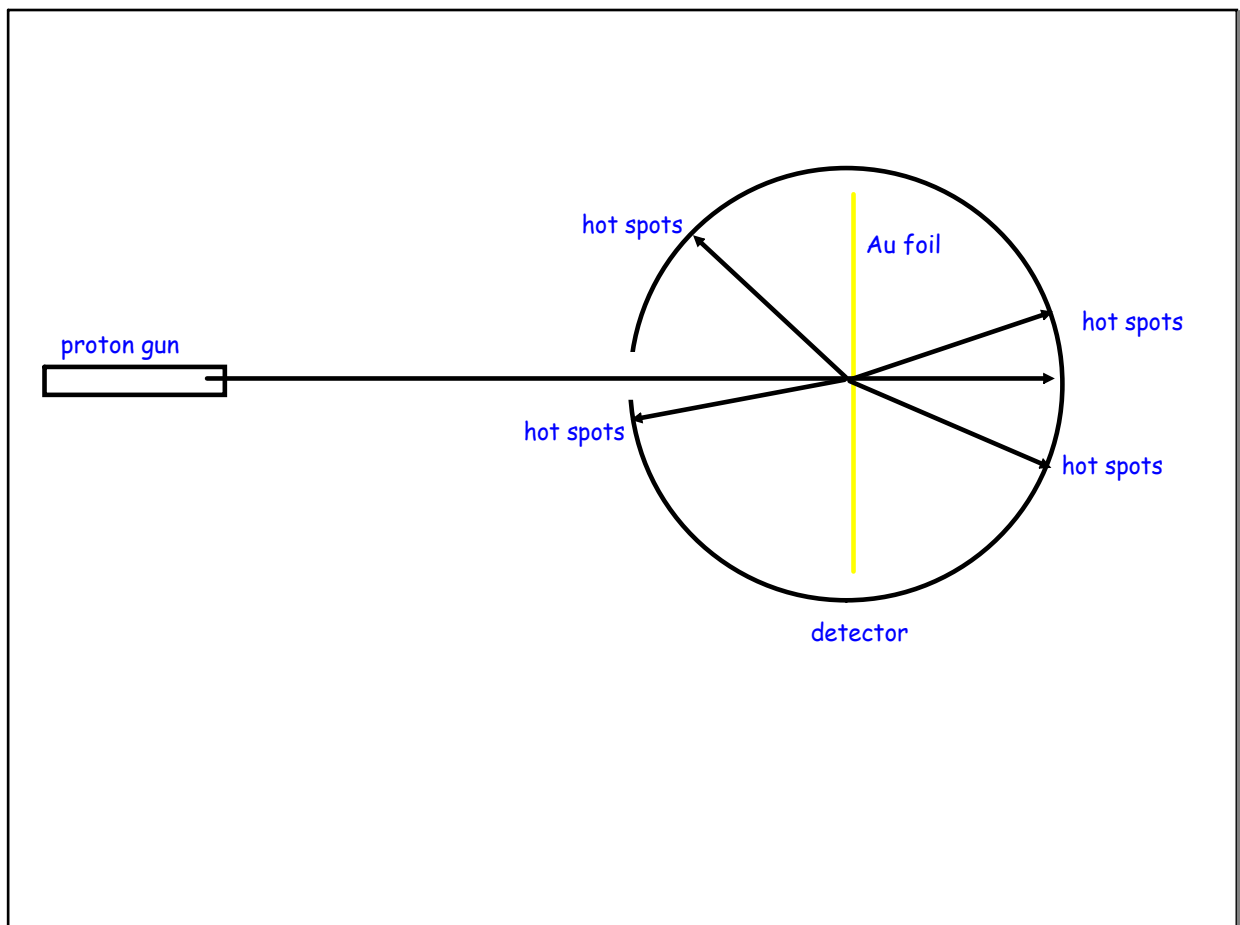


1911

- Ernest Rutherford
- gold foil experiment
  - a tiny dense positive core called the nucleus
  - surrounded by mostly empty space containing the rapidly moving negative electrons



Nov 7-8:24 PM



Feb 21-11:33 AM

## Inside the Atom

-atoms consist of sub-atomic particles

protons-positively charged

electrons-negatively charged

neutrons-neutral

-the number of protons is significant since it is this that determines what the element actually is

*atomic number = number of protons*

*number of protons = number of electrons*

*number of neutrons = mass number - number of protons*

-a charged atom is called an ion

-electrons are very small and can be stripped off easily

-since each proton balances each electron, the ion has a charge equal to the number of electrons it has lost

Example:  $\text{Na}^{+1}$  has lost one electron

