

# Re: Angular Momentum & Energy Levels

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*Source:* <http://sci.tech-archive.net/Archive/sci.physics/2005-05/msg00024.html>

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- *From:* Uncle Al <[UncleAl0@xxxxxxxxxxxxxx](mailto:UncleAl0@xxxxxxxxxxxxxx)>
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Sidney wrote:

- >
- > It is said that the angular momentum  $L$  of the electron
- > cannot take on any arbitrary value, as is the usual case
- > in classical physics, but only certain values.
- >  $L = 1 (h/2\pi)$  in the first orbit
- >  $L = 2 (h/2\pi)$  in the second orbit
- >  $L = 3 (h/2\pi)$  in the third orbit
- > and so on.
- >
- > Only orbits in which  $L$  is a whole multiple of the quantized
- > unit  $h/2\pi$  are allowed.
- >
- > Now my inquiry is.
- >
- > What the heck has the angular momentum of the electron got
- > to do with the creation of different orbitals??
- >
- > Also the angular momentum of the electron is how fast it
- > rotates. But then electron doesn't really rotate. So what
- > does the angular momentum represent.
- >
- > Let's go to the earth-moon analogy. You are saying that
- > if there moon rotates faster or has large angular
- > momentum. It can say in orbit further in distance to what
- > it is now?? Meaning if the moon rotates 3 times faster.
- > It would become 3 times farther in distance to the earth??
- > This is what they are saying in the nucleus-electron thing.

Fail the course. Allow somebody who can take advantage of the knowledge walk over your corpse.

Particles are wholly described by their quantum numbers. No two electrons (fermions) in an atom may have the same four quantum numbers. The Earth-moon system is not quantized.

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Uncle Al  
<http://www.mazepath.com/uncleal/>

## Re: Angular Momentum & Energy Levels

(Toxic URL! Unsafe for children and most mammals)

<http://www.mazepath.com/uncleal/qz.pdf>

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- **Follow-Ups:**

- ◆ **Re: Angular Momentum & Energy Levels**

- ◇ From: whopkins

- **References:**

- ◆ **Angular Momentum & Energy Levels**

- ◇ From: Sidney

- Prev by Date: **Re: The Impossibility of Measuring the Velocity of Light**

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