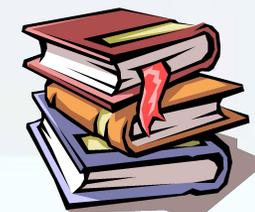


ФИЗИКА

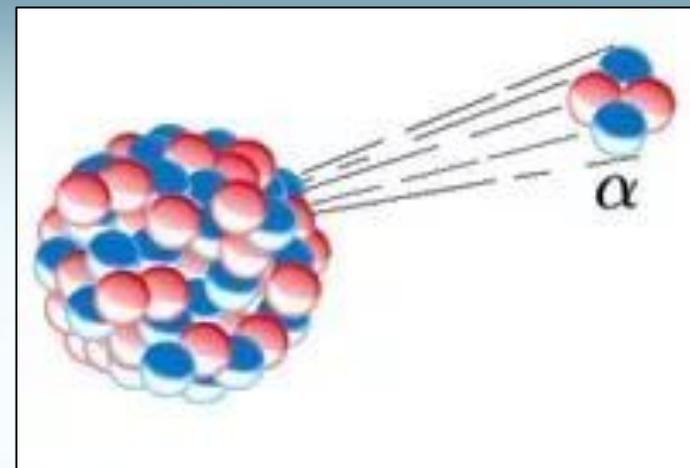
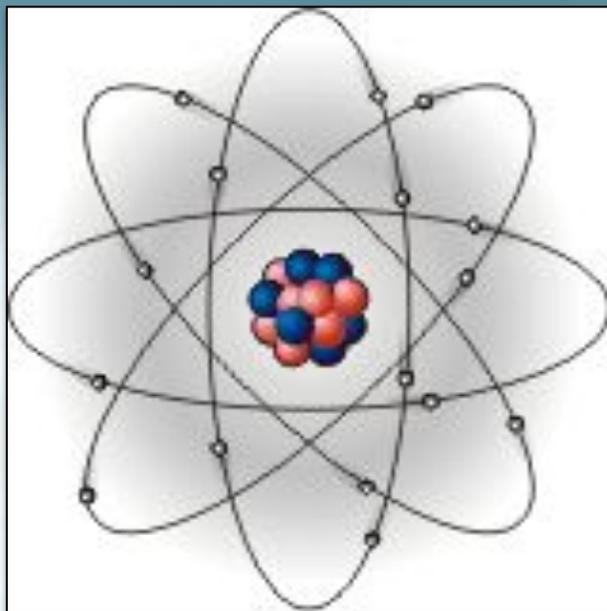
АТОМА И АТОМНОГО ЯДРА

от А до Я

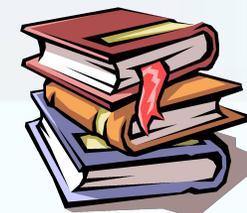
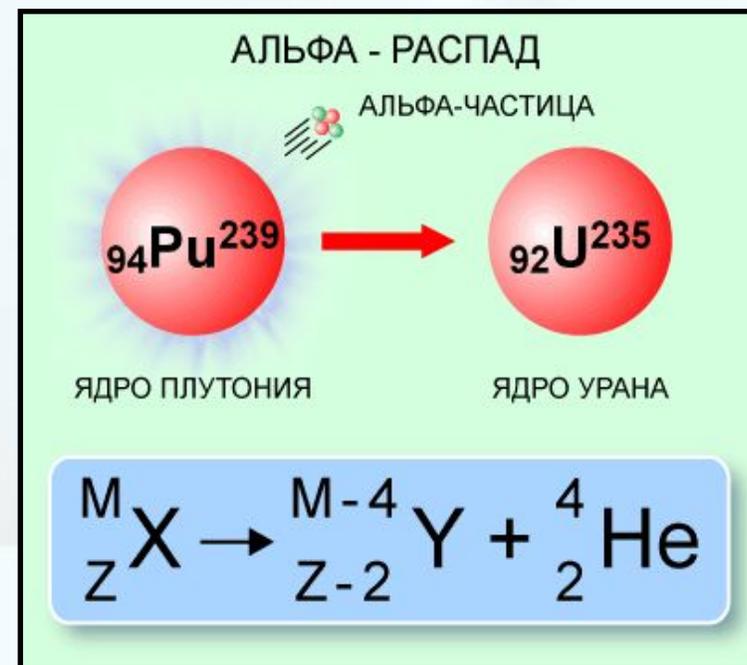


# А

-атом



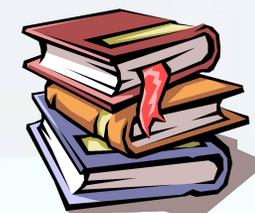
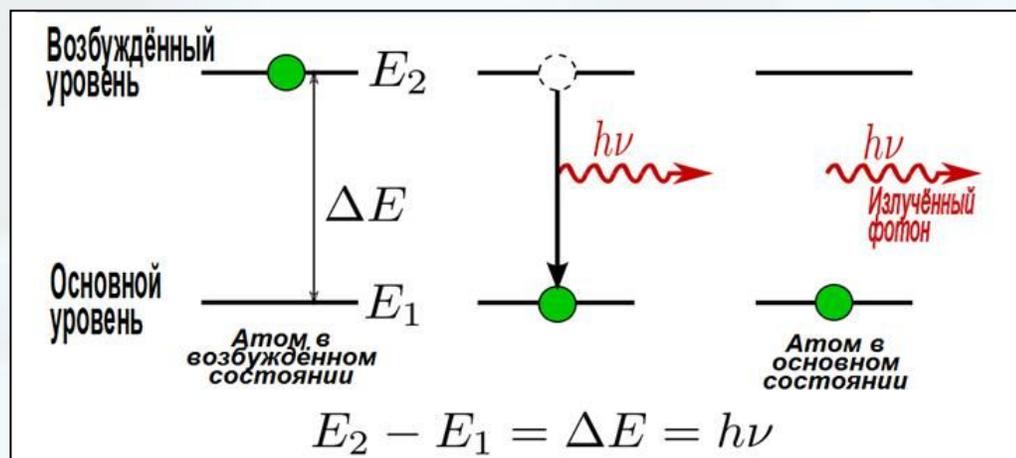
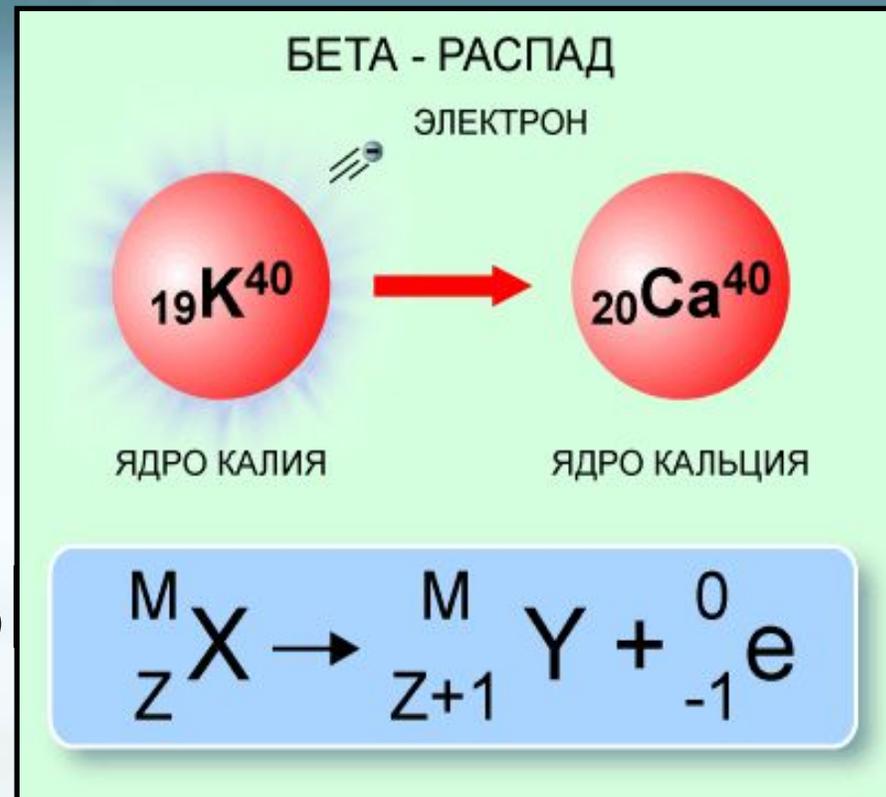
-альфа-  
частица



# Б

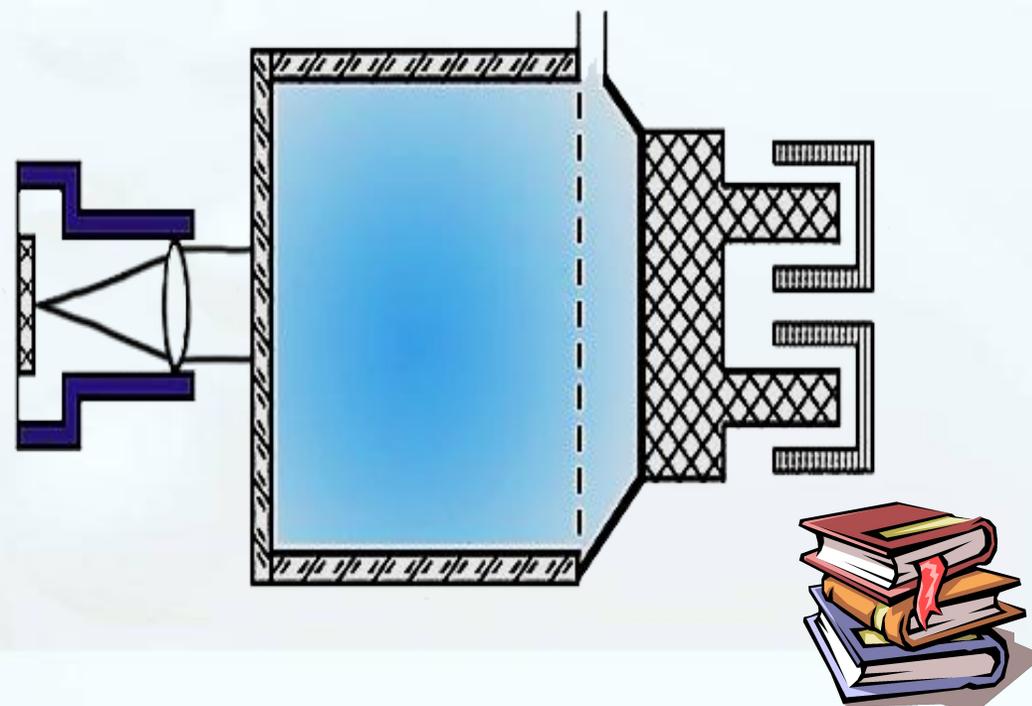
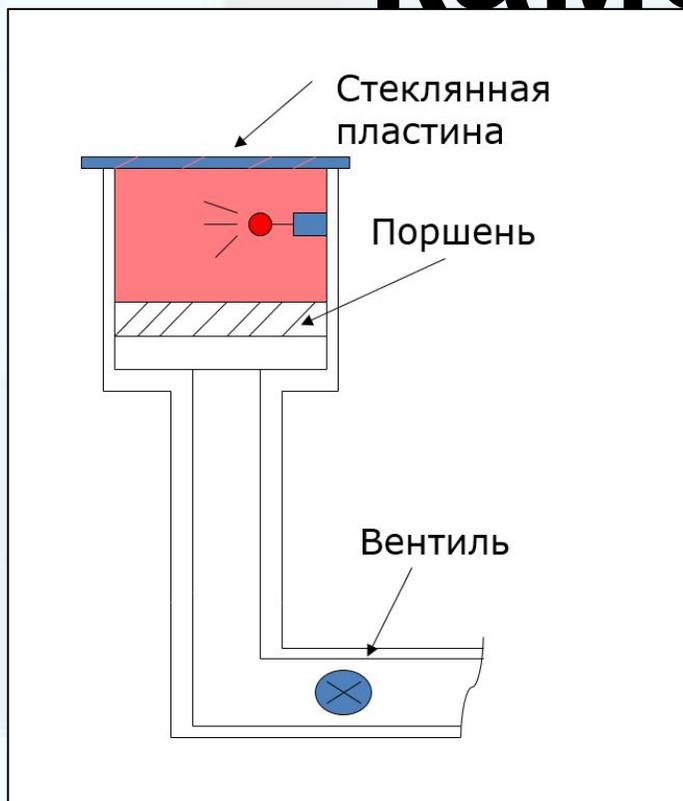
-бета-распад

- Бора постулат



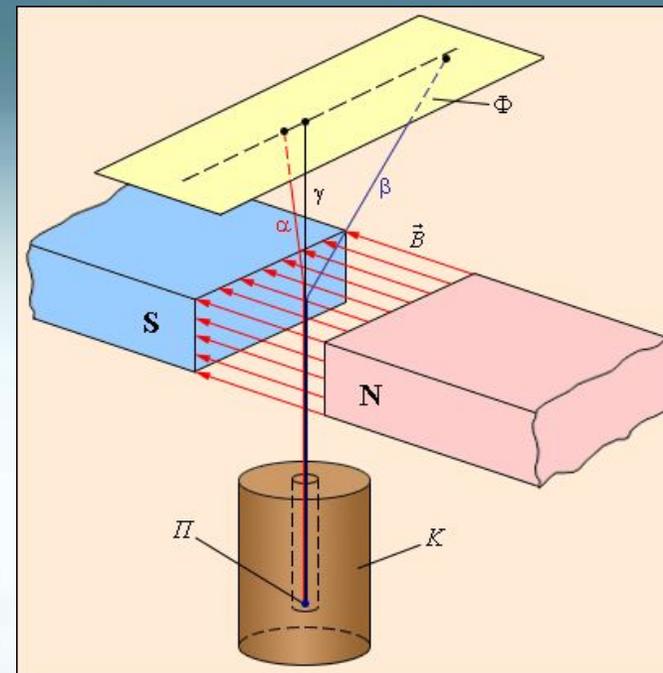
# В

## - Вильсона камера

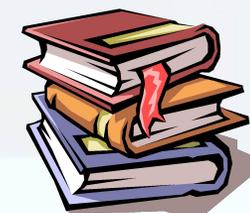
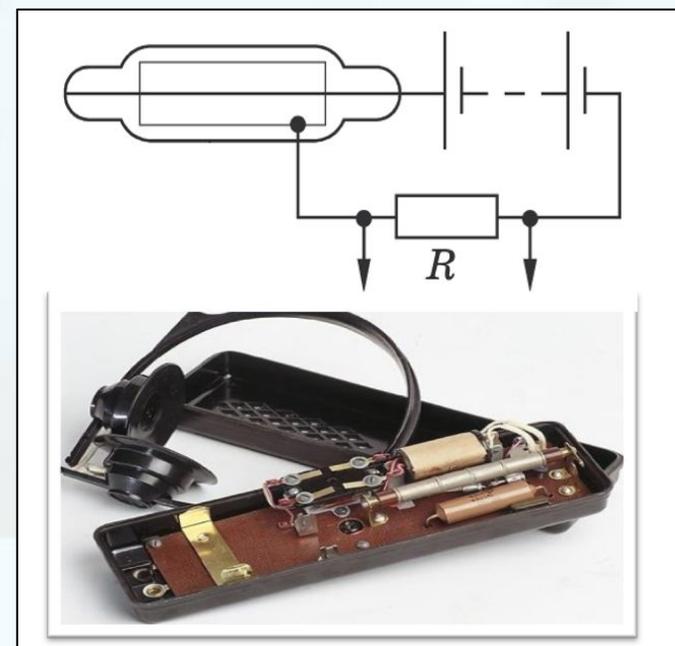




**-гамма-лучи**

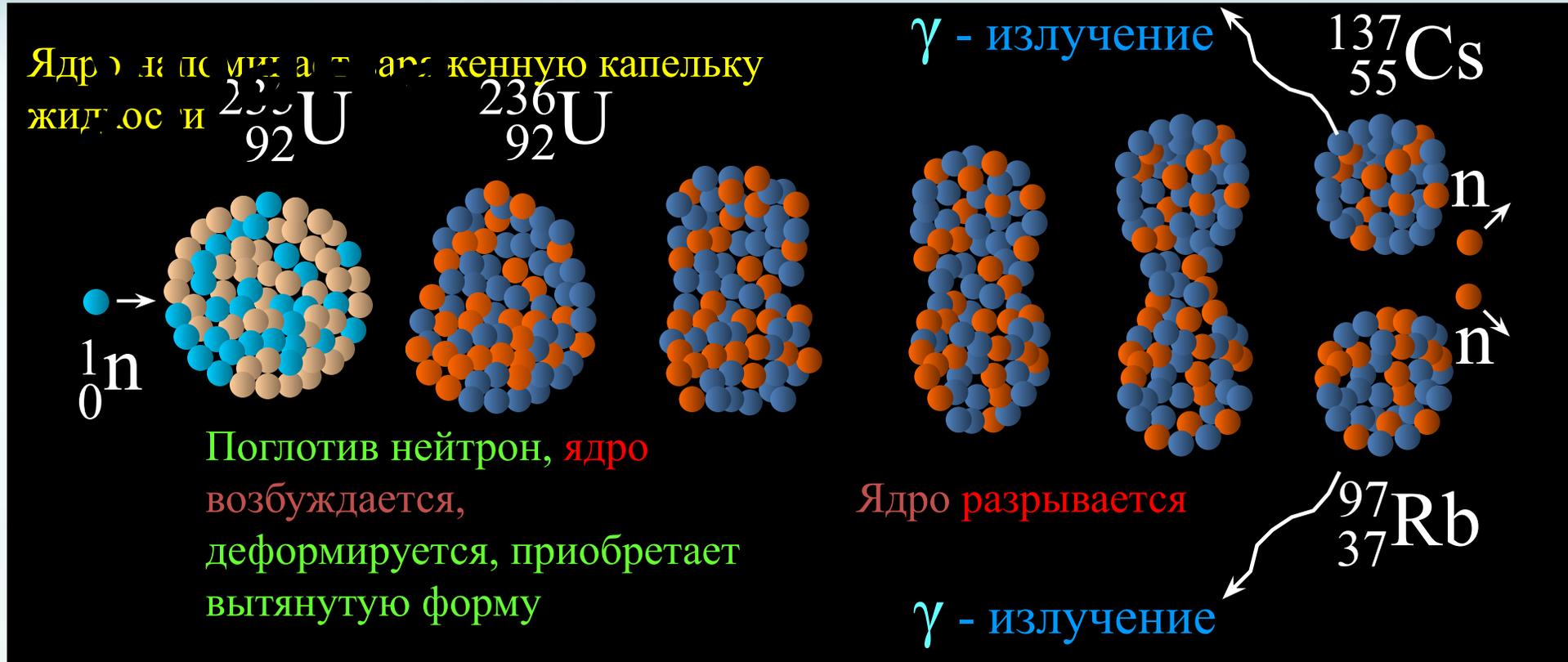


**- Гейгера  
счетчик**



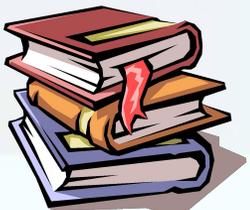
# Д

## - деление ядер



## - дефект

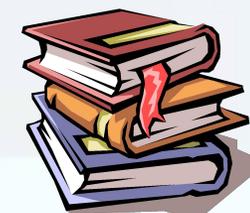
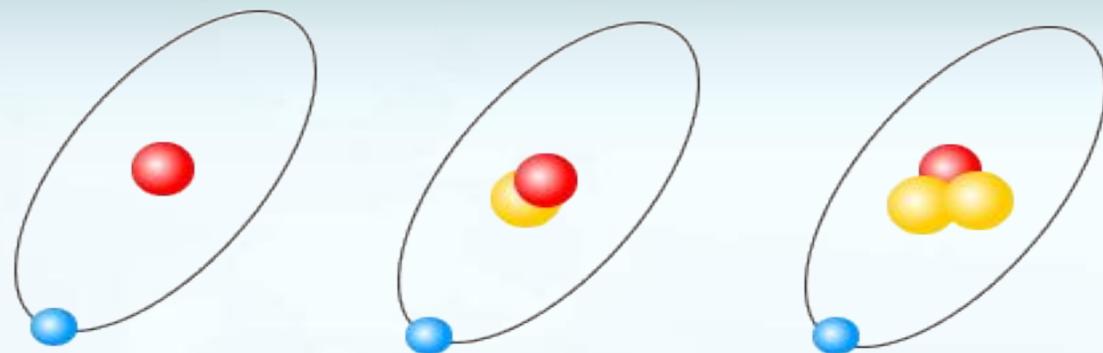
$$\Delta M = Zm_p + Nm_n - M_{\text{я}}$$



# И

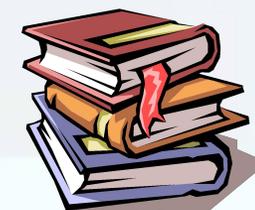
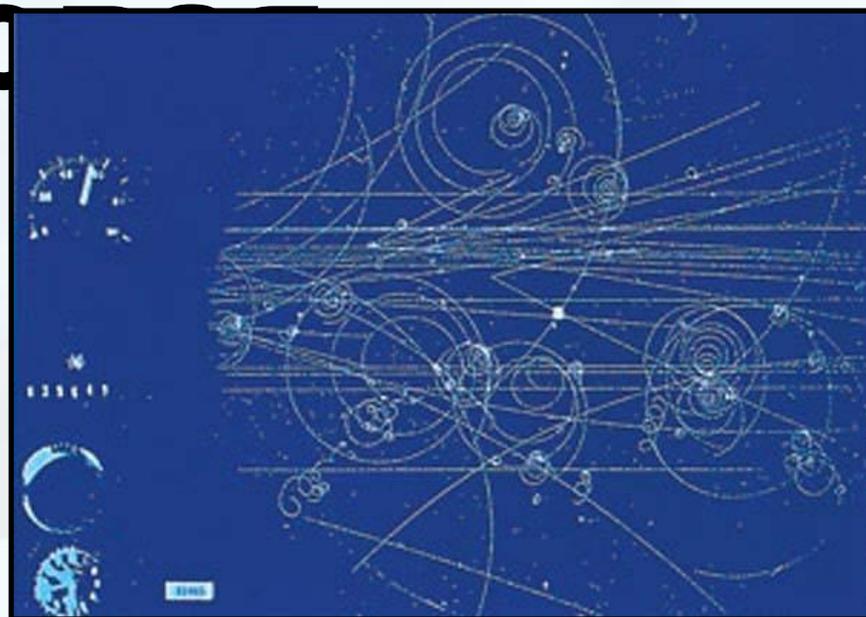
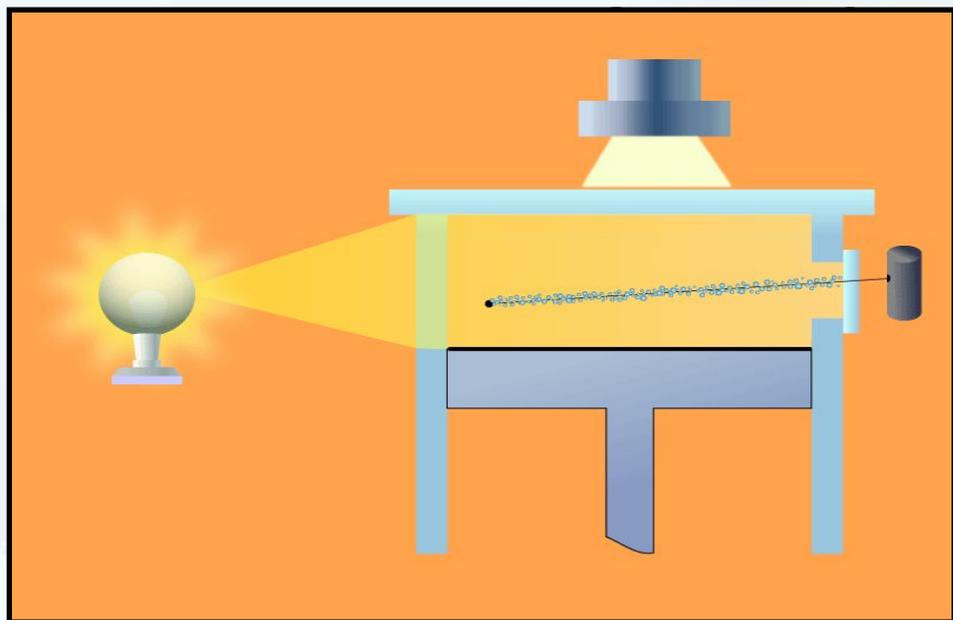
-

## ИЗОТОПЫ



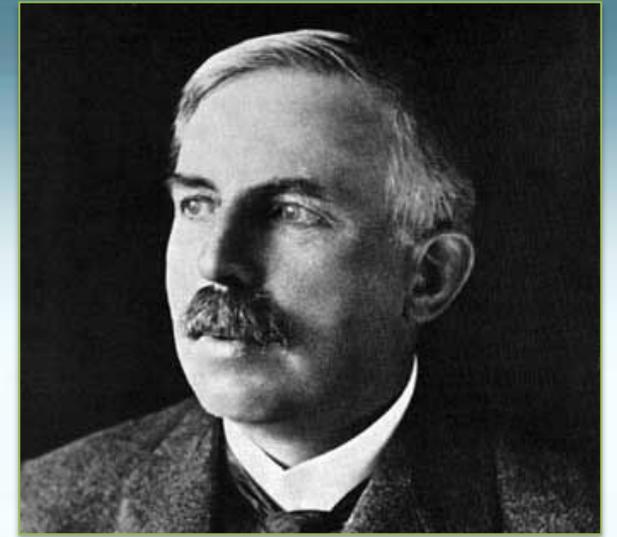
**К**

- критическая масса
- камера



# М

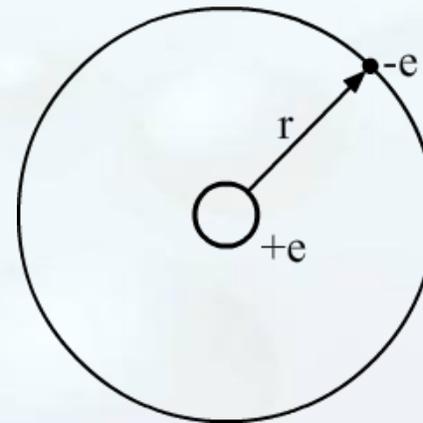
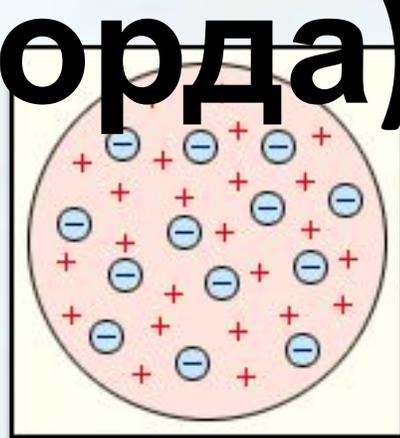
## - модели атома (Томсона и Резерфорда)



Эрнест Резерфорд  
(1871 – 1937)

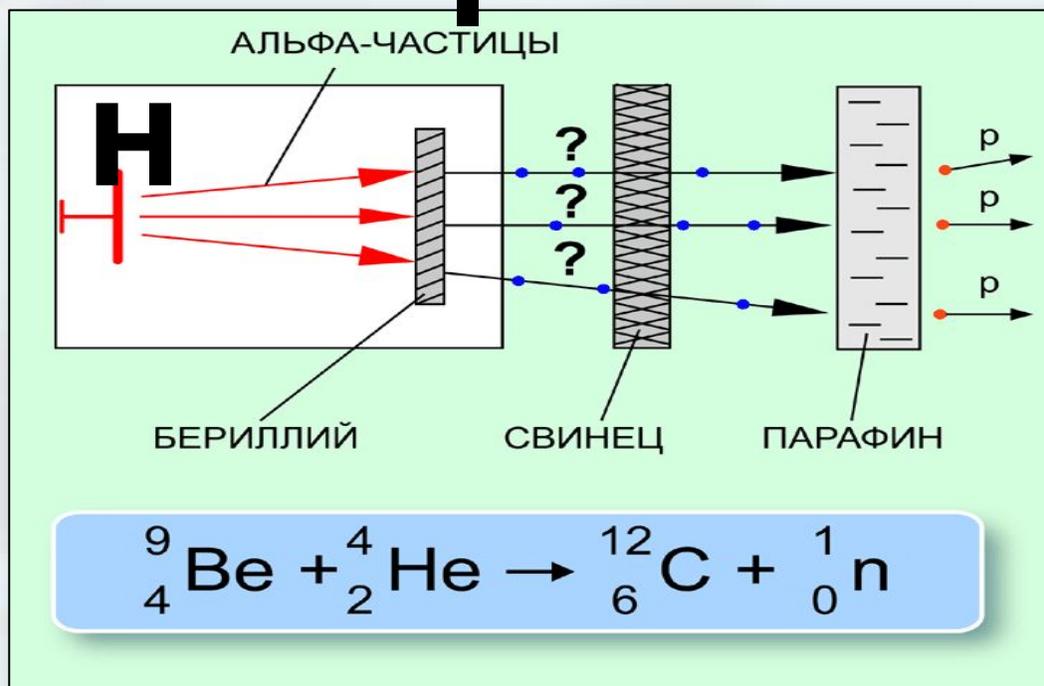


Джозеф Джон Томсон  
(1856 – 1940)

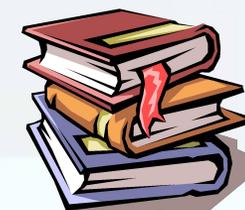


# Н

## - нейтро

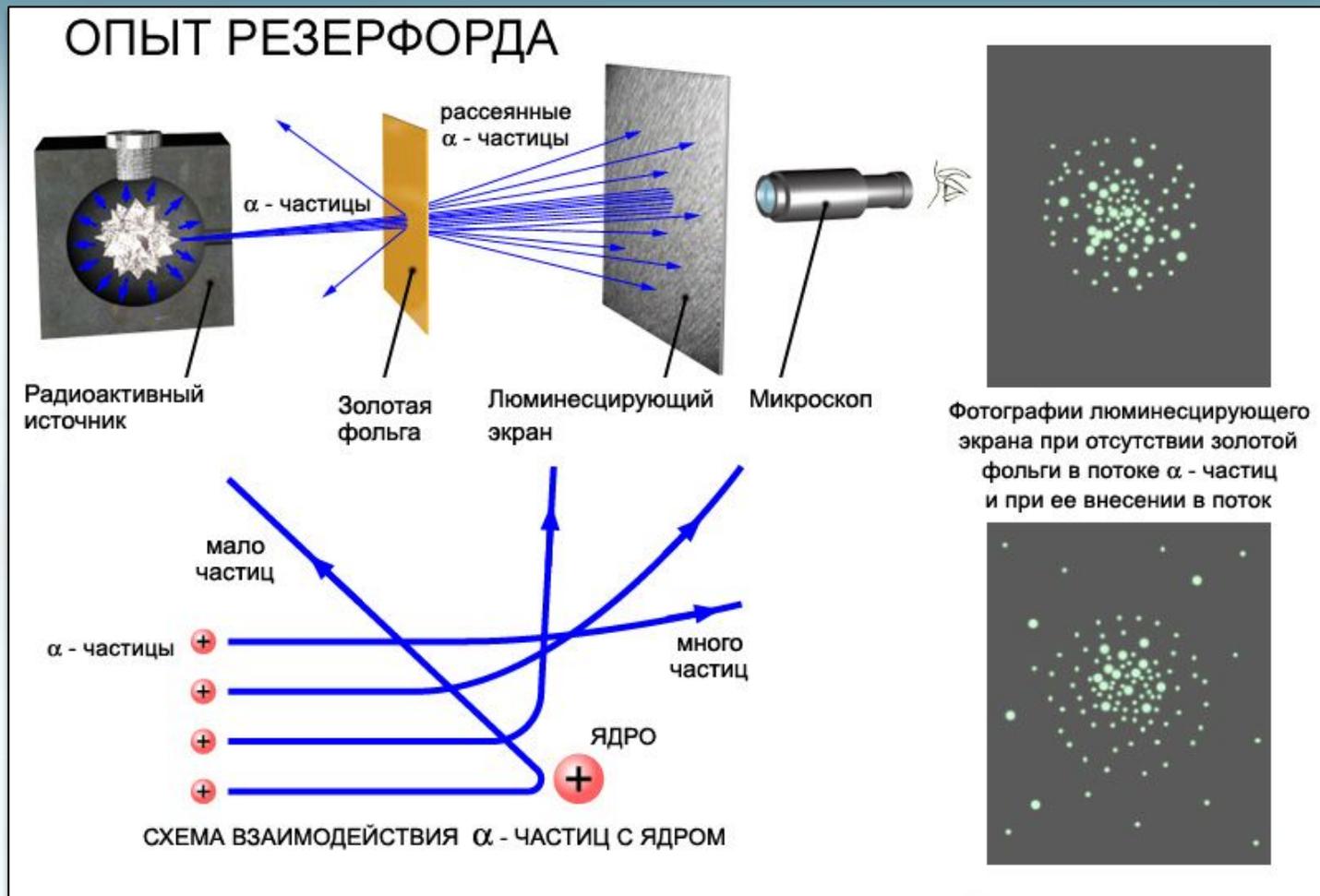


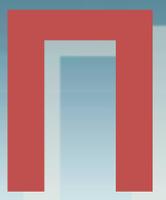
Джон Чедвик  
(1920-1998)





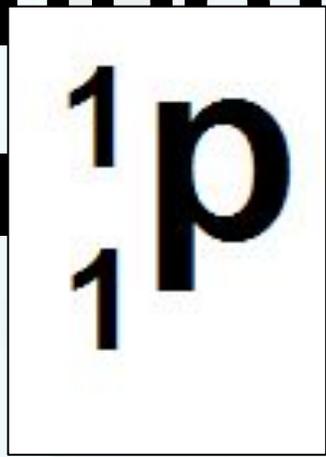
# - опыты Резерфорда



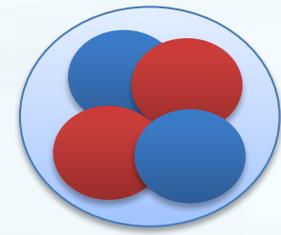
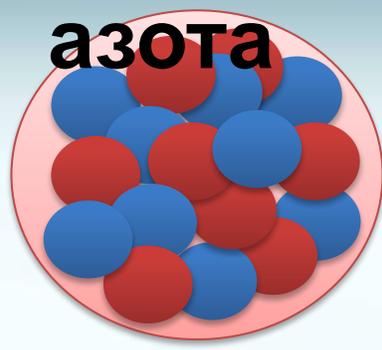


-

**ПРОТОН**



**ядро азота**



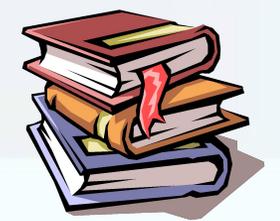
**α-**

**частица**



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

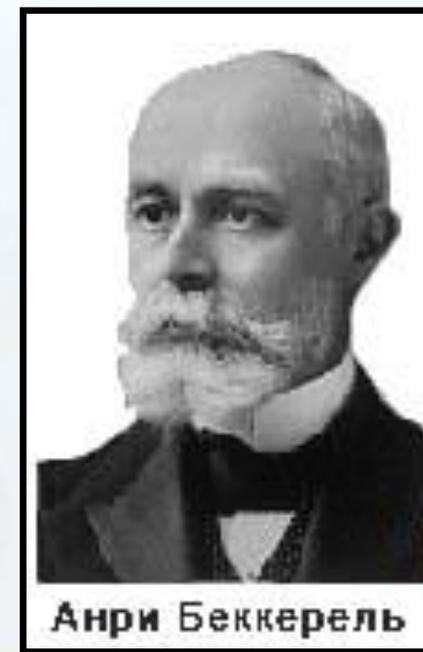
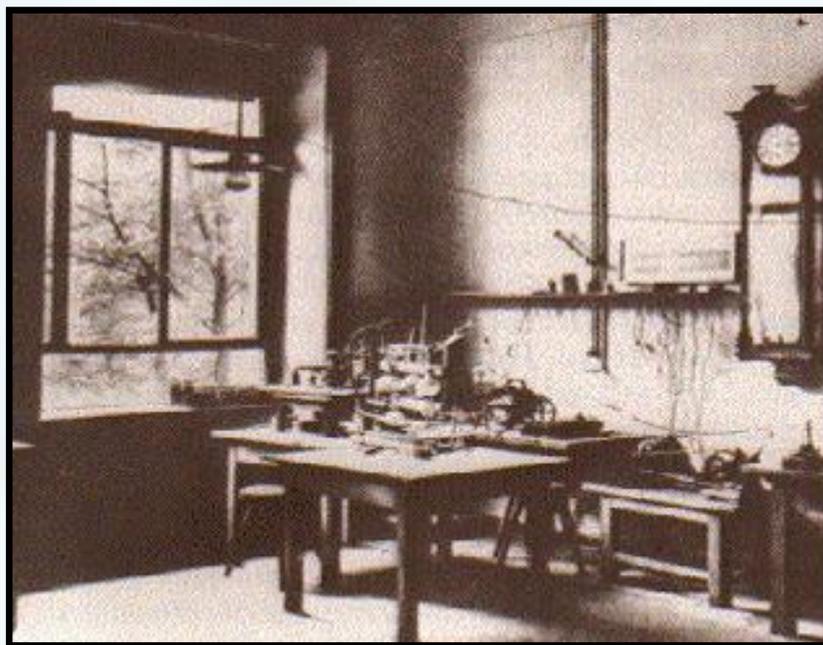
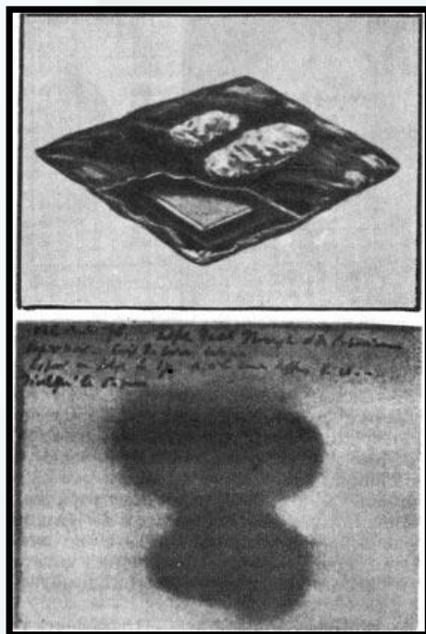
$$q_{\text{H}} = 1,6 \cdot 10^{-19} \text{ Кл.}$$



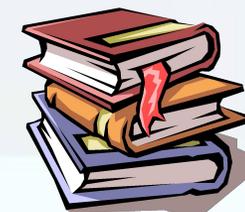
**P**

**- радиоактивность**

**- радиоактивный элемент**

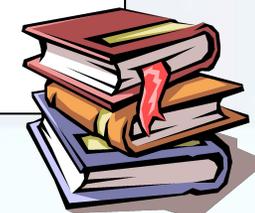
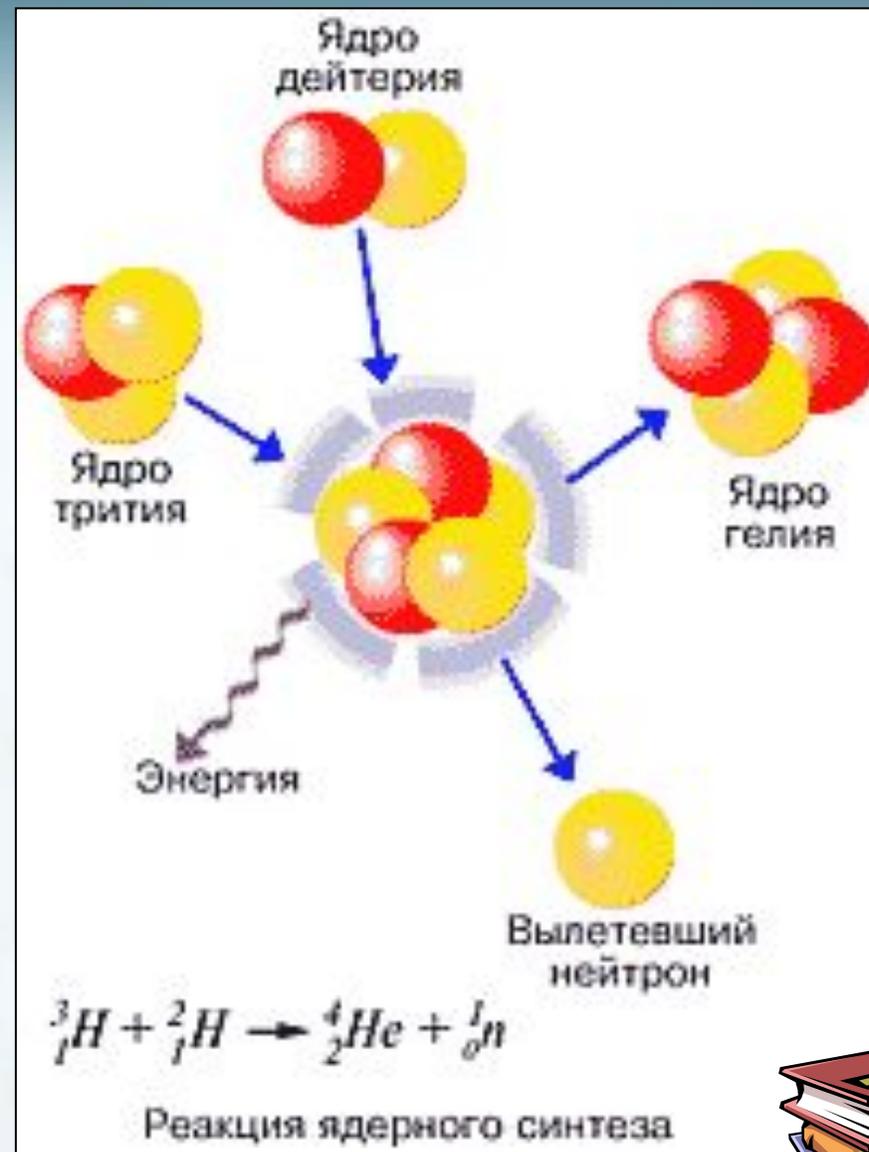


**Анри Беккерель**



# Т

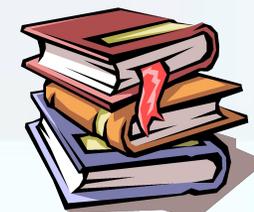
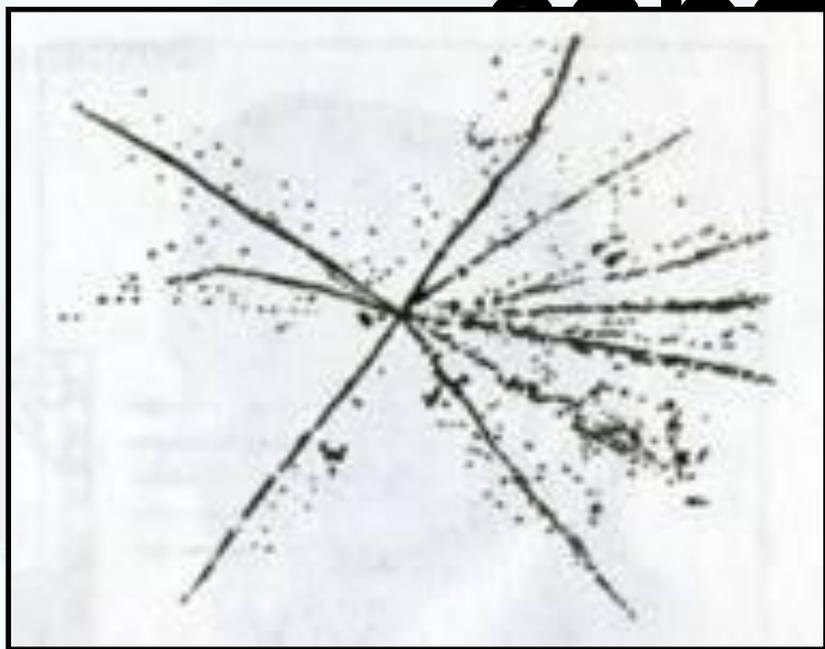
# - термоядерная реакция



**Ф**

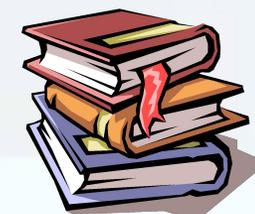
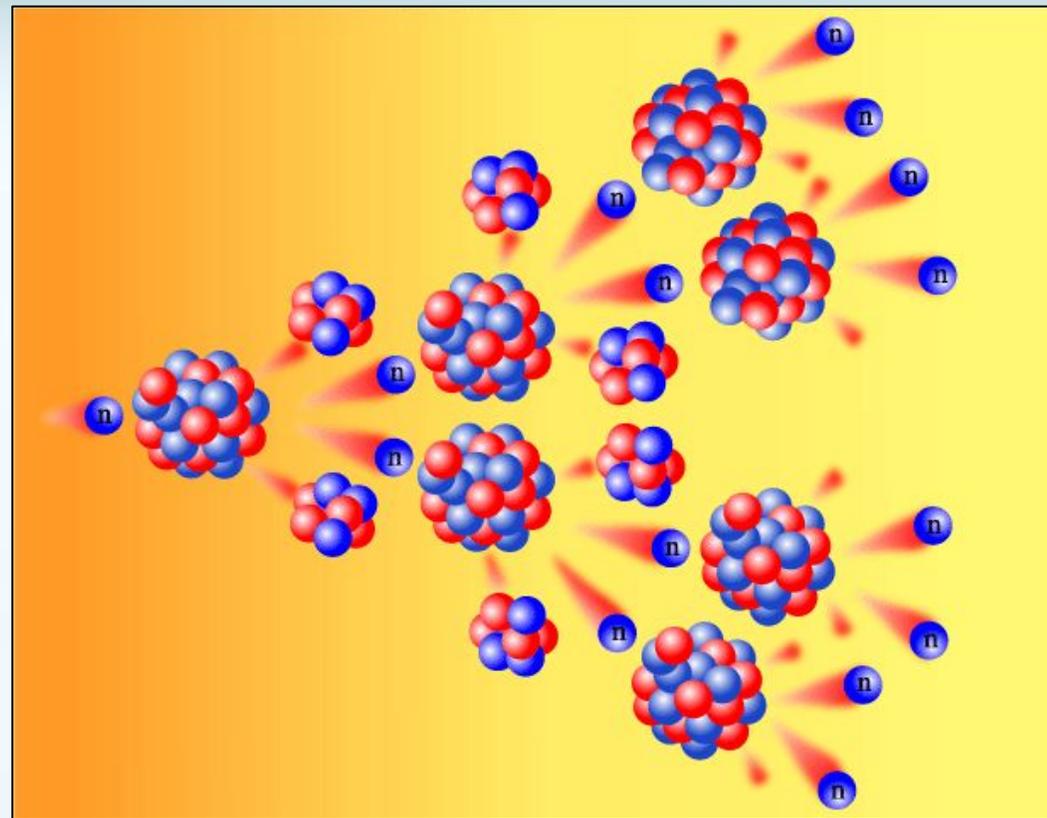
# - фотоэмульсионный метод регистрации

**разлетающихся частиц**



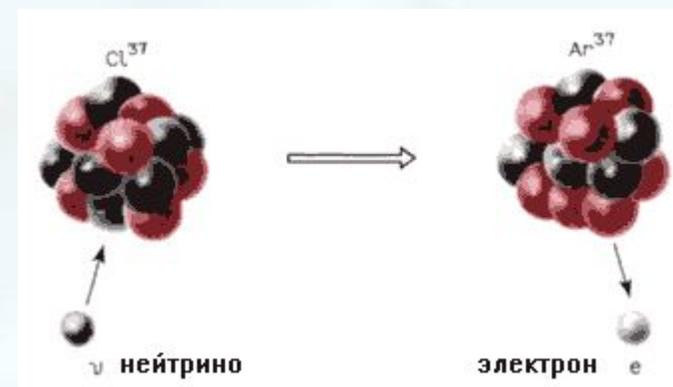
# Ц

## -цепная реакция



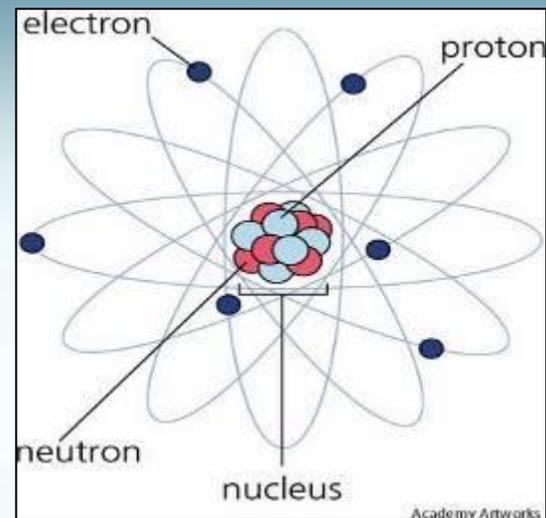
# 4

## - частица элементарная





**-электрон**



**-энергия связи ядра**

**атома**

$$\Delta E_{св} = \Delta M c^2 = (Zm_p + Nm_n - M_{я})c^2$$



# Я

- ядерный реактор

- ядро атома

- ядерные силы

