The hydrogen atom is the simplest atom: it consists of a single proton and a single electron.Since it is so simple, it is possible PHY 231– ATOMIC PHYSICS Prof. Dr. Aisha Soliman mail: aisha_soliman@women.asu.edu.eg 55 |From these calculations it follows that the electron energy is quantized, and these energies are given by the expression: where n is the principal quantum number of the atomic level, and is a fundamental physical constant called the Rydberg constant (here me is the electron mass).Numerically, Ry = 1.0974 x 105 cm–1 and hcRy = 13.605eV.P a g e to calculate the .energy spectrum of the electron bound states