

Marie Curie – her legacy to science

In 1903 *Marie Curie* became the first woman ever to win a Nobel Prize, sharing the prize for physics with husband *Pierre* and *Henri Becquerel* for their work on radioactivity. Her research paved the way for the development of nuclear physics and the pioneering cancer treatments that have saved countless lives. She received an unprecedented second Nobel Prize in 1911 for the discoveries of radium and polonium

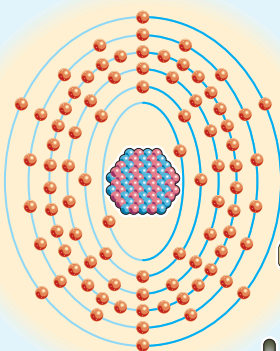


Polonium

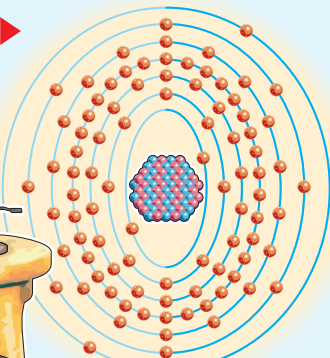
Protons/Electrons:	84
Neutrons:	125
Atomic mass:	209

Radium

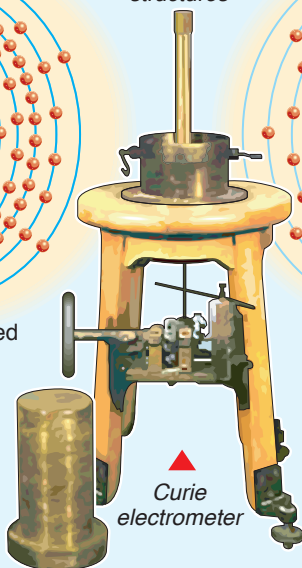
Protons/Electrons:	88
Neutrons:	138
Atomic mass:	226



Atomic structures



Polonium: Discovered July 1898. *Curie electrometer* used to measure minute electric currents caused by radiation from *pitchblende* – concludes that new radioactive element is present



Radium: Discovered December 1898, also isolated from pitchblende. Pierre Curie tests radium on his skin, causing burns. **Curietherapy:** Use of radium to treat malign tumours continues a century later

World War One: Marie Curie and her daughter *Irène* instigate *petites curies* – renovated vans carrying X-ray machines to battlefield so casualties can receive immediate treatment. Within two years Marie establishes 200 permanent X-ray units throughout France and Belgium

