# Neutron is a composit particle, made up of proton and electron

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Abstract.

*In the paper „ Physics is easy" we showed, that leptons ( electron, muon, tau ), W + - Z bosons and neutrinos ( electron neutrino, muon neutrino, tau neutrino) can be replaced with electron moving at different speeds from 0.1c up to 0.999.. c . Similarly hyperons, mesons and quarks can be replaced by proton and neutron (or alpha particle respectively ) moving at different speeds from 0.1c up to 0.999.. c .*

*While, the neutron is composed of proton and electron orbiting around it.*

*Thus, all particles, which are currently known, can be replaced by the various fast moving electron or proton. Electron and proton are the only stable fundamental elementary particles.*

*We show, that neutron is source β rays - β electrons ( bosons Zo, W+- too) , γ rays, electron neutrinos, muon neutrinos, tauon neutrinos.*

Neutron is a composit particle, made up of proton and electron (Richard  Feynman).

β electron is emitted from the neutron

Stability and beta Decay

The Feynman diagram for beta decay of a neutron into a proton , electron , and electron antineutrino via

an intermediate heavy W boson.


In the "stable" neutron, electron orbits around the center-of-mass with speed greater than 0,999994c.


If will start beta decay of a neutron, β electron has kinetical energy in direction of motion 80 398 MeV

( it is W- boson), proton is moving at a speed 0,023337c, and radiates γ ray.


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Electron radiates electromagnetic waves if and only if moves with acceleration from the higher Bohr´s energy levels to a lower. In atom, as a source of electromagnetic waves , them it then , when it moves from afnucleum to perinucleum along the ellipse .


When electron moves in the sphere, (in circle) when electron rotates does not radiates .
It is inertial (equivalent) movement.


A spherical electron cocoon or an electron cloud is occasion why electron have negative charge.


Compact mass not making cocoon, cloud, the hole has a positive charge.


When the electron is closest to the nucleus, electron is in the perinukleum and has maximal speed.


When the electron is furthest from the nucleus, electron is in the afnucleum and has minimal speed.


The electron is not a mathematical point! Electrone is a physical 3D dimensional particle with a diameter of 1 attometer (estimate)

1 attometer = $1.0 \times 10^{-18}$ meters

By its motion the electron produces a spherical electron cocoon or an electron cloud. In the source, in H, it enters 4.57e + 14 times per second (for spectral line Hα), Since the electron flashes 4.57e + 14 times per second,

By its motion the electron produces a ellipsoidal electron cocoon or an ellipsoidal electron cloud.

That is a interesting possibility,creating the cavity and by producing

a membrane= a spherical electron cocoon or an electron cloud.

Electron radiates electromagnetic waves if and only if moves with acceleration from the higher Bohr´s energy levels to a lower. In atom, as a source of electromagnetic waves , them it then , when it moves from afnucleum to perinucleum along the ellipse

1. Electron radiates electromagnetic waves if and only if moves with acceleration from the higher Bohr ´s energy levels to a lower. In atom, as a source of electromagnetic waves , them it then , when it moves from afnucleum to perinucleum along the ellipse .

Excentricity of the ellipse is maximal when electron radiates head of series.

Faulty arguments leveled against classical physics - the electron is moving with acceleration along a spiral towards the nucleus - we will find in Beiser [19] 5.7 The failure in classical physics, p.120, Fig.5.12: "Electron in an atom should Be according to classical physics, rapidly converges to the nucleus, because as a result of its acceleration radiates energy. "

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By its motion the electron produces a ellipsoidal electron cocoon or an ellipsoidal electron cloud. In the source, in atom H, it emites 4.57e + 14 times per second

For example, the atomic orbit of an electron in the hydrogen atom occupies a volume of about 6.28*0.3nm*3.14*(1 am)^2= occupies a volume of the one atomic orbit of an electron = 6e-45 m^3

Spherical electron cocoon or an electron cloud has 4.57e + 14 electron orbits during 1 sec, and occupies a volume 2.7e-30m^3/s.

Proton is compact mass not making cocoon, cloud, the hole has a positive charge.

But electron with his movement create cocoon:
That is a interesting possibility,creating the cavity and by producing a spherical membrane= a spherical electron cocoon or spherical electron cloud.

When electron moves in the sphere with constant sped, (in circle) when electron rotates with constant sped does not radiates (edge series or free electron) and the electron non flashes.
It is inertial (equivalent) movement.
It seems that the "void" (emptiness, 100% vacuum, cavity, vacancy) exists only in the electron in the form of a cocoon, as the minimum

It seems that the "void" (emptiness, 100% vacuum, cavity, vacancy) exists only in the electron in the form of a cocoon, as the minimum negative charge.

Electron radiates electromagnetic waves if and only if moves with acceleration . In atom, as a source of electromagnetic waves , them it then , when it moves from afnucleum to perinucleum along the ellipse .

Table Spectral line Hα  656.281 + - 1.4 nm

afnucleum: v/c = 0,0027212435663

perinucleum: v/c = 0,0027270653746

0,0027270653746c - 0,0027212435663c = 0,0000058218083c = 1745 m/s

acceleration = 1745/ 1,095e-15=

acceleration = 1,59e+18 m/s2

Spectral line Hα 656.281 + - 1.4 nm 656.281

Lambda = c/ f= 656,281 nm,

f = c/656,281 nm = 299792458 m Hz/656,281 nm=299792458/656,281e-9 =

f = 4568e+11 Hz = 4,568e+14

f = 4,568e+14 Hz

T= 2,18912e-15 s

In the source, in Hydrogen, it creates into transmission medium, the electromagnetic wave 4.57e + 14 times per second (for spectral line Hα)

Since the electron flashes 4.57e + 14 times per second.

It alternately accelerates and deccelerates .

What is Charge, from what does it arise and, if discrete, why?

If discrete, why?

One Blink of Electron is the Basis Amount of Kinetic Energy 6.62606957x10-34 Js

From what does it arise? Electron in an atom not to skip, but moves continuously with great speed,

which increases from the value 0,002717146 c (in afnucleum) to

0,0027212042 c (in perinucleum). Then decreases from the value 0,0027212042 c (in perinucleum) to

0,002717146 c (in afnucleum) etc.

Because the electron flashes 4,57e+14 times per second, i.e. emits energy

4,57e+14 times per second and absorbs energy 4,57e+14 times per

second (for spectral line Hα). Electron creates in the transmission medium, electromagnetic wave

4,57e+14 times per second and absorbs energy 4,57e+14 times per second (for spectral line Hα)

 What is Charge?


A spherical electron cocoon or an electron cloud is occasion why electron have negative charge.


Proton is compact mass not making cocoon, cloud.


Proton has a positive charge.


Electron in neutron works analogically as electron in atom H.


Only their speeds are many times bigger.


Speed of electron in neutron: 0,999994c

Speed of electron in atom H: afnucleum: v/c = 0.0027212435663

perinucleum: v/c = 0.0027270653746

for Spectral line Hα 656.281 + - 1.4 nm

Speed of proton in neutron: 0,023337c

Speed of proton in atom : 0.0000636c

proton orbits around the center-of-mass with speedspeed 0,023337c,

and radiates γ ray.

In the "stable" neutron, electron orbits around the center-of-mass with speed greater than 0,999994c.

Proton is compact mass not making cocoon cloud.

The hole is making with cocoon cloud and has a negative charge.

The hole is making with cocoon cloud and has a negative charge, such as electron - Spherical electron cocoon or an electron cloud has 4.57e + 14 electron orbits during 1 sec in the hydrogen atom for H alpha, and occupies a volume 2.7e-30m^3/s.

The hole is making with cocoon cloud and has a negative charge, such as electron

in neutron - Spherical electron cocoon or an electron cloud has 1,944e+25  electron orbits during 1 sec

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One Blink of Electron is the Basis Amount of Kinetic Energy 6.62606957x10-34 Js

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Confirmation of the Theory Under Discussion Wave-Particle Duality as Kinetic Energy Against and in Direction of Motion in Discussion Group Theoretical Physics !!!! Eureka !!!!

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Form of Intensity of the Moving Charge Electric Field is Asymmetrical.

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THE NEW COORDINATE SYSTEMS IN PHYSICS AND MAGIC NUMBERS

This paper presents two new coordinate systems (s, t, u, v) and (s*, t*, u*, v*). There is a transformation

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Superheavy Spherical Nuclei. Island of Stability
In the present paper we show, that nuclei Os 192, Pt 198, Hg 198, Hg 200, Hg 201, Hg 204, Tl 205, Pb 206, Pb 207, At 210, Pa 231, Th 232, AcU 235, Np 237, Pu 240, Am 242, Cm 247, Ku 261, and more create an island of stability. Keywords: superheavy spherical nuclei, island of stability, sphere 192
PACS number: 21.60.-n

Spheres in nuclei

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**Page 1 – 11.pdf**

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