

The Mercury Orbit and the Quantum Mechanics

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Abstract: We assume that in the electron suffer the same behaviours of the advance of perihelion of Mercury planet and the delay of electron. This advances and the delay during the different orbit concatenated and allow us the different orbits.

Keyword: Mercury perihelion, quantum mechanics.

1. Introduction

According with the new law of gravitation, which is deduced by me and is the $dv/dt=GM/r^2 (1 - GM/c^2 r)$, the advance of Mercury perihelion is

$DT= 2PI (1 - (b)^{1/2})$ where b is $b=1 - GM/a (1 - e^2) c^2$, [1] in the case of electron the delay is $DT=2PI (1 + (b)^{1/2})$ [1] where b is $b=1 - c q_e q_n / a (1 - e^2) c^2$, where q_e and q_n are the electron and nucleus charges.

DT is always $2 PI$, and then the electron delay one revolution per orbit.

We first see the Coulomb Force

$$F=k q_e q_n/R^2$$

Where q_e and q_n are the electrical charge of electron and the nucleus, k is the Coulomb constant R is the radio of orbital electron

This formula gives $F=10^{-9}$

$$F=m a$$

$$A=V^2/R= 10^{-9}/10^{-30}$$

$$V= 10^5$$

The velocity of the electron is $2PI R/T$ or $2PI 10^{-9}/10^{-14}$ seg and the velocity of the delay is the same because the delay is $2 PI$. Both velocities are the same.

In the electron the delay is because the charge of electron and proton are different charge and they attracted or repel. Whereas in Mercury the advance is because the gravitation is always attractive.

In the electron we have $E=h \nu$ where h is the constant of Planck and ν is the frequency. The rotational energy is $E = I \nu^2$ where I is the inertial momentum.

The inertial momentum is $M R^2$ and replace one ν by the DT of the electron we have the rotational energy is $E=M R DT R \nu= M R DT 2PI R \nu/2PI= M R DT 2PI R (1/T)$.

$R=a$ then the $E= (M R -GM^2/ (1 - e^2) c^2) 2PI R (1/T)$
 $M=10^{-30}$ $R=10^{-9}$ and $T=10^{-14}$ then $E =10^{-34}$, which is mean the Quantum Energy of Planck.

DT is the angle and $R DT$ is the arc of delay.

2. Results and Discussion

$$E=M R DT 2PI R (1/T)$$

With this equation we can demonstrate that the delay occur in one revolution.

$$2PI R =E= M R D T 2PI R (1/T)$$

$$E/R M= DT (1/T)$$

$$M=10^{-31}$$

$$E=10^{-34}$$

$$R= (10^{-34}/10^{-31}) 1/10^{14} \text{ seg}=DT$$

$$R=10^{-9} \text{ mts}$$

This is the real radio of the atom, where the electron round with a frequency of $1/10^{14}$, which demonstrate our hypothesis.

We use the equation of $DT=2PI (1+b^{1/2})$

$$2PI R DT = 2PI 2PI R (1+b^{1/2})$$

For DT were a revolution $2PI (1+b^{1/2})$

$$2PI= 2PI (1+b^{1/2})$$

$$1= (1+b^{1/2})$$

$$b=1 - k q_e q_n / R (1 - e^2) c^2$$

$$0 = (b^{1/2} - R (1 - e^2) c^2 - k q_e q_n) / (R (1 - e^2) c^2)$$

$$R (1 - e^2) c^2 = - R (1 - e^2) c^2 - k q_e q_n$$

$$2 R (1 - e^2) c^2 = - k q_e q_n$$

In the dominator we have radian per revolution $1/10^{-14}$

And the numerator I have the revolution 10^{-14}

We have $R=10^{-7}$

Then this is the real value of the radio of atom, with the electron with a frequency of $1/10^{14}$, which mean our hypothesis, where the radio is according with the one do per revolution.

The radio is more slowly and is accordance with the real orbit, and eliminate different orbits. Here we have the revolution in T of the advance during the 2PI R the elliptic revolution.

The velocity of electron is to high that the advance is added with the following advance.

Different orbits are product of only one of advances with 2R, 3, 4 etc. and the Velocity of delay is 1 2 3 4 etc of the velocity of electron. The velocity al the delay is DT. V where V is the velocity the electron, given before.

The delays to be accommodate each other in all the orbit or they do interference between them.

In the develop of the orbit the delays concatenate between them and permit the formation of only one orbit

This means there no other possibility orbits exist. This can be multiplied by 2R and 2T and 3 or 4 etc then we have other possible orbits. Other possibilities are not possible like $3/2$ $4/3$ of R and T because no interference between the advances occurs.

3. Conclusion

We assume the electron in an atom suffer an advance like the Mercury planet. We conclude that the concatenate of delays permit the formation of only one orbit. By this elect we also conclude that the advances of Mercury perihelion can explain the Quantum Mechanics.

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References

[1] Luna HG, (2022) unpublished

Article Aspect	Observation
Article subject area of interest to journal's audience?	Satisfactory
Comment: Article subject is found satisfactory and is recent.	
Article title appropriate and self explains the motive?	Satisfactory
Comment: Article title is appropriate to the conducted study.	
Is the quality of the English language satisfactory?	Satisfactory
Comment: Quality of the English language is good and understandable even to beginners also.	
Abstract accurately reflects the content summary?	Satisfactory
Comment: The abstract of the study appropriately summarizes the study results.	
List of at least Five Keywords are provided?	Satisfactory
Comment: All Five Keywords are present.	
The purpose of the article is stated clearly?	Satisfactory
Comment: Purpose of writing this article is very clear.	
The significance of the article explicitly stated?	Satisfactory
Comment: Explicitly stated.	
Are the research study methods sound and appropriate?	Satisfactory
Comment: Methods are very clearly stated and justifies the work.	
Is the writing clear and concise?	Satisfactory
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Reviewer Decision:

Publish, No Significant Alterations Suggested.