

ФИЗИКА

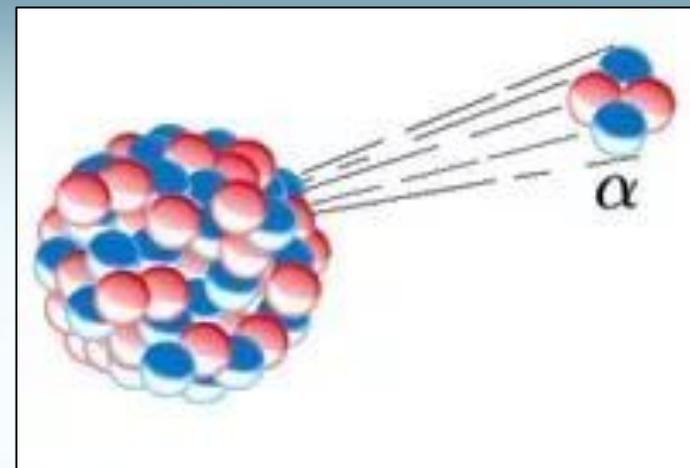
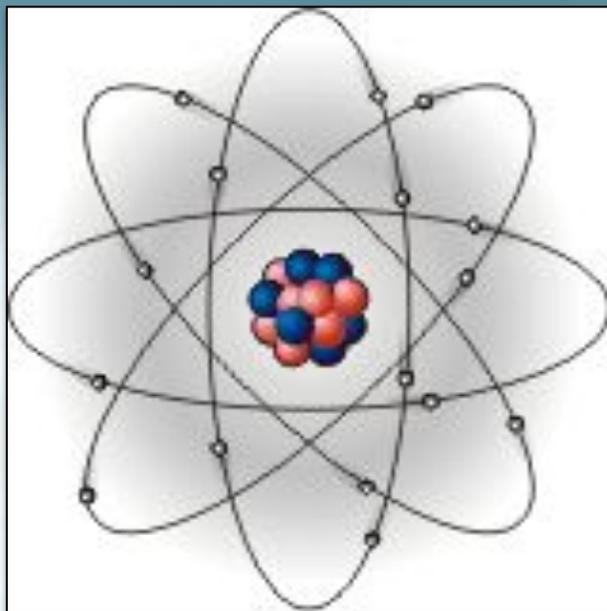
АТОМА И АТОМНОГО ЯДРА

от А до Я

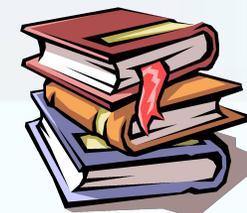
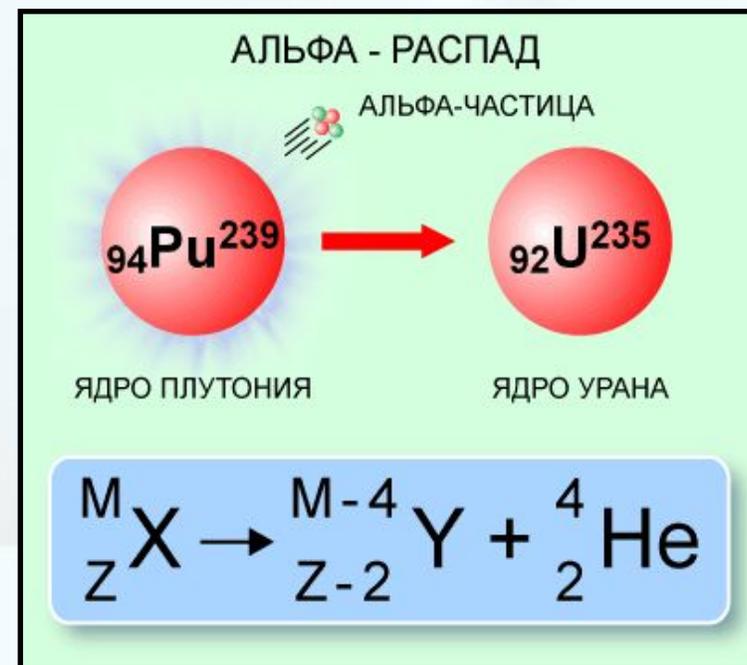


А

-атом



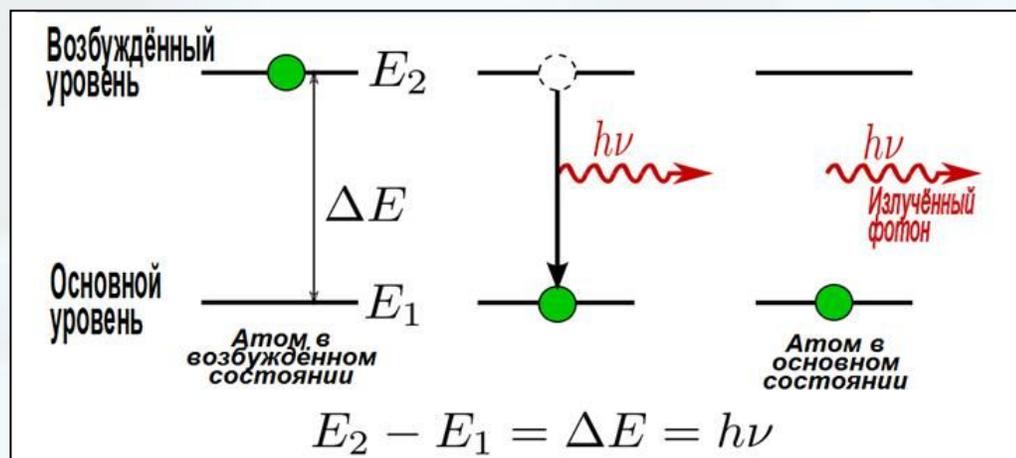
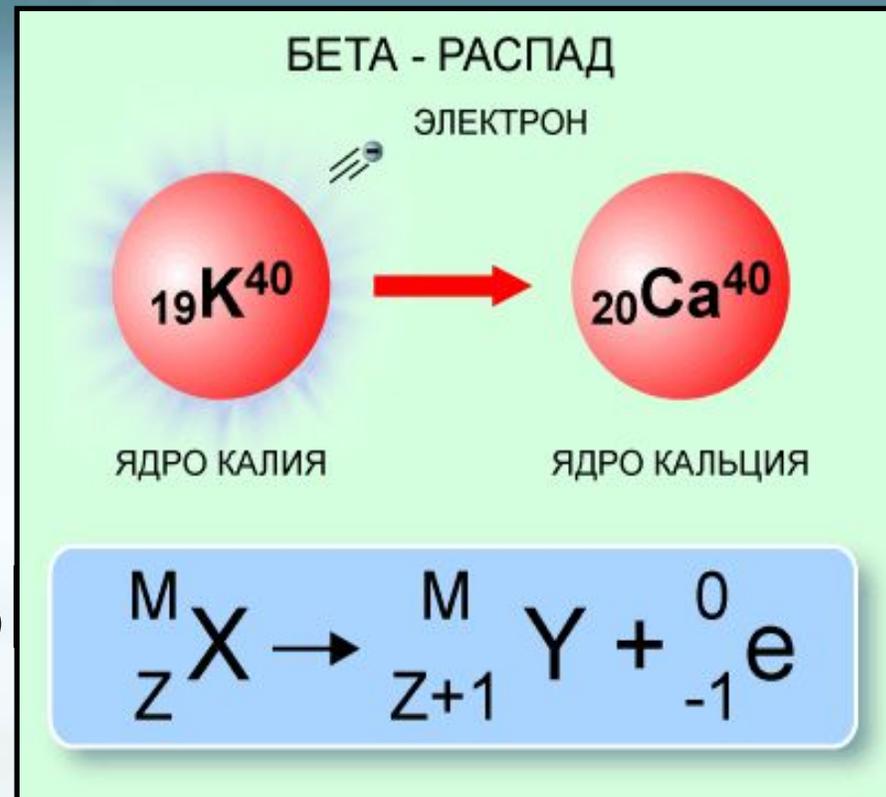
-альфа-
частица



Б

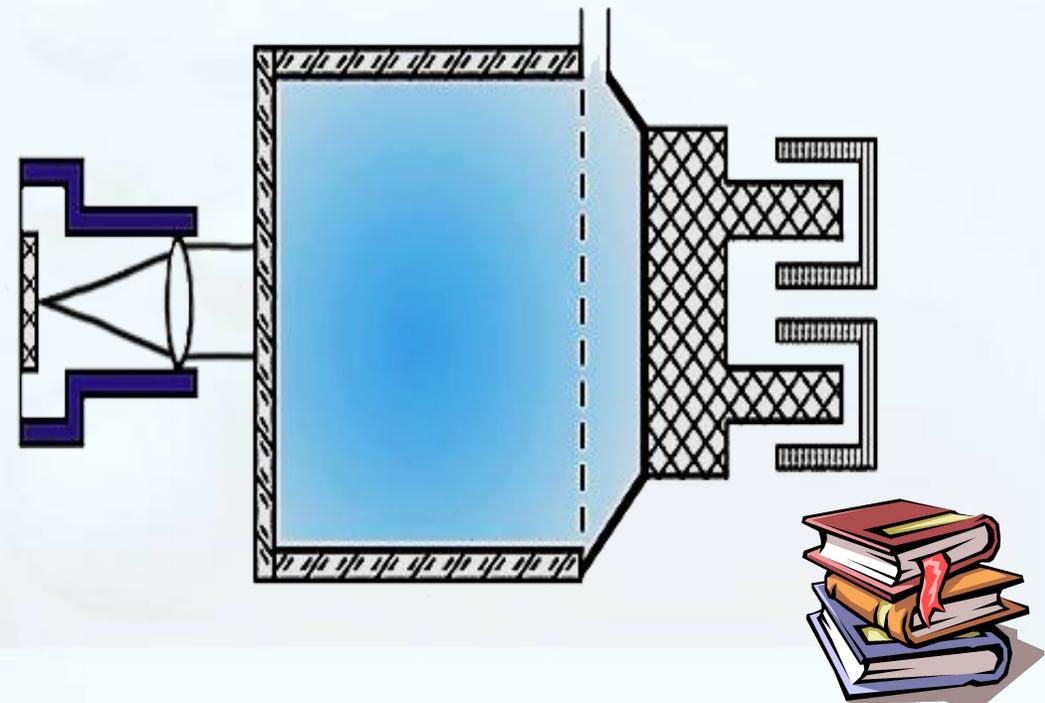
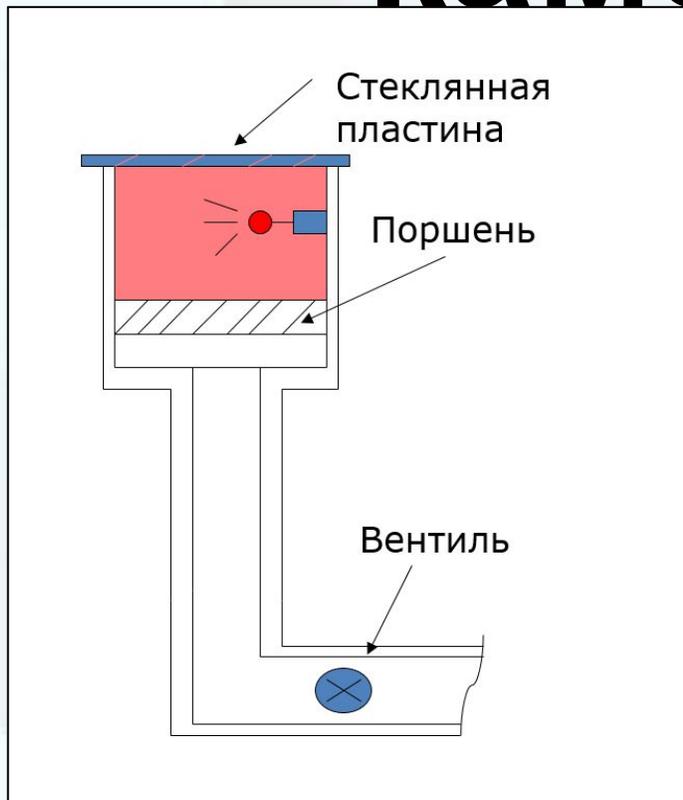
-бета-распад

- Бора постулат



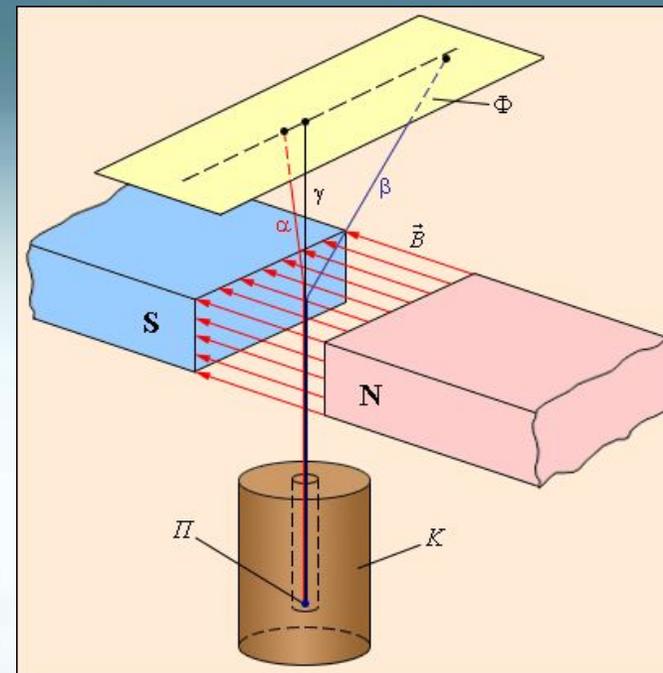
В

- Вильсона камера

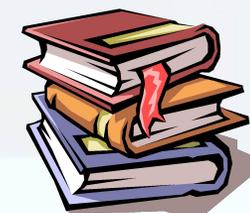
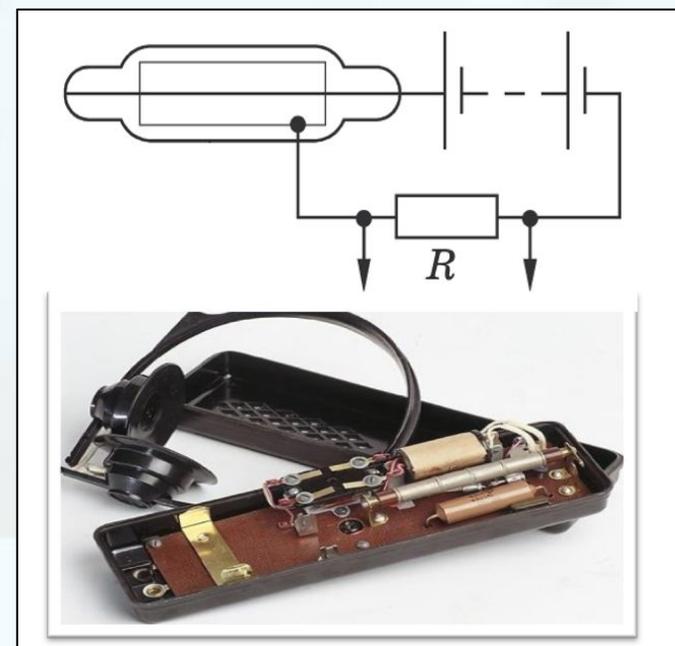




-гамма-лучи

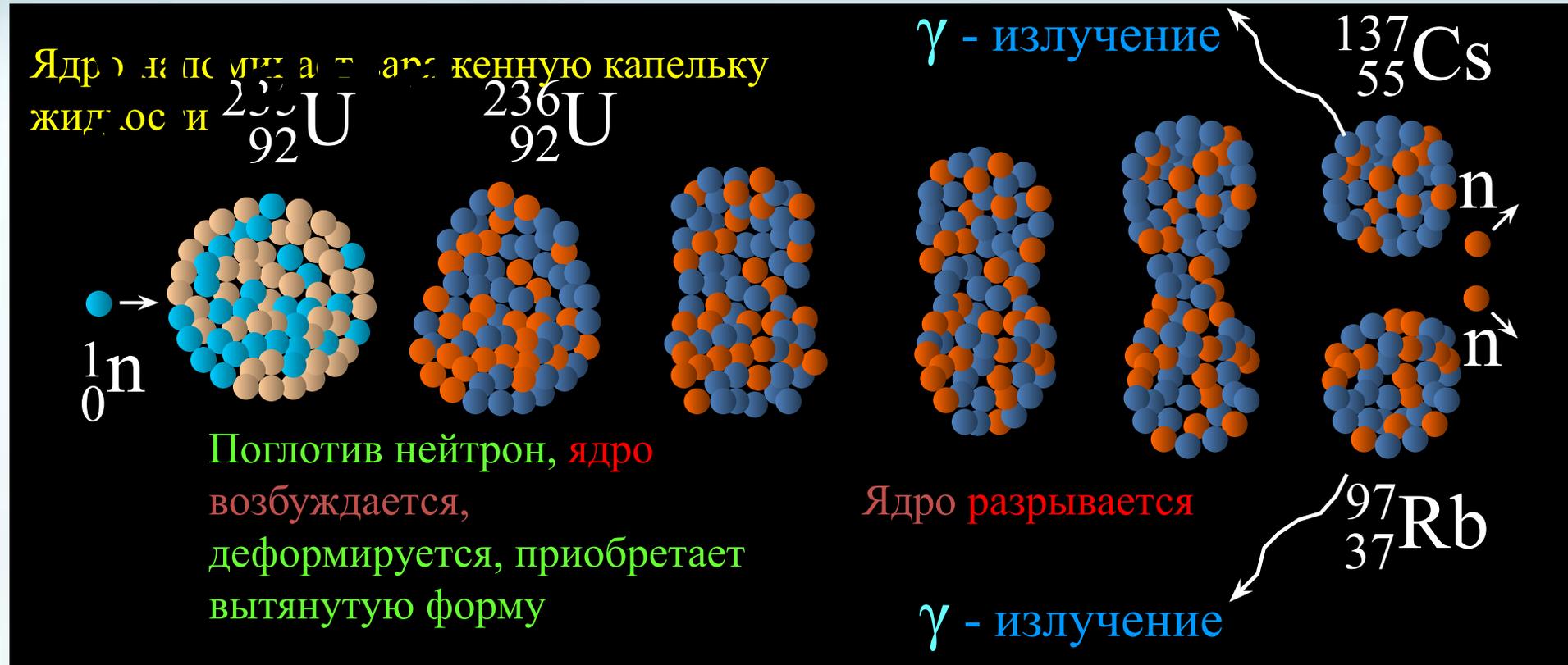


**- Гейгера
счетчик**



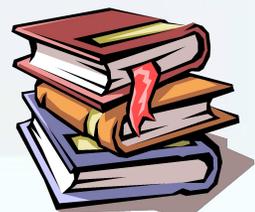
Д

- деление ядер



- дефект

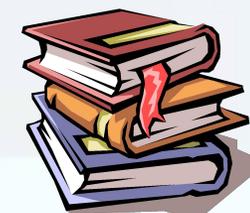
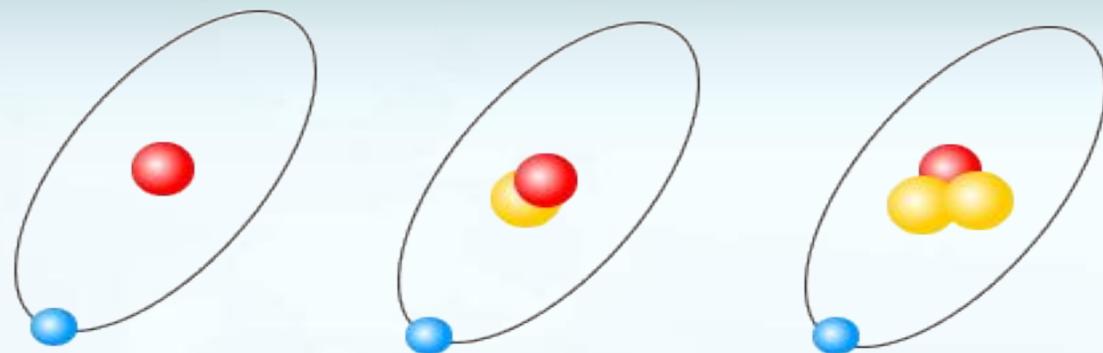
$$\Delta M = Zm_p + Nm_n - M_{\text{я}}$$



И

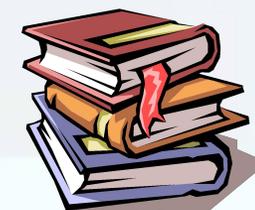
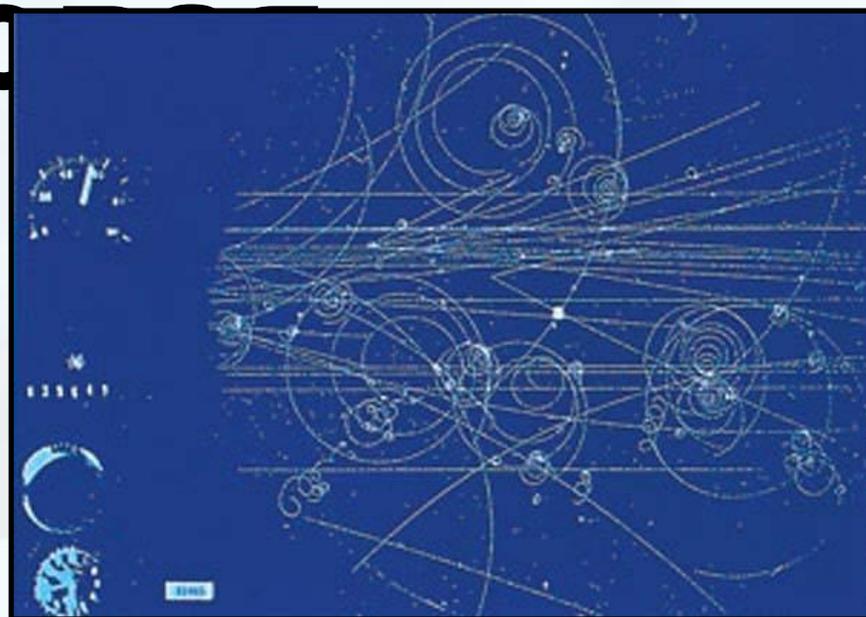
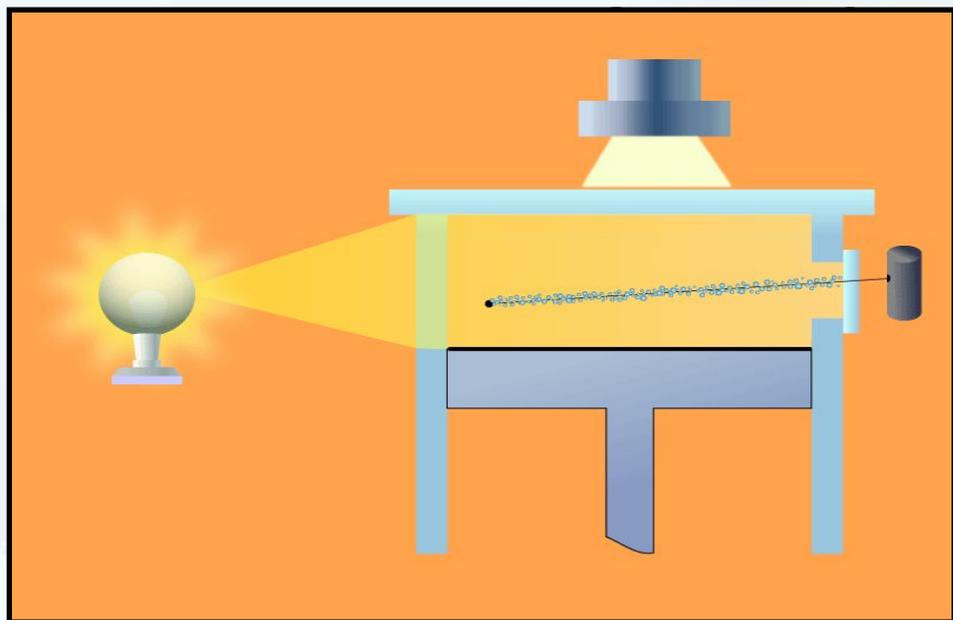
-

ИЗОТОПЫ



К

- критическая масса
- камера

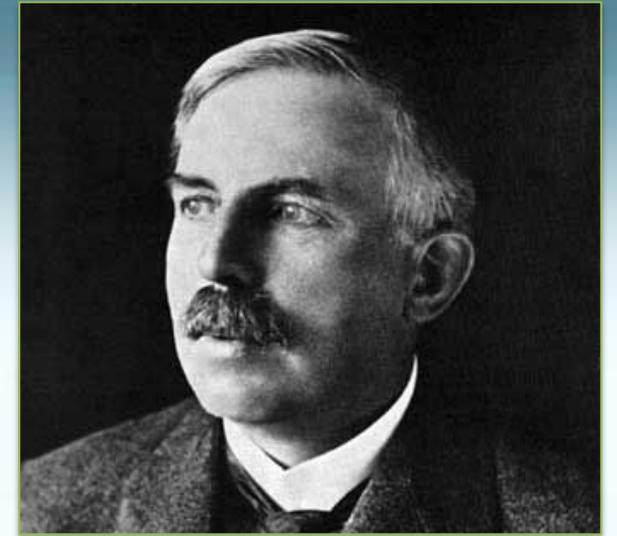
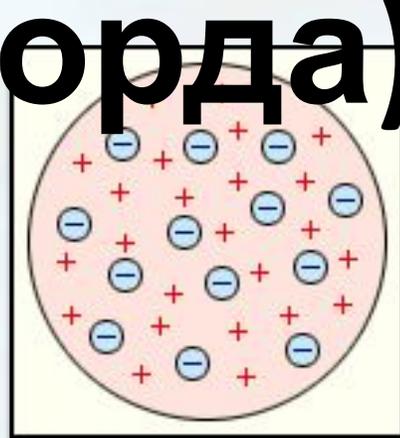


М

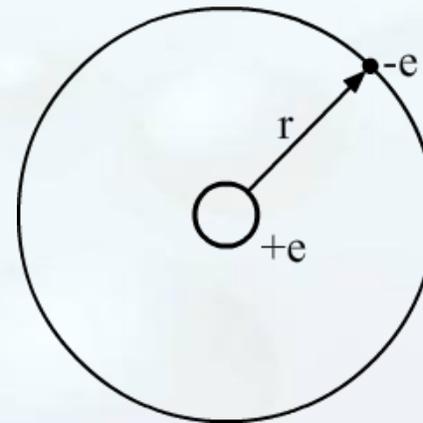
- модели атома (Томсона и Резерфорда)



Джозеф Джон Томсон
(1856 – 1940)

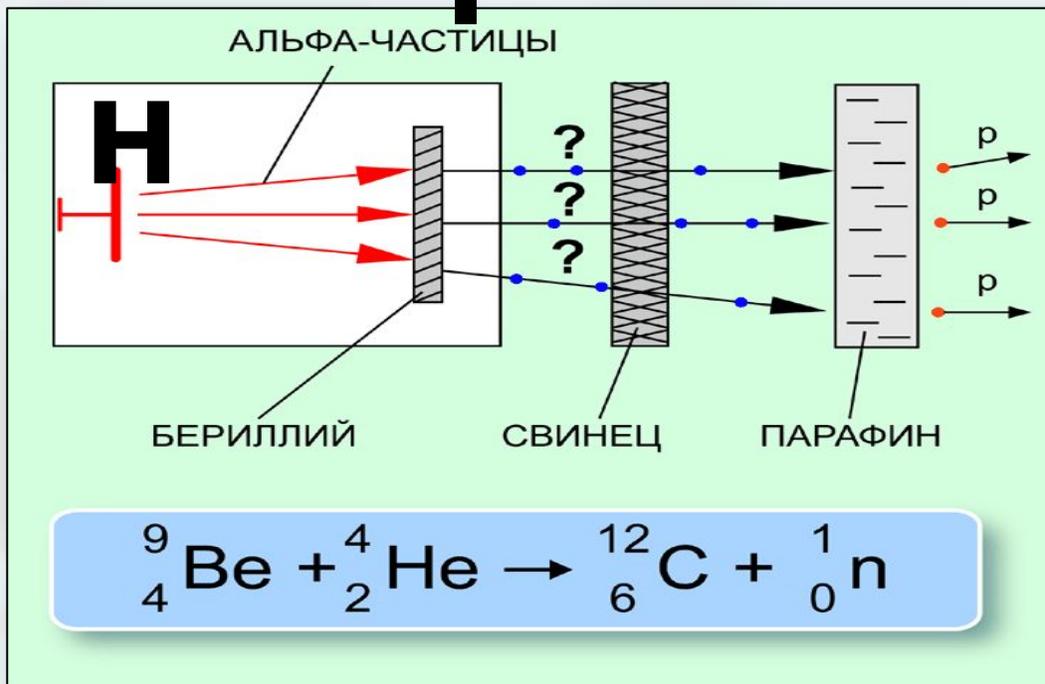


Эрнест Резерфорд
(1871 – 1937)

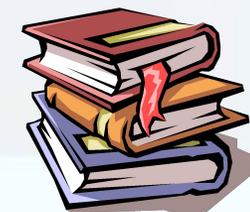


Н

- нейтро

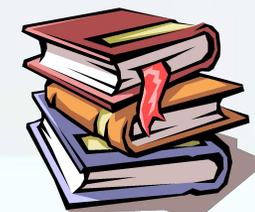
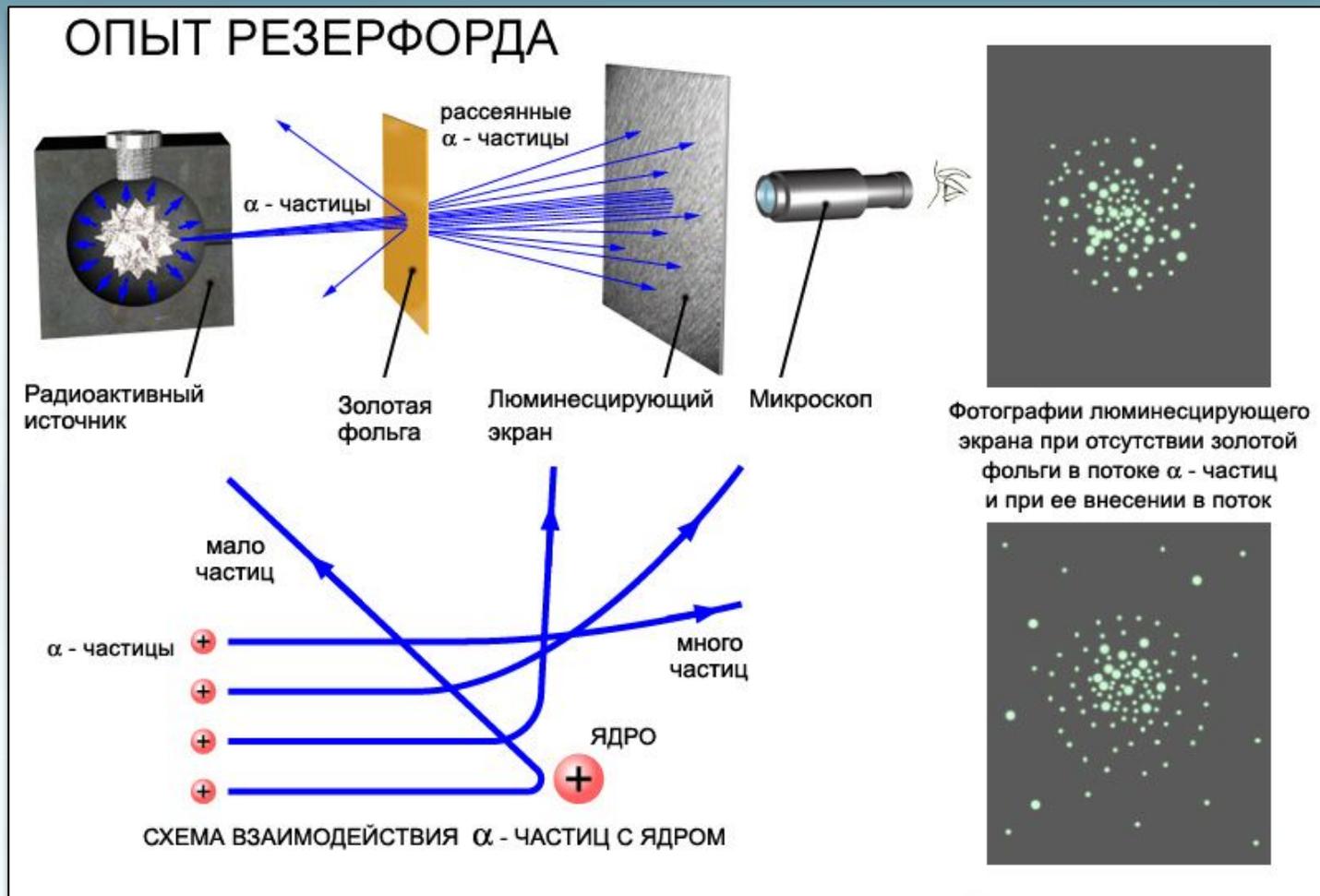


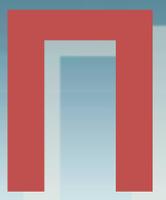
Джон Чедвик
(1920-1998)





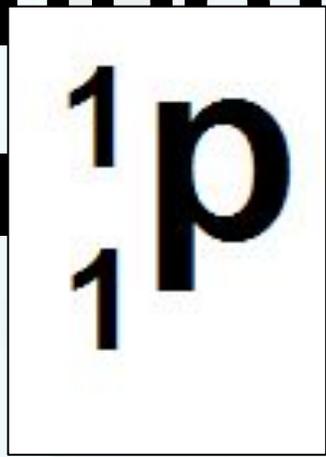
- опыты Резерфорда



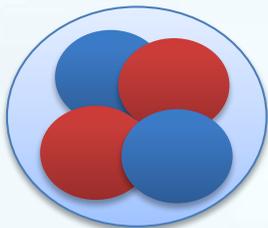
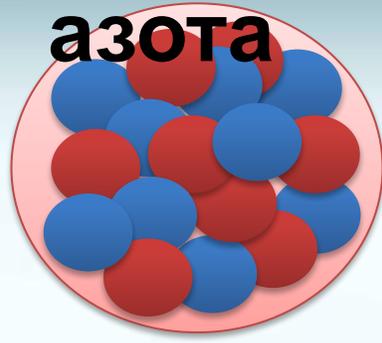


-

ПРОТОН

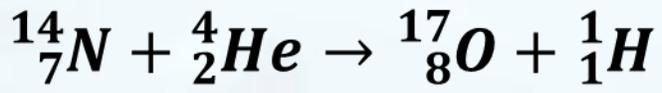


ядро азота



a

частица



${}^1_1\text{H}$ - протон (ядро атома водорода).
 $m_{\text{H}} = 1$ а. е. м.

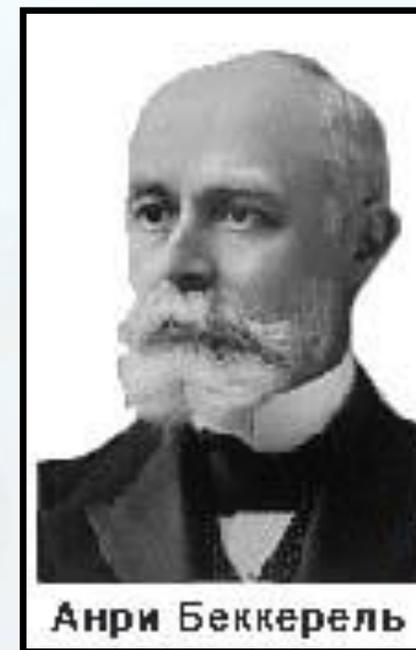
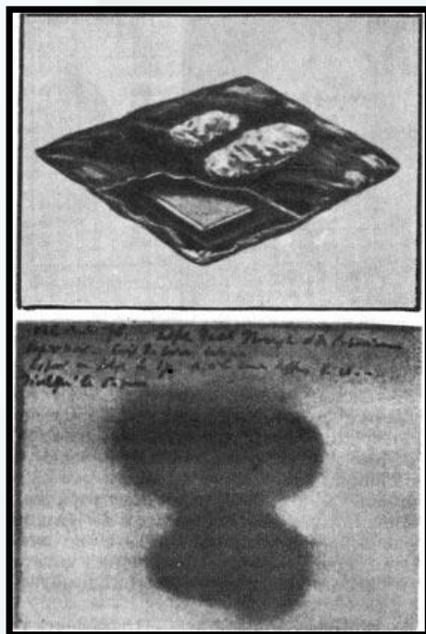
$$q_{\text{H}} = 1,6 \cdot 10^{-19} \text{ Кл.}$$



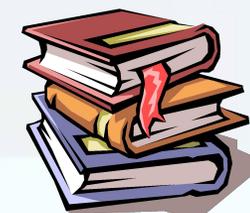
P

- радиоактивность

- радиоактивный элемент

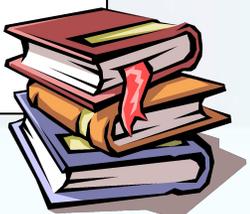
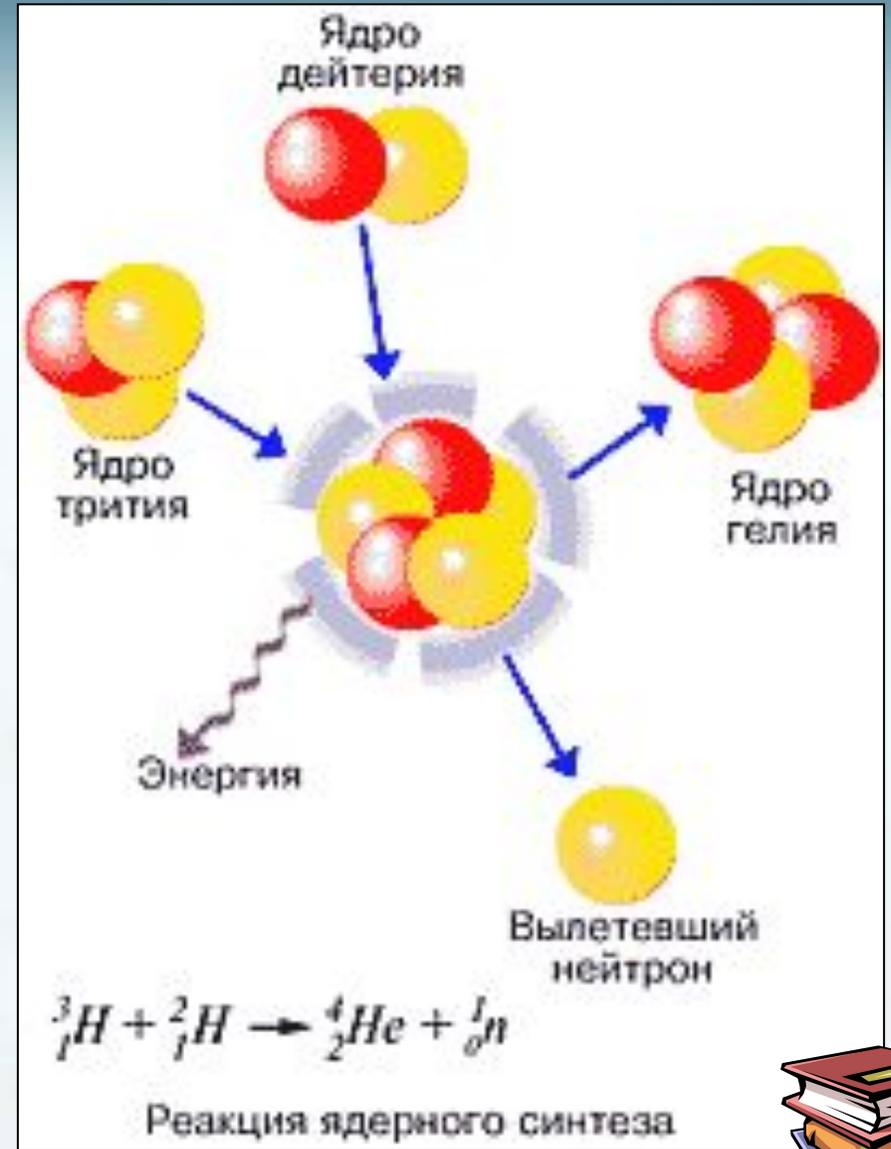


Анри Беккерель



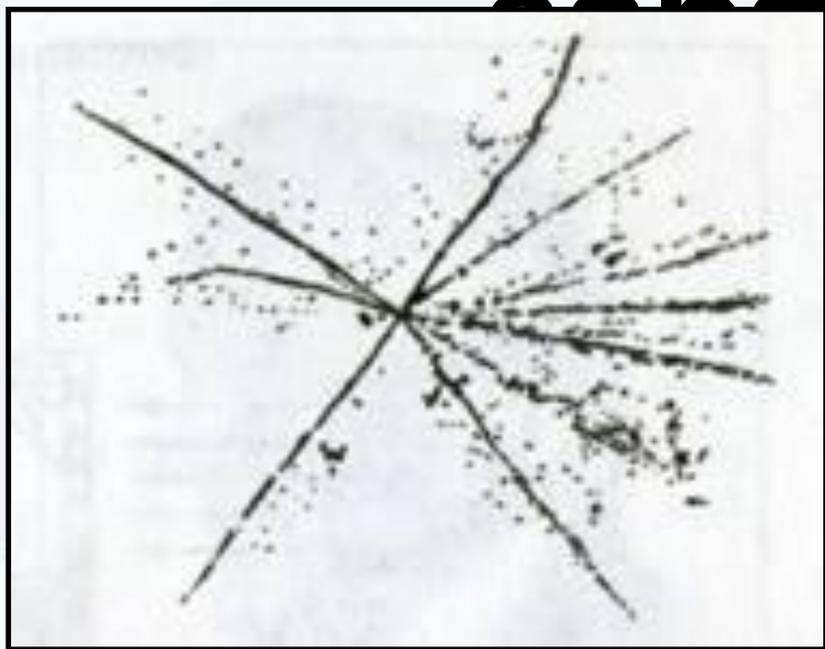
Т

- термоядерная реакция

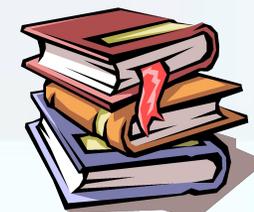


Ф

- фотоэмульсионный метод регистрации

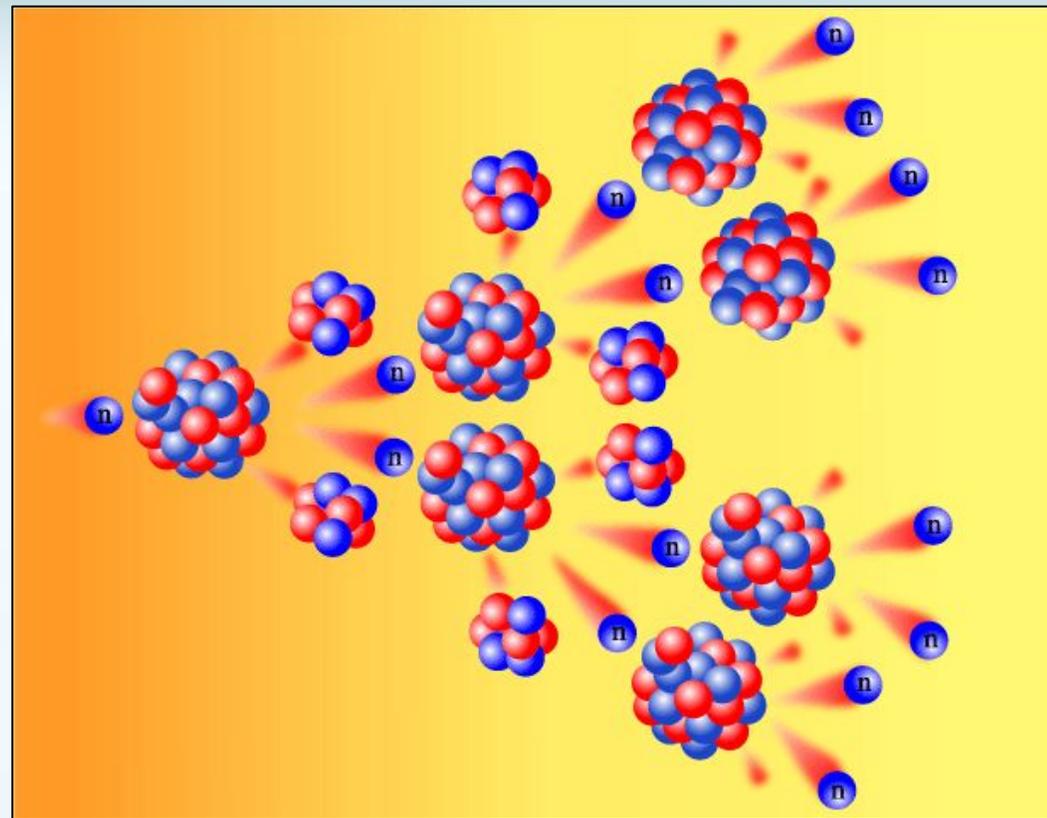


ионизированных частиц



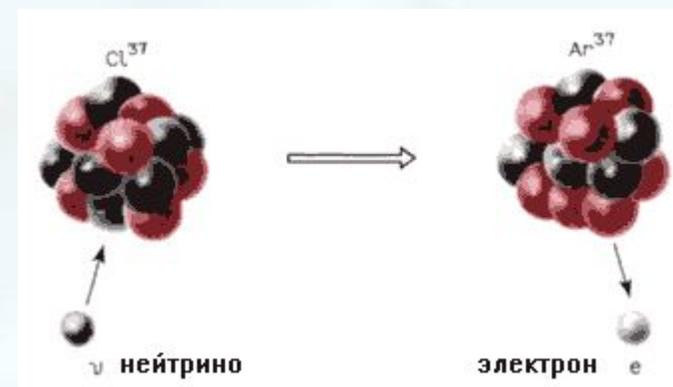
Ц

-цепная реакция



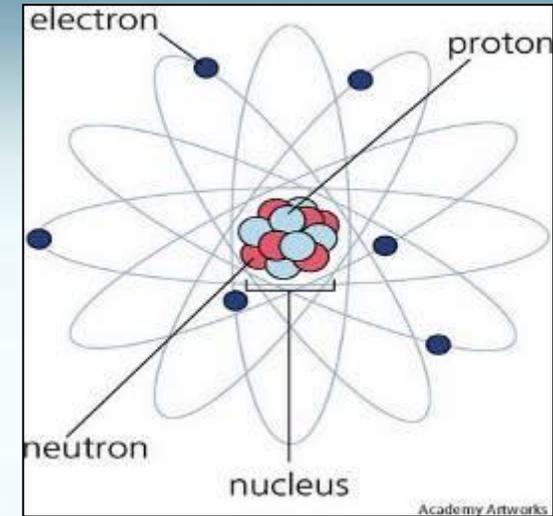
4

- частица элементарная





-электрон



-энергия связи ядра

атома

$$\Delta E_{св} = \Delta M c^2 = (Z m_p + N m_n - M_{я}) c^2$$

Я

- ядерный реактор
- ядро атома
- ядерные силы

