

## ANCIENT ATOMIC THEORY:

Attention to *energy* also exist for *electronic* and  $E$ , which correspond to the basic study of the atomic theory of **Rutherford** continued improvement **Bohr**; we start from  $E = T + V$ .  $E = -Ze^2/2r$ . By the principle of uncertainty of **Heisenberg**  $ip = h/\lambda$ ,  $mvr = n\cdot h$  combining the expression of  $E$  with the other gives  $r = n^2 \cdot h^2 / (mZe^2)$  according to **Max Planck**  $E = h \cdot \nu$ ,  $E = -(mZ^2 \cdot e^4) / (n^2 \cdot h^2 \cdot 2)$   $E_i = -R' \cdot Z^2 \cdot (1/n_i^2)$

Then, depending on non-electronic level (which in the spectrum correspond to Lyman ( $n = 1$ ), Balmer ( $n = 2$ ), Paschen ( $n = 3$ ), Brackett ( $n = 4$ ) and Pfund ( $n = 5$ )) will enjoy an  $E$  or another.

$$\Delta E = h \cdot (\nu_i - \nu_j) = R \cdot Z^2 \cdot (1/n_i - 1/n_j) \text{ on } n_j > n_i \text{ i } R = R' \cdot h.$$

It is a deeper study of the Hamiltonian and the Schrödinger equation, since it includes the energy of rotation, vibration and electronic + not only the subsequent translationals.