REVIEW ARTICLE

Inside the ELECTRON as PHYSICAL ETHERON

Denes Joo

Architect-Urbanist, Systemic Evolutions and Pyramids Independent Researcher, Budapest, Hungary.

Corresponding Author: Denes Joo, Architect-Urbanist, Systemic Evolutions and Pyramids Independent Researcher, Budapest, Hungary. Email: joodenes42@gmail.com. ADDITION NR. 5.

Abstract

Far from the „atomic thinking", within the etheronic conception all elements have inner sructure, inclusive the ETHERONS as start elements of the omnilevel Whole Periodic System, so the ELECTRON too, as PHYSICAL ETHERON. All ETHERONS being rotating TETRAHEDRONS, it's possible to clarify the inner structure and functioning through the characteristics of this basic geometrical form, the self-dual Platonic solid, inclusive within its turning inside out process. First of all, within the Creation of the ETHERON/ ELECTRON as MATTER-QUANTUM from the LIGHT-QUANTUM **ELBU** (**E**lemenrary **L**ight-**B**ubble **U**nity), we can distinguish 3 phases of the turning inside out of the ELBU-Tetrahedron into ETHERON-Tetrahedron, in conformity with the suitable RADII of the tetrahedral shperical elements, namely: 1. ELBU circumscribed, 2. Inner-etheronic, 3. Etheronic edge-tangent, 4. Etheronic circumscribed, corresponding to the 3 phases of the ETHERON-Creation: 1st) TAU-particle, the TERMIC component, 2nd) MUON, the Magnetic component, 3rd) ELECTRON, the Electric component, their quaternionic resultant/systemic summing being the Gravific component of the 4-componental Dirac-spinor, the most advanced mathematical description of the GRAVITATION within the series Scalar/Galilean, Vectorial/Newtonian, Tensorial/Eisteinian, Dirac-Spinorial. Theirs geometrical representations are the adjacent 4 flat tetrahedrons/triangular based pyramids with central vertex, the outer bordering triangular bases being the faces, and mass-centers in the ELBU-verticis, mentioning that the presented 3 NEUTRINOS of the Standard Model are the suitable LIGHT- components of the ELBU. Otherwise, from the successive activating of these 3 components results the Zitterbewegung, the trembling motion of the ELECTRON, including the inner and edge-tangent spheres of the ELBU too. So, inside the ELECTRON – as PHYSICAL ETHERON – there are included 2 QUATERNIONIC UNITS forming a BIQUATERNION, with theirs inner LIGHT/ELBU, respectively outer GRAVIFIC/PHOTONIC resultants.

Keywords: ELBU-Tetrahedron, ETHERON-Tetrahedron, Tauon, Muon, ELECTRON, GRAVITATION, PHOTON, BIQUATERNION, BION, MATTER, LIGHT, TESSERACT.

1. Introduction

Beyond the HUMAN level, within the DIVINE sphere starting from the 13D (the Hilbert-space of the Esoterics) of the Golden-series 1-1-2-3-5-8-13-21-34-55-89, took place the scientific-technological discoveries with social evolutionary implications, with a quasi-secular cyclicity of 111 years, at least in the last millenium AD: 999-1111-1222-1333-1444-1555-1666-1777-1888-1999 [1]. So, the notion of ELECTRON appeared initially in 1874 and 1881, presented by G.J. Stoney, and repeated finally in 1891 by J.J. Thomson, without any measuring or weighing.

This discovery being preceded by the rediscovery by J. Dalton in 1803-1808 of the connected ancient notion of ATOM, it was considered intuitively leighter and smaller than the ATOM. The weighing was realized in 1910 by Robert Millikan (M_e=9.1094x10^{-31} kg), but the measuring only in 1988 by Hans Dehmelt (R_e=/<10^{-22} m) [2] (**1,2**).

The research of the ELECTRON intensified after the clearing up trials of the ATOMIC structure, first of all by E. Rutherford (nuclear structure, 1911) and Niels Bohr (Solar system-like many-shelled structure, 1913), but referring especially to the adapting oneself

to the whole structure. The quantummechanic model of E. Schrödinger (1927) is based on the wave nature of the ELECTRON, promoted by Louis de Broglie [3], equivalent with W. Heisenberg's matricial model. However, the study of the structure of the ELECTRON itself is started after 1999/2000, in context of the GRAVITATION [4,10] and ETHERON [5], respectively the main radial electric and axial magnetic field characteristics, as well as of the massless propagating medium photon [6,7], Helical and Zitter models [8,9], but without meaningful result of a comprehensive model.

Based on the ROTATING TETRAHEDRAL model of the ELECTRON presented in [2], it is possible to penetrate into its interior and to clarify its main characteristics and its functioning.

2. Description

Starting from the supposition that the transforming of the ELBU into ETHERON/ELECTRON through turning inside out is a continuous process, it follows the conclusion that they form an INTEGRAL WHOLE, a seed-bud/DIVINE GERM included inside the suitable ROTATING TETRAHEDRON [2] (1,2). Considering the unity $R_e=1\times10^{-22}$ m the approximately radius of the ELECTRON – the radius of the circumscribed sphere of the rotating TETRAHEDRON – measured by Hans Dehmelt in 1988, the characteristic radii of the ELECTRON, respectively ELBU components result as follows (in accord with the notations and rounded results from [2]:

- Electronic edge-tangent radius: $r_{te}=R_e/\sqrt{3}=0.577R_e$;
- Electronic bisector-tangent radius: $r_e=R_e/3=0.333R_e$;
- ELBU circumscribed radius: $R_E=R_e/5=0.200R_e$;
- ELBU edge-tangent radius: $r_{TE}=R_e/7=0.141R_e$;
- ELBU bisector-tangent radius: $r_E=R_e/9=0.111R_e$.

Corresponding to these radii, the turning inside out of the ELBU-like components/light leptons into ELECTRONIC ones/matter-leptons takes place in 3 phases, the corresponding „particles" – fastened state denominations – within the **Standard Model**, as quaternionic components of the 3-interactional GRAVIFIC systemic resultant being (3):

1. TAU-particle, the TERMIC component, from its circumscribed radius R_E to the Electronic inner/bisector radius r_e of the ROTATING TETRAHEDRON,

2. MUON, the MAGNETIC component, from the r_e

to the Electronic edge-tangent radius r_{te} of the ROTATING TETRAHEDRON,

3. ELECTRON, the ELECTRIC component, from the r_{te} to the outer/circumscribed radius R_e of the ROTATING TETRAHEDRON.

The quaternionic GRAVIFIC RESULTANT of these components represented geometrically by the 3 flat triangular Pyramids/Tetrahedra of the regular ELECTRON-tetrahedron, with central peaks and outer triangular bases, is represented by the 4th flat pyramidal Tetrahedron, respectively they together – as the 4-componental DIRAC-SPINOR – form the description of the **GRAVITATION** with its **PHOTONIC „particle"**, contrary to the erroneous consideration from 1905, that the PHOTON is the „particle" of the LIGHT, **the LIGHT-particle being the ELBU**, more exactly of the **bright Light**, because that of the **dark Light** are the **3 Neutrinos!** In this sence, these 3 GRAVITATIONAL components are photo-electric, photo-magnetic and photo-termic ones, as RADIAL components, with the levogyre and dextrogyre VORTICIAL, respectively with the introverted and extroverted POLAR components together – each with alternating disposition of the scalar/inner, vectorial/middle, tensorial/outer complexity components – forming the SPINORIAL/GRAVIFIC/PHOTONIC/MATERIAL quaternionic part of the whole ELBU-ELECTRONIC structure (2,3).

The LIGHT/ELBU inner quaternionic part is similarly structured, from the CENTRE to the ELBU-like bisector-tangent radius r_E the TAU NEUTRINO, from the r_E to the ELBU-like edge-tangent radius r_{TE} the MUON NEUTRINO, and finally from the r_{TE} to the ELBU-like circumscribed radius R_E the ELECTRON NEUTRINO. The GRAVIFIC and LIGHT quaternions together form a CLIFFORD-like BIQUATERNION, represented geometrically as the quaternionic unities of the 2 opposed peaks/vertexes of a cube/hexahedron, with each another perpendicular complex vectors on the suitable edges and contrary oriented common diagonal-pair, like the Octave-law model (4). While the ELBU is bright Light, the Neutrino is dark Light.

These two quaternionic components form the BOUND STATE, as half spinning FERMIONS of the integral new ELBU-ELECTRONIC structure – namely of the proposed new **ETHERONIC-ELECTRONIC STANDARD MODEL (3)** – consists on the one hand by the FORMING ELECTRONS/ETHERONS in form of Light-leptons turning inside out into Matter-

leptons, on the other hand by BOUND ELECTRONS/ ETHERONS in form of 2-third quarks of the chemical elements turning outside in into 1-third quarks, followed the dissociation of the Matter-leptons.

The right half of the proposed **ETHERONIC-ELECTRONIC STANDARD MODEL (3)**, as result of the radically transformation – **based on the ETHERONIC THEORY** – of the actually recognized intuitively elaborated ambiguous STANDARD MODEL, includes the FREE STATE as integer spinning BOSONS, namely the lightseedless FREE ETHERONS (Photons, Gluons, Bosons), respectively the really Light-particles, the transformingless FREE ELBUS. Referring to the Scalar-Vector-Tensor-Spinor complexity degrees, they result directly from the spherical model itself, the spherical center being a Scalar entity, the Vector being its radius, the Tensor its curvature, respectively the Spinor being the resultant of the spinning motion of the sphere.

Referring to the notion **ETHERON**, beyond the generalized meaning of start element of the 7 cosmic octavic evolutionary levels, its second generalization refers to the elementary components of the chemical elements, in conformity with the Standard Model proposals **(3,10)**.

Within the turning outside in process of the ELECTRON/ETHERON into ELBU it takes place the simultaneous disappearing of the GRAVIFIC resultant with its Electric-Magnetic-Termic components together, remaining only the ELBU with its 3 LIGHT-components, dispersed in form of LIGHT-disc with infinit radius, followed by the helical and toroidal phases, from which starts the new ETHERON-Creation cycle, on each cosmic evolutionary level **(5,6)** **[11,12]**.

The basic TETRAHEDRAL form is present not only by the ETHERONIC and LIGHTSEED structure, but by the joining of the core and coating of the chemical elements too, in form of TESSERACT/4D CUBE/ HYPERCUBE VERTEX-FIGURES **(7,10)**. Because in the same time a REGULAR TETRAHEDRON can be inscribed inside a TESSERACT as VERTEX-FIGURE, it will functioning as DISPHENOID TETRAHEDRON too. Such a Disphenoid is the geometrical pattern of the **BION**, but with Möbius-band-like spinorial functioning within a whole Big Cycle.

After the publishing of the Whole Periodic System in 2015 (**denesjoo.wordpress.com**), within the IUPAC 2019 Congress 10-12 July 2019 Paris, France was introduced first times the BION in the CHEMISTRY [1], followed by the extending of its role within the ETHERONIC BELT (**8**) as regulator between the 558 chemical elements of the proposed Whole Periodic System, respectively inside the all 7 Big Cosmic Octavic Levels (**9**).

Referring to the **STANDARD MODEL**, its first phase started with a squared matricial form (2x2) with quarks, between 1964-1970, the second (4x4) phase with introduction of the leptons between 1970-2000, and the third (6x6) phase with bionic extension starts in 2025, so the actually recognized form is transitional, respectively the next phase will be (8x8) form (**3,10**).

This prevision is based on a similar interaction-succession, when some years ego I elaborated the extension of the Standard Model [**11**], resulting the same unification of the Electric-Magnetic-Termic-Gravific components (**F1, F2**), but this proposal exceeds the scope of the present short synthesis.

3. Conclusions

From the above considerations results that the doubly generalized **ETHERON** is a very-very complex/ multilateral/multifunctional REALLY DIVINE DUAL QUANTUM, **„THE QUANTUM"**, including the **Light-seed**, and beyond it the **Bion** too, within the **Matter-Light-Bion** system.

After the determining of both „particles"/quanta, of the LIGHT and of the MATTER, in form of smaller, respectively larger and opposed REGULAR TETRAHEDRA, based on theirs geometric elements we can determine the main characteristics and functioning of the suitable elements of the Standard Model, namely of the 3 LEPTON generations ELECTRON, MUON, TAU and theirs corresponding ELECTRIC, MUONIC and TAU NEUTRINIC pairs, respectively similarly the other fermion and boson pairs. With introduction of the **TESSERACT** (discovered in 1888 by Charles Howard HINTON) as **hypercube/4D cube/cube-in-cube** joining element between the core and coating of the „chemical" elements of any cosmic level and any of the both structural variants – nucleonic and bionic –, it is realized a **dimensional spring** from the **3D** to the **4D**, namely the **BIONIC SPRING**, in conformity with the Bionic Extended Standard Model (6x6). The next **dimensional step** will be the introduction of the **5D cube/cube-in-cube-in-cube**, with extension to the **neural elements realizing the NEURONIC SPRING** from the **4D** to **5D**, within the Neuronic Extended Standard Model (8x8).

The geometrical expression of the **bionic code** is the same tetrahedral **etheronic MATTER-LIGHT pattern inscribed in 4D cube**, of which any edge and one of the etheronic regular tetrahedral edges are superposed. Similarly, this **MATTER-LIGHT-BION pattern inscribed in 5D cube**, results the **MATTER-LIGHT-BION-NEURON pattern** of the next **Extended Standard Model**. The basic pattern in any case will be the rotating tetrahedron complex, in form of simple Light-Matter Tetrahedral Unity in the 3D, but as vertex figure in the 4D and 5D.

4. References

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5. Figures and Tables

(**1**) – Sketch of the Etheron and ELBU Tetrahedron

(**2**) – Main Data of the Etheron and ELBU Tetrahedron

(**3**) – Etheronic-Electronic Standard Model Proposal

(**4**) – Octave-Law Pattern

(**5**) – Conic-Toroidal Cosmic Evolutionary Model

(**6**) – Dynamic Dual (DD) Cosmic Evolutionary Model

(**7**) – Detailing of the Subphysical and Physical Levels

(**8**) – Detailing of the Physical Cosmic Evolutionary Level

(**9**) – Mass-Approximations of the Cosmic Levels' Elements

(**10**) – Bionic Extended Standard Model (6x6)

F1 – Matter-Creation Mechanism – Extended Merka-ba

F2 – Extended Standard Model (8x8).

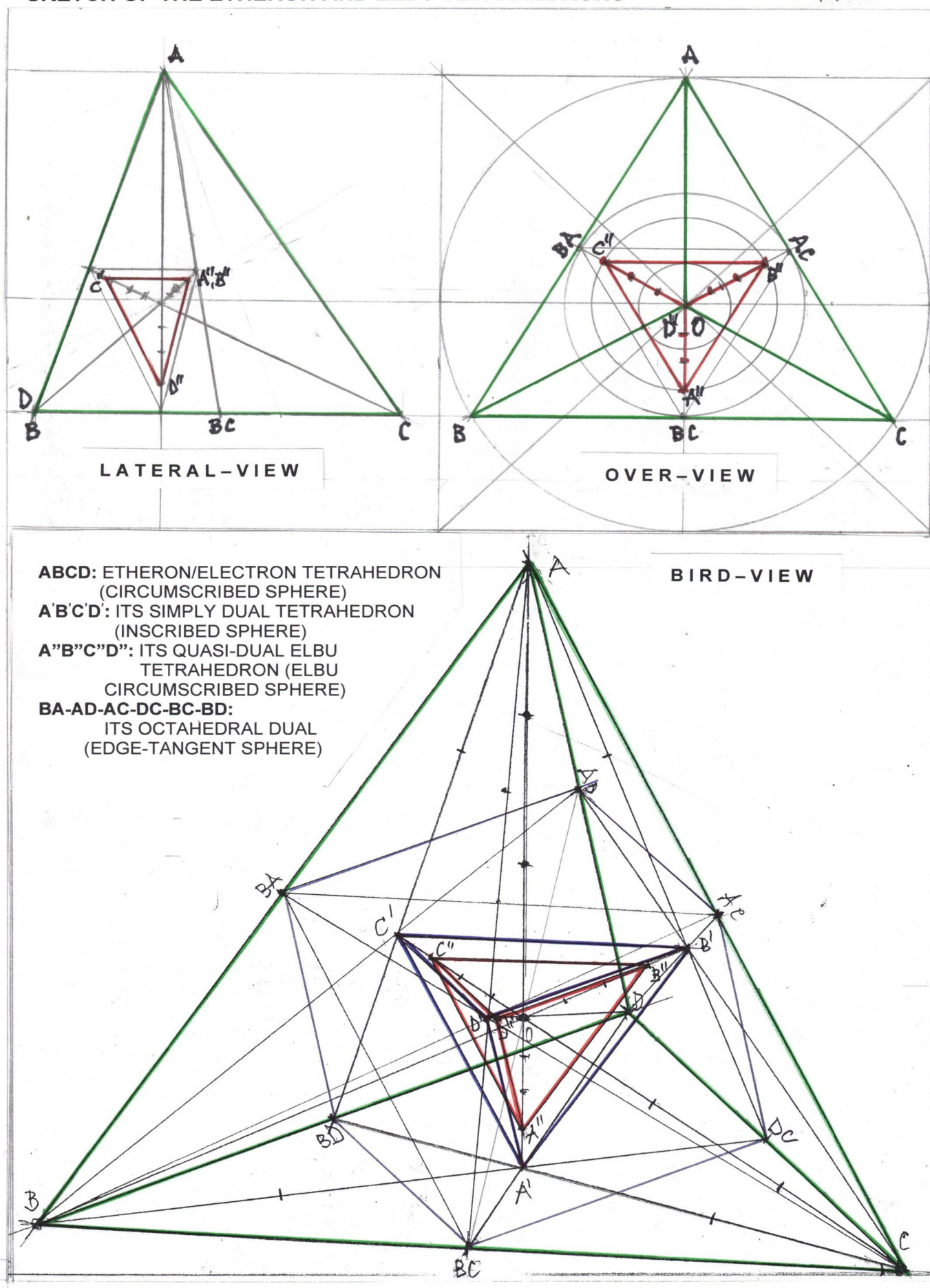## SKETCH OF THE ETHERON AND ELBU TETRAHEDRONS (1)

LATERAL–VIEW

OVER–VIEW

BIRD–VIEW

ABCD: ETHERON/ELECTRON TETRAHEDRON
(CIRCUMSCRIBED SPHERE)
A'B'C'D': ITS SIMPLY DUAL TETRAHEDRON
(INSCRIBED SPHERE)
A"B"C"D": ITS QUASI-DUAL ELBU
TETRAHEDRON (ELBU
CIRCUMSCRIBED SPHERE)
BA-AD-AC-DC-BC-BD:
ITS OCTAHEDRAL DUAL
(EDGE-TANGENT SPHERE)

Figure (01) – *Sketch of the Etheron and ELBU Tetrahedron*

MAIN DATA OF THE ETHERON AND ELBU TETRAHEDRON (2)

DETAILING OF THE LIGHTSEED

APPROXIMATE SPHERICAL RADII

TETRAHEDRON:

$R_e = 1 \times 10^{-22}$ m (R_{VERTEX})
CIRCUMSCRIBED SPHERE

$r_{te} = R_e/\sqrt{3} = 0.577\ R_e$ (r_{EDGE})
EDGE-TANGENT SPHERE

$r_e = R_e/3 = 0.333\ R_e$ ($r_{BISECTOR}$)
BISECTOR-TANGENT SPHERE

ELBU (Elementary Light-Bubble Unity)

$R_E = R_e/5 = 0.200\ R_e$ (R_{VERTEX})
CIRCUMSCRIBED SPHERE

$r_{TE} = R_e/7 = 0.141\ R_e$ (r_{EDGE})
EDGE-TANGENT SPHERE

$r_E = R_e/9 = 0.111\ R_e$ ($r_{BISECTOR}$)
BISECTOR-TANGENT SPHERE
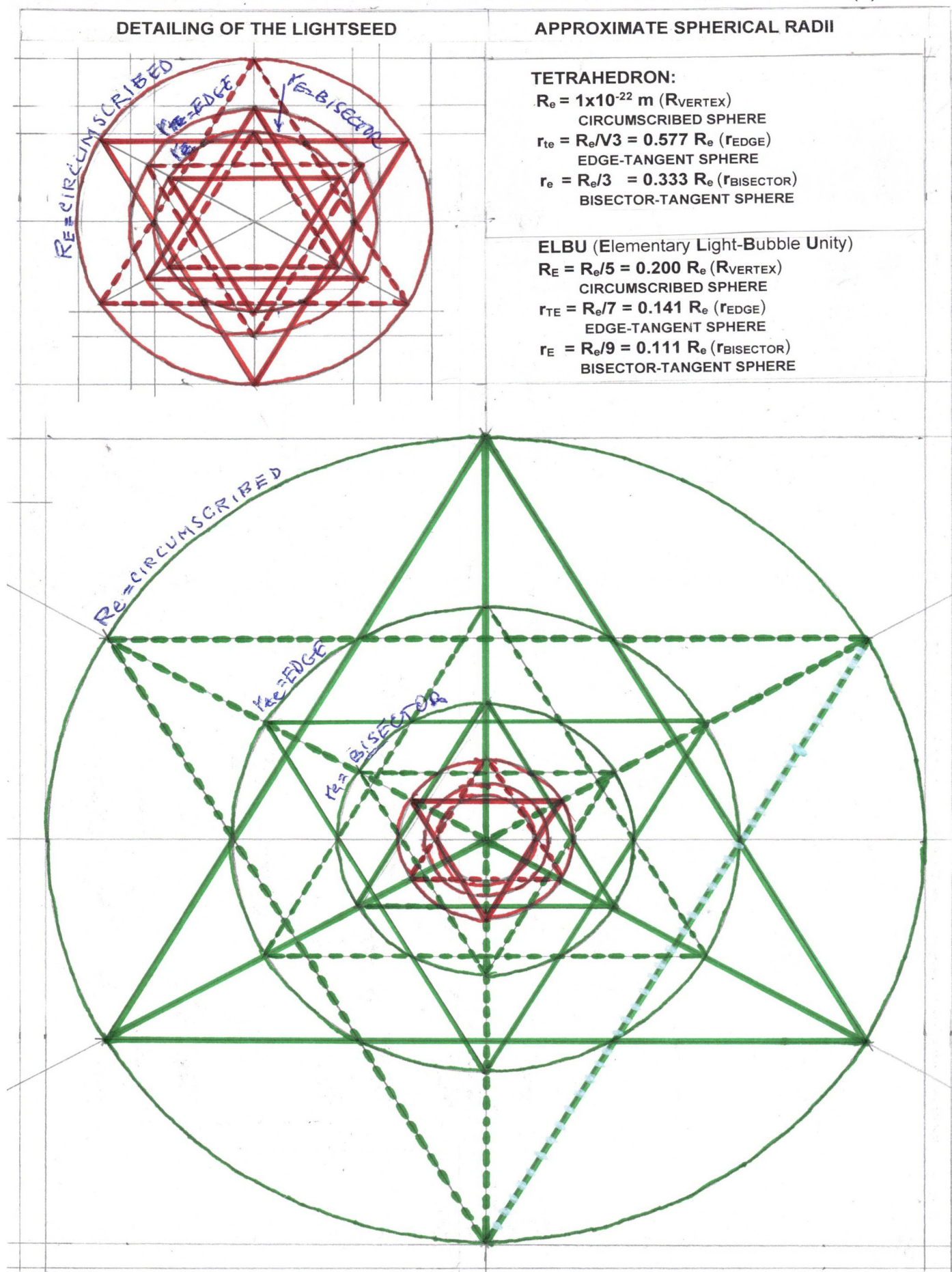
Figure (02) – *Main Data of the Etheron and ELBU Tetrahedron*

Figure (03) – *Etheronic-Electronic Standard Model Proposal*
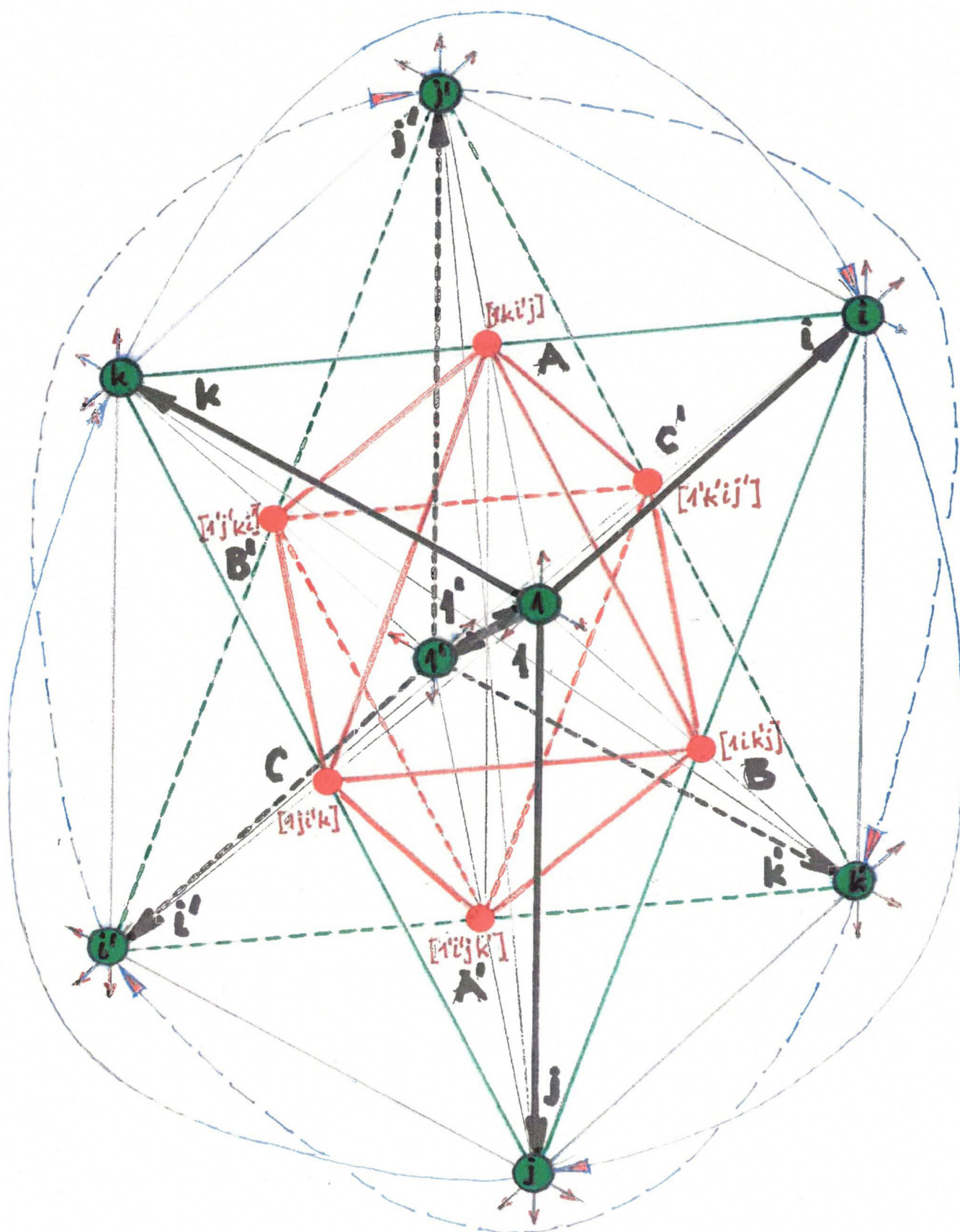
Figure (04) – *Octave-Law Pattern*
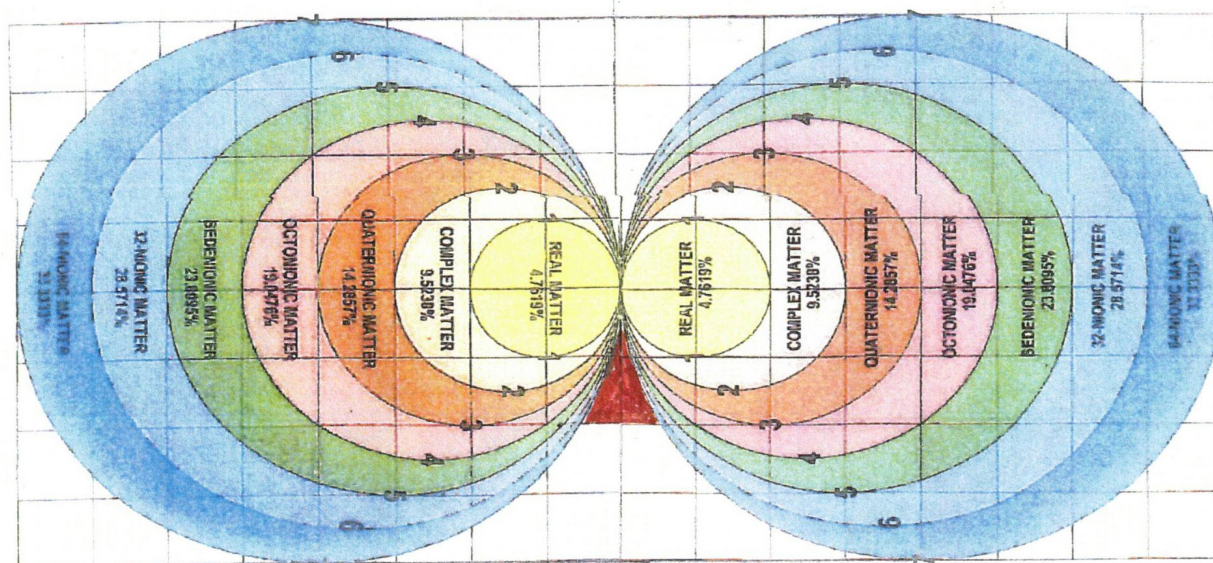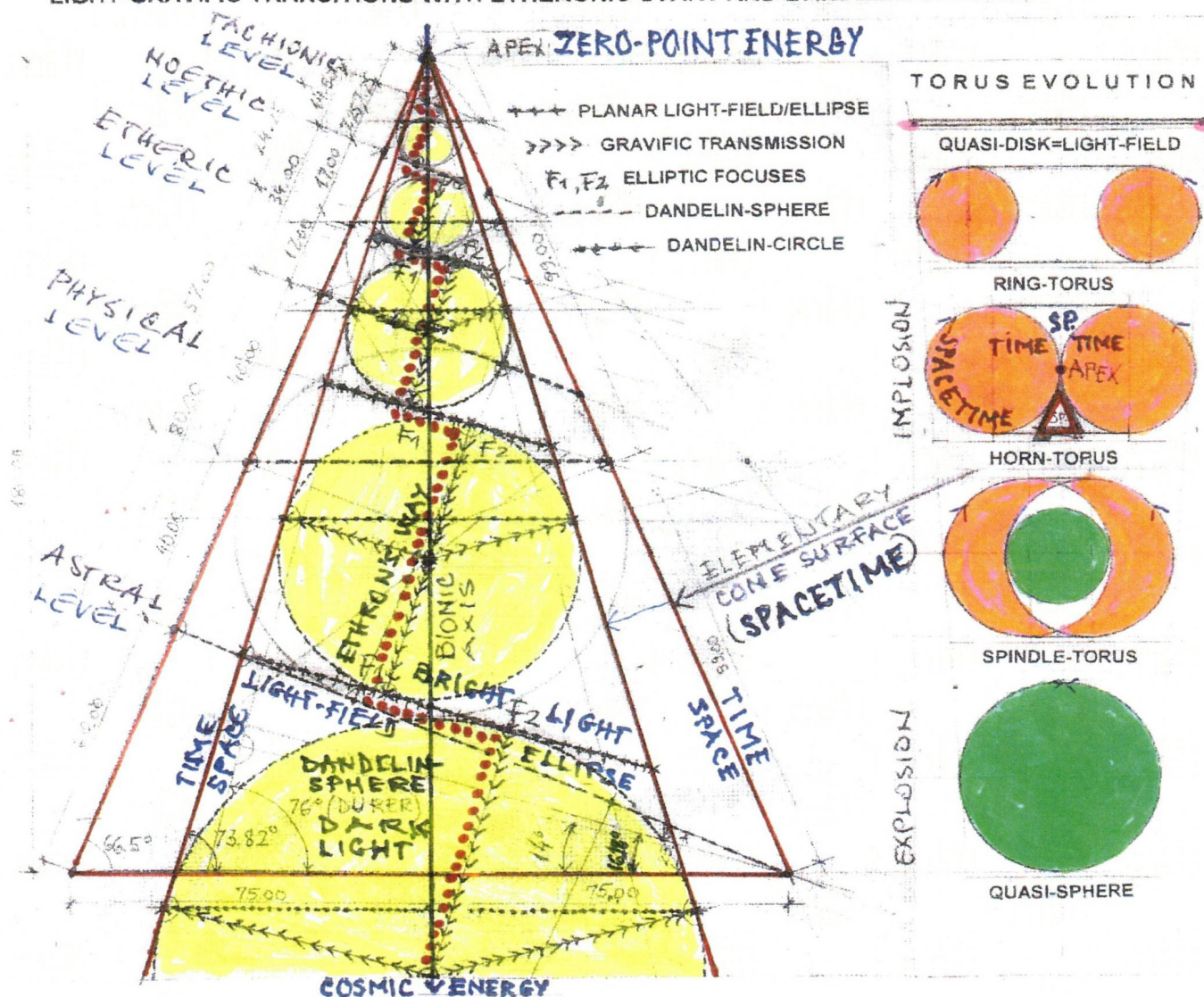
Figure (05) – *Conic-Toroidal Cosmic Evolutionary Model*

Figure (06) – *Dynamic Dual (DD) Cosmic Evolutionary Model*

DETAILING OF THE SUBPHYSICAL AND PHYSICAL LEVELS (7)

Figure (07) – *Detailing of the Subphysical and Physical Levels*

Figure (08) – *Detailing of the Physical Cosmic Evolutionary Level*

MASS-APPROXIMATIONS OF THE COSMIC LEVELS' ELEMENTS (9)

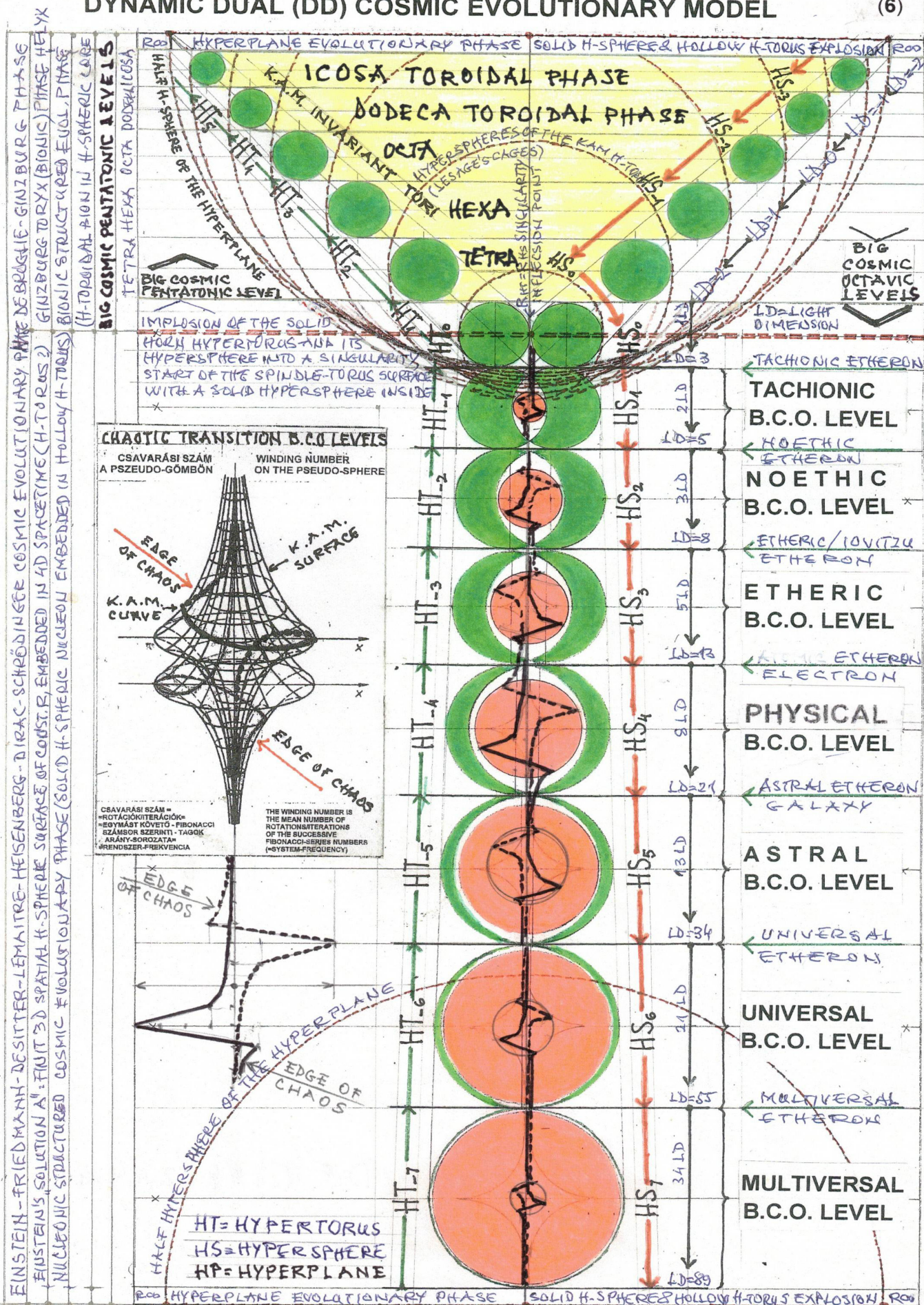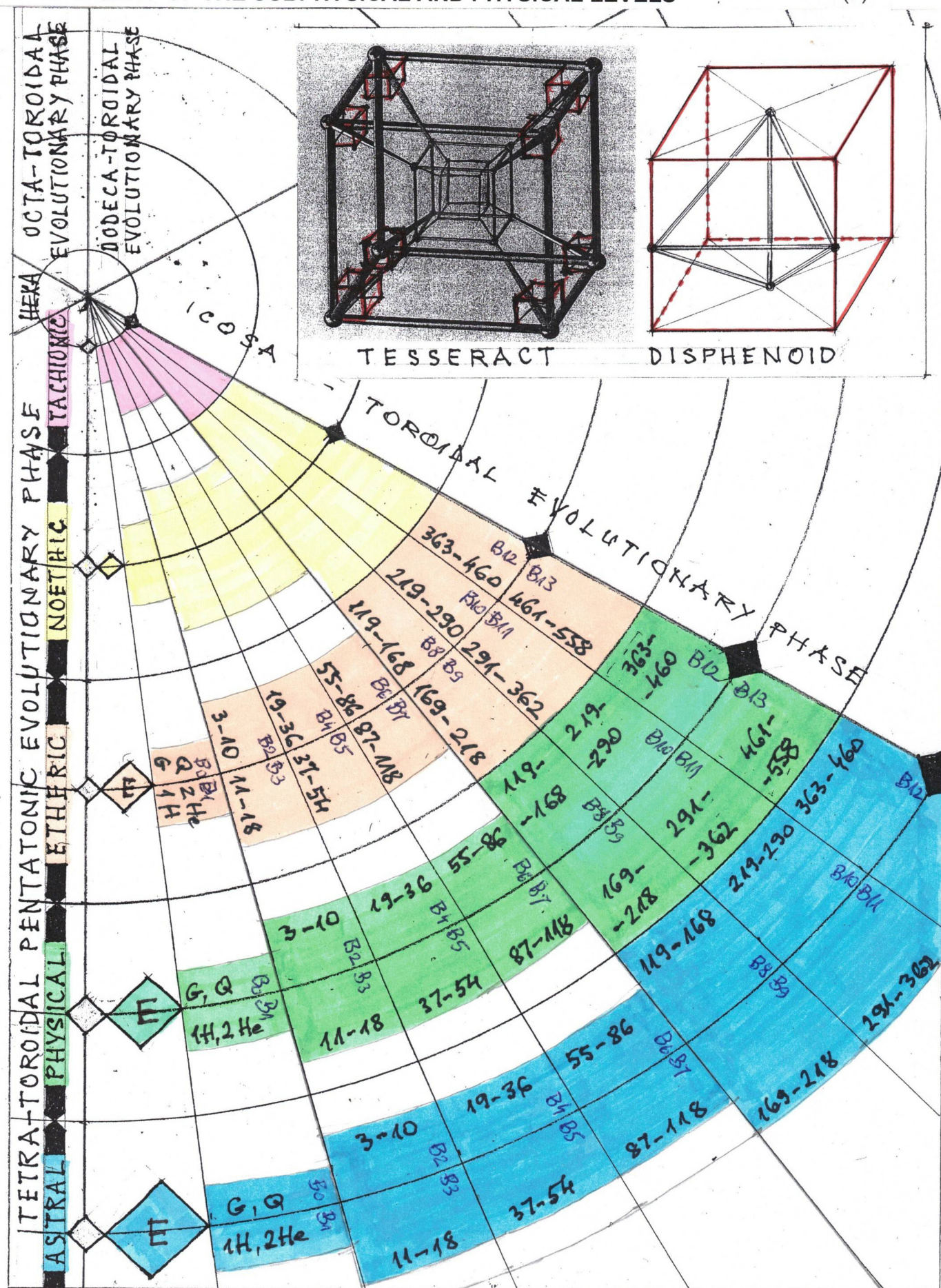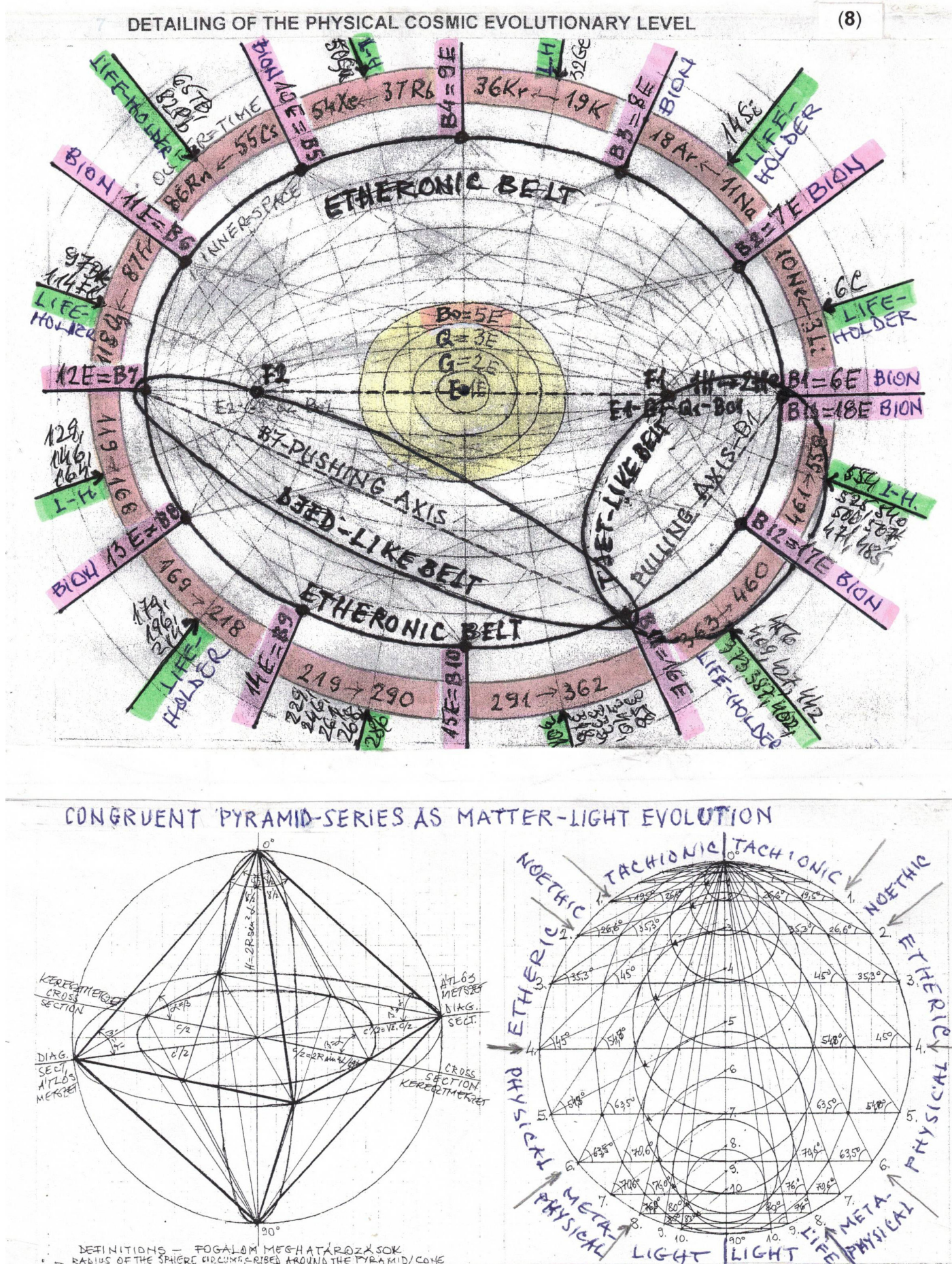| LEVEL STRUCTURE	TACHIONIC COSMIC RATIO	NOETHIC 6.75×10^{34}	ETHERIC 6.75×10^{36}	PHYSICAL 6.75×10^{38}	ASTRAL 6.75×10^{40}	UNIVERSAL 6.75×10^{42}	MULTIVERSAL 6.75×10^{44} MASS [KG]
ETHERON	2.96×10^{-141}	1.999×10^{-106}	1.348×10^{-69}	9.109×10^{-31}	6.150×10^{10}	4.19×10^{53}	2.802×10^{98}
GLUON	5.923×10^{-141}	3.998×10^{-106}	2.699×10^{-69}	1.822×10^{-30}	1.230×10^{11}	8.303×10^{53}	5.604×10^{98}
QUARK	8.884×10^{-140}	5.997×10^{-105}	4.048×10^{-69}	2.733×10^{-30}	1.845×10^{11}	1.245×10^{54}	8.404×10^{98}
BION B₀	1.481×10^{-139}	9.995×10^{-105}	6.747×10^{-69}	4.555×10^{-30}	3.075×10^{11}	2.076×10^{54}	1.401×10^{99}
HYDROGEN	8.410×10^{-138}	5.677×10^{-103}	2.473×10^{-66}	1.674×10^{-27}	1.130×10^{14}	7.627×10^{56}	5.148×10^{101}
HELIUM	3.647×10^{-137}	2.462×10^{-102}	9.848×10^{-66}	6.648×10^{-27}	4.487×10^{14}	3.030×10^{57}	2.045×10^{102}
POST-He B₁	$\sim10^{-137}$	$\sim10^{-102}$	$\sim10^{-66}$	$\sim10^{-27}$	$\sim10^{14}$	$\sim10^{57}$	$\sim10^{102}$
NEON	1.089×10^{-136}	7.353×10^{-102}	4.963×10^{-65}	3.351×10^{-26}	2.262×10^{15}	1.527×10^{58}	1.031×10^{103}
POST-Ne B₂	$\sim10^{-136}$	$\sim10^{-102}$	$\sim10^{-65}$	$\sim10^{-26}$	$\sim10^{15}$	$\sim10^{58}$	$\sim10^{103}$
ARGON	2.157×10^{-136}	1.456×10^{-101}	9.83×10^{-65}	6.633×10^{-26}	4.478×10^{15}	3.023×10^{58}	2.040×10^{103}
POST-Ar B₃	$\sim10^{-136}$	$\sim10^{-101}$	$\sim10^{-65}$	$\sim10^{-26}$	$\sim10^{15}$	$\sim10^{58}$	$\sim10^{103}$
KRYPTON	4.523×10^{-136}	3.053×10^{-101}	2.06×10^{-64}	1.391×10^{-25}	9.393×10^{15}	6.341×10^{58}	4.280×10^{103}
POST-Kr B₄	$\sim10^{-136}$	$\sim10^{-101}$	$\sim10^{-64}$	$\sim10^{-25}$	$\sim10^{15}$	$\sim10^{58}$	$\sim10^{103}$
XENON	7.087×10^{-136}	4.784×10^{-101}	3.229×10^{-64}	2.180×10^{-25}	1.471×10^{16}	9.935×10^{58}	6.706×10^{103}
POST-Xe B₅	$\sim10^{-136}$	$\sim10^{-101}$	$\sim10^{-64}$	$\sim10^{-25}$	$\sim10^{16}$	$\sim10^{59}$	$\sim10^{104}$
RADON	1.198×10^{-136}	8.089×10^{-101}	5.461×10^{-64}	3.687×10^{-25}	2.490×10^{16}	1.681×10^{59}	1.135×10^{104}
POST-Rn B₆	$\sim10^{-136}$	$\sim10^{-101}$	$\sim10^{-64}$	$\sim10^{-25}$	$\sim10^{16}$	$\sim10^{59}$	$\sim10^{104}$
OGANESSON	1.595×10^{-135}	1.077×10^{-100}	7.231×10^{-64}	4.882×10^{-25}	3.296×10^{16}	2.225×10^{59}	1.502×10^{104}
POST-Og B₇	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-64}$	$\sim10^{-25}$	$\sim10^{16}$	$\sim10^{59}$	$\sim10^{104}$
ELEM. 168	1.708×10^{-135}	1.153×10^{-100}	1.033×10^{-63}	6.974×10^{-25}	4.708×10^{16}	3.178×10^{59}	2.145×10^{104}
POST-168 B₈	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-25}$	$\sim10^{16}$	$\sim10^{59}$	$\sim10^{104}$
ELEM. 218	2.942×10^{-135}	1.986×10^{-100}	1.341×10^{-63}	9.050×10^{-25}	6.109×10^{16}	4.124×10^{59}	2.784×10^{104}
POST-218 B₉	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-24}$	$\sim10^{16}$	$\sim10^{59}$	$\sim10^{104}$
ELEM 290	3.912×10^{-135}	2.641×10^{-100}	1.783×10^{-63}	1.204×10^{-24}	8.126×10^{16}	5.486×10^{59}	3.703×10^{104}
POST 290 B₁₀	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-24}$	$\sim10^{17}$	$\sim10^{59}$	$\sim10^{104}$
ELEM 362	4.884×10^{-135}	3.297×10^{-100}	2.226×10^{-63}	1.503×10^{-24}	1.014×10^{17}	6.848×10^{59}	4.622×10^{104}
POST-362 B₁₁	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-24}$	$\sim10^{17}$	$\sim10^{60}$	$\sim10^{105}$
ELEM. 460	2.830×10^{-135}	1.910×10^{-100}	2.829×10^{-63}	1.910×10^{-24}	1.289×10^{17}	8.702×10^{60}	5.874×10^{105}
POST-460 B₁₂	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-24}$	$\sim10^{17}$	$\sim10^{60}$	$\sim10^{105}$
ELEM. 558	7.530×10^{-135}	5.083×10^{-100}	3.431×10^{-63}	2.312×10^{-24}	1.564×10^{17}	1.056×10^{60}	7.128×10^{105}
POST-558 B₁₃	$\sim10^{-135}$	$\sim10^{-100}$	$\sim10^{-63}$	$\sim10^{-24}$	$\sim10^{17}$	$\sim10^{60}$	$\sim10^{105}$

N. YARKONI'S "MAGIC SCIENCE": FIRST PHYSICAL ATOM = 1.3814×10^{10} ELBU ≡ TACHIONIC ETHERON = 2.961×10^{-141} KG : 1.3841×10^{10} ELBU = 2.139×10^{-151} KG/ELBU (CORRECTED)

Table (09) – *Mass-Approximations of the Cosmic Levels' Elements*

BIONIC EXTENDED STANDARD MODEL (6x6)   (10)

BOUND STATE – FERMIONS (HALF SPIN)   **FREE STATE – BOSONS (INTEGER SPIN)**

	R_{VERTEX}	r_{EDGE}	$r_{BISECTOR}$	R_{VERTEX}	r_{EDGE}	$r_{BISECTOR}$
2-THIRD QUARKS	≃ 2.2 MeV, +2/3, 1/2 **u** up	≃ 1.3 GeV, +2/3, 1/2 **c** charm	≃ 173 GeV, +2/3, 1/2 **t** top	≃ 80.4 GeV, ±1, 1 **W** W boson	≃ 91.2 GeV, 0, 1 **Z** Z boson	≃ 125 GeV, 0, 0 **H** Higgs	BOSONS
1-THIRD QUARKS	≃ 4.7 MeV, −1/3, 1/2 **d** down	≃ 96 MeV, −1/3, 1/2 **s** strange	≃ 4.2 GeV, −1/3, 1/2 **b** bottom	0, 0, 1 **g₁** gluon	0, 0, 1 **g₂** gluon	0, 0, 1 **g₃** gluon	GLUONS
MATTER-LEPTONS	≃ 0.511 MeV, −1, 1/2 **e** electron	≃ 106 MeV, −1, 1/2 **μ** muon	≃ 1.777 GeV, −1, 1/2 **τ** tau	0, 0, 1 **γ₁** photon	0, 0, 1 **γ₂** photon	0, 0, 1 **γ₃** photon	PHOTONS
LIGHT-LEPTONS	< 1.0 eV, 0, 1/2 **νe** electron neutrino	< 0.17 eV, 0, 1/2 **νμ** muon neutrino	< 18.2 MeV, 0, 1/2 **ντ** tau neutrino	**L1** ELBU	**L2** ELBU	**L3** ELBU	LIGHT – ELBUS
POLAR DISPOSITION	**B1**	**B2**	**B3**	**B9**	**B8**	**B7**	EQUATORIAL DISPOSITION
	B12	**B11**	**B10**	**B4**	**B5**	**B6**	

Left margins: MATTER — BOUND ETHERONS (TURNING OUTSIDE IN); LIGHT — FORMING ETHERONS (TURNING INSIDE OUT); BION — RISING PHASE, DISPHENOID TETRAHEDRON

Right margins: FREE ETHERONS (LIGHTSEEDLESS) MATTER; FREE ELBUS LIGHT; FALLING PHASE BION

BIONIC GEOMETRY

DISPHENOID TETRAHEDRON INSIDE THE 4D TESSERACT EDGE-CUBE

START AND EVOLUTION OF THE STANDARD MODEL

STANDARD MODEL (4X4) 1970 – 2000

STANDARD MODEL (2X2) 1964 - 1970

UP **u** 1964	CHARM **c** 1970	TOP **t** 1995	GLUON **g** 1964
DOWN **d** 1964	STRANGE **s** 1964	BOTTOM **b** 1977	PHOTON **γ** 1905
UP **u** 1964	CHARM **c** 1970	ELECTRON **e** 1897	MUON **μ** 1936	TAU **τ** 1976	W BOSON **W** 1983
DOWN **d** 1964	STRANGE **s** 1964	EL.NEUT **νe** 1956	MU.NEUT **νμ** 1956	TA.NEUT **ντ** 2000	Z BOSON **Z** 1973

Table (10) – *Bionic Extended Standard Model (6x6)*

Figure (F1) – *Matter-Creation Mechanism – Extended Mer-ka-ba*

EXTENDED STANDARD MODEL (8×8)   F2

F2.1 – QUADRATIC/MATRICIAL DIAGRAM

CLOSED-TRANS-OPEN   WAVE-POCKETS

	UPPER QUARK— GLUONIC PHOTON FIELD							
	L^1_{UL}	L^2_{UL}	L^3_{UL}	P_1	P_2	L^3_{UR}	L^2_{UR}	L^1_{UR}	UPPER PHOTON COMPONENTS
	Qu_1	Qu_2	Qu_3	BL_1	BR_1	Γ^3_{QU}	Γ^2_{QU}	Γ^1_{QU}	GLUON-BOSON-Qu
	QD_1	QD_2	QD_3	BL_2	BR_2	Γ^3_{QD}	Γ^2_{QD}	Γ^1_{QD}	GLUON-BOSON-QD
	E_1	E_2	E_3	BL_3	BR_3	Γ_{E3}	Γ_{E2}	Γ_{E1}	E-BOSON-GLUON
	M_1	M_2	M_3	BL_4	BR_4	Γ_{M3}	Γ_{M2}	Γ_{M1}	M-BOSON-GLUON
	T_1	T_2	T_3	BL_5	BR_5	Γ_{T3}	Γ_{T2}	Γ_{T1}	T-BOSON-GLUON
	G_1	G_2	G_3	BL_6	BR_6	Γ_{G3}	Γ_{G2}	Γ_{G1}	G-BOSON-GLUON
	L^1_{DL}	L^2_{DL}	L^3_{DL}	P_3	P_4	L^3_{DR}	L^2_{DR}	L^1_{DR}	DOWN PHOTON COMPONENTS

(left-side vertical field labels: UPPER QUARK-GLUONIC PHOTON FIELD · ELECTRA-MAGNETIC FIELD · THERMO-GRAVIFIC FIELD · DOWN PHOTON FIELD)

CLOSED-TRANS-OPEN WAVE-POCKETS

F2.2 – CIRCULAR DIAGRAM

SYMBOLS:
P1-4 : PHOTON COMPONENTS
Lu LIGHT UP
LD LIGHT DOWN
LL LIGHT LEFT
LR LIGHT RIGHT
Qu QUARK UP
QD QUARK DOWN
E : ELECTRIC
M : MAGNETIC
T : THERMIC
G : GRAVIFIC
BL BOSON LEFT
BR BOSON RIGHT
Γ GLUONS:
Γu : UP
ΓD : DOWN
ΓL : LEFT
ΓR : RIGHT

Figure (F2) – *Extended Standard Model (8x8).*