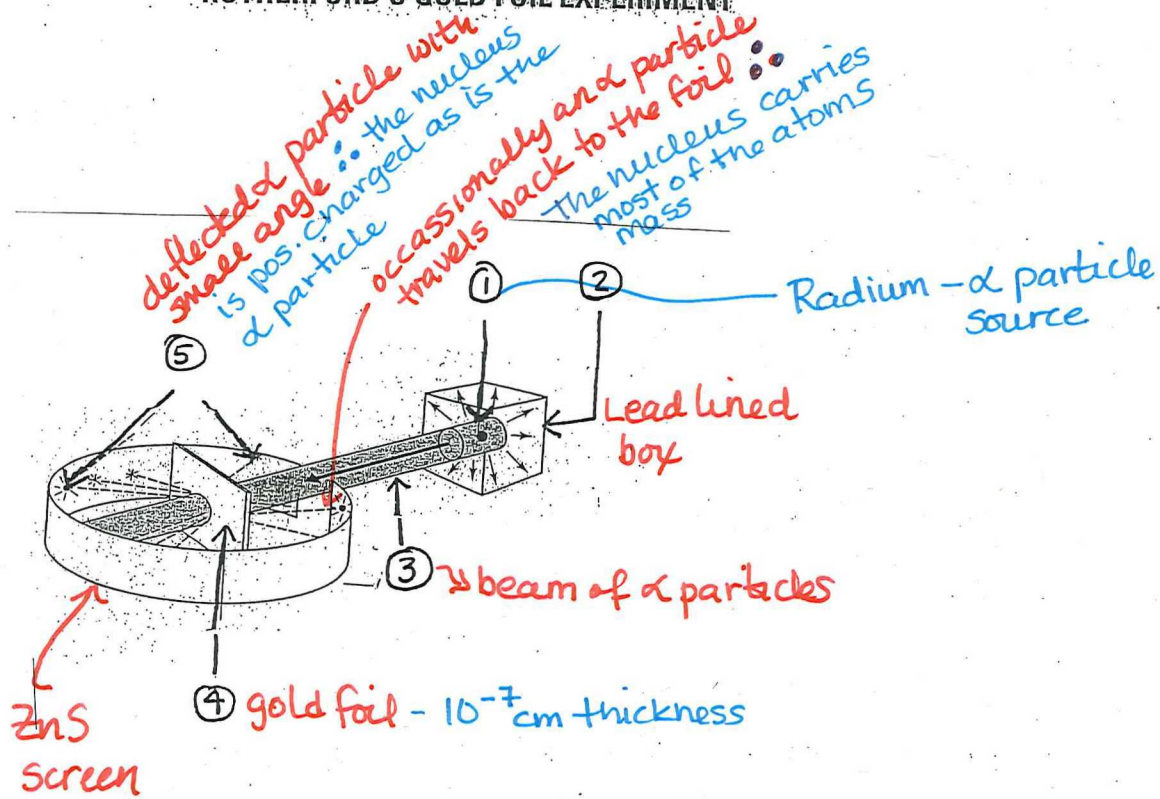
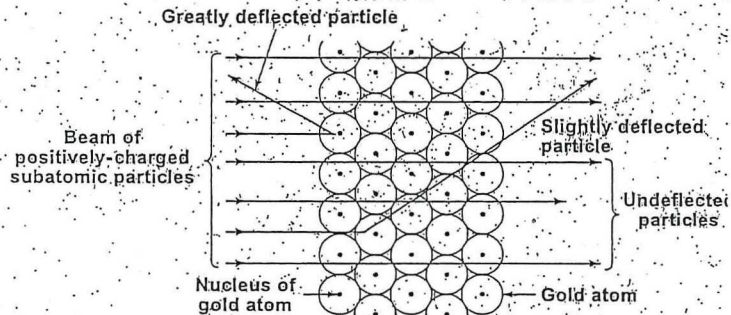


RUTHERFORD'S GOLD FOIL EXPERIMENT



Hans Geiger + Ernest Marsden performed the experiment under the direction of Rutherford - Rutherford interpreted the data



α particles - He²⁺ nuclei

- has 2p + 2n
- no electrons

- α particles are emitted by some radioactive sources

99.995% of α particles went straight through the gold foil

1 in 20,000 α were deflected at an angle 90° or greater

Results:

- atom is mainly empty space
- atom has a centrally located positively charged core "nucleus" which ~~can~~ contained most of the mass of the atom