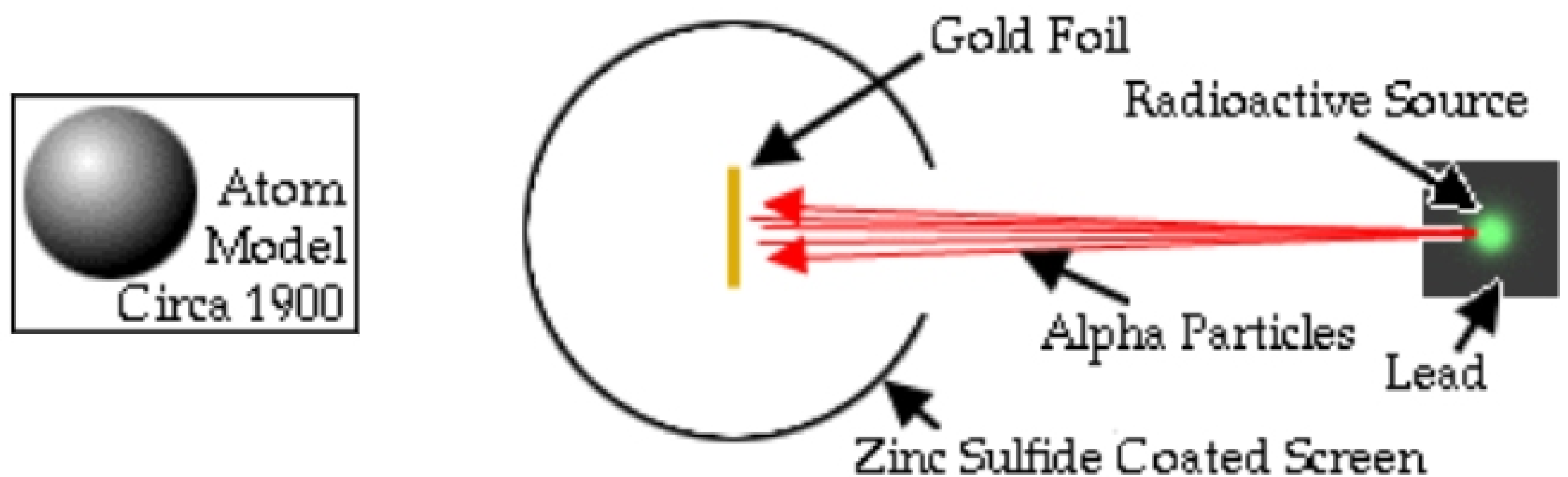


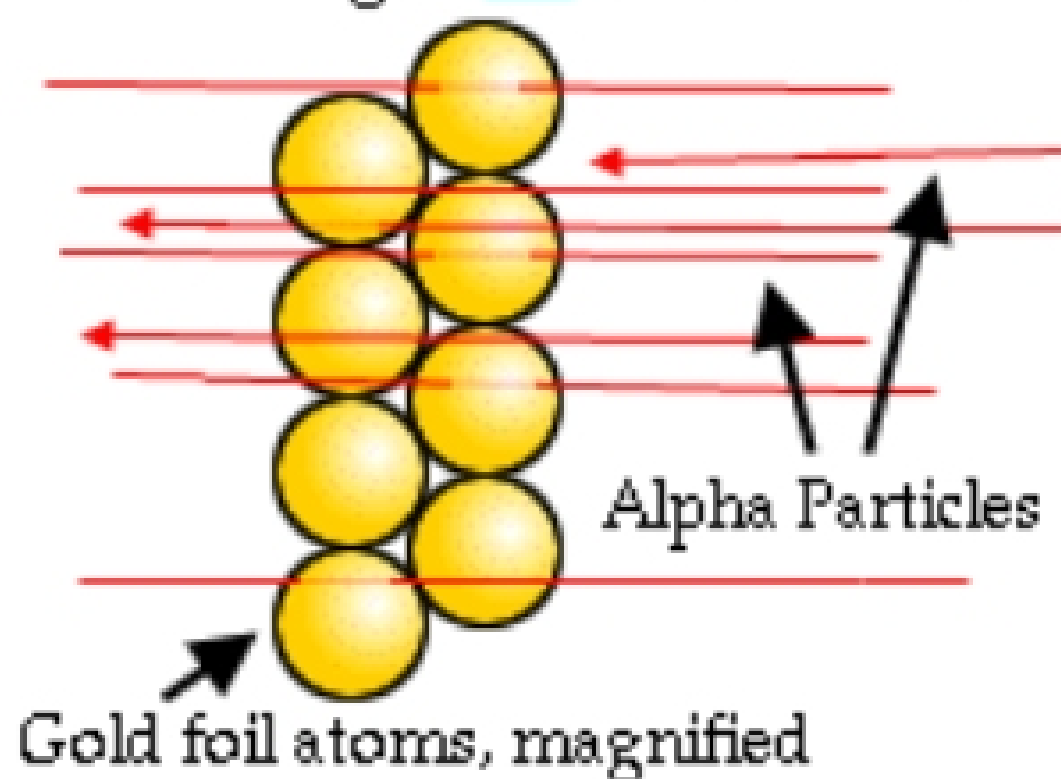
The Nucleus

PHY 3101
D. Acosta

Rutherford Scattering

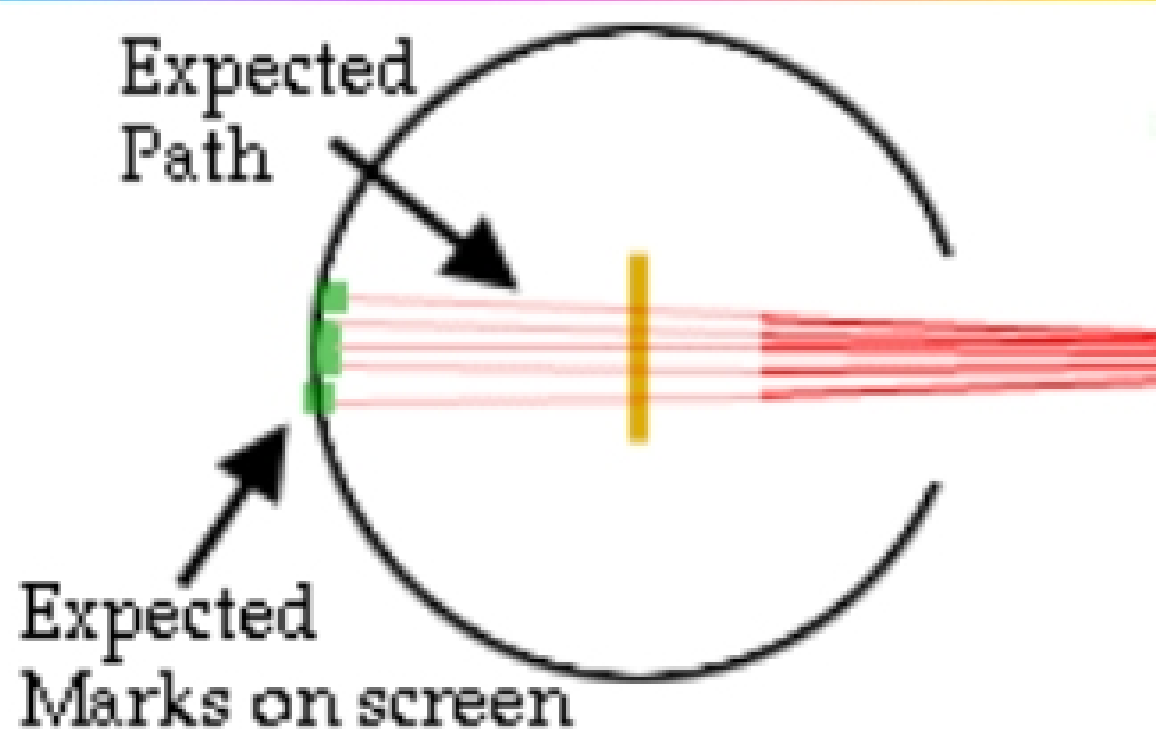


Detail of Gold Foil According to old Atom Model

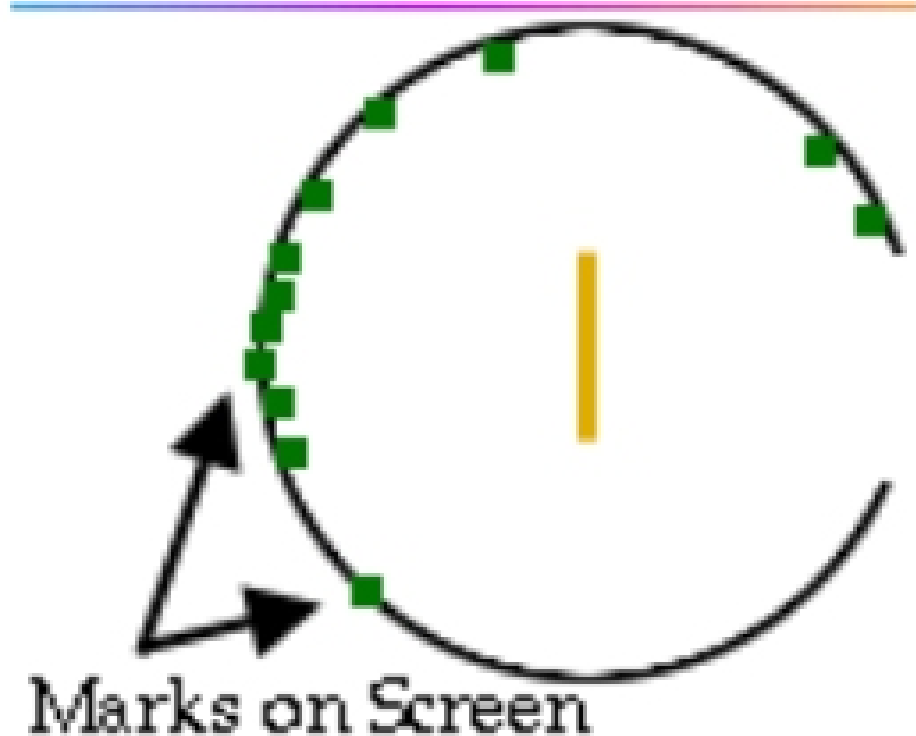


Experiments by Geiger & Marsden in 1909

The Predicted Result:

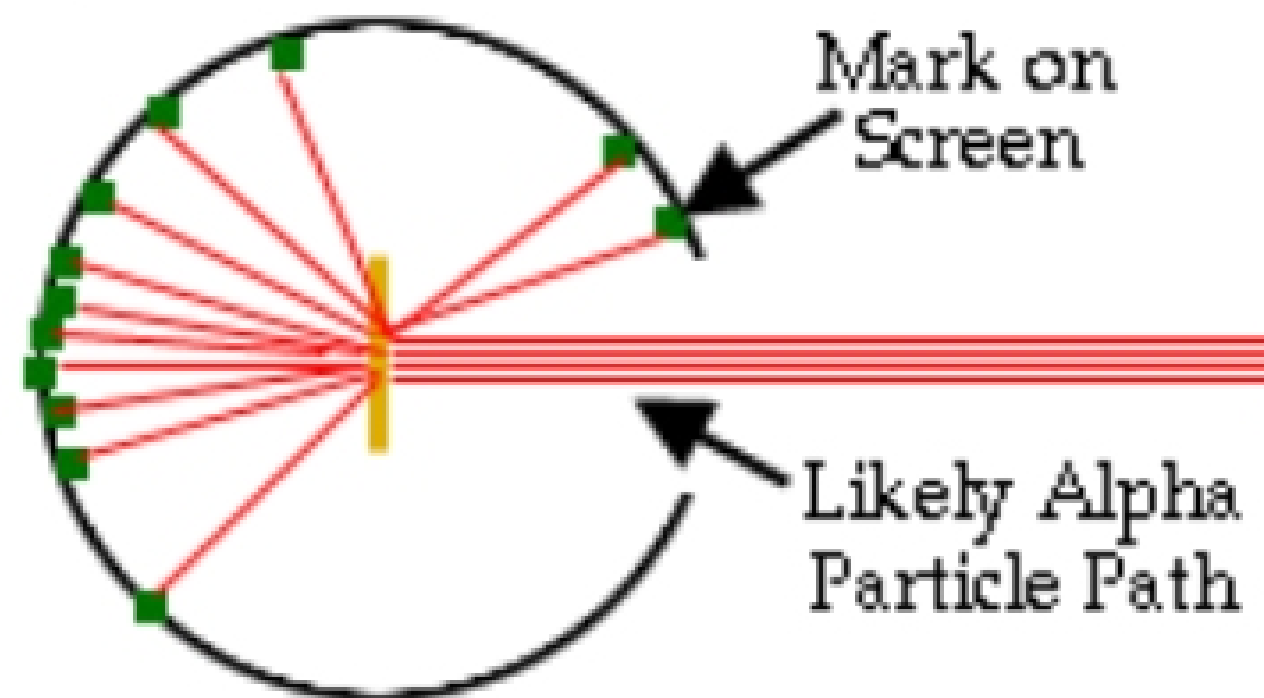


The Result

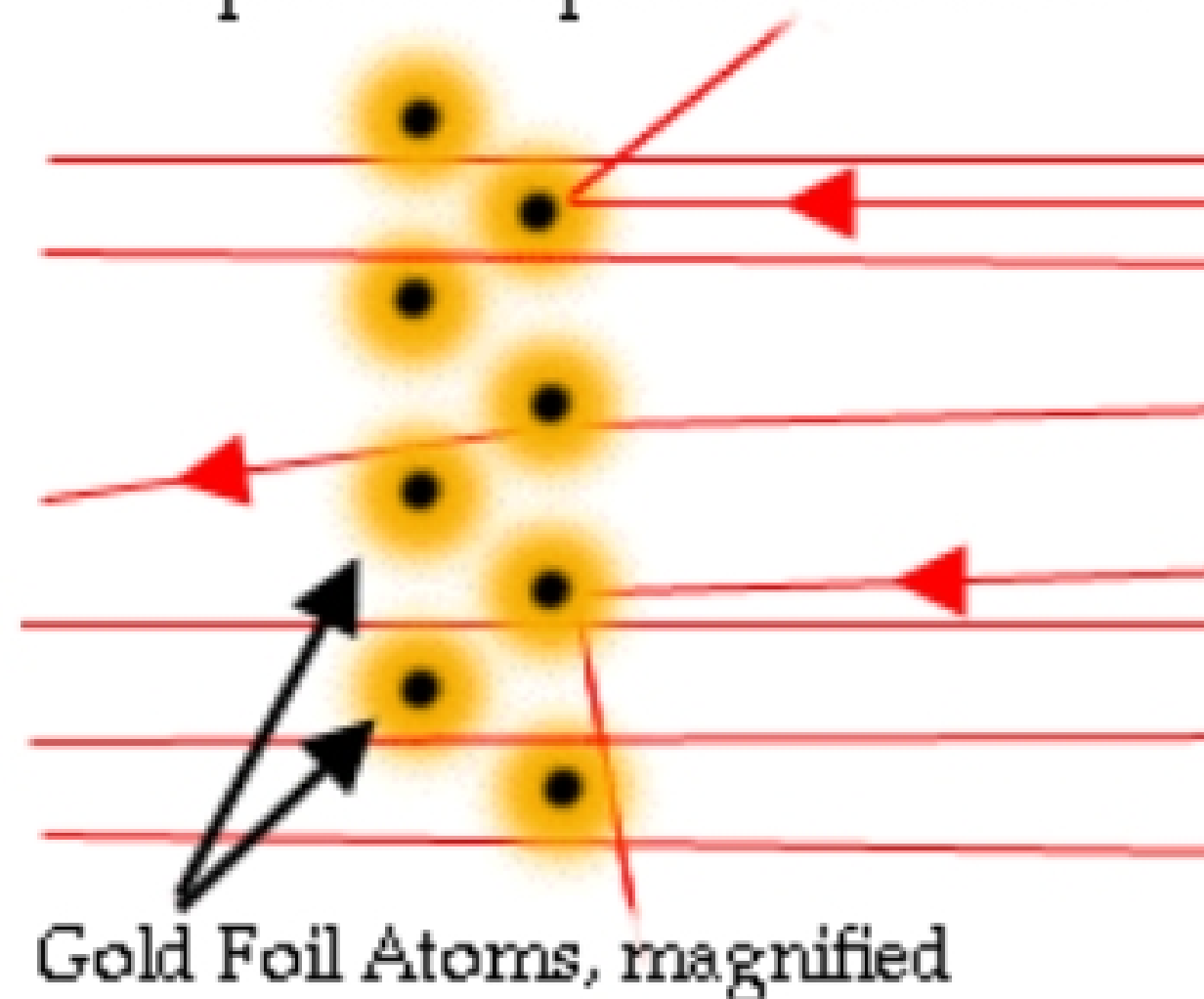


Rutherford Model of the Atom

Extrapolation of Result:



The Positive Nucleus Theory
Explains Alpha Deflection



Conclusion: the atom contains
a positive nucleus < 10 fm in
size ($1 \text{ fm} = 10^{-15} \text{ m}$)

