

( . . . , 1911 . )

1.

2.

3.

( 1/1823 . . . ).

4.

### Ядро атома

( . . . - . . . ).

- Z.

- A - Z ( . . . - . . . )

; Z -

).

### Изотопы

\_\_\_\_\_ -

( . . . 81, . . . 204,383) :

- 203

${}^{203}_{81}\text{Tl}$  (81 ${}^1_1\text{p}$ ; 122 ${}^1_0\text{n}$ ) - 29,5%

- 205

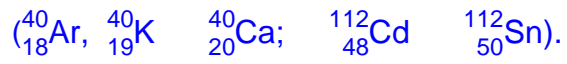
${}^{205}_{81}\text{Tl}$  (81 ${}^1_1\text{p}$ ; 122 ${}^1_0\text{n}$ ) - 70,5%

:

$$A_{\text{.Tl}} = (0,295 \cdot 203 + 0,705 \cdot 205) / 2 = 204,383$$

:

${}^1_1\text{H}$  - ;  ${}^2_1\text{D}$  - ;  ${}^3_1\text{T}$  - .



\_\_\_\_\_ -

( , - ' ).

\_\_\_\_\_.

$m_0$  -

t

$$: m_t = m_0 \cdot (1/2)^{t/T_{1/2}} \quad m_t$$

;  $1/2$  -  $1/2$

**$\alpha$ -**  
 $^4_2$  ( $\alpha$ - )  
 4 ( )

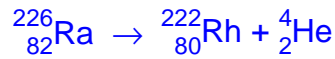
( 20000 / . )

Z

$$Z' = Z - 2$$

$$A' = A - 4$$

4



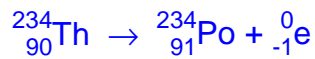
**$\beta$ -**  
 / . ( )

$\beta$ -

100'000 - 300'000

(

)



**$\gamma$**

(

).

(1919 .)

$\alpha$ -

:

