

dec 19

Grau 3 Boulton

Chapter 5

1. RUTHERFORD's model didn't explain electrons behavior OR chemical properties.

↳ moving to different energy level rings

2. THOMPSON model: atoms "pudding" where electrons are evenly spread out around the nucleus

Bohr: nucleus in the middle rings (electrons)  
- shows where electrons might be

3. Quanta

4. increases however the energy to move levels decreases.

5.  $Ta^{13} \rightarrow 1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^3$

6. As one increases the other decreases

7. Wavelength & length of one full wave

Frequency: how many full waves pass at a given time

8.  $c = \lambda \nu$

$$c = 2.998 \cdot 10^8 \text{ m/s}$$

$$\lambda = 7 \text{ m}$$

$$\nu = ? \quad 42828571.43 \text{ s}$$

$$E = h\nu$$

$$E = ? = 2.837 \times 10^{-26}$$

$$h = 6.626 \cdot 10^{-34}$$

$$\nu = 42828571.43$$

9. Radio MICROWAVE Infrared ~~ultra violet~~

Ultraviolet XRay

Gamma

10. Electrons go from higher rings to lower rings.