current without losses by Classical Conductor. It is only necessary to construct:

- **A described in this report type Super Conductor with a structure orthogonal to the Classical Conductor.**
- **The metal layers should be of such a quality and thickness that the internal Electric current to be accelerating.**

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