

Distinct Electric and Magnetic Sources Identified

Ether causes magnetism, Atoms cause electricity, Current is momentum of ether and Atoms

Francis Viren Fernandes

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Distinct electric and magnetic substances exist in nature. A drifting atom or photon produces electricity and 186-ether drift produces magnetism. Drift velocity v is calculated by Maxwell's drift velocity equation. However drift velocity v cannot be restricted to the rare instance of motion or passage of electrons. Drift is herein defined as velocity squared. For matter such as atomic mass or photon mass drift is light speed c times drift velocity v . For 186-ether the drift is $v^{\#}$ times drift velocity v . Atomic mass is a frequency measure of one invariant oscillator that moves at the speed of light squared. Change in frequency of this invariant 737-mass yield the atomic masses of the periodic table. 186-ether torus mass is also invariant. The electric atom rolls in the moving magnetic 186-ether torus. This is electromagnetism. The locomotion of the toroid consisting of atom-ether tori is EM-drift.

Consider a current of 5.0 amps thru a copper wire of cross section area $5.0 \times 10^{-7} \text{ m}^2$.

Drift Velocity Formula: $I = n A v e$

Current, $I = 5.0$ amps

Number of copper atoms per meter cubed of copper wire, $n = 8.5 \times 10^{28}$

Cross section area of the copper wire, $A = 5.0 \times 10^{-7} \text{ m}^2$

Elementary charge, $e = 1.60217653 \times 10^{-19} \text{ C}$

Drift velocity, $v = 7.34295219 \times 10^{-4} \text{ m/s}$

Dividing the length of $2 \times 10^6 \text{ m}$ by 8.5×10^{28} particles we arrive at $R = 2.352941132 \times 10^{-23} \text{ m}$.

Clearly E/B changes from c to v because electric field E is constant while the magnetic field B measures different for $r = 9.6064088 \times 10^{-12} \text{ m}$ and $R = 2.352941132 \times 10^{-23} \text{ m}$ at $t = 3.20435306 \times 10^{-20}$. $B_1 = I/r$ and $B_2 = I/R$ and $c = r/t$ and $v = R/t$ where $E = I/t$ and $I=5\text{amps}$.

$F = Bqv$ and $F = qE$ and $B = I/R$ and $E = I/t$ and $F = I^2$ and $Q = It$ and $E/B = v$

Prior Knowledge

I postulated and Fermi labs 144GeV discovered [but know not] a 186-ether particle \wp characterized by mass m_{\wp} , radius B and elementary charge e .

I have proved that voltage is acceleration in 3 lines.

If voltage is acceleration then current squared is force and resistance constant at c/q or I/m .

The simple pendulum equation works when voltage replaces the term acceleration due to gravity g .

Field is just the additional rotation of $2\pi \times 137$ which separates the measures of Newton's force

$F = ma$ and electron volts eV as ea where acceleration a is due to gravity or voltage.

The ether velocity $v^\#$ is the component of Newton's Gravitation constant. Acceleration such as earth's acceleration is due to ether and stares at us in the form of $v^\# = B \times 10^7 / t$ and $(v^\#)^2 = G \times m^* / r$.

Under, 5 amp stress the mass of copper is changed from $1.05520602 \times 10^{-25}$ kg to m^*

The magnetic flux quantum,

$$\Phi = I \times \pi \times r \times 10^{-7} \times 137.036 = h / 2e \text{ under } I = 5 \text{ amp stress}$$

$$r = 9.6064088 \times 10^{-12} \text{ m} \text{ This length represents a wave length – spiral motion of a photon}$$

$$q^2 = m^* \times 9.6064088 \times 10^{-12} \text{ m}$$

The word current is misleading as it leads us to believe that current causes magnetism and magnetism causes current. This is completely off.

The acceleration or voltage of an atom or photon is easily calculated from its frequency f and supervelocity of SQID.

$$\text{Acceleration} = \text{Voltage} = 25812.8076 \times f$$

Correct Version

Momentum of ether is magnetism

Momentum of atoms or photons is electricity

Current is a measure of momentum of 6.24×10^{18} particles of 186-ether or atoms or photons

SIGNIFICANCE

If voltage is acceleration –

1. Electricity and Magnetism get their own identity as separate entities arising for atoms and 186-ether respectively.
2. Voltage equals acceleration due to gravity and the search for such a unity is over.
3. The biggest blunder in the history of physics and science is exposed in treating electron volts eV as energy when eVe is energy in Joules. Feynmann lectured on the idiocy of energy units.
4. There is one invariant mass whose energy equals the Planck constant under the condition of one second. The frequency of this mass measures as different atomic masses of the periodic table.

Data Table – For this particular investigation

Descriptor	Symbol	Value
Force – Current squared	I^2	25 A
Radius of Toroid	r	$9.6064088 \times 10^{-12}$ m
Drift distance travelled	R	$2.352941132 \times 10^{-23}$ m
Time period of the m^*	t	$3.20435306 \times 10^{-20}$ s
Changed Cu mass	m^*	$2.672142823 \times 10^{-27}$ kg
Drift velocity	$v = R / t$	$7.34295219 \times 10^{-4}$ m/s
Ether velocity	$v^\# = B \times 10^7 / t$ and $(v^\#)^2 = G \times m^* / r$	$4.3087263 \times 10^{-10}$ m/s
Speed of light	c	2.99792458×10^8 m/s
Magnetic field	$B_2 = I / R$	2.125×10^{23} A / m
Electric field	$E = I / t$	$1.56037737 \times 10^{20}$ A / s
Drift velocity	$v = E / B_2$	$7.34295219 \times 10^{-4}$ m/s
Magnetic F= Electric F =(Curent) ²	$F = B_2 q v = q E = I^2$	$25 A^2$
Current	$I = v^\# \times m_\phi / e$	5 A
186-ether mass	m_ϕ	$1.859222909 \times 10^{-9}$ kg
186-ether radius	B	$1.380668031 \times 10^{-36}$ m

DRIFT ENERGY E

For changed copper atomic mass m^*

$$\text{Energy} = \text{Force} \times \text{Distance} = E = I^2 \times R$$

$$E = 25 \text{ amps} \times 2.352941132 \times 10^{-23} \text{ m} = 5.88235283 \times 10^{-22} \text{ J}$$

$$E = m^* \times c \times v = 2.672142823 \times 10^{-27} \text{ kg} \times 2.99792458 \times 10^8 \text{ m/s} \times 7.34295219 \times 10^{-4} \text{ m/s}$$

$$E = 5.8854 \times 10^{-22} \text{ J}$$

For 186-ether mass m_{ϕ}

$$E = I^2 \times R$$

$$E = 25 \text{ amps} \times 2.352941132 \times 10^{-23} \text{ m} = 5.88235283 \times 10^{-22} \text{ J}$$

$$E = m_{\phi} \times v^{\#} \times v = 1.859222909 \times 10^{-9} \text{ kg} \times 4.3087263 \times 10^{-10} \text{ m/s} \times 7.34295219 \times 10^{-4} \text{ m/s}$$

$$E = 5.88761547 \times 10^{-22} \text{ J}$$

Thus the drift energy E of $5.88761547 \times 10^{-22} \text{ J}$ of the copper atom of changed frequency is equal to the drift energy of 186-ether.

DRIFT VELOCITY $v = E/B$ E is the electric field and B is the magnetic field

$$\text{Electric field } E = \frac{F}{q} = \frac{m^* \times a}{q} = \frac{I^2}{q}$$

$$a = \frac{c \times v^{\#}}{B \times 10^7} = \frac{c}{t} \quad \text{where B is the radius of } 1.380668031 \times 10^{-36} \text{ m of 186-ether}$$

Magnetic field B

$$B = \frac{I}{R} = \frac{v^{\#} \times m_{\delta}}{q} \times \frac{1}{R}$$

$$\frac{E}{B} = \frac{\frac{F}{q}}{\frac{I}{R}} = \frac{\frac{m^* \times a}{q}}{\frac{v^{\#} \times m_{\delta}}{q} \times \frac{1}{R}} = \frac{\frac{m^* \times \frac{c}{t}}{q}}{\frac{v^{\#} \times m_{\delta}}{q} \times \frac{1}{R}} = \frac{m^* \times \frac{c}{t}}{v^{\#} \times m_{\delta}} = \frac{m^* \times c}{m_{\delta} \times v^{\#}} \times \frac{R}{t} = v$$

$E/B = v$ The drift velocity

$$\frac{m^* \times c}{m_{\delta} \times v^{\#}} = 1 \quad \text{There is an equal momentum interaction between atomic mass } m^* \text{ and 186-ether}$$

Clearly the electric field is due to atomic mass m^* and the magnetic field due to 186-ether.

In fact it is safe to state that electricity is caused by atomic mass or photons and that magnetism is caused by 186-ether.

REFERENCES

http://www.worldsci.org/people/Francis_Fernandes