Välkomna till fysiken. (1)

Seminarium.

$$^{235}_{92}U \rightarrow \,^{231}_{90}Th + \,^{4}_{2}He$$

m m m

alfa

- → Uppgifter sönderfall och joniserande strålning
- → Övar på presentationer.
- → Namngivning uppgift för uppgifter

[Tabell m $^{4}_{2}He$]

- → Deadline inl. classroom 09 59;

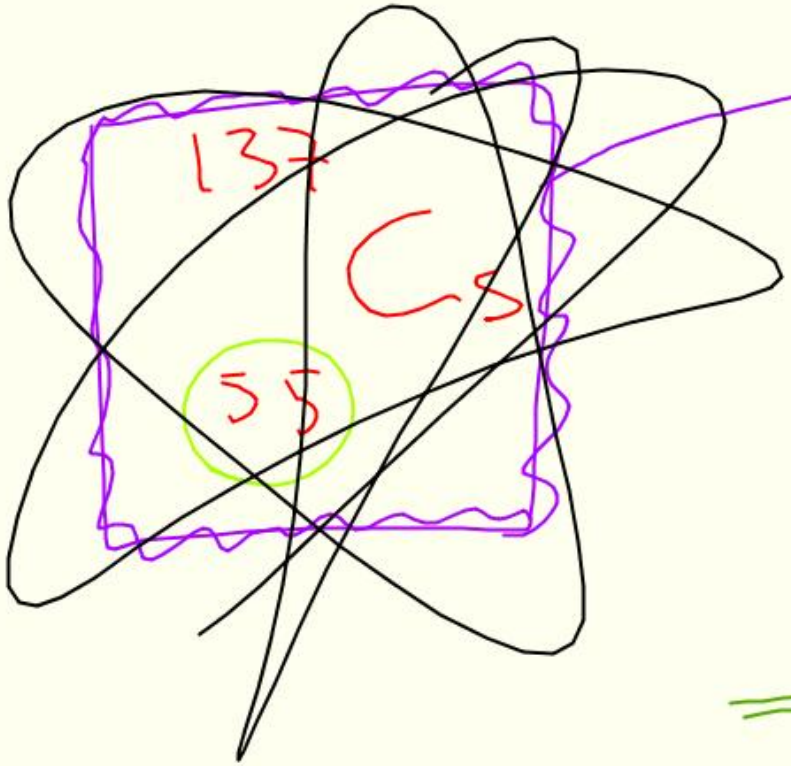
(2)

$^{137}_{55}Cs \rightarrow {}^{137}_{56}Ba + {}^{0}_{-1}e + \cancel{\bar{\nu}}$

m_1 m_2

$\Delta m = m_1 - m_2$

$\Delta E = \Delta m c^2$ → [MeV]



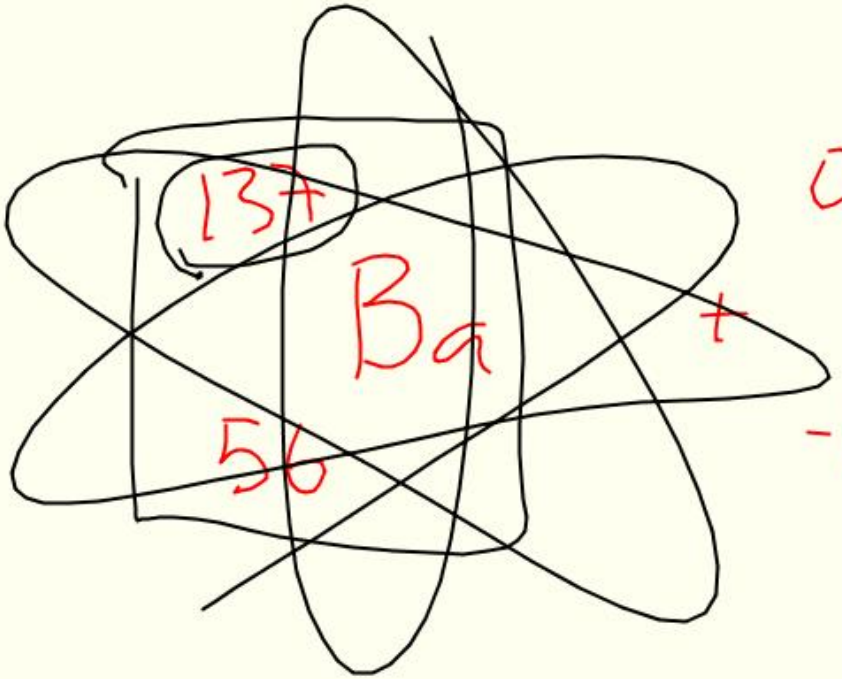
5.77 $m = 136,9071\,u$

$-55 \cdot m_e = 55 \cdot 0,0005486\,u$

$\Rightarrow$ Kerns masse

$m - 55\,m_e = 136,876728\,u$

↑ fine



$$m = 136,9058\ u$$

$$-56 \cdot m_e = 56 \cdot 0,00054858$$

$$= 136,8750795\ u$$

$$+ 1 \cdot m_e = 136,8756281\ u$$

after

$$\Delta m = m_1 - m_2$$

$$= 136,87672\,81$$

$$- 136,87562\,81$$

$$000,00\,11000$$

$$\Delta m = 0,0011\ u$$

$\Delta m = 0,0011\ u$

$u \longrightarrow MeV$

$0,0013 \longrightarrow 0,0013 \cdot 931,494 = 0,$

"röntgenenergi" hos β $\left[{}^{0}_{-1}e\right]$ $1,2\ MeV$