

Schrodinger Equation and Hydrogen Energies - My Way

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As in relativity theory x and t are not space and time but wavelength and period.

A, A_0 -- Magnetic potential

$$\frac{dA}{dt} = -\frac{A_0}{3} \frac{d^2 A}{dx^2} + V^2 \quad ; \quad t \approx \frac{x}{c} \quad ; \quad dt = \frac{dx}{c}$$

$$c \frac{dA}{dx} = -\frac{A_0}{3} \frac{d^2 A}{dx^2} + V^2$$

$$A = A_0 \sin\left(\frac{4\pi^2}{x^2}(c^2 t^2 - x^2)\right) \quad \Leftrightarrow \quad A = A_0 \frac{4\pi^2 h}{\pi \cdot x^2}$$

$$\frac{dA}{dx} = \frac{A_0 4\pi^2 h - 2}{\pi x^3} \quad ; \quad \frac{d^2 A}{dx^2} = \frac{A_0 4\pi^2 h}{\pi x^4} \quad \Leftrightarrow$$

$$\Leftrightarrow \quad \frac{A^2}{2\pi h} - \frac{2cA}{x} - V^2 = 0 \quad \Leftrightarrow$$

$$\Leftrightarrow \quad A = \frac{V^2 x}{2c} \quad \text{-- Algebraic Schrodinger equation (approximation)}$$

$$\text{Energy:} \quad E = A^4 = \frac{V^8 x^4}{16c^4}$$

$$\text{Electric potential:} \quad V^2 = \frac{q_e}{4\pi\epsilon_0 R^2}$$

Gravitic potential: $V^2 = \frac{Gm}{R}$

For subatomic particles G is a variable.

For the electron:

$$E = \frac{V^8 x^4}{16c^4} \quad \text{and} \quad V^2 = \frac{q_e}{4\pi\epsilon_0 R^2}$$

$$\Leftrightarrow E = \frac{q_e^4 x_e^4}{4^4 \pi^4 \epsilon_0^4 R^8 16c^4} = \frac{2\pi^2 q_e^4 x_e^4}{h^2} = 13.6eV$$

$$R = a_0 = 5.3 \times 10^{-11} m$$

So, we found the correct energy that proves that our simplest equation is true.