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Elementary particle fluctuations spin quantum orbital Motion of the steady-state vertical double elliptic Equations and parameters characteristic answer

1.1 Elementary particle fluctuations. Established based On spin quantum physical model of steady-state

VERTICAL DOUBLE ELLIPSE

1.1.1 Elementary particles essential characteristics

After nearly a century of scientific experiments, has confirmed, all baryon decay protons outside except the final product is an electronic, neutrinos and photons. All meson and lepton decays final product is electronic, neutrinos and photons; neutrino accompanied by weak interactions, electrons and photons under certain conditions can be transformed into each other.

In the entire process of particle decay, its energy, momentum, angular momentum, charge, baryon number conservation, and the direction towards energy decreases spontaneous. Reaction unit charge is always the most basic human science experiment can achieve the highest energy particle collisions, can be freely separated stable charged units. Find also much larger than the energy of the daughter mixed numbers charged "quark" is unwise as the idea of the most elementary particles in high-energy particle accelerator by particle collisions reaction. After decades of effort, and ultimately find some meager circumstantial evidence, still can not be separated, and stable presence. The face of such an outcome, we should reconsider the definition of the elementary particles? Like substance composed of molecules, molecules are made of atoms, atoms, electronics, nuclear composition, the spontaneous separatist decay, the final stable energy minimum, widespread electronic, photons, neutrinos truly the most elementary particles.

The $U^{\pm}$ lepton In addition to protons, neutrons, electrons, photons, neutrinos, particles longest average life, but 2.197×10^{-6} seconds. They can only exist as an instant energy group. Therefore, as long as we clarify the internal structure of the electrons, photons, neutrinos, protons, neutrons, energy of origin, momentum, moment of momentum and nuclear forces forming principle, parameter calculation method and the relationship between particle physics is equivalent to solve the main problem.

1.1.2 Elementary particle fluctuations spin quantum steady-state Orbital motion characteristics

Proposed by de Broglie early descendants confirmed microscopic particles exist volatility, its wavelength $\vec{\lambda}$, particle momentum $\vec{P}$ is Planck's constant h relationship:

$$\vec{\lambda} = \frac{h}{\vec{P}} \qquad (1.1)$$

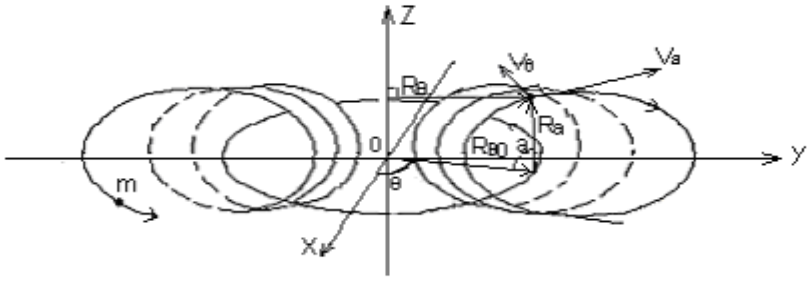
Modern physics experiments have confirmed: microscopic particles, elementary particles to existed fluctuations, spin two movements, and follow the momentum, moment of momentum and mean the law of conservation of energy. Just two movement's orbital quantum, Figure 1.1 and (1.1), we have:

$$\begin{cases} \vec{R}_\alpha \times m\vec{v}_\alpha = \dfrac{\vec{h}}{2\pi} \\ \vec{R}_\theta \times m\vec{v}_\theta = \dfrac{\vec{h}}{2\pi} \end{cases} \qquad \begin{cases} \vec{\lambda}_\alpha = \int_0^{2\pi} \vec{R}_\alpha d\alpha \\ \vec{\lambda}_\theta = \oint \vec{R}_\theta d\theta \end{cases} \qquad \begin{cases} \vec{P}_\alpha = m\vec{v}_\alpha \\ \vec{P}_\theta = m\vec{v}_\theta \end{cases}$$

The m represents the elementary particles along fluctuations; the $\vec{R}_\alpha$ quality of the moment in the movement $\vec{v}_\alpha$ of spin-orbit is variable. The $\vec{R}_\theta$、$\vec{v}_\theta$ said elementary particles to tend to the speed of light for the orbital radius vector of the wave motion; said and $\vec{v}_\alpha \perp \vec{R}_\alpha$、$\vec{v}_\theta \perp \vec{R}_\theta$、$\vec{v}_\alpha \perp \vec{v}_\theta$。$\vec{\lambda}_\alpha$ orbital radius vector of the spin motion energy relativistic velocities; Represents elementary particles along the wave direction of movement in the in each fluctuation movement cycle T_α, rail length; that $\vec{\lambda}_\theta$ each spin motion cycle T_θ in the length of the track along the spin direction of movement;, respectively, the $\vec{P}_\alpha$、$\vec{P}_\theta$ said elementary particles along fluctuations, spin the direction of movement of the moment of momentum. They are below standard "$_\alpha$, $_\theta$" distinction (following the same).

Note: book fluctuations, spin refers elementary particle along two vertical twin elliptical orbital motion of the two directions mutually perpendicular velocity component, the fluctuation of the elementary particles of the specified long-term human and academia spin different concepts.

Two orbital motions simultaneous three-dimensional Cartesian coordinate system, centered at the origin, still elementary particle fluctuations shown in the steady-state spin quantum orbital motion in Figure 1.1. Like a spring bent into a closed spiral rings, wire line on behalf of elementary particle fluctuations, spin the orbits. Fluctuations, the prerequisites for the establishment of the steady-state spin quantum orbital motion: orbital period of the spin motion must be fluctuations motion orbital period T_α N_α times T_θ! ($N_\alpha \geq 1$ is a natural number or a relatively simple Score). Thus, according to the wave equation and momentum moments conservation law still elementary particle internal orbital motion equations:



($X^2 + Y^2 = R_{\theta 0}^2$ Is round question)

Figure 1.1 still elementary particle internal fluctuations, the steady-state spin quantum the vertical double oval track movement diagram

$$\begin{cases} \vec{R}_\alpha \times m\vec{v}_\alpha = \dfrac{\vec{h}}{2\pi} \quad (\dfrac{\vec{h}}{2\pi}\text{Is moment of momentum wave vector}) & (1.2-1) \\ \vec{R}_\theta \times m\vec{v}_\theta = \dfrac{\vec{h}}{2\pi} & (1.2-2) \\ \vec{R}_\theta = \vec{R}_{\theta 0} - \vec{R}_\alpha \cos\alpha & (1.2-3) \\ \alpha = N_\alpha \theta & (1.2-4) \\ \dfrac{\oint \vec{R}_\theta d\theta}{\vec{v}_\theta} = \dfrac{N_\alpha \int_0^{2\pi} \vec{R}_\alpha d\alpha}{\vec{v}_\alpha} & (1.2-5) \end{cases}$$

1. 2 Orbit equations parameters characteristic answers

1.2.1 Orbit equations parameters characteristic answers

We first define the equations (1.2), the θ is a constant denoting the position fluctuations track projection plane, Z = 0 represents the projection plane of the spin-orbit. The （1.2-1）、(1.2-2) into the （1.2-3） type, which $\vec{v}_\theta / \vec{v}_\alpha = E_{\alpha\theta} \le 1$ is constant, so:

$$\begin{cases} \vec{R}_\alpha = \dfrac{\vec{R}_{\theta 0} E_{\alpha\theta}}{1 + E_{\alpha\theta}\cos\alpha} & (1.3-1) \\ \vec{R}_\theta = \dfrac{\vec{R}_{\theta 0}}{1 + E_{\alpha\theta}\cos\alpha} & (1.3-2) \end{cases}$$

Two movement orbits are elliptical orbit, and perpendicular to each other! (Hereinafter, for convenience, always omitted $\vec{R}_\alpha$、$\vec{R}_\theta$、$\vec{v}_\alpha$、$\vec{v}_\theta$、$\vec{h}$ vector "→" symbol). Let fluctuations, the direction of the spin motion track of the total length respectively L_α, L_θ, equations obtained by the (1.2-5), (1.3):

$$\begin{cases} L_\alpha = N_\alpha \int_0^{2\pi} \dfrac{R_{\theta 0} E_{\alpha\theta}}{1 + E_{\alpha\theta}\cos\alpha} d\alpha & (1.4-1) \\ L_\theta = N_\alpha \int_0^{2\pi/N\alpha} \dfrac{R_{\theta 0}}{1 + E_{\alpha\theta}\cos\alpha} d\theta & (1.4-2) \end{cases}$$

Substituting (1.4) equations (1.2-3), (1.2-5), we obtain:

$$E_{\alpha\theta} = \frac{1}{\sqrt{N_\alpha}} \qquad (1.5)$$

Equations (1.2), (1.3) compared with the elliptical orbit of the celestial planetary motion can be seen: the elementary particles along the fluctuations, spin quantum stationary state vertical twin elliptical orbital motion is, in fact, along the circumferential line $X^2 + Y^2 = R_{\theta 0}^2$ and Z the orbital movement of the shaft two rotary axis angular momentum conservation. The v_α speed v_θ constant R_α R_θ is a variable, so m the state of motion of the two tracks are the same, for the same variables. With the fluctuations in the radius of the orbit of the spin motion, the basic particles in which the coordinates of the position varies. Laboratory determination of the quality of elementary particles should be for each of the fluctuations, the average mass $\overline{m}$ of the the spin orbital motion cycle. (1.2-1), (1.3-1), (1.4-1), (1.5), we have:

$$\overline{m} = \int_0^{2\pi} \frac{mR_\alpha}{L_\alpha} d\alpha = \frac{h}{2\pi v_\alpha} \int_0^{2\pi} \frac{1}{L_\alpha} d\alpha = \frac{h\sqrt{N_\alpha - 1}}{2\pi v_\alpha R_{\theta 0}} \qquad (1.6)$$

1. 2. 2 The importance of the orbit equations

Because of the fluctuations, the spin quantum steady state vertical double elliptic orbit motion model of elementary particle fluctuations equation, derived in the classic basic laws of physics of elementary particles inherent wave-particle duality, Quantum momentum, angular momentum, and the average energy conservation out equations (1.2) - (1.6) are all still elementary particles, nuclei, atoms, even microscopic particles in the entire universe physics parameters to calculate the basic equation. Classical Newtonian mechanics, electrodynamics, thermodynamics, quantum fluctuations in the orbit of the movement mechanics and energy relativistic combine accurate simulation answer the Preface proposed quantum physics, cosmic physics and relativistic field problems. Because all the parameters calculated ultimately comes down to the method of classical physics, elementary particle quantum orbital motion model of elementary particles orbiting moment of momentum, charge number and average energy and momentum are completely conserved under conditions only with the orbital parameters m, $N_{\alpha i}$ related calculations. Everyone else to specify a variety of quantum number, parity, is spin, strangeness ..... and laboratory observations of the parameters of the amendment, the abolition of all, in addition to the baryon number, charge number reserved!

Seen from the equations of Figure 1.1 and (1.3): When us still elementary particles the internal moving orbit calibration coordinate system, after the start time and the initial position, the coordinates of the elementary

particle at any time t is located in orbit, energy momentum, moment of momentum parameter on all uniquely identified. Coordinates of elementary particles can be expressed as follows:

$$\begin{cases} \alpha = \dot{\alpha}\ t + \alpha_0 & (1.7-1) \\ X = (R_{\theta 0} - R_\alpha \cos\alpha)\cos\theta & (1.7-2) \\ Y = (R_{\theta 0} - R_\alpha \cos\alpha)\sin\theta & (1.7-3) \\ Z = R_\alpha \sin\alpha & (1.7-4) \end{cases}$$

However, measurement techniques available to the scientific community can not be precise, measured directly. Because the spray-type particles as a probe itself also exist fluctuations spin motion along the track. (2 to 4 will prove that they are also along the cylindrical helix orbital precession), as shown in Figure 1.2.

Elementary particles are much smaller than the radius of the fluctuations of its own entity, the spin-orbit radius R_α, R_θ fluctuations sports track intersection area, so the two can only very small probability of a random collision occurred. And the collision point of the particle energy, momentum, orbital radius and coordinates of the location are variables; this is academia long debate how to understand the microscopic particles of uncertainty phenomenon reason. However, the distribution state of the spin motion along tracks fluctuations from the electrically charged elementary particles, the performance out of the magnetic moments, the average mass, charge density, elementary particle fluctuations, the size of the spin motion orbit distribution range shown by the appearance of the elementary particles, particles inside and outside , within the nucleus, and the weak, electrical, magnetic interaction force strength, the laboratory can be directly measured and estimated data for the book's physical model validation and accurate simulation proved.

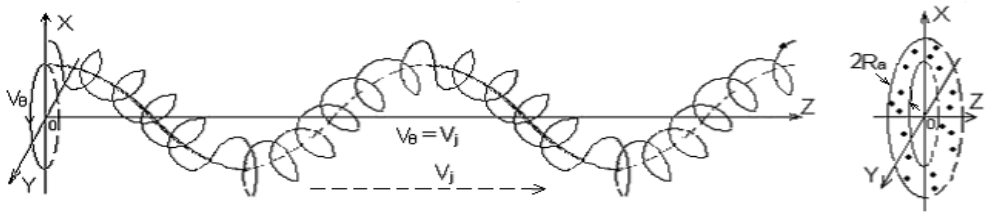


Figure 1.2 elementary particles along fluctuations, the spin precession of the orbital motion characteristics of the formation of wave-particle duality diagram

2 ELEMENTARY PARTICLE INTERNAL STRUCTURE, THE ENERGY OF FORMATION OF THE PRINCIPLES AND PARAMETERS CALCULATION

2.1 Elementary particle internal structure and energy origin

2.1.1 Elementary particle internal structure and the nature of charge Quantization

Scientific community are identified in all of the experiments from 1902 to 1990: all the free particles of free particles of the intermediate product, the spontaneous decay process of the energy radiation is electromagnetic energy; final product is the (proton) electrons, photons, neutrinos; all experiments all particles decay process and all the transition, the final product of all baryons, mesons, leptons, charged nature can only be divided into three categories: a unit with a positive charge, with a unit negative charge, electrically neutral particles. When we will not consider the quality and the kinetic energy of the protons, neutrinos can be determined: all particle energy mc^2 are the electric and magnetic field energy, because the photons of electromagnetic energy radiation meson leptonic decay process and the final product, the electronic as electromagnetic energy ball "is beyond reproach. So, the book is the first of the elementary particles defined as follows: unit charge as one can no longer divided, basic, stable point particles, hereinafter referred to as "charged particles", in fact, the body radius tends to 0; All elementary particles, including all mesons, leptons and baryons core, when present them to electrically neutral, by n is positive, charged Particle electric dipole consisting of aggregates; when they are charged, additional charged particles; still elementary particle energy, the state of motion, and all parameters characterized by (1.2) orbit equations and (1.3) (1.5) (1.6) solutions; composed of baryons, the basic unit of the atoms (detailed proof, see the follow-up).

Photons have cyclical changes in the characteristics of electromagnetic waves; to form two photon pair of positive and negative electrons can collide annihilation; a photon can not be directly split into a pair of positive and negative electrons; neutrino production of charged mesons, leptons;$\pi^{\pm}$ meson eventually split decaying into two neutrino and an antineutrino and an electron. The characteristics, we can make the most direct inference:

photons and neutrinos are composed by a pair of electric dipole, is the most simple of elementary particles. Because neutrino properties, it can be spread as evenly as gas molecules in the vast space of the universe, the constitute a omnipresent neutrino background field. The 2.7K blackbody microwave background radiation in the universe formed only by the neutrino field (see Chapter 5 demonstration). Electronics is composed by a pair of electric dipole and a charged particle, when a pair of electron collisions Specter, in addition to generating two photons, should be associated with a low-energy neutrino. If it is a negative electron and a positively to charged particles collide, it happens to the formation of two photons. A photon collision near the nucleus, to the simultaneous excitation of two neutrinos or two pairs of electric dipole, split, combine into two (one pair) electronic. Similarly, the charged $\pi^{\pm}$ meson is composed by two pairs of electric dipole and a charged particle. Because the moment the law of conservation of momentum and momentum, launch an anti-neutrino and absorption neutrino a neutrino are equivalent. All other mesons, leptons, including baryon core, can be determined: the electrically neutral elementary particles are composed of n electric dipole assembly; the different particle n is a natural number, one more of the charged particles Charge charged particles. Under the internal structure of elementary particles, as long as enough analysis to calculated charged elementary particles, electrically neutral elementary particles, photons and neutrinos energy forming principle and related parameters.

2.1.2 Charged particle energy origin

By classical electrodynamics, shown as in Figure 2.1, charged particle energy relativistic speed Ava straight uniform motion, electrical, magnetic field strength is:

$$\vec{E}_\alpha = \frac{e(1-\beta_\alpha^2)\vec{R}_\alpha}{4\pi\varepsilon_0 R_\alpha^3 (1-\beta_\alpha^2 \sin^2\alpha)^{1.5}} \qquad (\beta_\alpha = \frac{v_\alpha}{c}) \qquad (2.1)$$

$$\vec{B}_\alpha = \frac{\vec{v}_\alpha \times \vec{E}_\alpha}{c^2} \quad (\text{the } \alpha \text{ is the angle between } \vec{v}_\alpha \text{ and } \vec{R}_\alpha) \qquad (2.2)$$

When the circumferential fluctuation motion of the charged particles nearly the speed of light c, due to The fluctuations orbital radius R_a the entity radius much larger than the charged particles R_a., we can track the circumferential fluctuation motion simplified as the linear movement of each short circumferentially tangent. At this time, the electromagnetic waves "squeezed" only distributed within the plane of the vertical fluctuations movement $\vec{v}_\alpha$ direction to form a planar shock, as shown in Figure 2.1. Non-occurrence of electromagnetic energy radiation of charged particles stream packet rounded plane forward. By classical electrodynamics, the energy flux density distribution of glass pointing vector $\vec{S}_\alpha$ is:

$$\vec{S}_\alpha = \vec{E}_\alpha \times \vec{H}_\alpha = \varepsilon_0 \left[\vec{v}_\alpha E_\alpha^2 - \vec{E}_\alpha (\vec{E}_\alpha \cdot \vec{v}_\alpha)\right] \qquad (2.3)$$

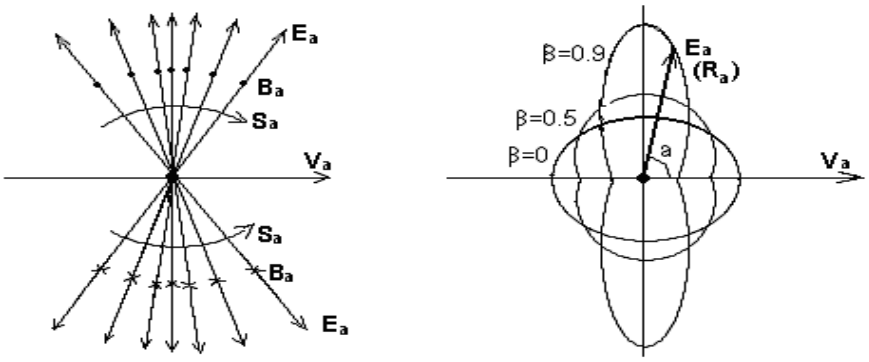


Figure 2.1 energy relativistic velocities v_a uniform linear motion of charged particles in electric and magnetic field strength characteristics Figure

By (2.3) that: $\vec{S} \cdot \vec{R}/R = 0$ (at the microscopic field, charge along the circumference to the speed of light c fluctuations movement does not occur cyclotron electromagnetic wave energy radiation, see the end of Chapter 5 supplemental argument).

Note: Because the orbit is elliptical orbit fluctuations, $\vec{v}_\alpha \to c$ and completely non-linear motion, energy flux density should take positive, so this is not simply take $\vec{S}_\alpha = \varepsilon_0 \vec{v}_\alpha E_\alpha^2$ value. But take the $\vec{S}_\alpha = \varepsilon_0 \left[\vec{v}_\alpha \vec{E}_\alpha^2 - \vec{E}_\alpha \left(\vec{E}_\alpha \cdot \vec{v}_\alpha\right)\right]$ value vector synthesis. The former when the equivalent electromagnetic field energy ball "volume should take $2\pi\overline{R}_\alpha^3$, $\beta_\alpha = 0.9981773259$ which is equivalent to the volume of the electromagnetic field" energy ball "should be taken as $\sqrt{2}\pi\overline{R}_\alpha^3$, $\beta_\alpha = 0.9987108301$. The systematic error is minimal.

The electromagnetic field of a charged particle energy for W_e, the equivalent electromagnetic fields "energy ball" volume $\sqrt{2}\pi\overline{R}_\alpha^3$, the $\sqrt{2}$ coefficient enables electromagnetic field energy equation (2.4), transition from energy relativistic speed toward the stationary state. By the equation (2.3), due to $v_a \to c$ is a constant, so the direct electric field intensity $\vec{E}_\alpha$ take a = 0, π/2, the synthesis of two vectors:

$$W_e = \frac{\sqrt{2}\pi\overline{R}_\alpha^3 S_\alpha}{v_\alpha} = \frac{\sqrt{2}e^2}{16\pi\varepsilon_0\overline{R}_\alpha}\frac{\sqrt{1+(1-\beta_\alpha^2)^3}}{1-\beta_\alpha^2} \qquad (2.4)$$

When $\beta_a \to 0$, it should be equal to the average radius $\overline{R}_\alpha$ spherical shell uniform distribution of the electrostatic field energy charged particles along W_e:

$$W_e = \frac{e^2}{8\pi\varepsilon_0\overline{R}_\alpha} \qquad (2.5)$$

Make to (2.4) of charged particles electromagnetic field energy representative (1.2-1) type of elementary particles along the circumference of the wave motion of particle energy mc^2, too:

$$\frac{\beta_\alpha\sqrt{1+(1-\beta_\alpha^2)^3}}{1-\beta_\alpha^2} = 2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right) \qquad (2.6)$$

Solution (2.6): βa =0.9987108301. It is charged elementary particles when a fluctuation in quantum N_a limit fluctuations in speed coefficient tends to infinity, see (2.16) where.

The fine structure constant (2.6), the right to export is the origin of elementary particle energy, the initial indications of the quantum steady state orbital motion, strong, and weak, electrical, magnetic interactions unity principle. Seen from (2.6): v_a single charged particles because the speed of the waves, the orbital radius R_a is a constant electromagnetic field energy mc^2 must be a constant, and is unable to meet the (1.2) the equations of elementary particles along fluctuations, spin-orbit movement conditions. Therefore, directly by probing all experiments to all the particles split decay process Corollary: charged elementary particles must be composed by n to the electric dipole and a charged particle aggregates.

2.2 Charged elementary particles energy forming Principle and parameters calculation

2.2.1 Charged particle energy forming principle

A electric dipole is, load electric particle spacing of L_r, the $K_r = L_r / 2\overline{R}_\alpha$. The fluctuation of electric dipole along the orbital motion while, also should be around the wobbled track rotation. On a charged elementary particles, the rotation speed and fluctuation of angular velocity of complete synchronization! In order to π^+ meson as an example, when π^+ meson along the fluctuation orbits, if the start position a=0°, excess positive charged particle tracks just in fluctuation of polar axis R_α lateral, see Figure 2.2, (or spin orbit $R_{\theta 0}$ medial). Now, load electric particle fluctuations, rotation speed v_+, v_- and fluctuation velocity v_a relationship:

(Positive, load electric particle in fluctuating, spin orbit within the lateral distribution, readers can make a model of the rotating verification)

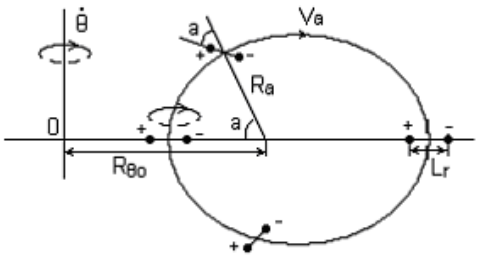


Fig 2.2 charged particle rotation speed fluctuation sketch map

$$\begin{cases} v_{+} = v_{\alpha}(1 + K_r \cos\alpha) & (2.7-1) \\ v_{-} = v_{\alpha}(1 - K_r \cos\alpha) & (2.7-2) \end{cases}$$

And at the beginning of the last century Planck founded the ideas of quantum mechanics. As long as we make the electric dipole within L_r as capable of telescopic change electromagnetic energy vibrator, the telescopic change cause the charged particles along the wave track motion tends to speed v_+, v_- periodic variation; lead to the synthesis of electromagnetic field intensity varies periodically, to determine the periodic changes of the energy, and (1.2-1) type of elementary particle in fluctuation, spin orbit periodic variations in the instantaneous energy equal to mc^2, a, R_a and N_a function. Thus, elementary particle in steady state within the orbit motion, will not appear in cyclotron, moving direction of electromagnetic wave radiation energy, momentum, and in line with the instant energy and average momentum, the law of conservation of energy. As long as we derive electromagnetic energy vibrator in the energy equation of N_a and a, K_r presents the continuous change of the relation, be equal to that book of charged particle internal structure, energy principle and calculation of related parameters of physical model.

By (1.3-1), (1.5), (1.6), elementary particles along the instant fluctuation orbit radius R_a and the average radius of $\overline{R}_{\alpha}$ respectively:

$$\begin{cases} R_{\alpha} = \dfrac{R_{\theta 0}}{\sqrt{N_{\alpha}} + \cos\alpha} & (2.8-1) \\ \overline{R}_{\alpha} = \dfrac{R_{\theta 0}}{\sqrt{N_{\alpha} - 1}} & (2.8-2) \end{cases}$$

Will (2.8) equations into (2.4), (2.5), (2.6) type, because $\beta \to 1$, so:

Because $\sqrt{1+(1-\beta_{\alpha}^2)^3} \to 1$, therefore, each charged particles along the orbital motion of the instantaneous fluctuation of energy equation N_a, a, β_a relationship:

$$\frac{\beta_{\alpha}}{1-\beta_{\alpha}^2} = 2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right)\frac{\sqrt{N_{\alpha}} + \cos\alpha}{\sqrt{N_{\alpha} - 1}} \qquad (2.9)$$

2.2.2 Charged particle energy parameter calculation

A charged particle by a pair of n electric dipole and a positively charged particle composition, and positive, load electric particles each occupy a common wave, consisting of spin orbit, as biological gene as chain-like structure, (see Figure 3.3). Then the basic particle instantaneous electrical, magnetic field strength should be each charged particle instantaneous electrical, magnetic field intensity vector and. By (2.1), (2.4), (2.9) and (2.7) equation:

$$\beta_{\alpha}\left[\frac{n+1}{\sqrt{1-\beta_{\alpha}^2(1+K_r\cos\alpha)^2}} - \frac{n}{\sqrt{1-\beta_{\alpha}^2(1-K_r\cos\alpha)^2}}\right]^2$$

$$= 2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right)\frac{\sqrt{N_\alpha}+\cos\alpha}{\sqrt{N_\alpha-1}} \qquad (2.10)$$

So (2.10) type of α=π/2 or 3π/2, too:

$$\frac{\beta_\alpha}{1-\beta_\alpha^2} = 2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right)\frac{\sqrt{N_\alpha}}{\sqrt{N_\alpha-1}} \qquad (2.11)$$

On the show, for a certain value of N_a, v_a, β_a are constant, is a function of N_a, and the fluctuation of electric dipole motion track position independent. As long as we at different N_a values into (2.11) type for β_a value, n value together with different substitution (2.10) type, we can calculate the different charged particle internal K_r value change tendency, see table 2.1.

From Table 2.1 calculating results can be seen: K_r is a continuous gradient of the function, and the particle internal dipole numbers n inversely proportional, with fluctuations in quantum number N_a increases. Please note: unpaired residual charged particles are distributed in spin orbital medial, and general electric, magnetic field intensity, were greater than the spin orbit of charged particles, illustrate the basic energy of mc^2 focused on spin orbital medial embodiment.

The different charged particle internal K_r value trend Table 2.1

α°		0 °	30°	60°	80°	100°	120°	150 °	180°
N_a	n	$K_r \times 10^{-5}$							
2	1	17.4001	17.8604	19.2474	20.6731	22.4384	24.4076	27.1746	28.4420
	2	10.9000	11.1214	11.7909	12.4890	13.3802	14.4297	16.0509	16.8650
	3	7.88645	8.03130	8.47239	8.93784	9.54125	10.2662	11.4169	12.0079
2.5	1	17.4035	17.8223	19.0732	20.3417	21.8883	3.5797	25.8749	26.8757
	2	10.8507	11.0523	11.6572	12.2797	13.0601	13.9547	15.2669	15.8834
	3	7.83898	7.79120	8.37056	8.78613	9.31455	9.93101	10.8563	11.2994
3	1	17.0074	17.3858	18.5084	19.6353	20.9936	22.4581	24.4003	25.2240
	2	10.5667	10.7491	11.2928	11.8467	12.5320	13.3024	14.3947	14.8881
	3	7.62548	7.74529	8.10489	8.47507	8.93901	9.46894	10.2357	10.5879
31	1	7.17710	7.23191	7.38592	7.52881	7.68703	7.84192	8.02339	8.09200
	2	4.35031	4.37730	4.45357	4.52490	4.60465	4.68357	4.77725	4.81304
	3	3.11626	3.13432	3.18550	3.23358	3.28755	3.34121	3.40522	3.42977
151	1	3.39991	3.41199	3.44543	3.47580	3.50870	3.54020	3.57621	3.58958
	2	2.04910	2.05512	2.07182	2.08706	2.10364	2.11959	2.13792	2.14475
	3	1.46546	1.46951	1.48078	1.49107	1.50229	1.51311	1.52556	1.53021
500	1	1.89531	1.89905	1.90934	1.91860	1.92856	1.93802	1.94873	1.95269
	2	1.13995	1.14182	1.14698	1.15164	1.15666	1.16143	1.16686	1.16887
	3	0.81480	0.81606	0.81955	0.82270	0.82609	0.82933	0.83301	0.83437

Further simulation calculation results show: the charged particle in the electric dipole rotation speed fluctuation of angular velocity and only fully synchronous, if it >1 natural number, then K_r values are not continuous positive solution. These characteristics of charged elementary particles, nuclei are behind the internal structure of the design, parameters calculation based on.

2.3 Electrically neutral elementary particle energy Principle and parameter calculation

2.3.1 Electrically neutral elementary particle energy formation Principle

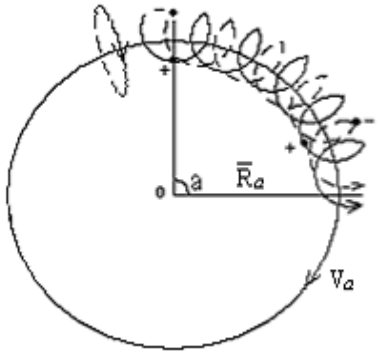


Fig 2.3 proton nuclear core electric dipole rotation diagram

In the next chapter, basic particle internal interaction analysis showed that: all the charged particles must travel at the speed of c motion can exist. The nature and even the entire universe, all charged particles along the fluctuation, spin orbit motion velocity vector and shall be $\sqrt{v_\theta^2 + v_\alpha^2} \geq c$, only such, within any charged particle along the fluctuation, spin two velocity vector superposition in a given direction, including rotation speed synthesis ability in the speed of light.

In addition to photons, neutrinos of all electrically neutral elementary particle, due to the internal structure is special, electric dipole center along the wave track wave motion velocity v_a, rotation caused all charged particle motion velocity of $N_rK_rv_a$ (N_r rotation frequency number), all two must be vector and in a direction is equal to the speed of light c, shown in figure 2.3. We have,

$$\sqrt{v_\alpha^2 + (N_r K_r v_\alpha)^2} = c \qquad (2.12)$$

By (2.12) type, too:

$$N_r = \frac{\sqrt{1-\beta_\alpha^2}}{K_r \beta_\alpha} \qquad (2.13)$$

From (2.1) to (2.6) compare the: electrically neutral elementary particle field energy is positive, on equal load electric particle electric, magnetic field intensity vector synthesis to achieve. When we consider the K_r value is very small electric dipole can be large enough to form the electromagnetic field energy, the wave speed must be very close to the speed of light c. We take the v_a= (1-10^{-9})c, both in the scientific community are capable of accurately measuring the hands and the calculator to calculate the error range. By (2.3), whenβ_a=1-10^{-9}, can be simplified to:

$$\vec{S}_\alpha = \varepsilon_0 \vec{v}_\alpha E_\alpha^2 = \frac{e^2 \vec{v}_\alpha}{16\pi^2 \varepsilon_0 R_\alpha^4 (1-\beta_\alpha^2)} \qquad (2.14)$$

As long as the electric dipole within each charged particle fluctuation velocity of v_+, v_- and (2.7) equations as a periodic variation, it can make the electrically neutral elementary particle electric dipole in the wave track fluctuations, rotation of synthesis electromagnetic field strength also shows periodic change, thereby forming the periodic variations of the energy mc^2, this periodic variations of the frequency must be charged particle and photon N_r times.

2.3.2 Electrically neutral elementary particle energy parameter Calculation

The actual simulation, K_r changes only with values, by (2.13): K_rN_r= $\sqrt{1-\beta_\alpha^2}/\beta_\alpha$ type, is constant, as can be seen from the table 2.2 electric dipole rotation frequency of N_r wave changes along the track. By (2.14), reference (2.9), (2.10) type inference process, electrically neutral elementary particle of β_a, N_a, K_r, a parameter

relation can be expressed as:

$$n\beta_\alpha\left[\frac{1}{\sqrt{1-\beta_\alpha^2(1+K_r\cos\alpha)^2}}-\frac{1}{\sqrt{1-\beta_\alpha^2(1-K_r\cos\alpha)^2}}\right]^2$$

$$=2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right)\frac{\sqrt{N_\alpha}+\cos\alpha}{\sqrt{N_\alpha-1}} \qquad (2.15)$$

A electric dipole numbers n=2, β_a=1-10^{-9}, N_a=3, the simulation results are shown in table 2.2.

Proton nuclear core is an electrically neutral elementary particle, fluctuations in quantum number $N_a\to\infty$, forming a circular orbit spin speed fluctuation, v_θ =0. From the atomic nucleus inner structure calculation, it is 6 on the electric dipole. n=6, $N_a\to\infty$, substitution (2.15), the simulation results are shown in table 2.2.

Electrically neutral elementary particle internal K_r value analog computation results table 2.2

α°	0°	30°	60°	80°	89°	100°	120°	150 °	180 °
Particle parameters	$K_r\times10^{-13}$								
Electrically neutral particles n=2 N_a =3	6.14	6.92	11.13	29.55	280.78	26.78	8.25	4.04	3.19
Proton nuclear core n=6 $N_a=\infty$	1.499	1.732	2.999	8.638	85.948	8.638	2.999	1.732	1.499
Neutrino n =1 N_a =1	1303	1504	2605	7501	74637.3	7501	2605	1504	1302

Similarly, the neutrino, as n=1, N_a=1, c precession rate is the speed of light. Fluctuation, precession track is cylindrical helical line. Considering the precession direction energy relativistic effects, by (2.15) type, too:

$$\beta_\alpha\left[\frac{1}{\sqrt{1-\beta_\alpha^2(1+K_r\cos\alpha)^2}}-\frac{1}{\sqrt{1-\beta_\alpha^2(1-K_r\cos\alpha)^2}}\right]^2=\frac{2\sqrt{2}}{\sqrt{1-\beta_\alpha^2}}\left(\frac{2h\varepsilon_0 c}{e^2}\right)$$

（2.16）

The simulation results are shown in table 2.2. The neutrino in a=0～89° K_r values into (2.13) type, too: 343323≥ N_r ≥ 5991. Similarly, the proton core, 2.9834 x10^8 ≥ Nr≥5.2033 ×10^6.

From table 2.2 shows：that in addition to a=π /2、3π /2, K_r value is also a continuous gradient function a; in a=π/2, 3π/2, K_r value increases rapidly, but with Kr=$10^{-10\sim-13}$ orders of magnitude more, still microscopic little. From n on the electric dipole formed of electrically neutral particles, because of their a=π/2 3π/2, through when there is a tiny distance, the variation of K_r value range is much smaller than the neutrino. If we consider the electric dipole rotation frequency number N_r, then every fluctuation cycle, the electric dipole of the telescopic oscillation frequency is N_r times. Of course, we can also make the proton nuclear core of electric dipole within 6 a values are equal, rotation angle N_{ra} interval of 60°, 6 pairs of dipole occupy 6 wave track perfectly synchronized motion, so that the variation of K_r value with minimum amplitude, but also the most special, the most stable structure. In addition, all photons neutrino electrically neutral elementary particle, this structure may be proton core can stabilize the only reason.

2.4 Photon of electromagnetic wave, energy principle And parameter calculation

Photon only by a pair of electrical dipole component, and neutrinos, fluctuation, precession track is cylindrical spiral line, see figure 2.4.

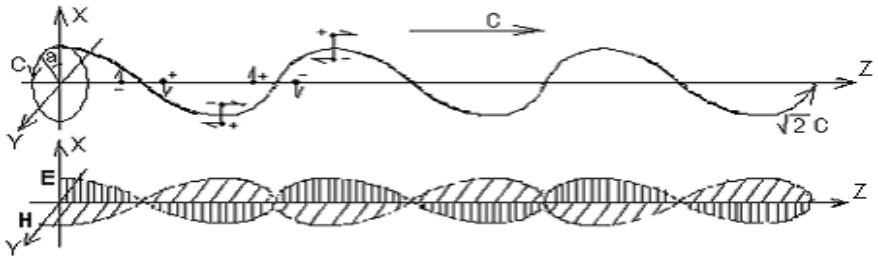


Fig 2.4 photon along the wave, cylindrical spiral orbit precession formed in the electromagnetic wave principle diagram

Orbit equation:

$$\begin{cases} X = R_\alpha \cos(\dot{\alpha}\, t + \alpha_0) & (2.17-1) \\ Y = R_\alpha \sin(\dot{\alpha}\, t + \alpha_0) & (2.17-2) \\ Z = R_\alpha (\dot{\alpha}\, t + \alpha_0) & (2.17-3) \end{cases}$$

The photon is composed of neutrino by high frequency alternating electromagnetic field excited after the formation of the. When the photon energy is greater than the excitation of the neutrino background field average energy, electric is dipole polarization, positive, load fluctuation particles around the track rotation frequency N_r to 1.Rotation plane by excitation of the alternating electromagnetic field plane control, naturally formed in a direction perpendicular to the polarization and the electromagnetic wave oscillation. Now load electric particle fluctuations, rotation speed is composed of (2.7) equation to express. Reference (2.16) type, photonic Kr value in the calculation results, the same as in table 2.2. Kr values are equal. Photon fluctuation, precession motion along the electric dipole rotation formed by electromagnetic Potter syndrome is shown in figure 2.4.

From this chapter analysis shows: the neutrino and photon, is only one, only the energy difference. To distinguish the antineutrinos, the photon, can only be fluctuations in movement direction, the electric dipole rotation direction opposite to it, or photons in 0 for a,π,2π, office, load electric particle in fluctuation, precession of orbit.

3 Elementary particles within the outer Interaction strength

3.1 Charged particles within the outer interaction strength

3.1.1 With in the charged particles interaction strength calculation

Single charged particles along the orbital motion of the fluctuations, not only to the formation of a strong centrifugal force of the $F_{n\bullet}$, but also form a stronger electric, magnetic force $\triangle F_{e\bullet}$. $\triangle F_{b\bullet}$. Charged Particles entity as a small sphere, diameter $2R_\bullet$, it should be smaller than the electric dipoles within the positive the load charged particles spacing $2K_r\overline{R}_\alpha$. The $K_{r\bullet} = R_\bullet / \overline{R}_\alpha$ formed in the orbital motion of charged particles along fluctuations electricity, magnetic energy mc^2. When the orbital motion of charged particles along the volatility, the centrifugal force should be less than the fluctuation orbital motion of charged particles along the outside of the two hemispheres of their own electricity, magnetic force $\triangle F_{e\bullet}$. $\triangle F_{b\bullet}$ difference. Figure 3.1, we will average orbital radius of each charged particle along fluctuations $\overline{R}_\alpha$ radial divided into inner and outer side of the two hemispheres. "A" is omitted, the same below) by the equations of (2.7), $v_{\alpha 1} = \beta(1 + K_{r\bullet})c$, $v_{\alpha 2} = \beta(1 - K_{r\bullet})c$ (The β_α The subscript "α" omitted, the same below) Still exist tends to the speed of light is poor, resulting in each of the charged particles inside and outside are formed in the fluctuating movement power, the magnetic field force intensity differences. Newtonian mechanics and (1.2-1), (2.1), (2.2), (2.7), Figure 3.1 we have:

$$F_{n\bullet} = \frac{m v_\alpha^2}{\overline{R}_\alpha} = \frac{\beta h c}{2\pi R_\alpha^2} \qquad (3.1)$$

$$\Delta F_{e\bullet} = \frac{(0.5e)^2}{4\pi\varepsilon_0 (K_{r\bullet}\bar{R}_\alpha)^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \quad (3.2)$$

$$\Delta F_{b\bullet} = \frac{(0.5e)^2\beta^2(1-K_{r\bullet}^2)}{4\pi\varepsilon_0 (K_{r\bullet}\bar{R}_\alpha)^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \quad (3.3)$$

Compare $\triangle F_{e\bullet}$ - ($\triangle F_{b\bullet}$ + $F_{n\bullet}$) values, simultaneous (3.1) to (3.3), we have:

$$\frac{e^2}{4\pi\varepsilon_0\bar{R}_\alpha^2}\left\{\begin{array}{l}\dfrac{\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4K_{r\bullet}^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \dfrac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \\ -\beta\left(\dfrac{2h\varepsilon_0 c}{e^2}\right)\end{array}\right\} = 0 \quad (3.4)$$

Make to β=1-10^9, $K_{r\bullet} < 1/\beta\text{-}1 = 10^{-9}$, by table 2.2: $K_{r\bullet} < 1.499\times10^{-13}$. By the simulation we find that: (3.4) type: 1.499 x 10^{-13} > $K_{r\bullet}$ + 8.0 x 10^{-15}, is the reasonable scope. $K_{r\bullet}$ = 8.0 x 10^{-15} is charged particles entity radius coefficient lower limit, and in (3.4), to: $\triangle F_{e\bullet} - (\triangle F_{b\bullet} + F_{n\bullet}) = 0$.Have their own electric and magnetic field strength of for: maintenance$\triangle F_{e\bullet} - \triangle F_{b\bullet} >> 0$, $\triangle F_{e\bullet} - \triangle F_{b\bullet}$ processed maintenance train to fluctuations in the strength of the inside of the track, is the centrifugal force $F_{n\bullet}$ the multiple astronomy!

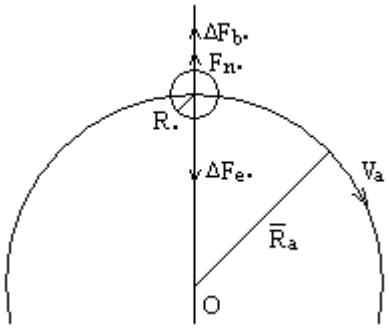


Figure 3.1 charged particles inside the interactions

3.1.2 Charged particles lateral force each other parameters are Calculated

When we will be charged particles tends to zero as a radius small sphere of view, and the lateral force electric and magnetic field will be to infinite. Magnetic field force charged particles could be overcome their own electric field repelling force, prevent occurrence blowout phenomenon? Become the scientific community for many years searching for the mixed number charge of quark?

A charged particle bursts into n pieces of debris, the initial moment of each fragment itself electric and magnetic field strength respectively for: $\triangle F_{e\bullet/n}$、$\triangle F_{b\bullet/n}$, processed maintenance, processed, we also as long as the maximum of electric and magnetic field force direction, perpendicular to the $\vec{v}_\alpha$ speed position is enough, (the same below). By (3.2), (3.3), to:

$$\left\{\begin{array}{l}\Delta F_{\frac{e\bullet}{n}} = \dfrac{\frac{e}{n}\left[\frac{e(n-1)}{n}\right]}{4\pi\varepsilon_0 (K_{r\bullet}\bar{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \dfrac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \quad (3.5-1) \\ \Delta F_{\frac{b\bullet}{n}} = \dfrac{\frac{e}{n}\left[\frac{e(n-1)}{n}\right]\beta^2(1-K_{r\bullet}^2)}{4\pi\varepsilon_0 (K_{r\bullet}\bar{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \dfrac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \quad (3.5-2)\end{array}\right.$$

Obviously, only the beta $\beta\to1$、$K_{r\bullet}\to0$, both force to infinite, effect radius is only charged particles entity radius（$K_{r\bullet}\overline{R}_{\alpha}$）, and two kinds of force just equal size, direction, on the other hand, can be in equilibrium.

Neutral and charged elementary particles, the wave speed coefficient beta for $1-10^{-9}>\beta\geq0.9987108301$, that:

$$\Delta F_{e\bullet/n}/\Delta F_{b\bullet/n}\geq 1$$

By analogy, charged particles will instantly blowout, completely disappear, but the fact is not the case. Reason from elementary particle internal structure, charged particles fluctuation, the spin velocity v_a、v_θ, theta, electric dipole $N_rK_rv_a$ rotating speed, etc. As long as we make $\sqrt{v_\alpha^2+v_\theta^2+(N_rK_rv_\alpha)^2}\geq c$, one will be the direction of the speed just for c, can make $\triangle F_{e\bullet/n}/\triangle F_{b\bullet/n}=1$ processed maintenance train. Rotation, fluctuation, spin motion orbit of charged particles oneself electric and magnetic field strength can be charged particles firmly bound within their own orbit, equal and opposite direction, just to be in equilibrium, the force is charged particles themselves electric and magnetic fields form the strong force.

The rail to tend to the speed of light wave motion is micro particles inherent characteristics. Because $1.499\times10^{-13}>K_{r\bullet}\geq8.0\times10^{-15}$, charged particles should be an infinitesimal point of geometry. Want to rely on particle collision directly hit a moving at the speed of geometric point, by (1.2 1) type, particle collision energy want to infinite, hit probability of will is an infinitesimal. So, charged particles will is the most basic component in the whole process of the evolution and structure unit (see infinite and eternal cosmology). Within the scientific community in the cosmic rays and high-energy particle accelerators collision experiment, explore decades still cannot be called mixed number charge "quark" particles steadily separated alone, why is this.

Which classical electrodynamics theory in the point of energy "divergence" difficult to solved at the same time. Charged particles as a particle will not stationary in a certain space geometry point; It never to tend to the speed of light v_a v_θ theta and energy relativistic velocities along the fluctuation, the movement of the spin track; So, charged particles and electric dipole is composed of elementary particles energy, strength, fluctuation orbit radius beta R_a、β、K_r、$K_{r\bullet}$ parameters such as, only determined by the physical model and equations (1.2) this book; The energy mc^2 nature is limited. By R_a、R_θ、β、K_r theta, beta, Kr parameters such as relationships, fluctuation, the spin track movement characteristics, all the elementary particle and wave particle duality of atoms and molecules to form nature and all settled (see chapter 1, 5).

3.2 Electrically neutral elementary particle, the outer Interaction strength

3.2.1 Electrically neutral elementary particle interaction strength Within the computing

Is to set up a pair of electric dipole Charged Particle spacing of L_r, mutual electrical, magnetic force for $F_{e\pm}$, $F_{b\pm}$, by (2.1), (2.2), was:

$$\begin{cases} F_{e\pm}=\dfrac{e^2}{4\pi\varepsilon_0L_r^2\sqrt{1-\beta^2(1+K_r\cos\alpha)^2}} & (3.6-1)\\ F_{b\pm}=\dfrac{e^2(1-K_r^2\cos^2\alpha)\beta^2}{4\pi\varepsilon_0L_r^2\sqrt{1-\beta^2(1+K_r\cos\alpha)^2}} & (3.6-2)\end{cases}$$

Simultaneous get:

$$\frac{F_{e\pm}}{F_{b\pm}}=\frac{1}{(1-K_r^2\cos^2\alpha)\beta^2} \qquad (3.7)$$

$\beta\to1$、$K_r\to0$ above formula established conditions, field gravitational slightly larger than the magnetic field repulsion, just plays to overcome the electric dipole rotation movement periodic energy exchange between the centrifugal force generated by the charged Particle role.

Electrically neutral elementary particle composed by the n pairs of the electric dipole between the electric and magnetic fields between each pair of electrical dipole or charged particles interaction force Figure 3.2 shows. By (2.1), (2.2), (3.6-1), (3.6-2), as long as we compare the electric force v_a direction interaction can. Positive load electric particle spacing disposed electric dipole spacing for the $2\Delta\overline{R}_{\alpha}$, the staggered L_x, the relationship with the other parameters:

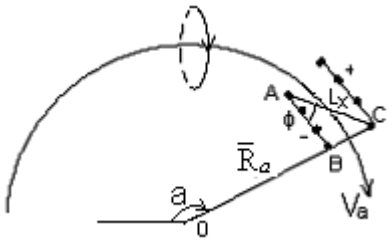


Figure 3.2 electrically neutral elementary particles withinCharged particles in an electric field force diagram

$$\begin{cases} L_x = \sqrt{(2K_r\bar{R}_\alpha)^2 + \left[2(n-1)\Delta\bar{R}_\alpha\right]^2} & (3.8\text{-}1) \\ \sin\phi = \dfrac{2K_r\bar{R}_\alpha}{L_x} & (3.8-2) \\ \cos\phi = \dfrac{2(n-1)\Delta\bar{R}_\alpha}{L_x} & (3.8-3) \end{cases}$$

By (2.1), (3.6-1), located either on the electrostatic force between the charged particles of charged particles with homosexual F_{ex1}, as F_{ex2} heterosexual the electrostatic force between the charged particles, when we calculate the points A and that B, C between the electric field interaction, we have:

$$\begin{cases} F_{ex1} = \dfrac{e^2\left[1-\beta^2(1+K_r\cos\alpha)^2\right]}{4\pi\varepsilon_0\left[2(n-1)\Delta\bar{R}_\alpha\right]^2} \quad (\sin\phi = 0) & (3.9-1) \\ F_{ex2} = \dfrac{-e^2\left[1-\beta^2(1+K_r\cos\alpha)^2\right]\cos\phi}{4\pi\varepsilon_0 L_x^2\left[1-\beta^2(1+K_r\cos\alpha)^2\sin^2\phi\right]^{1.5}} & (3.9-2) \end{cases}$$

Simultaneous get:

$$\frac{F_{ex2}}{F_{ex1}} = \frac{-\left[2(n-1)\Delta\bar{R}_\alpha\right]^3}{\left\{(2K_r\bar{R}_\alpha)^2 + \left[2(n-1)\Delta\bar{R}_\alpha\right]^2 - \beta^2(1+K_r\cos\alpha)^2(2K_r\bar{R}_\alpha)^2\right\}^{1.5}} \quad (3.10)$$

Clearly, the equilibrium conditions of the two directions of the electric force is beta $\beta\to1$、$K_r\to0$.

If we (3.6-1) (3.9-1), two formulas were compared and set $L_x = 10\Delta\bar{R}_\alpha$, n = 2, then: $\dfrac{F_{e\pm}}{F_{ex1}} \approx \dfrac{(n-1)^2}{25\left(1-\beta^2\right)^{1.5}}$.

Because $\beta=1\text{-}10^{-9}$、n=2, substituting too: $F_{e\pm} / F_{ex1}=4.4721\times10^{11}$. By the previous result: electricity, electric dipole magnetic field interaction force between the electric dipole 4.4721×10^{11} times! So, when the electric and magnetic fields within the electric dipole interaction force $F_{e\pm}$ $F_{b\pm}$ as a super force, the electric and magnetic field force between the electric dipole F_{ex1} F_{bx1} naturally become weak interaction force. This proves the strong and weak interactions are actually electrical, magnetic interactions.

3.2.2 Electrically neutral elementary particle surface interaction Strength calculations

Provided an electrically neutral elementary particle has n pairs of electric dipole, electric dipoles along the radius of rotation of the vertical fluctuations in the direction of movement of the n $K_r\bar{R}_\alpha$ as elementary particles surface radius. For calculation purposes, we analyzed the calculation of fluctuations, the outside of the spin-orbit a=π at the electric dipole rotation orbit, the outer surface of the electric and magnetic field force size, you can understand the whole picture. Its surface force refers to the orbit of rotation of the electric dipoles within the elementary particles, the outer surface of the integrated power, the difference of magnetic force△F_e,△F_b. By (2.1), (2.2),△F_e, △F_b:

$$\begin{cases} \Delta F_e = \dfrac{(ne)^2}{4\pi\varepsilon_0(2K_r\bar{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_r)^2}}-\dfrac{1}{\sqrt{1-\beta^2(1-K_r)^2}}\right] & (3.11-1) \\ \Delta F_b = \dfrac{(ne)^2\beta^2(1-K_r^2)}{4\pi\varepsilon_0(2K_r\bar{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_r)^2}}-\dfrac{1}{\sqrt{1-\beta^2(1-K_r)^2}}\right] & (3.11-2) \end{cases}$$

Simultaneous equations (3.11) have:

$$\Delta F_e - \Delta F_b = \frac{(ne)^2}{4\pi\varepsilon_0(2K_r\bar{R}_\alpha)^2}\left[\frac{1-\beta^2+K_r^2\beta^2}{\sqrt{1-\beta^2(1+K_r)^2}}-\frac{1-\beta^2+K_r^2\beta^2}{\sqrt{1-\beta^2(1-K_r)^2}}\right] \quad (3.12)$$

The Table 2.2, of N_a=1、n=1、β=1-10^{-9}、K_r=1302.6×10^{-13} value (3.1) into (3.12), we have:

$$\Delta F_e - \Delta F_b + F_{n\alpha} = \frac{e^2}{4\pi\varepsilon_0\bar{R}_\alpha^2}\left[8.675331\times10^{13}n^2+\beta\left(\frac{2h\varepsilon_0 c}{e^2}\right)\right] >> 0 \quad (3.13)$$

Which, together electric force outward from elementary particle fluctuations inside track, or magnetic forces inward, comprehensive electrical, magnetic force point fluctuations outside the orbit. The centrifugal force F_{na} electricity, magnetic force △F_e, △F_b compared clearly insignificant. Similarly, if let a = 0, the integrated electricity, magnetic forces also point to the fluctuations outside the orbit, but point to the inside of the spin-orbit. Therefore, the entire elementary particle surface along fluctuations, spin-orbit motion, integrated electric and magnetic field force in the spin-orbit direction of changes. By (3.4), we know that the entire the elementary particle surface electric and magnetic field force is much smaller than the charged particles outside of electric and magnetic forces. The overall synthesis characteristics of electric and magnetic forces capable of elementary particles firmly constrained fluctuations, spin-orbit. The chapter concludes with a comparative demonstration will feature in Table 3.1.

3.3 Charged elementary particles outside The interaction strength

3.3.1 Charged elementary particle interaction strength within Computing

By figure 3.3 shows, set in the elementary particles by n of electric dipole and a positive charged particles. When we calculated at point A and point B, and C of the electric force between charged particles F_{ex1}, F_{ex2}, make AC = L_x, the interval between two of electric dipole in2 $\Delta\bar{R}_\alpha$, because:

Reference (3.6-1), (3.9) equations have to:

$$\begin{cases} EC = 2K_r\bar{R}_\alpha & (3.14-1) \\ AE = (2n-1)\Delta\bar{R}_\alpha & (3.14-2) \\ L_x = \sqrt{(2K_r\bar{R}_\alpha)^2+\left[(2n-1)\Delta\bar{R}_\alpha\right]^2} & (3.14-3) \end{cases}$$

$$\begin{cases} F_{ex1} = \dfrac{e^2\left[1-\beta^2(1+K_r\cos\alpha)^2\right]}{4\pi\varepsilon_0\left[2n\Delta\bar{R}_\alpha\right]^2} \quad (\sin\phi=0) & (3.15-1) \\ F_{ex2} = \dfrac{-e^2\left[1-\beta^2(1+K_r\cos\alpha)^2\right]\cos\phi}{4\pi\varepsilon_0 L_x^2\left[1-\beta^2(1+K_r\cos\alpha)^2\sin^2\phi\right]^{1.5}} & (3.15-2) \end{cases}$$

Will make F_{ex1}/F_{ex2}=-1, equations (3.14) into (3.15) equations were checking:

$$\Delta\bar{R}_\alpha = K_r\bar{R}_\alpha\sqrt{\frac{1-\beta^2(1+K_r\cos\alpha)^2}{\left[n^2(n-0.5)\right]^{2/3}-(n-0.5)^2}} \quad (3.16)$$

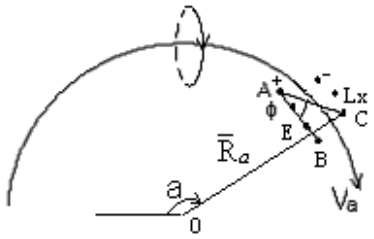


Figure 3.3 charged basic internal charged particles electric field force diagram

Make N_a = 3, into (2.11), to: β = 0.9989472725. For n = 3, table 2.1 to: K_r = 10.5879 x 10^{-5}. Generation into (3.16), to: $\Delta\overline{R}_\alpha \big/ K_r\overline{R}_\alpha = 0.0366927$. That stagger the interval between the electric dipole is far less than the inside of the electric dipole is, load power distance between particles.

By the same token, if make n = 1, look-up table 2.2: K_r = 25.224 x 10^{-5}, substituting (3.16), type: $\Delta\overline{R}_\alpha \big/ K_r\overline{R}_\alpha = 0.082844,$ explain with electric dipole number n decrease, interval increases.

3.3.2 Charged particle surface force strength calculation

Set in the elementary particles by n of electric dipole and a surplus of charged particles, because of the excess unpaired distribution of charged particles is always in the inside of the spin track, and $\Delta\overline{R}_\alpha << K_r\overline{R}_\alpha$, we can carry on the simplified calculation. In a=π, the inside of the n+1 charged particles on the lateral n a charged particle synthesis of electric field attractive processed △F_e maintenance, integrated magnetic repelling force processed △F_b, respectively:

$$\begin{cases} \Delta F_e = \dfrac{n(n+1)e^2}{4\pi\varepsilon_0(2K_r\overline{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_r)^2}}-\dfrac{1}{\sqrt{1-\beta^2(1-K_r)^2}}\right] & (3.17-1) \\ \Delta F_b = \dfrac{n(n+1)e^2\beta^2(1-K_r^2)}{4\pi\varepsilon_0(2K_r\overline{R}_\alpha)^2}\left[\dfrac{1}{\sqrt{1-\beta^2(1+K_r)^2}}-\dfrac{1}{\sqrt{1-\beta^2(1-K_r)^2}}\right] & (3.17-2) \end{cases}$$

Movement of elementary particles along the track motion of centrifugal force F_{na} is:

$$F_{n\alpha} = \frac{mv_\alpha^2}{\overline{R}_\alpha} = \frac{h\beta c(\sqrt{N_\alpha}+\cos\alpha)^2}{2\pi\overline{R}_\alpha^2(N_\alpha-1)} \qquad (3.18)$$

The equations (3.17) and (3.18) - united stand:

$$\Delta F_e - \Delta F_b + F_{n\alpha} = \frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left\{\frac{n(n+1)(1-\beta^2+K_r^2\beta^2)}{(2K_r)^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_r)^2}}-\frac{1}{\sqrt{1-\beta^2(1-K_r)^2}}\right]\right\} + \left(\frac{2h\varepsilon_0 c}{e^2}\right)\beta\frac{(\sqrt{N_\alpha}+\cos\alpha)^2}{N_\alpha-1} \qquad (3.19)$$

Make n = 2, N_a=3、β=0.9989472725、a=π, from table 2.1 to: K_r = 1.48881 x 10^{-4}, generation into (3.19), to:

$$\Delta F_e - \Delta F_b + F_{n\alpha} = \frac{e^2}{4\pi\varepsilon_0 \bar{R}_\alpha^2}\left[\begin{array}{l} 4.4389849\times 10^5 \\ +0.2679492\beta\left(\dfrac{2h\varepsilon_0 c}{e^2}\right)\end{array}\right] >> 0 \qquad (3.20)$$

With equations (3.11), (3.12) and (3.13) - similar to charged elementary particles comprehensive electric and magnetic field strength in a=0、π is pointing in the direction of wave rail lateral, but strength is much smaller than neutral particles. Also change in the direction of the resultant force along the spin track, also is far less than that of (3.4) - calculation of charged particles inside and outside comprehensive electric and magnetic field strength. The whole electric and magnetic field force synthesis characteristics can also be charged elementary particles firmly constraints in the fluctuation, the spin track.

3.4 The basic particles in internal wave direction other Position and spin direction orbit inner side and outside Of the interaction force strength calculation

3.4.1 Elementary particle internal interactions in the wave direction Other position strength calculation

Set a neutral elementary particles composed of n to the electric dipole. According to (3.1), each pair of electric dipole along the wave produced by the orbital motions centrifugal force F_{na} is:

$$F_{n\alpha} = \frac{mv_\alpha^2}{n\bar{R}_\alpha} = \frac{h\beta c}{2\pi n\bar{R}_\alpha^2} \qquad (3.21)$$

By table 2.2, $K_r < 10^{-8}$ and (3.4) results to: $1.4991\times 10^{-13} \geq K_{r\bullet} \geq 8.0\times 10^{-15}$, Because $K_r\cos a \to 0$, $K_{r\bullet}\cos a \to 0$. We can put each pair of electric dipole in positive and load fluctuation rate charged particles are v_a, has nothing to do with position in wave a. Each charged particles along the orbit radius fluctuation $\bar{R}_\alpha$ Aradial are divided into inner and outside two hemispheres, by (2.7) equations: $v_{\alpha 1} = \beta(1+K_{r\bullet})c$, $v_{\alpha 2} = \beta(1-K_{r\bullet})c$ is still poor speed, leading to each charged particles, and the lateral formed in the wave motion of electric and magnetic field force intensity difference. By (3.2) ~ (3.4) and (3.11) equations, n of electric dipole in 2n a charged particle inside and outside comprehensive electric and magnetic field force $\triangle F_{eb\bullet}$ processed for:

$$\Delta F_{eb\bullet} = \frac{2n(0.5e)^2\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4\pi\varepsilon_0(K_{r\bullet}\bar{R}_\alpha)^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \qquad (3.22)$$

Will (1.2 1) into (3.21), to β=1-10^{-9}, $\triangle F_{eb\bullet} - F_{na} >> 0$, simultaneous (3.21) and (3.22), to:

$$\frac{e^2}{4\pi\varepsilon_0\bar{R}_\alpha^2}\left\{\frac{2n\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4K_{r\bullet}^2}\left[\begin{array}{l}\dfrac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} \\ -\dfrac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\end{array}\right] - \beta\left(\frac{2h\varepsilon_0 c}{ne^2}\right)\right\} >> 0 \qquad (3.23)$$

The conditions of (3.23) - is $1/\beta - 1 > K_{r\bullet} \geq 8.0\times 10^{-15}$. Will $K_{r\bullet}=8.0\times 10^{-15}$ generations into (3.23), for n=1, a: processed: $\triangle F_{eb\bullet}/F_{na} >> 1$, the results are shown in table 3.1. These results show that neutral elementary particles within each charged particles comprehensive electric and magnetic field force direction along the R_a to fluctuations in the inside of the track, is a multiple centrifugal force in the direction of the wave astronomy.

Similarly, the charged particle, because most of the energy is reflected on the remaining charged particles, so:

$$F_{n\alpha} = \frac{mv_\alpha^2}{\bar{R}_\alpha} \qquad (3.24)$$

$$\Delta F_{eb\bullet} = \frac{(2n+1)(0.5e)^2\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4\pi\varepsilon_0(K_{r\bullet}\bar{R}_\alpha)^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \qquad (3.25)$$

Simultaneous (3.24) and (3.25), to $\triangle F_{eb\bullet} - F_{na} >> 0$, to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left\{\frac{(2n+1)\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4K_{r\bullet}^2}\left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}}-\frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right]-\beta\left(\frac{2h\varepsilon_0 c}{e^2}\right)\right\}>>0 \quad (3.26)$$

Make β=0.9987108301、（$N_a=\infty$）、n=2、$K_{r\bullet}=8.0\times10^{-15}$, into(3.26), to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left[3.078125\times10^{15}-\beta\left(\frac{2h\varepsilon_0 c}{e^2}\right)\right]>>0 \quad (3.27)$$

Make β＝1-10^{-9}、n＝2、$K_{r\bullet}=8.0\times10^{-15}$, and into（3.26）to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left[3.493835\times10^{18}-\beta\left(\frac{2h\varepsilon_0 c}{e^2}\right)\right]>>0 \quad (3.28)$$

3.4.2 Elementary particle movement of internal and external spin track Motion the e and h field force strength calculation results

To charged particles inside and outside surface and the basic particle surface comprehensive electric and magnetic field, the results shown in table 3.1. To see that all the elementary particles, charged particles, only fluctuation, spin, rotation speed is $\vec{v}\geq c$ to stable; Elementary particles within each charged particles along the fluctuation, the movement of the spin track, inside and outside the two hemispheres of electric and magnetic field force $\triangle F_{eb\bullet}$ processed Feb ▪ always pointing in the direction of wave orbital medial, size is fundamental particles along the fluctuation track movement form centrifugal F_{na} astronomy multiples; And far outweigh its fluctuation track along the surface of the whole elementary particles movement form comprehensive electric and magnetic field strength of $\triangle F_{eb}$, (because $K_r>>K_{r\bullet}$); The latter always pointing in the direction of wave rail lateral; So, the entire elementary particles can be firmly constraints in the fluctuation, the spin track.

Charged particles, the basic particle surface comprehensive electric and magnetic field force strength comparison table 3.1

Particle category	v_a	K_r $K_{r\bullet}$	$\triangle F_{eb(\bullet)}/F_{na}$	Calculation formula
Charged particles	（1-10^{-9}）c	$K_{r\bullet}=8.0\times10^{-15}$	5.0991×10^{15}	（3.4）
Electrically neutral elementary particles	（1-10^{-9}）c	$K_r=1.306\times10^{-10}$ $K_{r\bullet}=8.0\times10^{-15}$	6.3307×10^{11} 1.0198×10^{16}	（3.13） （3.23）
Charged elementary particles n =2	0.998947273c 0.998710830c （1-10^{-9}）c	$K_r=1.4888\times10^{-4}$ $K_{r\bullet}=8.0\times10^{-15}$ $K_{r\bullet}=8.0\times10^{-15}$	1.20996×10^{4} 2.2504×10^{13} 2.5496×10^{16}	（3.20） （3.27） （3.28）

So, each charged particle far outweigh the elementary particles on the surface of the comprehensive electric and magnetic field strength can be unlimited to wave orbital medial shrinkage? The answer is: not! First, different elementary particles fluctuation orbit radius R_a represent different energy, should be the elementary particles inside the inherent characteristics. Inward contraction means that energy increases self into infinite, violation of the law of conservation of energy. Secondly, all of the charged particles, the fluctuation, spin, rotation orbit, can stable existence is the precondition of its speed is $\vec{v}\geq c$. We cut the ball every charged particles entity into 2n, see figure 3.4.

By (2.1), (2.2), too: when speed is $\vec{v}=c$, integrated electric and magnetic field interactions only occurs in the vertical direction the speed, the lateral plane of two small pieces, each other between adjacent plane electricity, magnetic force is zero. So, by (3.4), each charged particles internal comprehensive electric and magnetic field force as $\Delta F_{eb\bullet}$, as follows:

$$\Delta F_{eb\bullet} = \frac{e^2\left[1-\beta^2(1-K_{r\bullet}^2)\right]}{4\pi\varepsilon_0 \overline{R}_\alpha^2 (4K_{r\bullet}^2 \times 4n)} \times \left[\frac{1}{\sqrt{1-\beta^2(1+K_{r\bullet})^2}} - \frac{1}{\sqrt{1-\beta^2(1-K_{r\bullet})^2}}\right] \quad (3.29)$$

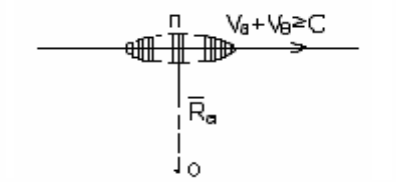


Figure 3.4 charged particles inside the subdivision schemes

Theoretically, slice the n value size there is no limit, but it can reflect the basic particle of the charged particles in the different combination structure, can normal environment, the orbit of wave motion position of deformation degree of stretch. It must adjust instantly, always meet in table 3.1 $\triangle F_{eb\bullet} \geq \triangle F_{eb}$, elementary particles can be properly, firmly constraints in the fluctuation, the spin track. Provide the self adjusting, the tensile deformation and from can state the conditions of the environment around other charged particles of the opposite sex, charged particles between electric field. This is for elementary particles, nuclei, atomic units must be positive and load all the micro particle charged particles, with positive and negative, the basic particle of symbiosis. (See chapter 7 nucleus structure model and the nuclear force forming principle).

Photons, neutrinos only consists of a pair of electric dipole, can no longer separation, and the same, rotate speed, track is cylindrical helical, and so is stable. Electronic more than only a charged particle, also can no longer separation, so also is stable. By (3.16), charged elementary particles along the fluctuation track movement direction, internal each distance between charged particles with the number of electric dipole n laid great decreases and the interval between big and small beside. The electric and magnetic field inside the natural cause interactions imbalance, split decays either. To $\pi^{\pm}$ can only be protons, within the nucleus. The reason for this is internal only 2 of electric dipole and charged particles. Each charged particles interval symmetrical on both sides are equal, just show the internal comprehensive electric and magnetic field force between the charged particles is just balance, and a corresponding stable around the external "state" of the environment, both protons, nuclei formed special structure within the nuclear force, see chapter 6 and nuclear physics. On the proton core, composed of 6 to the electric dipole, for 6 to electric dipole just in same fluctuations orbital plane synchronous movement, spacing stagger 60 DHS, charged particles positive and negative switch position, this special structure to make proton has a special stability characteristics of the core. In addition to the above five kinds of particles can be concluded that: all other elementary particles, because of the electromagnetic force between internal charged particles are equilibrium state, so is not stable.

4 Elementary particle, strong and weak electricity, Magnetic interaction unity

4.1 The uncertainty relation

4.1.1 Unity the principle of set upon the basis

Existing statistical theory of quantum mechanics theory of elementary particles and conditions within the nucleus, strong and weak electricity, magnetic interaction is the characteristic length, whether to have produced neutrinos, role to distinguish the distance from the surface phenomenon. Has been proved in front of the book, the elementary particles energy origin is electromagnetic field energy. Internal super function and division decay is the weak interaction of charged particles and electric dipole along the fluctuation track movement of electric and magnetic field force acting between themselves and each other. So, we have every reason to further corollary: elementary particles inside the super function, along with the weak interaction of neutrino formation, interaction with electric and magnetic field is the same; Is the basic of particles with different energy fluctuation, spin quantization in the process of transition between the stationary orbit, n of electric dipole (charged particles and a surplus) collection divided, electricity, magnetic energy release of radiation process.

As long as we can from this book elementary particles quantization stationary vertical double elliptical orbit model, using classical electrodynamics and energy relativity principle, from an average of energy and momentum conservation, momentum, charge number, baryonic number are the basic laws of physics, according

to the basic particles along the orbit of the distance, speed, time, the relevance of the derived four functions are the basic particles, split the decay product changes life, energy and the motion state equation, is strict prove the above argument.

4.1.2 The uncertainty relation

According to the basic particles moving along the orbit model, from all the elementary particles sprayed out of a particle accelerator, shall have volatility, spin, and went into the quantization of cylindrical helical compound movement track. Precession speed v_j and spin speed v_θ, mutually perpendicular direction, movement track as shown in figure 1.2 and figure 4.1.

Chart description: spray type basic particle track is not from the point source to the collision between a straight line, but a piano, the thickness of the cylinder to the diameter of the fluctuation track $2R_a$, see figure 1.2 and figure 4.2, which indicated that the micro particle wave particle duality nature. Hybrid orbital motion equations (1.2) and (2.17) equation should be extended to:

$$\begin{cases} R_\alpha = \dfrac{h}{2\pi m v_\alpha} & (4.1-1) \\ R_\theta = \dfrac{h}{2\pi m v_\theta} & (4.1-2) \\ R_\theta = R_{\theta 0} - R_\alpha \cos\alpha & (4.1-3) \\ \alpha = N_\alpha \theta & (4.1-4) \\ \int_0^{2\pi} R_\theta d\theta = \sqrt{N_\alpha} \int_0^{2\pi} R_\alpha d\alpha & (4.1-5) \\ v_j = v_\theta & (4.1-6) \\ Z = v_j t & (4.1-7) \end{cases}$$

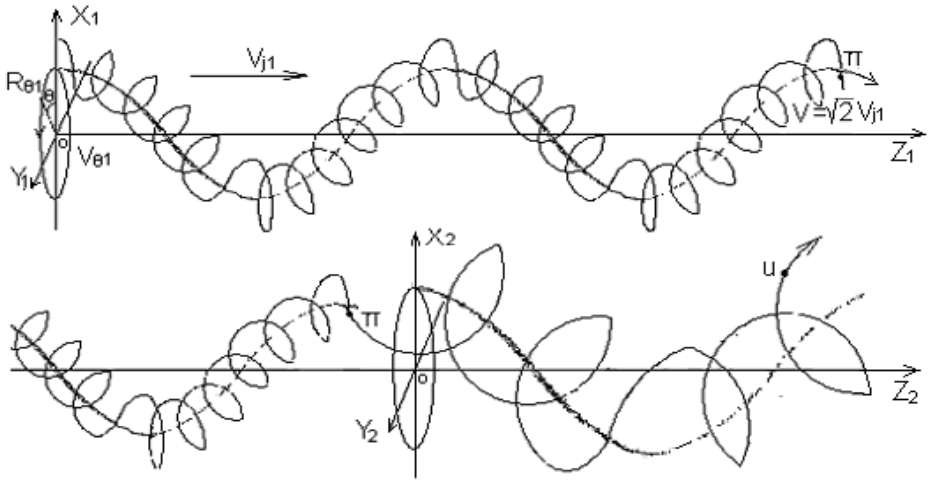


Figure 4.1 elementary particles along the fluctuation, spin, move into the compound orbit in split, decay principle diagram

Front has been proved: static fundamental particles speed fluctuation $v_a \to c$, along the fluctuation, the spin quantization stationary vertical double.

Moving in elliptical orbit, because of the fluctuation, the speed of the spin direction, and to follow the law of conservation of momentum and the average momentum, energy, will not happens electromagnetic energy radiation. So, only in the injection type fluctuations, spin, the motion of the complex motion in orbit, the chapter 3 of the analysis shows that the fluctuation, spin, precession direction, $a=\pi/2,\ 3\pi/2$, electric dipole vibration coefficient K_r value is uncertain, elementary particle energy only in $a=\pi/2,\ 3\pi/2$, to discontinuous changes, and appeared precession direction of electromagnetic energy radiation. (of course, also can produce ionization collisions in environmental media, such as energy loss). Such as electromagnetic wave radiation of energy loss, the fluctuations of elementary particle track N_a quantum number increasing, spin, precession direction speed v_θ、

v_j decreases gradually, the basic particle energy will gradually reduced. When N_a, v_θ and v_j change to a certain extent, the elementary particle decay. Its decay products division quantum fluctuations in the number of N_a smaller, v_θ, v_j larger, took place under an electromagnetic wave energy radiation loss and fragmentation decay process. Until its internal structure, energy and motion state compatible with the environment so far.

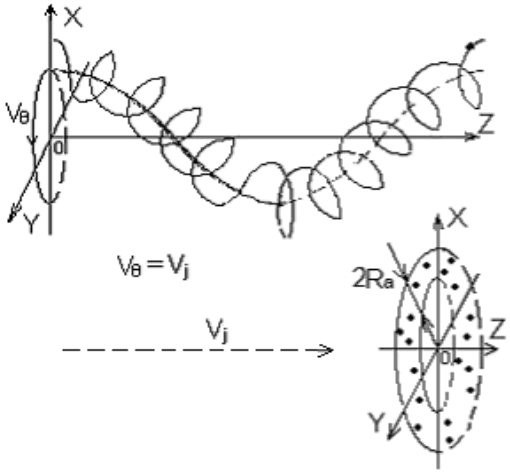


Figure 4.2 basic particle formation wave particle duality principle diagrams

In $\pi^{\pm}$, for example, by the energy principle of relativity, the injection hybrid orbital motion of the moving average quality $\overline{m}_\pi$ and static average quality $\overline{m}_{\pi 0}$ for the relationship between:

$$\overline{m}_\pi = \frac{\overline{m}_{\pi 0}}{\sqrt{1-\beta^2/N_\alpha}} \qquad (4.2)$$

When it is in moving into electromagnetic waves or other forms of energy radiation loss occurs, the quantum fluctuations interest and interest of N_{ai} and N_{ai+1} track transition motion when the energy difference between $\Delta\overline{m}_\pi c^2$ for:

$$\Delta m_\pi c^2 = m_{\pi 0}c^2\left(\frac{1}{\sqrt{1-\beta_i^2/N_{\alpha i}}} - \frac{1}{\sqrt{1-\beta_{i+1}^2/N_{\alpha i+1}}}\right) \qquad (4.3)$$

By classical electrodynamics principle, fundamental particles in the moving direction for speed v_j changes lead to electromagnetic field energy radiation power $P_{e\eta}$ for:

$$P_{e\|} = \frac{e^2\left|\dot{v}_j\right|^2}{6\pi\varepsilon_0 c^3\left[1-\left(v_j/c\right)^2\right]^3} \qquad (4.4)$$

Fundamental particles along the spin, the motion orbit of each cycle for the $T_{\theta i}$ by (1.4-2) type:

$$T_{\theta i} = \frac{L_{\theta i}}{v_{\theta i}} = \frac{2\pi R_{\theta i 0}N_{\alpha i}}{\beta_i c\sqrt{N_{\alpha i}-1}} = \frac{hN_{\alpha i}}{m_{\pi 0}(\beta_i c)^2}\sqrt{1-\frac{\beta_i^2}{N_{\alpha i}}} \qquad (4.5)$$

Its average acceleration $\dot{v}_j$ should be the average rate of change of the spin precession direction speed v_j cycle, too:

$$\dot{v}_j = \frac{c\left(\frac{\beta_i}{\sqrt{N_{\alpha i}}} - \frac{\beta_{i+1}}{\sqrt{N_{\alpha i+1}}}\right)}{\frac{1}{2}(T_{\theta i} + T_{\theta i+1})} \qquad (4.6)$$

By (1.6), (4.2), we have:

$$R_{\theta 0i} = \frac{h\sqrt{N_{\alpha i} - 1}}{2\pi m_{\pi 0}\beta_i c}\sqrt{1 - \frac{\beta_i^2}{N_{\alpha i}}} \qquad (4.7)$$

Similarly, β_i value is calculated by the formula (2.11) can be simplified as:

$$\frac{\beta_i}{1-\beta_i^2} = 2\sqrt{2}\left(\frac{2h\varepsilon_0 c}{e^2}\right)\frac{\sqrt{N_{\alpha i}}}{\sqrt{N_{\alpha i} - 1}} \qquad (4.8)$$

To $\frac{2h\varepsilon_0 c}{e^2} = \frac{1}{a_c}$, generation into (4.8), to:

$$\beta_i = \frac{\sqrt{32N_{\alpha i} + a_c^2(N_{\alpha i} - 1)} - a_c\sqrt{N_{\alpha i} - 1}}{4\sqrt{2N_{\alpha i}}} \qquad (4.9)$$

A fundamental particles each spin, electromagnetic wave radiation energy into dynamic cycle for $W_{e\|i}$, by (4.4) ~ (4.9), to:

$$W_{e\|i} = \frac{1}{2}P_{e\|i}(T_{\theta i} + T_{\theta i+1}) = \frac{e^2 c\overline{m}_{\pi 0}\left(\frac{\beta_i}{\sqrt{N_{\alpha i}}} - \frac{\beta_{i+1}}{\sqrt{N_{\alpha i+1}}}\right)^2}{1.5\pi\varepsilon_0 h\left[\left(1 - \frac{\beta_i^2}{N_{\alpha i}}\right)^3 + \left(1 - \frac{\beta_{i+1}^2}{N_{\alpha i+1}}\right)^3\right]\left(\frac{N_{\alpha i}}{\beta_i^2}\sqrt{1 - \frac{\beta_i^2}{N_{\alpha i}}} + \frac{N_{\alpha i+1}}{\beta_{i+1}^2}\sqrt{1 - \frac{\beta_{i+1}^2}{N_{\alpha i+1}}}\right)} \qquad (4.10)$$

A K_{ti} for time coefficient, make $K_{ti} = \Delta\overline{m}_{\pi i}c^2 / W_{e\|i}$. Because $K_{ti} >> 1$, jet type elementary particles should be N_{ai} and N_{ai+1} quantization stationary orbit passes between K_{ti} time step transition radiation, the energy of the oscillation will $\Delta\overline{m}_{\pi i}c^2$ all out, and then turn to the next level track; Or in N_{ai} and N_{ai+1} fluctuations between quantum number still exist K_{ti} the fluctuations of the transition of a mixed number quantum number; So, the life of the fundamental particles T should be:

$$T = \sum_{i=1}^{Nai}\frac{K_{ti}}{2}(T_{\theta i} + T_{\theta i+1}) \qquad (4.11)$$

To (4.3) ~ (4.10) - integrated into (4.11), and the determination of the equation, too:

$$W_{e\|i}T = \frac{K_i h}{8} \qquad (4.12)$$

The K_i value change with fluctuating interest quantum number N_{ai} calculation results shown in table 4.1.

The change of the calculation results show that K_i value only associated with N_{ai} value, actually has nothing to do with particle rest mass m_0 completely, that is to say: (4.12) - the basic particles of any quality calculation results are the same. This chapter main consideration particle into the moving direction of electromagnetic radiation energy, the particle collisions with medium, ionization, and other forms of energy loss is not consideration. Obviously, the latter's influence can be neglected. So, this chapter not only reveals the uncertainty relation between forming principle, but also changes with fluctuations N_{ai} quantum number of accurate value.

The K_i value change with fluctuating interest quantum number N_{ai} the results table 4.1

By

N_{ai}	2	5	10	50
K_i	2.926064	1.536049	1.239385	1.044161
N_{ai}	100	500	1000	5000
K_i	1.021870	1.004341	1.002168	1.000433

mathematical simulation results and comparison, we can use (4.13) - instead of table 4.1 the results:

$$W_{e\|i}T = \frac{h}{8}\left(1+\frac{2.16}{N_{\alpha i}}+\frac{3.35}{N_{\alpha i}^2}\right) \qquad (4.13)$$

To basic particles are electrically neutral, there are still changes periodically of the electric and magnetic field, and the same energy origin, follow energy relativity formula (4.2), so the same applies to the above analysis results, the difference only lies in $\beta = 1\text{-}10^{-9}$ is constant.

4.2 Elementary particle life, split the decay product relates To the law of conservation of energy, and momentum

4.2.1 Elementary particles split the decay product service life and the Law of conservation of energy, and momentum equation

Elementary particle energy originated from internal electric dipole magnetic energy oscillations. By (2.9) ~ (2.16) - the results indicated that electric dipole coefficient K_r value, mainly with the basic particle internal electric dipole log n; Electrically neutral basic particles and charged particles K_r value size difference is quite wide, and fluctuations quantum interest of N_{ai} and track the position of a also to have certain relations; In $a=\pi/2$、$3\pi/2$ position, all of the neutral or charged elementary particles, K_r values are uncertain value; At this time, the internal each charged particles between the electric and magnetic field force is perpendicular to the wave, the spin track radius, the resultant force tends to zero. So in elementary particles under the action of centrifugal force, the fluctuation track the movement of the position of the decay of split occurred only in $a=\pi/2$、$3\pi/2$. Only in this way, particles and matrix division within the plasma particles decay coefficient of all the electric dipole of K_r can get; And matrix and the plasma particles in $a=\pi/2$ location or near the moment when the sum of energy and momentum is still should follow the law of conservation of energy, momentum and energy gradually reduce spontaneous split the decay law of.

Movement of elementary particles along the orbital motion of the average quality of $\overline{m}_i$ and instant quality m_i relationship, by (1.2-1), (1.3-1), (1.5) and (2.8) equations have to:

$$m_i = \frac{\overline{m}_i\left(\sqrt{N_{\alpha i}}+\cos\alpha\right)}{\sqrt{N_{\alpha i}-1}} \qquad (4.14)$$

Still in $\pi^+ \rightarrow u^+ + \upsilon$ (neutrino) hormone called tau was decay process, for example, in the direction of the wave motion, by (4.2), (4.14), we have:

$$\begin{cases} \dfrac{\overline{m}_{\pi 0}\left(\sqrt{N_{\alpha\pi}}+\cos\alpha\right)}{\sqrt{\left(1-\beta_\pi^2/N_{\alpha\pi}\right)\left(N_{\alpha\pi}-1\right)}} = \dfrac{\overline{m}_{u0}\left(\sqrt{N_{\alpha u}}+\cos\alpha\right)}{\sqrt{\left(1-\beta_u^2/N_{\alpha u}\right)\left(N_{\alpha u}-1\right)}} + m_\nu & (4.15-1) \\ \dfrac{\overline{m}_{\pi 0}\left(\sqrt{N_{\alpha\pi}}+\cos\alpha\right)\beta_\pi c}{\sqrt{\left(1-\beta_\pi^2/N_{\alpha\pi}\right)\left(N_{\alpha\pi}-1\right)}} = \dfrac{\overline{m}_{u0}\left(\sqrt{N_{\alpha u}}+\cos\alpha\right)\beta_u c}{\sqrt{\left(1-\beta_u^2/N_{\alpha u}\right)\left(N_{\alpha u}-1\right)}} - m_\nu c & (4.15-2) \end{cases}$$

Because charged elementary particles wave speed vθi theta I decreases with increasing number of quantum fluctuations N_{ai}, so split decay, quality very small neutrino wave speed direction should be contrary to maternal particles, the jet recoil role to improve the quality of the plasma particles u^+ the sons of light wave velocity. Interactions by chapter 3 basic particle internal structure and analysis can be seen: elementary particles stability condition is various, load interaction of charged particles, electricity, magnetic repelling force, attraction vector and must be far outweigh the centrifugal force. Split decay in $a=\pi/2$、$(3\pi/2)$, by the charged particle interactions between K_r、$\Delta\overline{R}_\alpha$ change caused by imbalance. By equations (4.15):

$$m_\nu = \frac{\overline{m}_{\pi 0}\left(\sqrt{N_{\alpha\pi}}+\cos\alpha\right)}{\sqrt{\left(1-\beta_\pi^2/N_{\alpha\pi}\right)\left(N_{\alpha\pi}-1\right)}}\left(\frac{\beta_u-\beta_\pi}{1+\beta_u}\right) \qquad (4.16)$$

4.2.2 Parameters of the simulation results

If parent π^+ mesons, plasma u^+ light and electrical dipole moment coefficient in hormone called neutrinos m_υ tau were K_{ri} value, N_{ai}、$\Delta\overline{R}_{\alpha i}$、$\beta_i$ parameters change, is in the Angle of wave $Aa=90^o\sim91^o$ within the interval of the moment, by (4.14), (4.15-1), (4.16), the moment of matrix and plasma particles energy changes with fluctuations N_{ai} quantum number shown in table 4.2. From visible: when N_{au} = 4, π^+ split muon decay into u^+ light quantum number changes when fluctuation range of corresponding: $1242\geq N_{a\pi}\geq110$. The $N_{a\pi}$ value generation into (4.10), (4.13), to π^+ violation of life range for: $4.579289\times10^{-8}\geq T\geq2.832698\times10^{-12}$ (seconds).

Similarly, a range and $N_{a\pi}$、T, the relationship between see table 4.3.

therefore, the life of the fundamental particles directly with particles in internal fluctuation track Angle parameter $a=90^o\sim91^o$ interval change of division of speed, although this chapter only to a few a Angle value interval type calculation comparison, readers can see the change trend of calculation and the experimental results perfectly.

The π^+ mesons in $a=90^o\sim91^o$ interval split decay instantly energy changes the results table 4.2

$N_{\alpha\pi}$	$(m_\pi - m_\upsilon)\times10^{-28}$ Kg	$N_{\alpha\mu}$	$m_\mu\times10^{-28}$ Kg
2	4.971994843~910636872		
3	3.730167878~ 692582141	2	3.763675139~3.717228697
4 5 6 7 8	3.316109467~3.287172421 3.109056233~3.084790194 2.984816239~2.963549677 2.901986125~2.882843494 2.842820036 ~ 2.82527882		
9	2.798444514 ~ 2.78216465	3	2.823842472~2.795389007
10 11 .. 50 .. 100 ..	2.763929647~ 2.74867598 2.736317391~2.721918619 .. 2.538513845 ~ 2.53224843 .. 2.512896999~2.508511389 ..		
110 111 112 .. 200 .. 300 .. 500 .. 1000 .. 1242	2.510593818~2.506416136 2.510386532~2.506228054 2.51018298 ~ 2.506043444 .. 2.500281559~2.497196033 .. 2.496104525~2.493589412 .. 2.492772936~2.490827339 .. 2.490280078~2.488905709 .. 2.489794933~2.488561947	4	2.510468711~2.488561851
1243 1244 .. 2000.. 3000 .. 5000 .. 10000 ... ∞	2.48979332 ~ 2.488560831 2.48979171 ~ 2.488559718 .. 2.489035519~2.488064178 .. 2.488620942~2.487827978 .. 2.48828938 ~ 2.487675235 .. 2.488040767~2.487606544 .. 2.487792203~2.487792203	5 6 .. . .. ∞	2.353761653~2.335390653 2.259730608 ~ 2.24363022 .. .. .. 1.883551778~1.883551778
		note	Values are hormone called m_υ were by $N_{\alpha\mu}=4$ in the results of calculation, and $N_{\alpha\mu}$=2、3、……Compared to the error is negligible

The $\pi^\pm$ mesons a value range and $N_{a\pi}$,T the relationship between the calculation result table 4.3

a value range	$N_{a\pi}$ Constituting range	Particle life range (seconds)
90º~90.5º	$187 \geq N_{a\pi} \geq 110$	$2.360281\times10^{-12} \geq T \geq 2.83270\times10^{-12}$
90º~90.75º	$307 \geq N_{a\pi} \geq 110$	$1.712236\times10^{-10} \geq T \geq 2.83270\times10^{-12}$
90º~90.95º	$734 \geq N_{a\pi} \geq 110$	$5.587989\times10^{-9} \geq T \geq 2.83270\times10^{-12}$
90º~90.99º	$1083 \geq N_{a\pi} \geq 110$	$2.647643\times10^{-8} \geq T \geq 2.83270\times10^{-12}$

5 Microwave field characteristics of the transmission Principle and parameter calculation

5.1 Microwave field characteristics and parameters Are calculated

5.1.1 Microwave field characteristics

In the scientific community existing on the stability of the particle detection technology and knowledge level, combined with this theoretical model, can be determined for stable particle in the universe detection task has been finished. So, evenly distributed in space, the long-term stability of 2.73 K bold background of microwave radiation is caused by what? In protons, electrons and photons (electromagnetic waves), and choose between neutrinos, can only be electromagnetic waves.

Front has been proved that electromagnetic waves and photons are similar, when electromagnetic wave energy big light when it is photons, only consists of a pair of electric dipole, the fluctuation, the velocity is the speed of light c, orbit for cylindrical helical. When the electromagnetic wave energy small light when it becomes neutrino campaign to medium electromagnetic field shock wave. Because neutrinos are electrically neutral appearance elementary particles, low quality, and other particles, and atomic and molecular interaction is very weak, so have the special characteristics of penetration and diffusion. Inevitable in a similar gas molecular motion state evenly spread in the vast space, the physical characteristics can be reference to analysis and calculation of gas molecules kinematics law of thermodynamics.

5.1. 2 Microwave field parameters are calculated

By molecular dynamics and the universe space 2.73 K in bold background microwave radiation characteristics of a microwave average energy for $\overline{W_\nu}$:

$$\overline{W_\nu} = 1.5KT \qquad \text{（K is the Boltzmann constant）} \qquad (5.1)$$

Will the AAT = 2.73 value generation into (5.1), to: $\overline{W_\nu}$ =5.65379451×10^{-23}J, By the energy theory of relativity to: $\overline{W_\nu} = \overline{m_\nu} c^2$, $\overline{m_\nu}$ =6.290694778×10^{-40}Kg, root mean square velocity is:

$$\overline{v} = \sqrt{\frac{3KT}{\overline{m_\nu}}} = \sqrt{2}c \qquad (5.2)$$

Will to $\overline{m_\nu}$, T = 2.73 value generation into (5.2), to: $\overline{v} = \sqrt{2}c$, (directly (5.1), $\overline{W_\nu} = \overline{m_\nu} c^2$ generation into (5.2), the result is the same, and the temperature T.) That microwave fluctuations, rotate speed and photon exactly the same, all is the speed of light. Because of fluctuation, the velocity is constant c, so for microwave, the speed of gas molecules in different temperature distribution curve should be changed to microwave energy distribution curve. Thus, microwave and photon neutrinos are only one, only energy size difference.

We by the surface of the earth, the sun for microwave, hydrogen molecular kinetic energy, and gravitational potential energy compared with gravity density change, analyze the characteristics of the microwave diffusion, the results shown in table 5.1.

Hydrogen molecules, microwave kinetic energy, gravitational potential energy and diffusion characteristics calculation results table 5.1

category	Kinetic energy （J）	Gravitational potential energy（J）	Gravity density distribution
Using the formula	$\overline{W}_d$ =1.5 KT	$\overline{W}_g$ =GM$_1$ $\overline{m}_2$ / R	$N_i=N_o e^{-mgH_i/kT}$
microwave The earth The sun	5.65379451×10^{-23}	 3.944365837×10^{-32} 1.189891687×10^{-28}	H_1=1m, H_2=50000m $N_1=N_o$, $N_2=N_o$ $N_1=N_o$, $N_2=N_o$
hydrogen The earth The sun	 6.1715413×10^{-21} 1.29913015×10^{-19}	 2.09866509×10^{-19} 6.33101556×10^{-16}	 $N_1=N_o$, $N_2=0.671N_o$ $N_1=N_o$, $N_2=0.591N_o$
Note	Microwave temperature take 2.73 K, and the earth's surface hydrogen take 298 K, the surface of 6273 K. Assume that hydrogen without decomposition, ionization, temperature is constant.		

Comparing the calculation results can be seen, the earth, the sun gravitational potential energy of hydrogen are far outweigh the kinetic energy, gravitational density distribution in $N_1 > N_2$, can prevent hydrogen molecules spread into space. To the gravitational potential energy is far less than the kinetic energy of the microwave. Is the sun that belongs to medium quality of stars in the universe, the microwave gravitational potential energy only kinetic energy of the 2.105 x 10^{-6} times!!!! Have no influence gravity density distribution changes with height. Moreover, at the speed of light wave and move into the neutrino has extremely strong penetration performance. Any substance composed of atoms, molecules container or planets, stars, in the presence of the neutrino is "transparent". So, unless the super massive stars or black holes on the edge of the strong gravity field can't stop neutrino internal evenly spread in the whole universe space and stars, forming the omnipresent neutrino field and space evenly distributed in the 2.73 K bold microwave background radiation field.

5.2 Electromagnetic wave propagation theory and Parameter calculation

We know from the fluctuation of the laws of physics: any energy wave must have a media of communication, early have not yet found that neutrinos, think is a transverse wave; electromagnetic wave is only transmitted in solid medium. Michelson use optical methods and measure to earth absolute movement of historical conditions, the scientific community media of propagation of electromagnetic waves will temporarily leave out also can understand.

Now, the book has proved the photon and neutrinos are composed of a pair of electric dipole, all at the speed of the wave, the cylindrical helical orbit; Photons in the electric dipole rotation angular velocity and angular velocity fluctuation is same, can show in the fluctuation, the motion characteristics of electromagnetic wave, see figure 2.4; Neutrino because of electric dipole in rotation angular velocity is the photon, hormone called N_u were 343323≥N_u≥5991, hormone called N_u were (see chapter 2); The electromagnetic wave frequency is the same times, hormone called energy photon N_υ were to show the variation characteristics of transient electromagnetic field in the scientific community is still not aware of; The omnipresent, uniform distribution of magnetic dipole of neutrino and early people think "etheric field" how similar!

By molecular dynamics and gas elastic medium wave propagation theory, the gas molecules adiabatic index r for:

$$r=C_p/C_v=1+2/i \qquad (5.3)$$

(C_p type is the gas constant pressure heat capacity, C_v constant heat capacity, i for molecular translational and rotational degrees of freedom). Neutrinos, into the dynamic track can be regarded as piano, translational degree of freedom for 2, the rotation of the electric dipole of freedom is 2, generation of (5.3) in type, too: r = 1.5. According to the section of neutrino uniform diffusion distribution characteristics, can use ideal gas of the propagation of logitudinal wave velocity formula:

$$v_i = \sqrt{\frac{rRT}{u}} = c \qquad (5.4)$$

Will r=1.5, R for the universal gas constant, T=2.73K, u= $\overline{m}_v$, $\overline{m}_v = \overline{W}_v / c^2$, N_A=3.746712×10^{-16}Kg/mol, and in (5.4), to: v_j=2.99792436×10^8m/s, it is the speed of light c! And has nothing to do with the temperature of the blackbody microwave radiation! Experiments have determination. Maxwell's equations of electromagnetic field also have been proved theoretically, the electromagnetic wave is transmitted at the speed of light. But how can is a transverse wave, electromagnetic wave in gas state distribution of neutrino field spread? And neutrino field propagation speed of longitudinal wave and happens to be the speed of light, it can't be coincidence?

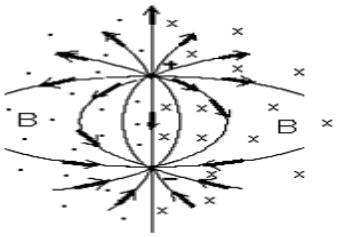


图5.1 电磁振荡源形成的电力线与被极化的中微子电偶极矩定向排列示意图 "→"代表电偶极矩

Figure 5.1 electromagnetic oscillation source formation of power line and the polarization of the neutrino electric dipole moment directional arrangement plan "→"on behalf of the electric dipole moment

Detailed analysis of the mechanism of electromagnetic wave propagation in the neutrino field, it is not hard to find, it with solid material principle of transverse shear deformation of the spread in different. When an electromagnetic vibration source, we can simplify it for magnetic dipole oscillation, in neutrino field generated by the electric and magnetic fields as shown in figure 5.1, in high frequency low magnetic field, the electric dipole part of the neutrino will be formed orientation polarization photons, namely a hormone called N_u were gamma N_γ=1. Be directional polarization of photons in the original direction of rail current shown in figure 5.2. Obviously, this is the polarization within the photonic form of electric dipole moment directional arrangement should be completely with electromagnetic vibration source of power lines coincide, see figure 5.1, but just the opposite directions.

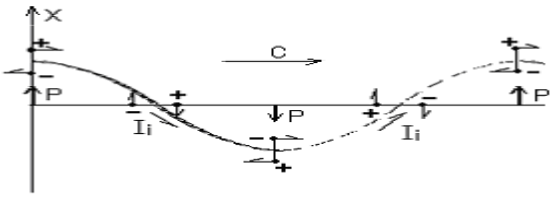


图5.2 被极化定向排列的中微子内部位移电流Ii形成示意图 "→"代表电偶极矩

Figure 5.2 is polarized directional arrangement of neutrino internal displacement current Ii formation schematic diagram "→"on behalf of the electric dipole moment

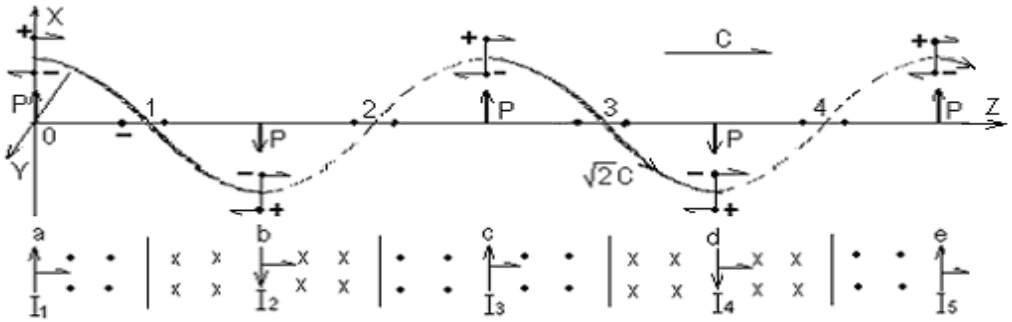


Figure 5.3 is the polarization direction of the photons in the exciting field of you moving force analysis of the current

By polarization direction of the photon along the original track movement direction displacement current generated, the exciting field forming principle is shown in figure 5.3. Since the displacement current in the exciting field under the action of the Lorentz magnetic force just pointing in the direction of photon precession.

As in the Z axis 0-1 the photon wave, into orbit, the displacement current I_1 produce a section of the magnetic field; When photons run to 1-2 rail section, the I_2 displacement current in section b magnetic force under the action of the precession v_j direction advance; I_3 displacement current then generate c section of the magnetic field; ..... Similar recurrence is forming the photon, movement, the transmission of electromagnetic wave.

To sum up, part of the neutrinos were polarized orientation to keep the original orbit fluctuation, the formation of the precession movement, photons, the electric dipole moment of the directional arrangement of McNamara power lines and displacement current in the equations, the displacement current itself and induction magnetic field. So, electric and magnetic field perpendicular oscillations are caused by the electromagnetic induction electromagnetic inherent apparent physical characteristics, partly by the polarization direction of neutrino photons to keep the original of the speed of light c and movement direction longitudinal also with the speed of light c precession is microscopic nature of electromagnetic wave propagation in the form of waves.

Photon wave particle duality of also can see from this chapter and in figure 2.4 the essence: when electromagnetic vibration source frequency f_1 less than $\overline{m}_\nu c^2/h=8.532644262\times10^{10}$/s, electromagnetic energy is less than the average energy neutrino field of single neutrino $\overline{m}_\nu c^2$, it only has to polarization neutrino field medium all the neutrino, in neutrino field in the form of electromagnetic wave propagation in the medium; When frequency $f_2 > f_1$, is enough to completely polarization single neutrinos, making it the fluctuation, and went into orbit of cylindrical spiral line. Internal electric dipole of photon rotation radius $K_r\overline{R}_\alpha$, see table 2.2, it belongs to the particles; Type of photon wave, in the piano rail surface figure 1.2 and figure 2.4, it also has the volatility. In a word, no matter how big the frequency, high energy, such as x rays and γ rays wave particle duality nature will not be changed.

5.3 Michael was measured by optical methods is not the Cause of the earth's absolute motion.

As for Michelson and posterity many times by optical methods determine the absolute velocity v is the cause of the failure: the neutrino field should be still in the universe; Including the light source, optical interferometer all transmission and reflection in the lens in front of the neutrino field is completely transparent, see figure 5.4; S, T, M_1, M_2, M between five points on the optical measurement of the relative motion of the neutrino field velocity v are offset each other, so that M_1M and M_2M two optical path length with earth or the size of the instrument and the absolute velocity v and change, there is no optical path difference, naturally don't measure the interference fringes. Light invariance principle is fundamental to the special theory of relativity, based on the physical model and shall be proved in theory. $m = m_0 \Big/ \sqrt{1-(v/c)^2}$ ... ... Such as energy relativity between not only confirmed by all previous experiments, and confirmed by all calculating examples in this book, therefore, the above content and space-time relativity is still not meeting conflict.

According to the measured results in physics and in the Milky Way, and the universe space background, the microwave radiation energy density is $0.3ev/cm^3$. Is equivalent to (5.1) type of $860/cm^3$ microwave can quantum calculation. Front has been proved: electromagnetic wave is to rely on the spread of neutrino field. In the macroscopic field, neutrino is evenly distributed, omnipresent, so charged particles along the rail as a circle, because of the radial acceleration occur naturally swing electromagnetic energy radiation. But in the micro field, per cubic an $(A°)^3$ and microwave son density only 8.6×10^{-22}, therefore, homogeneous and continuous swing electromagnetic energy radiation can't produce. High-power microwave ithream, they can only on a single particle state of direct collision, produced a random quantum particles, x-rays and gamma rays photon energy form of electromagnetic radiation. Its energy is only elementary particles with different quantum Numbers N_{ai} interest, N_{ai+1} along the fluctuation track transition between the energy of the poor. (see the back part of nuclear physics and atomic physics).

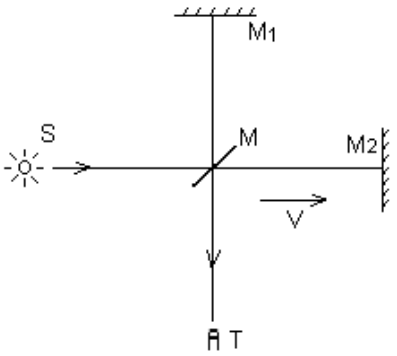


Figure 5.4 measure the absolute motion optical principle diagram

Comprehensive demonstration of this chapter, the space can be determined in the 2.73K bold microwave background radiation is caused by neutrino electromagnetic field medium shocks. 2.73K is background temperature in the space. Because the surface of the earth including all molecules, atoms as materials of airtight container, before the neutrino field is "transparent". Neutrino velocity is the speed of light c. The reader is not difficult to imagine, in the background of the temperature and open system, the medium particles moving at the speed of light condition, local space temperature will drop to tend to 0.0K over the difficulty of this have how old?

6 Protons, neutrons internal structure and Parameter calculation

6.1 Proton internal structure and parameter calculation

6.1.1 Proton internal structure

After decades of scientific experiment and test, have been proton internal structure and charge density distribution images, see figure 6.1 and figure 6.2,[1]; And accurately measured proton magnetic strength, quality, shape size, π^+ source distribution, etc. characteristics. However, the existing statistical theory of quantum mechanics model, the theory of how to calculate the above parameters, image characteristics is helpless, and the book is used to establish model and the relevant formula is but to these parameters, image features accurate simulation and validation.

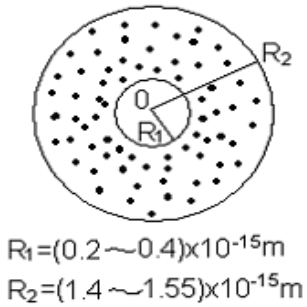


Figure 6.1 proton kernel cores and π^+ source distribution

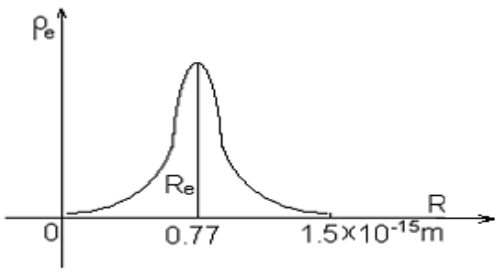


Figure 6.2 proton internal charge density distribution diagrams

According to figure 6.1 and figure 6.2 inference, proton m_p only by core m_1 and π^+ meson $\overline{m}_{\pi 2}$ of two elementary particles, the law of conservation of energy:

$$m_p=m_1+\overline{m}_{\pi 2} \qquad (6.1)$$

Because core is a neutral elementary particles, the proton internal only to circumferential wave orbital motion, both $N_{a1}\to\infty$、$v_{a1}/c\to 1$、$v_{\theta 1}\to 0$, therefore, by (1.2-1) type, $R_{\alpha 1}=h/2\pi m_1 v_{\alpha 1}$, external display only quality characteristics. Proton most parameters by π^+ meson orbital motion. We can by (1.6), (4.9), (6.1), with different N_{a2} value and the related formula simulation proton internal structure parameters and related image features, trend compared again after revision AA and Na2 value gradually. Apparently, as long as physical model is correct, there will be a group of $\overline{m}_{\pi 2}$, and the value of N_{a2} calculated all the structural parameters, determination of image features and experimental results perfectly!

6.1.2 Proton internal structure parameters are calculated

Make N_{a2} for simpler scores or natural number, and the type (4.9) for AA beta 2. Make AA for a estimate value, value m_1 generation (6.1) in type. Will β_2, and N_{a2} value generation into (1.6), to β_2、$\overline{m}_{\pi 2}$ and N_{a2} to find π^+ meson orbit parameters of $R_{\theta o2}$. Protons in the distribution of the "π^+ meson cloud" inside and outside the radius of $R_{\theta 2(0)}$, $R_{\theta 2(\pi)}$, density and charge density distribution images, magnetic moment, all with $R_{\theta 02}$ reflected the orbit of related parameters. By (1.3) elliptical orbit equations "π^+ meson cloud" the distribution of the internal and external radius is:

$$\begin{cases} R_{\theta 2(0)}=\dfrac{R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}}+\cos\alpha} & (\alpha=0) \qquad (6.2-1) \\ R_{\theta 2(\pi)}=\dfrac{R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}}+\cos\alpha} & (\alpha=\pi) \qquad (6.2-2) \end{cases}$$

By classical electrodynamics definition of magnetic moment, from elementary particles in figure 1.1 fluctuations, spin quantization stationary vertical double elliptical orbit can be seen in the model: π^+ mesons in wave direction of magnetic vector along the circumference of the $X^2+Y^2=R_{\theta 0}^2$ tangent, closed in internal and external not display; The spin direction of magnetic pointing in the direction of the Z axis, the magnetic moment of laboratory testing is U_p this value. By (1.2 5), (1.4-2) type, π^+ violation at the direction of the spin track length for $L_{\theta 2}$, surrounded by the area of the $S_{\theta 2}$, spin magnetic moment value U_p respectively:

$$L_{\theta 2}=N_{\alpha 2}\int_0^{2\pi/N\alpha 2}\frac{R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}}+\cos\alpha}d\theta=\frac{2\pi R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}-1}} \qquad (6.3)$$

$$S_{\theta 2}=\frac{N_{\alpha 2}}{2}\int_0^{2\pi/N\alpha 2}\left(\frac{R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}}+\cos\alpha}\right)^2 d\theta \qquad (6.4)$$

$$U_p=\frac{ev_{\theta 2}S_{\theta 2}}{L_{\theta 2}}=\int_0^{2\pi/N\alpha 2}\frac{e\beta_2 cR_{\theta 02}N_{\alpha 2}\sqrt{N_{\alpha 2}-1}}{4\pi\left(\sqrt{N_{\alpha 2}}+\cos\alpha\right)^2}d\theta \qquad (6.5)$$

Make to have π^+ muon fluctuations, spin quantization stationary vertical double for L, the total length of elliptical orbit by equations (1.3) and (1.5), to:

$$L=\oint\sqrt{(R_{\alpha 2}d\alpha)^2+(R_{\theta 2}d\theta)^2}=\frac{2\pi R_{\theta 02}\sqrt{N_{\alpha 2}^2+N_{\alpha 2}}}{\sqrt{N_{\alpha 2}-1}} \qquad (6.6)$$

Because of fluctuation, the spin velocity is constant, so live π^+ meson along the line density of charge of the orbit $\delta=e/L$ is also constant. To track moving charge of electrostatic field energy and charge along the radius of $\overline{R}_e$ spherical shells on the uniform distribution of electrostatic field, the energy equivalent to:

$$\oint \frac{e^2}{8\pi\varepsilon_0 R_e L} dl = \frac{e^2}{8\pi\varepsilon_0 \overline{R}_e} \qquad (6.7)$$

Among them, the $R_e = \sqrt{\left(\frac{R_{\theta 02}\sqrt{N_{\alpha 2}}}{\sqrt{N_{\alpha 2}}+\cos\alpha}\right)^2 + \left(\frac{R_{\theta 02}\sin\alpha}{\sqrt{N_{\alpha 2}}+\cos\alpha}\right)^2}$ generation into (6.7), to:

$$\overline{R}_e = \left(N_{\alpha 2}\int_0^{2\pi/N\alpha 2} \frac{\sqrt{N_{\alpha 2}-1}}{2\pi R_{\theta 02}\sqrt{N_{\alpha 2}+\sin^2 N_{\alpha 2}\theta}} d\theta \right)^{-1} \qquad (6.8)$$

Different $\overline{m}_{\pi 2}$, β_i, N_{a2} value and in turn into the type of, calculated the parameters of the proton in table 6.1. The orbit of image features is shown in figure 6.3. Including N_{a2}=22/9、$\overline{m}_{\pi 2}$=7.7908998×10^{-28}Kg of this group of data calculation of $R_{\theta 2(0)}$, $R_{\theta 2(\pi)}$, U_p, $\overline{R}_e$, four data and figure 6.1 and figure 6.1 features perfectly.

Table 6.1 proton internal parameters simulation results

Analog value	N_{a2}=2	N_{a2}=12/5	N_{a2}=22/9	N_{a2}= 5/2	N_{a2}=3
Parameters and Formula of Numbers	$\overline{m}_{\pi 2}\times10^{-28}$ Kg				
	8.469599	7.841325	7.7908998	7.731656	7.334889
β_2 (4.9)	0.99908825	0.99901523	0.99900886	0.9990013	0.99894727
$m_1\times10^{-28}$Kg (6.1)	8.256632	8.884906	8.9353312	8.994575	9.391342
$R_{a1}\times10^{-15}$m (1.2-1)	0.426042	0.3959159	0.393682	0.391089	0.3745658
$R_{\theta 02}\times10^{-15}$m (1.6)	0.4157087	0.5313226	0.54318688	0.5577799	0.6789452
$R_{\theta 2(0)}\times10^{-15}$m (6.2-1)	0.243517	0.322895	0.331292	0.341682	0.430434
$R_{\theta 2(\pi)}\times10^{-15}$m (6.2-2)	1.419318	1.498783	1.507187	1.517585	1.606401
$Up\times10^{-26}$J/ T (6.5)	1.4106174	1.4106174	1.4106171	1.4106165	1.4106172
$\overline{R}_e\times10^{-15}$m (6.8)	0.652291	0.760395	0.771296	0.784670	0.894698

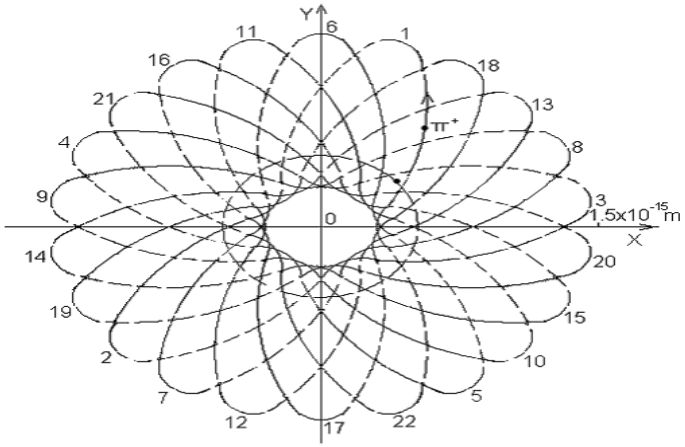


Figure 6.3 protons inside π^+ mesons, core movement orbit in XOY projection in the plane of the figure

6.2 Neutron internal structure and parameter calculation

6.2.1 Neutron internal structure

Experimental determination of the neutron quality, strength, and the size of the form, the latter is the neutron internal charge density distribution, see figure 6.4. Neutron decay into protons will launch an electronic and a neutrino. Thus we can corollary: neutron core than protons core only one is charged particles and the quality is also set to m_1; Outside for a negatively charged the π^- both $\overline{m}_{\pi 2}$. When it decays into protons, core wills surplus is charged particles emitted. π^- Both absorption split after launch a load of charged particles, their

split failure become positively charged of π^- violation. Load charged particles absorption environment field formed high-energy neutrinos electronic neutrinos. Because the law of conservation of momentum, absorb a neutrino and launch a neutrino is equivalent. So, according to proton internal structure, related formula and parameters of the numerical simulation method, we can also make neutron internal structure calculation formula:

$$m_n=m_1+\overline{m}_{\pi 2} \qquad (6.9)$$

Internal charge density distribution from the neutron can see 6.4: outward from the center has positive and negative, positive and negative four layer charge density distribution interval, they should be made with the positive and negative two of the fundamental particles along the integrated embodiment of wave, the movement of the spin track; Neutron the magnetic moment of the U_n should also be two basic particle magnetic U_1, U_2 vector and; So:

$$U_1=\frac{eh}{4\pi m_1} \qquad (6.10)$$

$$U_2=\int_0^{2\pi/N\alpha 2}\frac{e\beta_2 cR_{\theta 02}N_{\alpha 2}\sqrt{N_{\alpha 2}-1}}{4\pi\left(\sqrt{N_{\alpha 2}}+\cos\alpha\right)^2}d\theta \qquad (6.11)$$

$$U_n=U_1+U_2 \qquad (6.12)$$

6.2.2 Neutron internal structure parameters are calculated

Neutron internal structure parameters of the simulation results are shown in table 6.2. Because of the positive and negative charged the basic particle of the electric and magnetic field force interaction, m_1 fluctuations orbit will set the $\overline{m}_{\pi 2}$ center orbit as eccentric and random stacking, see figure 6.5. Will N_{a2} = 12/5, 22/9, 5/2 three groups of $R_{\theta 2(0)}$, $R_{\theta 2(\pi)}$, R_{a1}, U_n data and comparison of experimental results in figure 6.4, taking into account the derivative of protons, neutrons, obviously, N_{a2} = 22/9 of the data is consistent. Figure 6.5 the neutron internal structure is draw by this group of data.

Table 6.2 neutrons internal structure parameters of the simulation results

Analog value	N_{a2}=2	N_{a2}=12/5	N_{a2}=22/9	N_{a2}= 5/2	N_{a2}=3
Parameters and Formula of Numbers	$\overline{m}_{\pi 2}\times10^{-28}$ Kg				
	6.632975	6.247308	6.215628	6.178265	5.924168
β_2 (4.9)	0.99908825	0.99901523	0.99900886	0.9990013	0.99894727
$m_1\times10^{-28}$ Kg (6.1)	10.116311	10.501978	10.533658	10.571021	10.825118
$R_{\theta 20}\times10^{-15}$m (1.6)	0.530816	0.666891	0.680851	0.698022	0.840622
$R_{\theta 2(0)}\times10^{-15}$m (6.2-1)	0.310945	0.405282	0.415254	0.427590	0.532933
$R_{\theta 2(\pi)}\times10^{-15}$m (6.2-2)	1.812317	1.881201	1.889164	1.899149	1.988934
$R_{a1}\times10^{-15}$m (1.2-1)	0.348172	0.335386	0.334377	0.333195	0.325374
$Un\times10^{-26}$J/ T (6.12)	-0.9661143	-0.9661144	-0.9661136	-0.9661136	-0.9661143

Please note that the charged particle internal excess charged particles are distributed in the inside of the spin track, electric dipole rotation speed and direction of magnetic and charge density distribution of the calculated value is weak, the influence of this book is no longer continue to analysis and correction calculation. To core m_1 for charged particles, quantum fluctuations number $N_{\alpha 1}$ to infinite, problems of the stability of

charged particles, and to be supplemented as follows: core positively charged, π^- certainly, negatively charged under the electric field force interaction, m_1 is still the core Z axial swing speed, satisfy the speed $v \geq c$ is no problem.

Behind this chapter and nucleus internal structure and parameter calculation, $\pi^{\pm}$ quality $\overline{m}_{\pi 2}$ mesons are using simulation quality, rather than by energy relativity formula:

$$\overline{m}_{\pi 2} = \frac{\overline{m}_{\pi 20}}{\sqrt{1 - \beta_2^2 / N_{\alpha 2}}} \tag{6.13}$$

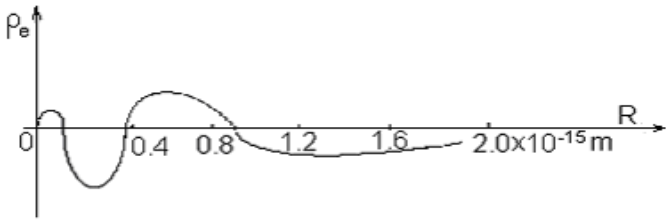


图6.4 中子内部电荷密度分布图①

Figure 6.4 neutron internal charge density profiles ①

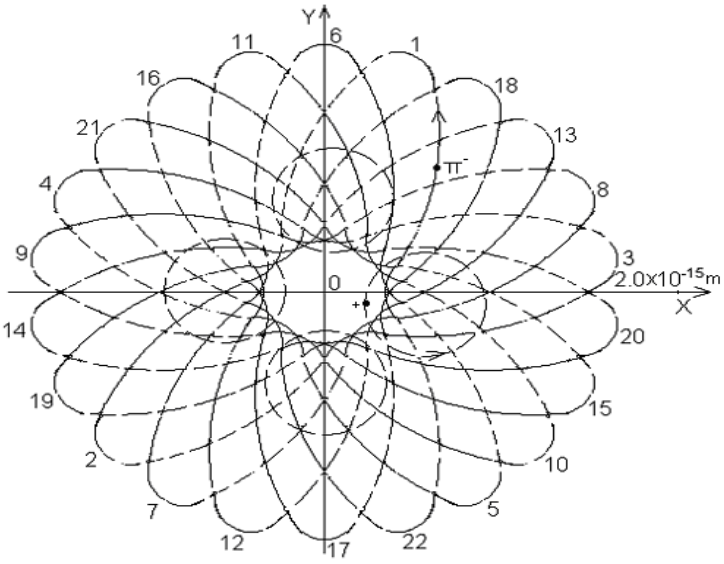


Figure 6.5 neutrons internal electrically charged particles in orbit XOY projection in the plane of the drawing

It should be from $\pi^{\pm}$ mesons existence environment of "state". $\pi^{\pm}$ mesons in different environment, can stable exists, must have the energy to adapt to the environment. The energy in this book are the general law of conservation of energy and environment (1.2) ~ (1.6) elementary particles wave equations, the spin track and derivative formula simulation is obtained.

6.3 Protons, neutrons internal "quark" illusion and other Baryonic internal structure analysis

6.3.1. Protons, neutrons internal "quark" illusion

Simulation results show that this chapter protons and neutrons are only by core and $\pi^{\pm}$ source these two fundamental particles. In the experiment, then, why can detect inside protons and neutrons are three hard particles, is the so-called mixed number charge "quark", but has been unable to be separated? Reason lies in the fundamental particles along the orbit to different position with different quality, the spatial distribution of two elementary particles position changes caused by each other.

In the case of neutrons, see figure 6.5. Basic core as a positively charged particle, the fluctuation and random motion range, the quality did not change; the distribution area is in the middle of the neutron on the inside of the

shell. By experimental detection will be their basic as a positively charged particle u "quark" is granted. Another stupid π^- mesons are different, the fluctuation, the spin orbit, the neutron only about one quarter of the medial, lateral of energy (protons in π^+ meson so); Plus the interval with a core of positively charged particles; In the detection of it is easy to put the π^- both for inside and outside two negatively charged particles of d "quark"; This just leads to nearly 50 years of "quark" illusion.

6.3.2 Other baryonic internal structure analysis

To other of all the baryons, according to the electric properties and can be divided into three categories: with a positive charge, with a unit negative and neutral baryonic. The average life expectancy is less than 10^{-9} seconds. The existing scientific experiments, the test means, to accurately measured as protons, neutrons its internal structure, charge density distribution and magnetic parameters such as size, shape is very difficult, also does not have the necessary

We will that baryonic general quality, magnetic data after compared with the protons and neutrons is not difficult to found that they are slightly larger than protons, neutrons, and the quality of the magnetic strength is slightly smaller than protons, neutrons; Decay of the final product is protons, electrons and photons or neutrinos. According to chapter 2, 3, and this chapter expounds the basic particle of internal structure, energy forming principle, the internal each charged particles themselves and each other force analysis and the stability principle of protons, neutrons and internal structure parameters of the simulation results; We can corollary: of all the baryons are composed of core and mesons, charged the baryonic core is a neutral elementary particles, periphery is charged source, its internal structure and proton similar; Electrically neutral baryonic core zone of a unit charge, peripheral vision is a belt, violation of the charge, its internal structure is similar to neutrons; Core and mesons are made by n of electric dipole (and a charged particle) composed of protons, neutrons and the difference only lies in the more electric dipole. Can been deduced from all other baryonic life of much smaller than neutrons and protons. Because they are the average life expectancy is short, only as a kind of electromagnetic energy transition state of the ball, no need to further study.

7 Nucleus structure model, the nuclear force, Magnetic forming principle

7.1 Nucleus structure model, the nuclear force Forming principle

7.1.1 Nucleus structure model

The nucleus is made up of protons, neutrons. The author has been proved in the previous particle physics: protons and neutrons consist of core and $\pi^{\pm}$, these two kinds of fundamental particles by n of electric dipole (and a charged particle). To system research, precise nucleus internal structure, shape, size, charge distribution characteristics, nuclear force forming principle, the magnetic moment change rule, nuclear energy, split decay characteristics, X-ray, the relationship between γ ray energy and likely to change. According to establish the basic particle of fluctuations in particle physics, and spin quantization stationary vertical double elliptical orbit model; Electrically neutral basic particles and charged particles in the differences of the wave velocity, the former, $\beta=1-10^{-9}$, the latter when $\infty \geq N_a \geq 34/13$, by (4.9), to: $0.9987108301 \leq \beta \leq 0.9989866946$. Obviously, fluctuation, the spin velocity of different particles cannot be run in the same way. We must adopt new ideas, according to the scientific community has the total energy of the nuclide of thousands of atoms and the related parameters, the protons and neutrons all "decentralized" into a charged particle, and all of the above characteristics of the assembly with the experiments, the parameters of the nucleus. This is also for the building up of the orbit of particle physics theory of quantum physics model of comprehensive and strict inspection.

When we'll all be "decentralized" into protons and neutrons charged after elementary particles, nucleus was apparently by the large number of charged particles. Each charged elementary particles has fluctuations, spin quantization stationary vertical double elliptical orbit. We can make a moderate amount of interest, original fluctuations energy m_i, quantum number N_{ai} the same fundamental particles uniform distribution on the same wave line, the spin track, composed of particles spiral ring. According to the energy and space combination relationship into high-energy particles spiral loop and low-energy particles spiral loop. Low-energy particles spiral ring net with negatively charged of fundamental particles, the average energy and the quantum fluctuations of $\overline{m}_{di}$, N_{adi}, N_{adi} said; High-energy particles spiral ring net with the basic particles of positively charged, their average energy and the quantum fluctuations of $\overline{m}_{gi}$, N_{agi} said.

Will more energy, and quantum fluctuations in exactly the same number of low-energy particles spiral ring side by side, make its fluctuation, spin tangent track, share on both sides. Because orbit of each charged elementary particles on the intersect ting fluctuation, the movement of the spin direction, speed is the same,

spacing stagger, tangent as the radius of the same two wheels turning, composed of low-energy particles spiral ring. Total number of nuclear different nucleus skeleton by 1 ~ 5 layers the low-energy particles spiral ring, see figure 7.1 and figure 7.2. Finally make high-energy particles spiral ring also according to the energy, the number of quantum fluctuations difference is divided into five layers. Each layer of high-energy particles spiral ring respectively to "into" economical corresponding low-energy particles spiral ring wave orbital medial. So we need part of the nucleus internal structure model. According to the first layer of low-energy particles spiral ring arrangement number is odd or even, divided into A, B two types of atomic nuclei. Their electric field within the energy equation, nuclear electricity, magnetic interactions calculation method, the relevant formulas are slightly different.

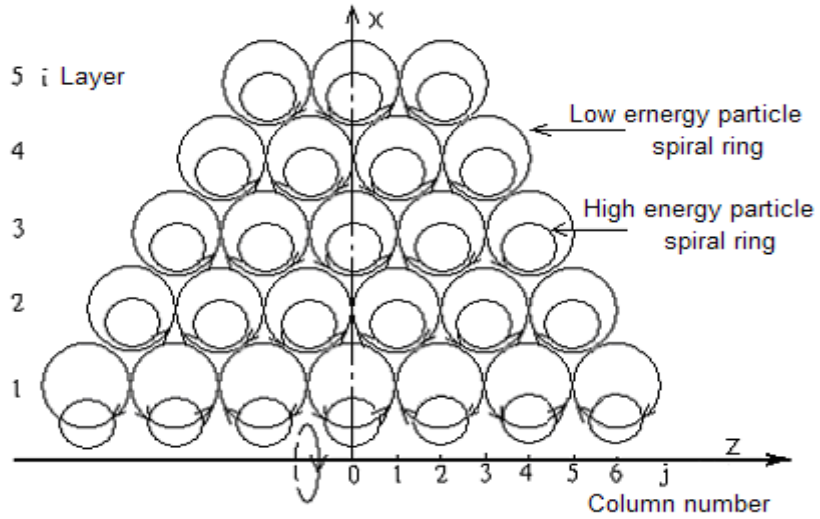


Figure 7.1 type A nucleus high internal, low-energy particles spiral rings

See from figure 7.1 and figure 7.2, the first layer low-energy particles spiral loop combination model with 2 ~ 5 layers. The author has used the same solution with 2 ~ 5 layers nucleus "assembly", but in the end of the quality of medium to heavy nuclei energy calculation results are too big. However, for the total number of nuclear less than 56 of ${}^{56}_{26}F_e$ light nuclei, can consider to use. In chapter 12 12.4 and section 12.5 of the total number of nuclear less than 56 light nuclei supplement parameter calculation of ${}^{56}_{26}F_e$.

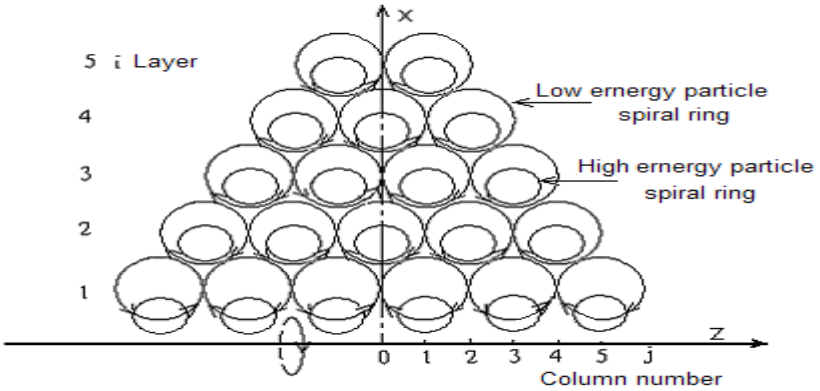


Figure 7.2 type B nucleus high internal, low-energy particles spiral rings

7.1.2 Nuclear force forming principle

By (3.23) ~ (3.26) and table 2.2 and table 3.1 has proven: as long as the radius of the charged particles entity R_{α}. fluctuations and the ratio of radius of $\overline{R}_{\alpha}$ $1.499\times10^{-13}\geq K_r\geq 8.0\times10^{-15}$, charged particles along the wave motion in orbit, its comprehensive electric and magnetic field force along the fluctuations orbit radius to the inside of the track, the strength is the centrifugal force of multiple astronomy! Similarly, by (3.18), (3.19), has proven: charged elementary particles along the fluctuation orbit, except in the a = 90°, 270° and the nearby, integrated electric and magnetic field force is along the orbit radius fluctuation R_a pointing to the outside, but it

is greater than all the formation of charged particles much smaller comprehensive electric and magnetic field force. In a = 90°, 270° and the nearby, although at this time the charged particle comprehensive electric and magnetic field force tends to zero, but formed by charged particles of electric and magnetic field force still exists, to wave the inside of the track, and still is a multiple wave direction form centrifugal force of astronomy! And each charged particles comprehensive electric and magnetic field strength, see figure 3.4, (3.29), have been up and down, left and right sides opposite sex charged particles attract effect of the electric field force, will adjust tensile deformation degree, so can properly constraints fundamental particles along the fluctuation, the spin track movement.

When charged particle spin track inside there are other heterosexual charged elementary particles, with a net charge for N_e, by coulomb's law, the electric field strength $F_{e\theta}$ for:

$$F_{e\theta}=\frac{N_e e^2}{4\pi\varepsilon_0\overline{R}_\theta^2\sqrt{1-\left(v_\theta/c\right)^2}} \qquad (7.1)$$

Make to charged particles electric and magnetic field comprehensive force is $\Delta F_{eb\bullet}$, it greater than the sum of $F_{n\theta}$ and $F_{e\theta}$ electric field force and centrifugal force. Simultaneous (7.1), (3.25) and (3.26), to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left\{\begin{array}{l}\dfrac{(2n+1)\left[1-\beta^2\left(1-K_{r\bullet}^2\right)\right]}{4K_{r\bullet}^2}\left[\dfrac{1}{\sqrt{1-\beta^2\left(1+K_{r\bullet}\right)^2}}-\dfrac{1}{\sqrt{1-\beta^2\left(1-K_{r\bullet}\right)^2}}\right]\\ -\dfrac{N_e}{N_\alpha\sqrt{1-\beta^2/N_\alpha}}-\beta\dfrac{2h\varepsilon_0 c}{e^2}\end{array}\right\}>>0 \qquad (7.2)$$

Calculated according to (3.29) type data, the $\pi^{\pm}$ mesons, electric dipole for n=2, set N_a=50, $K_{r\bullet}=8.0\times10^{-15}$, N_e=50, by (4.9), to: β=0.9987237786, generation into (7.2), to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left(3.093858\times10^{15}-1.010126-136.8611\right)>>0$$

If make N_a = 500, generation of (4.9) in type, too: β=0.9987121191. To N_e = 200, (the nucleus of human has found charge number less than 120), and other parameters are the same, and in (7.2), to:

$$\frac{e^2}{4\pi\varepsilon_0\overline{R}_\alpha^2}\left(3.076858\times10^{15}-0.4003996-136.8595\right)>>0$$

From the calculation results, table 3.1, is that charged particles inside and outside surface comprehensive electric and magnetic field force $\Delta F_{eb\bullet}$ both far outweigh the charged particle inside and outside surface comprehensive electric and magnetic field force; Far greater than the spin track inside net with charge caused by the electric field force $F_{e\theta}$ and centrifugal force $F_{n\theta}$; So, each particle within the nucleus spiral ring along the radius of the spin direction of electric field force, centrifugal force all don't need to consider. As long as the nucleus center electric and magnetic field strength of each particle spiral ring in the spin track of axial component is enough.

Equation in (2.10) charged particle energy and N_a, β, K_r, correlation parameters such as when we found that charged elementary particle in the clean with charged particles are distributed in the inner side of the spin track. By figure 7.1 and figure 7.2 shows: the inner and outer low-energy particles spiral ring wave, the spin track although get very close, but never allow the tangent or overlap, or the inside and outside layer of elementary particles will collide. High economical, low-energy particles spiral ring on the inside of the spin track although fluctuations, the movement of the spin direction is same, but different speed; Rail adjacent side are net left are charged particles, because charged particles of electrostatic field force rejection, so orbit will not tangent, overlapping or cause collision "rear"; And low-energy particles spiral ring of high-energy particles spiral wave orbital medial part of just the spin axis space limit.

Because K_r value for 10^{-4} ~ 10^{-5} orders of magnitude, so in low economical particles spiral ring wave and spin the lateral orbital non-oil imports, the net load charged particles along the left orbit will form strong directional current attraction of ampere force. Chapter 10, 11 behind the analysis of the calculation results show that: the interaction of ampere force distance is short, have overcome the dual role of compression and tension at

the same time, can effectively balance conditions within the nucleus electric field force in all the particles spiral ring the spin axis of the component, the power is nuclear force.

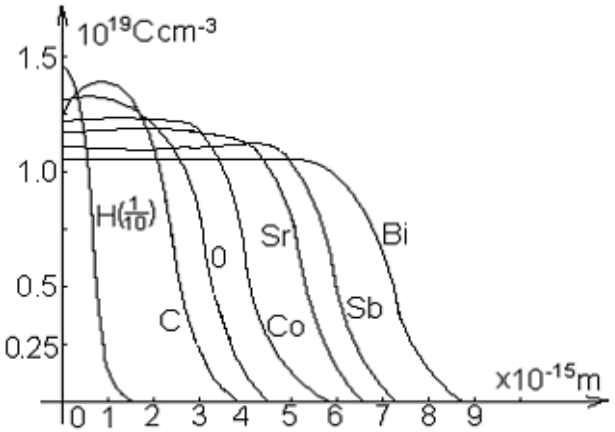
7.2 Nuclear magnetic forming principle

7.2.1 Nuclear magnetic forming principle

According to the experimental results: nuclear within the nucleus and excess charge is almost density distribution, such as edge are diffuse layer, see figure 7.3. Overall energy is proportional to the number of nuclear A nucleus, nucleus charge distribution within the radius of that are: R_e=（1.2～1.5）$A^{1/3}\times10^{-15}$m

Nuclear force action radius is slightly greater than nuclear power charge distribution radius, equivalent to a nucleus wrapped in a layer of "neutron skin". The variation of the magnetic moment is: when protons and neutrons are even, with magnetic moment is zero.

Comprehensive the above data, image characteristics, through a variety of models, methods, parameters of the simulation comparison after safely draw the conclusion that we must will be positively charged protons "decentralized" into two of the fundamental particles, a negatively charged of fundamental particles; Neutron "decentralized" into four with positive and negative of two elementary particles; All charged elementary particles consists of two pairs of electric dipole and a charged particles, which are all charged $\pi^{\pm}$ violation. So that will make all the nucleus of the internal structure, composition thoroughly "democracy". Economical electric dipole in the starting rotation Angle position parameter a_0 and the corresponding relation of the K_r also exactly the same. Derived: the core of each a proton, must be from 6 to electric dipole. To a single proton, "decentralized" redundant after an electric dipole to neutrino field release; Single neutron "decentralized", sent a electric dipole can be absorbed from the neutrino field added. Protons and neutrons "decentralized" in pairs, of course, just maintain constant total electric dipole.



7.3 charge density distribution in nuclei (C for power unit coulomb)

In the case of a particle, two pairs of protons, neutrons were "decentralized" into eight π^{+} mesons, with "⊕", said six π^{-} violation, in "⊖" said. Of neutrons, and make a PI to $\pi^{\pm}$ mesons in high orbit, the other three $\pi^{\pm}$ mesons in low orbit; On the proton, make two $\pi^{\pm}$ mesons in high orbit, another $\pi^{\pm}$ violation into low orbit. We make high orbit of $\pi^{\pm}$ meson energy is nearly two times of low orbit, accurate values obtained by the simulation calculation in chapter 8, 9. Each proton, neutrons "decentralized" all the $\pi^{\pm}$ mesons in high and low orbit can have only four distribution state, as shown in figure 7.4. We by a, b, c, d said the four distribution state. More protons and neutrons in the different combinations of these four states up to different high and low spiral ring particles.

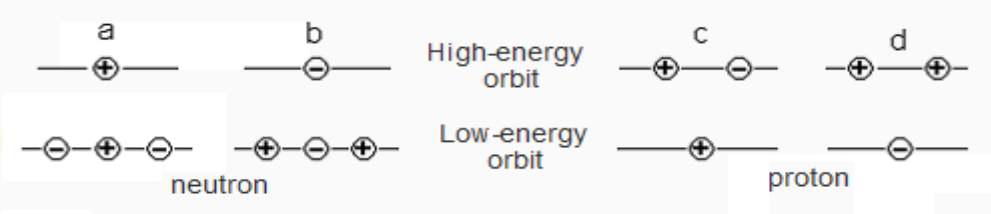


Figure 7.4 protons, neutrons "decentralized" $\pi^{\pm}$ source in the distribution of high and low orbit

By the magnetic moment of a nucleus in synthetic principle is derived: when by even protons, neutrons "decentralized" all the $\pi^{\pm}$ violation of a pair of high and low particles spiral ring, its high orbit of excess π^{+} violation number should be 2 times the number of protons, low orbit excess π^{-} violation number is equal to the number of protons. Such as a^{++} particles, when it takes a and b, 2d distribution state combination, as shown in figure 7.5. So, when is high, low $\pi^{\pm}$ meson spin movement direction, as long as high-energy $\pi^{\pm}$ both energy $\pi^{\pm}$ low-energy $\pi^{\pm}$ mesons are 2 times of $\overline{m}_{g1}$, and the $\overline{m}_{d1}$ quantum number $\pi^{\pm}$ $N_{ag1} = N_{ad1}$, by (6.5), the total magnetic is 0.

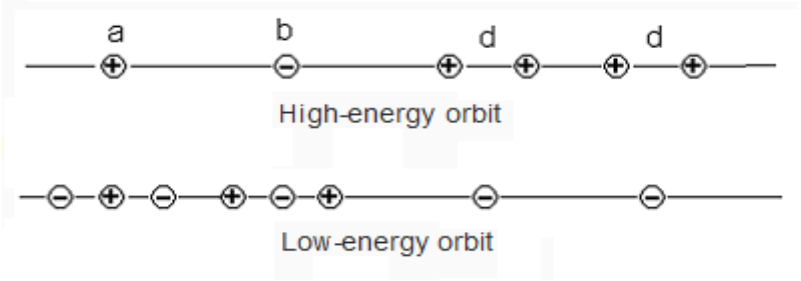


Figure 7.5 a^{++} particles within 14 $\pi^{\pm}$ mesons in high and low orbit the distribution of the portfolio

Similarly, as long as even protons, neutrons "decentralized" all the $\pi^{\pm}$ violation according to the above the same layer of the same amount of order into quantum fluctuations, low-energy particles spiral orbit, its high orbit net with π^{+} meson a total of $2P_i$, low orbit net with π^{-} both for the P_i, total (P_i for this layer, low-energy particle spiral ring on the total number of protons). Such as ${}^{12}_{6}C$ carbon nuclei, see figure 7.6. We also can make each pair of high and low particles spiral rings of the net with $\pi^{\pm}$ violation and nucleus axis X axis distribution is symmetrical. This is the nucleus kernel interaction balance necessary for the electric field force, and the results also can make the magnetic moment of 0.

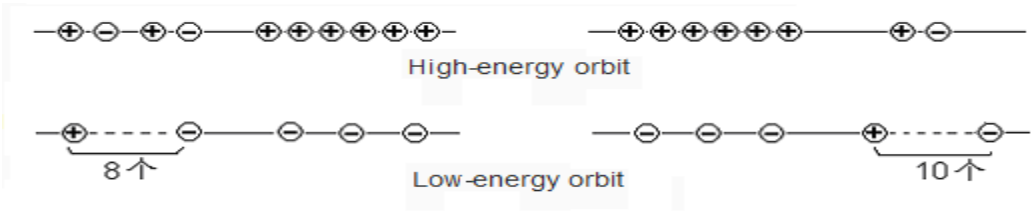


Figure 7.6 ${}^{12}_{6}C$ carbon two within the nucleus on high side by side, low-energy particles spiral rings $\pi^{\pm}$ source distribution combination

To sum up, all the even nucleus composed of protons, neutrons, and as long as the number of nuclear enough, we can divide total number of protons, neutrons into 1~5, each composed of even protons, neutrons. Each of protons, neutrons Pi to all the "decentralized" $\pi^{\pm}$ violation according to the above rules into the corresponding layer N_{agi}, N_{adi}'s discretion can particles spiral ring rail inside, each corresponding layers of high-energy orbit of the net with π^{+} meson for $2P_i$, low orbit net with π^{-} both for P_i.

By (1.6), (6.3) ~ (6.5), the inside of the proton magnetic moment by π^{+} mesons are formed in the spin track motion, therefore, within the nucleus of each net of $\pi^{\pm}$ violation, the magnetic moment equations are should be:

$$U_{\pi\pm} = \pm\int_0^{2\pi/N\alpha} \frac{eN_\alpha(N_\alpha - 1)h}{8\pi^2 \overline{m}_{\pi\pm}\left(\sqrt{N_\alpha} + \cos\alpha\right)^2} d\theta \qquad (7.3)$$

Except 1 layer, low-energy particle spiral loop $N_{ag1} = N_{ad1}$, $\overline{m}_{g1} = 2\overline{m}_{d1}$, 2, 3, 4, 5 layers, high, low particles spiral ring of N_{agi}, N_{adi}, $\overline{m}_{gi}$, $\overline{m}_{di}$ values, are all through the simulation after find out, in chapter 8, 9.

7.2.2 Magnetic moment synthesis theory within the nucleus

When protons and neutrons in the nucleus is different for the even, to deduct with the even number of protons, neutrons, and the rest of the protons and neutrons there will be an odd number of protons, neutrons; An odd number of protons, even neutrons; Even protons, an odd number of neutrons three combinations. According to each combination "decentralized" all the $\pi^{\pm}$ mesons in high and low orbit, the distribution of the nucleus of

the magnetic moment can have a variety of state. Each state combination of high and low $\pi^{\pm}$ violation can respectively into the different layers of high and low particles spiral ring rail, will produce different magnetic strength. Obviously, the nucleus is the magnetic moment of each layer, high, low particles spiral ring rail of the net with $\pi^{\pm}$ formed by the violation of the algebraic sum of the magnetic moment. Are listed below:

1. Protons and neutrons are an odd number （1）ac bd State combination

$$\sum U = \sum_{i=1}^{2} U_{gi}^{+} + U_{gi}^{-} + \sum_{i=1}^{2} U_{di}^{+} + \sum_{i=1}^{2} U_{di}^{-} \qquad (7.4\text{-}1)$$

（2）ad State combination

$$\sum U = \sum_{i=1}^{3} U_{gi}^{+} + 0 + U_{di}^{+} + \sum_{i=1}^{3} U_{di}^{-} \qquad (7.4\text{-}2)$$

（3）bc State combination

$$\sum U = U_{gi}^{+} + \sum_{i=1}^{2} U_{gi}^{-} + \sum_{i=1}^{3} U_{di}^{+} + U_{di}^{-} \qquad (7.4\text{-}3)$$

2．Proton odd, neutron even

（1）abc bbd State combination

$$\sum U = \sum_{i=1}^{2} U_{gi}^{+} + \sum_{i=1}^{2} U_{gi}^{-} + \sum_{i=1}^{4} U_{di}^{+} + \sum_{i=1}^{3} U_{di}^{-} \qquad (7.5\text{-}1)$$

（2）abd aac State combination

$$\sum U = \sum_{i=1}^{3} U_{gi}^{+} + U_{gi}^{-} + \sum_{i=1}^{3} U_{di}^{+} + \sum_{i=1}^{4} U_{di}^{-} \qquad (7.5\text{-}2)$$

（3）aad State combination

$$\sum U = \sum_{i=1}^{4} U_{gi}^{+} + 0 + \sum_{i=1}^{2} U_{di}^{+} + \sum_{i=1}^{5} U_{di}^{-} \qquad (7.5\text{-}3)$$

（4）bbc State combination

$$\sum U = U_{gi}^{+} + \sum_{i=1}^{3} U_{gi}^{-} + \sum_{i=1}^{5} U_{di}^{+} + \sum_{i=1}^{2} U_{di}^{-} \qquad (7.5\text{-}4)$$

3. Proton even, neutron odd

（1）acd bdd State combination

$$\sum U = \sum_{i=1}^{4} U_{gi}^{+} + U_{gi}^{-} + \sum_{i=1}^{2} U_{di}^{+} + \sum_{i=1}^{3} U_{di}^{-} \qquad (7.6\text{-}1)$$

（2）acc bcd State combination

$$\sum U = \sum_{i=1}^{3} U_{gi}^{+} + \sum_{i=1}^{2} U_{gi}^{-} + \sum_{i=1}^{3} U_{di}^{+} + \sum_{i=1}^{2} U_{di}^{-} \qquad (7.6\text{-}2)$$

（3）bcc State combination

$$\sum U = \sum_{i=1}^{2} U_{gi}^{+} + \sum_{i=1}^{3} U_{gi}^{-} + \sum_{i=1}^{4} U_{di}^{+} + U_{di}^{-} \qquad (7.6\text{-}3)$$

（4）add State combination

$$\sum U = \sum_{i=1}^{5} U_{gi}^{+} + 0 + U_{di}^{+} + \sum_{i=1}^{4} U_{di}^{-} \qquad (7.6\text{-}4)$$

We can by the nucleus to the magnetic moment of the experimental value analysis, numerical simulation with for even protons, neutrons "decentralized" of to the $\pi^{\pm}$ mesons in each layer height, can track the distribution state, and provide the basis for the calculation of parameters, such as nuclear energy.

8 Nucleus internal structures, the benchmark Parameters $\overline{m}_{\pi\pm}$ original energy

8.1 Nucleus inner particles spiral loop quantum Fluctuations of N_{a1}

A particles spiral ring in the direction of the spin track the outside radius of $R_{\theta(\pi)}$, by (1.3-2), (1.6), to:

$$R_{\theta(\pi)} = \frac{R_{\theta 0}\sqrt{N_\alpha}}{\sqrt{N_\alpha}+\cos\alpha} = \frac{h\sqrt{N_\alpha^2 - N_\alpha}}{2\pi\overline{m}\beta c\left(\sqrt{N_\alpha}-1\right)} \qquad (8.1)$$

(7.2) type of elementary particles in the spin direction has been proved through the analysis of comprehensive force: elementary particles along the fluctuation, the spin track movement direction of the arrow diameter automatic contraction trend. The original energy $\overline{m}_1$ for value, the spin track lateral shall is minimum. Its nucleus inner particles spiral ring spin quantum is to determine the number of prerequisites.

With different number of quantum fluctuations N_{a1} generation into (4.9) is β_1 value again after together into (8.1), too: when $2.61602 \geq N_{a1} \geq 2.61589$, if use a simple points instead of, is $21/8 \geq N_{a1} \geq 34/13$, $R_{\theta(\pi)}$ has a minimum value. So, the nucleus, we take $N_{ag1}=N_{ad1}=34/13$, will it into (8.1) - the result of calculation is $N_{ad1}=21/8$ less value.

From section 7.1 and figure 7.1 and figure 7.2 and nucleus internal nuclear force forming principle, as long as 1 layer adjacent side by side of low-energy particles spiral ring wave motion in opposite directions, (one for clockwise wave motion, one for anti-clockwise wave motion); The spin direction; The high-energy particles spiral ring rail lateral and low-energy particles spiral ring rail inside adjacent interchange space orbit each other constraints and positive and negative electric field force, can overcome the high-energy particles spiral ring spin movement of the axial electric field repelling force; And the force transmitted to low-energy particles spiral ring; By low-energy particles spiral ring the spin axis orbit tangent place of ampere force to overcome.

8.2 Conditions within the nucleus □± meson spin direction electric energy equation

This book has shown in chapter 2: all the elementary particles original energy mainly is the fluctuation of electricity, the direction of the magnetic field energy, as well as the spin direction of the electric and magnetic energy. Conditions within the nucleus is made up of many protons, neutrons "decentralized" $\pi^{\pm}$ violation. In order to facilitate the calculation, we will be the nucleus general electric and magnetic energy is divided into two parts. 99.5 ~ 99.8% of them are all from $\pi^{\pm}$ meson fluctuation, the spin direction of the electric and magnetic field source energy. 1 layer within the nucleus particles spiral ring that low-energy particles spiral rings in each $\pi^{\pm}$ meson fluctuation, the spin direction original electric and magnetic field energy for $\overline{m}_{d1}c^2$, high-energy particles spiral ring each $\pi^{\pm}$ mesons in original energy for $2\overline{m}_{d1}c^2$. The rest of the 0.2 ~ 0.5% energy is high, low $\pi^{\pm}$ violation in the spin direction of interaction between electric and magnetic energy. It changes with different nuclear power by combination of the nucleus. Fluctuations in this way, we can use in front of the elementary particles, spin quantization stationary vertical double elliptical orbit model and proved the related formula, combined with the classical electrodynamics and energy relativity, to derive the total energy equation of the nucleus.

Basic particles are charged by (1.6) - the original average energy $\overline{m}_i c^2$, quantum fluctuations of N_{ai}, and track the relationship between the parameters of $R_{\theta 0}$ is given as:

$$R_{\theta 0} = \frac{h\sqrt{N_\alpha - 1}}{2\pi\overline{m}_i\beta c} \qquad (8.2)$$

By (6.3), particles spiral ring the spin direction of rail length L_θ for:

$$L_\theta = \oint \frac{R_{\theta 0}\sqrt{N_\alpha}}{\sqrt{N_\alpha}+\cos\alpha} d\theta = \frac{2\pi R_{\theta 0}\sqrt{N_\alpha}}{\sqrt{N_\alpha}-1} \qquad (8.3)$$

By figure 7.1 and 7.1 (1) type, particle spiral ring wave direction elliptical orbit of short axis R_{ab} for:

$$R_{\alpha b} = \frac{R_{\theta 0}}{\sqrt{N_\alpha}-1} \qquad (8.4)$$

By figure 8.1 shows, conditions within the nucleus of each ring particles spiral orbit $\pi^{\pm}$ mesons, relative to the radius of the nucleus center field R_{eij} is given as:

$$R_{eij} = \sqrt{R_{\theta i}^2 + \left(K_{eij}R_{\alpha bi} - R_{\alpha i}\sin\alpha\right)^2} \quad \text{(Said the subscript } {}_{i,\ j}\text{, columns, same as follows)} \qquad (8.5)$$

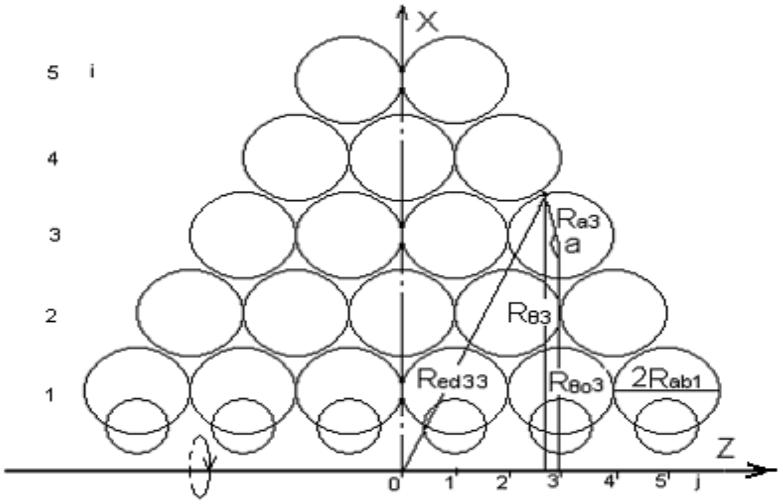


Figure 8.1 conditions within the nucleus electricity, magnetic energy equation calculation parameters

Electric field radius and divided into high-energy R_{egij}, low-energy R_{edij}. The position of the corresponding coefficient the K_{egij}, K_{edij} said, see figure 8.1 and figure 7.1 and figure 7.2. Points A and B type nucleus structure take corresponding natural number. R_{egij}, R_{edij} can specific expressed as:

$$\begin{cases} R_{egij} = \sqrt{\left(\dfrac{R_{\theta 0gi}\sqrt{N_{\alpha gi}}}{\sqrt{N_{\alpha gi}}+\cos\alpha}\right)^2 + \left(\dfrac{K_{egij}R_{\theta 0di}}{\sqrt{N_{\alpha di}}-1} - \dfrac{R_{\theta 0gi}\sin\alpha}{\sqrt{N_{\alpha gi}}+\cos\alpha}\right)^2} & (8.6-1) \\ R_{edij} = \sqrt{\left(\dfrac{R_{\theta 0di}\sqrt{N_{\alpha di}}}{\sqrt{N_{\alpha di}}+\cos\alpha}\right)^2 + \left(\dfrac{K_{edij}R_{\theta 0di}}{\sqrt{N_{\alpha di}}-1} - \dfrac{R_{\theta 0di}\sin\alpha}{\sqrt{N_{\alpha di}}+\cos\alpha}\right)^2} & (8.6-2) \end{cases}$$

By classical electrodynamics and (2.1), in order to spin energy relativistic velocities of each to $\pi^{\pm}$ violation, the potential can be given to:

$$V_e = \oint \frac{e}{4\pi\varepsilon_0 L_\theta R_e\sqrt{1-\beta^2/N_\alpha}} dl_\theta \qquad (8.7)$$

Will (8. 3) into (8. 7), to:

$$V_e = \frac{e}{4\pi\varepsilon_0}\oint \frac{\sqrt{N_\alpha}-1}{2\pi R_e\left(\sqrt{N_\alpha}+\cos\alpha\right)\sqrt{1-\beta^2/N_\alpha}} d\theta \qquad (8.8)$$

We still will be divided into V_e high-energy V_{egij} and low-energy V_{edij} two kinds. By figure 8.1 shows: varies with the position of the particles spiral ring, they are different. Will (8.6-1), (8.6-2), respectively into (8.8), to:

$$\begin{cases} V_{egij} = \oint \dfrac{e\sqrt{N_{\alpha gi}-1}}{8\pi^2\varepsilon_0 R_{\theta 0gi}\sqrt{N_{\alpha gi}+\left[\dfrac{K_{egij}R_{\theta 0di}\left(\sqrt{N_{\alpha gi}}+\cos\alpha\right)}{R_{\theta 0gi}\sqrt{N_{\alpha di}-1}}-\sin\alpha\right]^2}\sqrt{1-\dfrac{\beta_{gi}^2}{N_{\alpha gi}}}}d\theta & (8.9-1) \\ V_{edij} = \oint \dfrac{e\sqrt{N_{\alpha di}-1}}{8\pi^2\varepsilon_0 R_{\theta 0di}\sqrt{N_{\alpha di}+\left[\dfrac{K_{edij}\left(\sqrt{N_{\alpha di}}+\cos\alpha\right)}{\sqrt{N_{\alpha di}-1}}-\sin\alpha\right]^2}\sqrt{1-\dfrac{\beta_{di}^2}{N_{\alpha di}}}}d\theta & (8.9-2) \end{cases}$$

Obviously, within the nucleus of various high and low $\pi^{\pm}$ meson spin direction of electric field energy $\sum W_e$, should be each high, low-energy particle spiral loop net with $\pi^{\pm}$ violation in the spin direction interaction between algebra and electric energy. (See the back calculating examples).

8.3 Conditions within the nucleus □± meson spin direction Magnetic field energy equation

First of all, within the nucleus of each layer, low $\pi^{\pm}$ violation, the high and low particles spiral loop composed of the orbital motion of the model, as each layer in nucleus, low-energy charged particles spiral loop combination of current solenoid layer. $\pi^{\pm}$ violation in the movement of the spin of the magnetic field as a classical electrodynamics of solenoid magnetic field. Because the conditions within the nucleus net with $\pi^{\pm}$ meson spin direction magnetic field is far less than the total energy of nuclear energy. According to the continuity of solenoid in the wind, and flux inside the solenoid and ends the basic remain unchanged, the solenoid mutual inductance between the layers of the magnetic field characteristics, with solenoid in axis at various points in the magnetic field strength instead of tube space center of the magnetic field strength. Magnetic field intensity can be H_i simplify calculation. With the spiral ring in net charge along with the spin axis distribution density change has nothing to do.

By (8.3) type, electrodynamics, figure 8.2, the equivalent current I, radius of $\overline{R}_I$ and magnetic field strength of H is given as:

$$\overline{R}_I = \frac{R_{\theta 0}\sqrt{N_\alpha}}{\sqrt{N_\alpha - 1}} \qquad (8.10)$$

$$H = \frac{I}{2L_b}(\cos\alpha_1 + \cos\alpha_2) \qquad (8.11)$$

Will type (8.10) into (8.11), to:

$$H = \frac{I}{\sqrt{4\overline{R}_I^2 + L_b^2}} \qquad (8.12)$$

When determined by each layer particles spiral ring wave rail lateral for each layer solenoid border, from figure 7.1 and figure 7.1, (8.4) - see: make K_{bgij}, K_{bdij} for length coefficient, take the corresponding natural number, its length L_{bgij}, L_{bdij} should respectively:

$$\begin{cases} L_{bgij} = (K_{bdij}-2)\dfrac{R_{\theta 0di}}{\sqrt{N_{\alpha di}-1}} + \dfrac{2R_{\theta 0gi}}{\sqrt{N_{\alpha gi}-1}} & (8.13-1) \\ L_{bdij} = K_{bdij}\dfrac{R_{\theta 0di}}{\sqrt{N_{\alpha di}-1}} & (8.13-2) \end{cases}$$

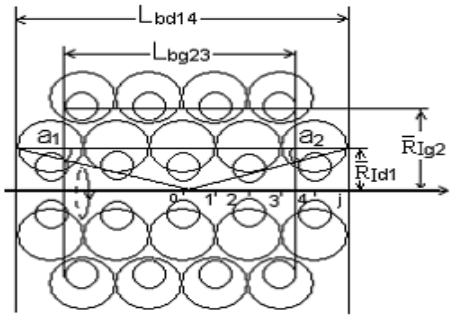


Figure 8.2 particles spiral ring layer in the magnetic energy calculation

When protons and neutrons are evens within the nucleus, (not as even when protons, neutrons "decentralized" $\pi^{\pm}$ mesons in addition). Because high-energy particles spiral ring in net with π^{+} violation number $2P_i$, twice the number of low-energy π^{-} mesons are, (P_i for this layer, low-energy particle spiral rings of the total number of protons), therefore, by (1.5), (8.3), high and low particles spiral loop of the current intensity I_{gi}, I_{di}, respectively:

$$\begin{cases} I_{gi} = \dfrac{2P_i e\beta_{gi} c}{2\pi \bar{R}_{Igi}\sqrt{N_{\alpha gi}}} & (8.14-1) \\ I_{di} = \dfrac{-P_i e\beta_{di} c}{2\pi \bar{R}_{Idi}\sqrt{N_{\alpha di}}} & (8.14-2) \end{cases}$$

Will respectively equations (8.14) into (8.12), to each layer, low-energy particle spiral ring layer in the magnetic field strength, respectively:

$$\begin{cases} H_{gi} = \left(\dfrac{ec}{2\pi}\right)\dfrac{2P_i\beta_{gi}}{\bar{R}_{Igi}\sqrt{N_{\alpha gi}(4\bar{R}_{Igi}^2 + L_{bgi}^2)}} & (8.15-1) \\ H_{di} = \left(\dfrac{ec}{2\pi}\right)\dfrac{-P_i\beta_{di}}{\bar{R}_{Idi}\sqrt{N_{\alpha di}(4\bar{R}_{Idi}^2 + L_{bdi}^2)}} & (8.15-2) \end{cases}$$

Of each particle spiral ring layer in the magnetic energy W_{bi}, magnetic field mutual inductance between each layer should be considered. We can by the nuclear spin axis to calculate one by one. The outer to the inner have mutual inductance, inner to outer mutual inductance calculation. By classical electrodynamics principle, equations (8.13) ~ (8.15), the particles spiral ring of magnetic energy can be expressed as:

$$\begin{cases} W_{bg1} = \dfrac{u_0}{2}(H_{g1} + H_{d1} + H_{g2} + H_{d2}\cdots\cdots + H_{g5} + H_{d5})^2 \pi \bar{R}_{Ig1}^2 L_{bg1j} & (8.16-1) \\ W_{bd1} = \dfrac{u_0}{2}(H_{d1} + H_{g2}\cdots\cdots + H_{g5} + H_{d5})^2 \pi(\bar{R}_{Id1}^2 - \bar{R}_{Ig1}^2) L_{bd1j} & (8.16-2) \\ \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \\ \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \\ W_{bg5} = \dfrac{u_0}{2}(H_{g5} + H_{d5})^2 \pi(\bar{R}_{Ig5}^2 - \bar{R}_{Id4}^2) L_{bg5j} & (8.16-9) \\ W_{bd5} = \dfrac{u_0}{2} H_{d5}^2 \pi(\bar{R}_{Id5}^2 - \bar{R}_{Ig5}^2) L_{bd5j} & (8.16-10) \end{cases}$$

8.4 Basic quality $\bar{m}_{d1}$ parameters within the nucleus

In the distribution of elements of the universe, ${}_{1}^{1}\mathrm{H}$, ${}_{2}^{4}\mathrm{H_e}$, ${}_{6}^{12}\mathrm{C}$, ${}_{26}^{56}\mathrm{F_e}$ maintenance... Etc is the stability of the common elements. But, two ${}_{2}^{4}He$ nucleus to form stable ${}_{4}^{8}B_e$ nucleus, consists of two ${}_{3}^{6}Li$ nucleus can stable ${}_{6}^{12}C$ nucleus, and nuclear number is a multiple of 4. Protons and neutrons are even,

magnetic moment is zero. Don't like ${}^{6}_{2}He$ nuclei have unusual magnetic moment. That ${}^{12}_{6}C$ nucleus nuclear number, proton number should be at least, meet the requirements of chapter 7 nucleus structure model, the energy equation, the most simple of the atomic nuclei. It can be used as a nucleus the basis for the calculation of $\overline{m}_{d1}$, $\overline{m}_{g1}$, benchmark model parameters.

We have ${}^{12}_{6}C$ nucleus only by two pairs of high and low particles spiral ring side by side of the simplest type B nucleus, see figure 7.2. Laboratory determination of the carbon atom energy is 12u. Because electronic itself along the spin track motion of kinetic energy, the nuclei under the action of electric field force still has certain coulomb electrostatic field energy, so the quality of the nucleus for atomic mass minus all electronic rest mass plus all the ionization energy of $\sum \Delta W_{ei}$.

By figure 7.2 and figure 7.6, ${}^{12}_{6}C$ conditions within the nucleus high-energy particles spiral ring net with π_g^+ mesons in a total of 12, its own electric field energy should be $\left(12^2/2\right)eV_{eg11}$; Two side by side of low-energy particles spiral rings net with π_d^- both for six, and both sides symmetrical distribution, its own electric field energy should be $\left(6^2/2\right)eV_{ed11}$; π_d^- both with internal high-energy π_g^+ violation the interaction of electric field energy for $-6\times 12eV_{ed11}$; So, high carbon nuclei in ${}^{12}_{6}C$, low-energy particles spiral ring in excess π_g^+, π_d^- meson spin direction interaction should be total energy of the electric field:

$$W_e = (72V_{eg11} + 18V_{ed11} - 72V_{ed11})e \qquad (8.17)$$

Similarly, in ${}^{12}_{6}C$ nuclear spin direction of the magnetic field energy calculation, K_{bd11}= 4, in equations (8.13), (8.15) equations in P_i = 6, magnetic field total energy is:

$$W_b = W_{bg11} + W_{bd11} \qquad (8.18)$$

By figure 7.6, ${}^{12}_{6}C$ conditions within the nucleus in total by 18 high-energy $\pi_g^{\pm}$ mesons, 24 low-energy $\pi_d^{\pm}$ violation, and $\overline{m}_{g1} = 2\overline{m}_{d1}$, so, ${}^{12}_{6}C$ conditions within the nucleus of low-energy $\pi_d^{\pm}$ both average benchmark energy $\overline{m}_{d1}$ should be:

$$\overline{m}_{d1} = \frac{12u - 6m_{e0} + \sum_{i=1}^{6}\frac{\Delta W_{ei}}{c^2} - \frac{(W_e + W_b)}{c^2}}{24 + 18\times 2} \qquad (8.19)$$

$\overline{m}_{d1}$ Parameters specific simulation program are as follows:

1. By (8.1), the determination of the N_{a1}=N_{ag1}=N_{ad1}=34/13, generation into (4.9), to: β_1=0.9989866946.

2. Estimate $\overline{m}_{d1}$ initial value, section 8.2 has been mentioned in the beginning, high in nucleus, low-energy particles spiral ring net with $\pi^{\pm}$ mesons in spin direction, each other can only nucleus of the electric and magnetic field between 0.2~0.5% of the total energy, we will take 0.3%. Measured by the laboratory carbon atoms within 6 electronics total ionization energy $\sum \Delta W_{ei} = 1030.08\,ev$ ③ Will all these parameters into (8.19), is $\overline{m}_{d1}$ initial value for 3.310209258 x 10-28 kg.

3. The β_1, N_{ag1}, N_{ad1}, $\overline{m}_{d1}$, $\overline{m}_{g1}$ and initial value generation into (8.2), calculate $R_{\theta 0g1}$, $R_{\theta 0d1}$.

4. By figure 7.2 and figure 8.1, (8.9), (8.13) equation coefficient of the position: K_{eg11} = K_{ed11} = 1 K_{bd11} = 4

5. The $R_{\theta 0g1}$, $R_{\theta 0d1}$, N_{ag1}, N_{ad1} value generation into (8.10), respectively is $\overline{R}_{Ig1}$, $\overline{R}_{Id1}$, value.

6. Will N_{ag1}, N_{ad1}, β_1, $R_{\theta 0g1}$, $R_{\theta 0d1}$, K_{eg11} ……,equivalent generation into the equations (8.9), respectively is: V_{eg11}=1251884.632v , V_{ed11}=831741.7884v

7. Make K_{bd11} = 4, will be N_{ag1}, N_{ad1}, $R_{\theta 0g1}$, $R_{\theta 0d1}$ generation into the equations (8.13), respectively is L_{bg11}, L_{bd11} value.

8. Makes the number of protons P_1 = 6, the β_1, N_{ag1}, N_{ad1}, $\overline{R}_{Ig1}$, $\overline{R}_{Id1}$, L_{bg11}, L_{bd11} value generation into the equations (8.15), calculate the magnetic field strength H_{g1}, H_{d1} value.

9. Will H_{g1}, H_{d1}, $\overline{R}_{Ig1}$, $\overline{R}_{Id1}$, L_{bg11}, L_{bd11} value generation in equations (8.16) first two type, calculate magnetic energy $W_{bg1}=1.071369311\times10^{-12}$J, $W_{bd1}=1.688824137\times10^{-13}$J

10. Will V_{eg11}, V_{ed11} value generation into (8.17), calculate the total electric energy W_e value.

11. Will W_e, W_b and $\sum \Delta W_{ei}$ value generation into (8.19), is the transition is $\overline{m}_{d1}=3.304434003\times10^{-28}$Kg

12. Will transfer value $\overline{m}_{d1}=3.304434003\times10^{-28}$Kg instead of 3 calculation program of $\overline{m}_{d1}$ initial value, repeat 3~11 calculation procedure, until the $\overline{m}_{d1}=3.304461327\times10^{-28}$Kg for constant.

$\overline{m}_{d1}$ = 3.304461327 x 10^{-28} kg benchmark constant said: in the number of protons $P_i \geq 6$ of the nucleus, proton number = neutron number is even the first layer of particles spiral rings, the original low $\pi_d^{\pm}$ meson energy is: $\overline{m}_{d1}=3.304461327\times10^{-28}$Kg .

Original high-energy $\pi_g^{\pm}$ mesons are $2\overline{m}_{d1}$ energies. Residual energy is high, low-energy particle spiral loop net with $\pi^{\pm}$ violation in the spin direction of interaction between electric and magnetic energy.