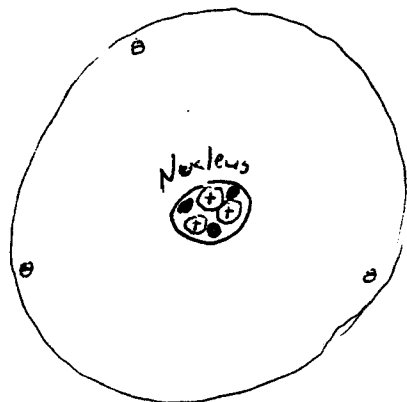


Review for Atomic Structure

- 1) Understand the Basic "Planetary Model" of the atom. Where are the Protons & Neutrons, Where are the Electrons. What is the charge In Coulombs of a Proton, or Electron, What is the mass of each ?



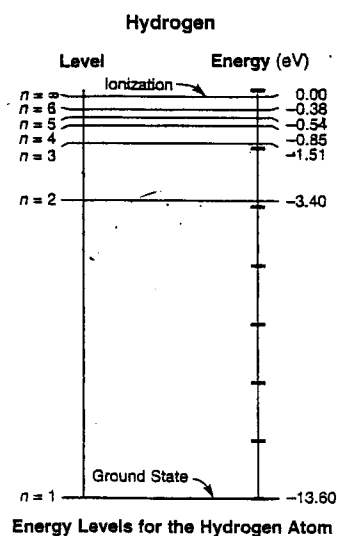
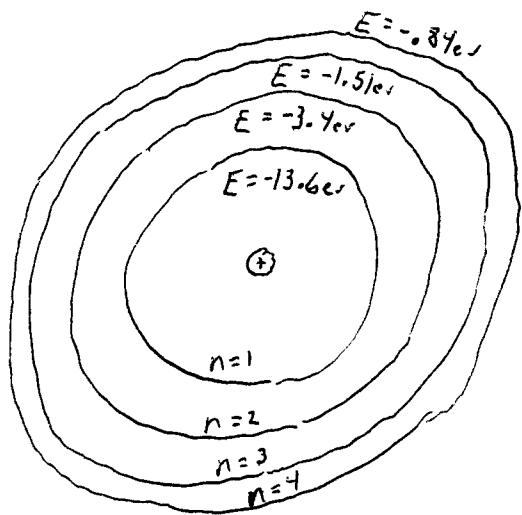
$$q_{\text{proton}} =$$

$$q_{\text{electron}} =$$

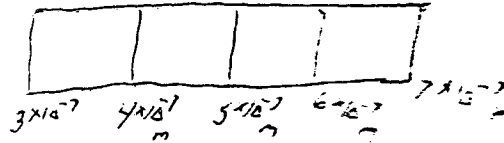
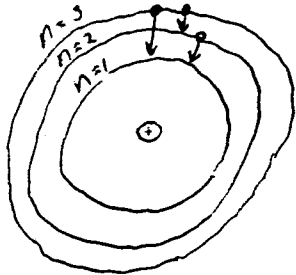
$$m_{\text{proton}} =$$

$$m_{\text{electron}} =$$

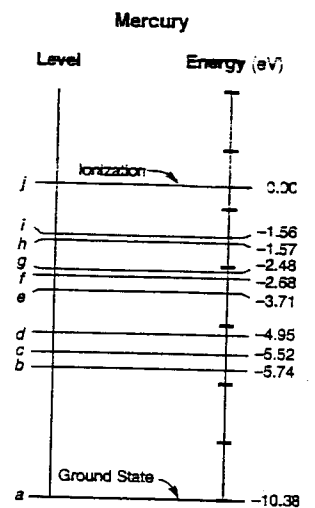
- 2) What was the newer Bohr Model of the atom ? What problems did this model solve ? What does the negative energy at each allowed energy level state mean ? When absorbing energy the electron can totally break free or just jump into a higher level, Be able to figure out how much needs to be absorbed for these processes.



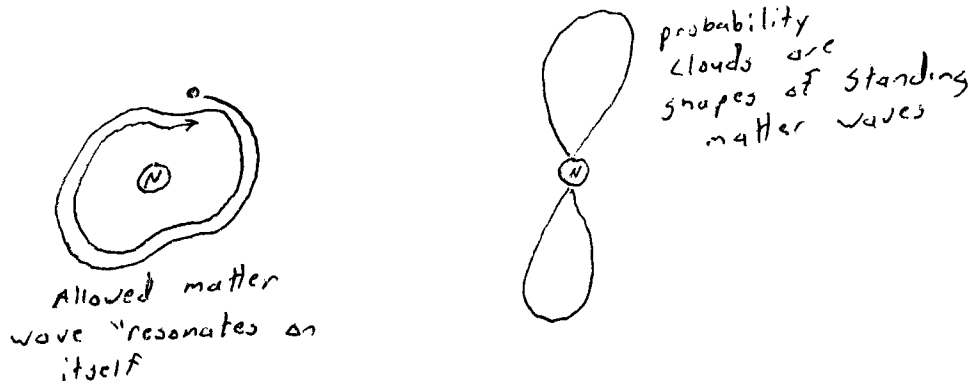
- 3) When atom starts from a higher "excited" energy level state it eventually falls back down and makes the bright line spectrum by giving off photons. Be able find the energy of these photons in electron-Volts and switch over to joules. Be able to use $E=hf=h(c/\lambda)$ to find frequency wavelength or color.



- 4) Be aware you could get the Mercury atom. Instead of $n=1, n=2$, It's a, b, c but everything else is the same.



- 5) Know Matter Waves, & The Uncertainty Principle a little. Know how These ideas lead into allowed and disallowed energy levels, and probability cloud model of atom.



- 6) Know small sub-atomic particles can be shown to do diffraction & interference which shows they have a wave quality

