Re: Bohr's Atom still number one

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2007−05/msg01576.html

- *From*: bz <bz+spr@xxxxxxxxxxxxxxxxxxx>
- *Date*: Thu, 10 May 2007 10:22:04 +0000 (UTC)

"guskz@xxxxxxxxxxx" <guskz@xxxxxxxxxxx> wrote in
news:1178772761.297555.175210@xxxxxxxxxxxxxxxxxxxxxxxxxxxx:

> Does anyone dispute that electrons shed photons to get closer
> to a
> nucleus?

> Actually, they shed photons to get to a lower energy state. That is
> closer to the nucleus in Bohr's model, but not necessarily in reality.
> See a freshman chemistry text.

I did, and from what I found a lower energy state is closer to the nucleus...I found nothing else.

http://www.physics.utoledo.edu/~lsa/_color/06_atoms.htm
quote: "Emission occurs when the electron falls from an excited state to a lower energy state closer to the nucleus."

For a particular iso−probability line, that line will be closer to the nucleus, but ALL of the energy levels have some probability of being close to the nucleus at some times. You could also say that the 'average position' is closer to the nucleus for lower energy levels.

But you should NOT make the unqualified statement that 'lower energy levels' are closer to the nucleus and you should always understand that you are talking about averages or most probable distance rather than a specific distance.

−−

bz

please pardon my infinite ignorance, the set−of−things−I−do−not−know is an infinite set.

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