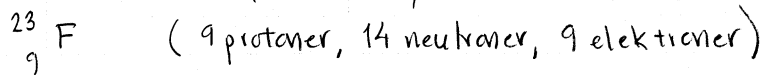


B2002-13



1,007276 u

1,008665 u

0,000549 u

Massdefekten

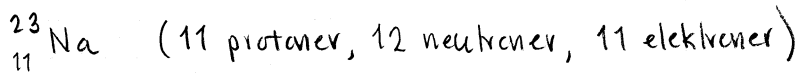
$$\Delta m = (9 \cdot 1,007276 + 14 \cdot 1,008665 + 9 \cdot 0,000549 - 23,00357) \text{ u}$$
$$= 0,188165$$

Bindningsenergin ($1 \text{ u} \leftrightarrow 931,49 \text{ MeV}$ enligt $\Delta E = \Delta m c^2$):

$$\Delta E = 0,188165 \cdot 931,49 \text{ MeV} = 175,27 \text{ MeV}$$

Bindningsenergin per nukleon

$$\frac{175,27 \text{ MeV}}{23} = \underline{\underline{7,62 \text{ MeV/nukleon}}}$$

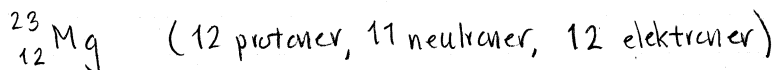


Massdefekten

$$\Delta m = (11 \cdot 1,007276 + 12 \cdot 1,008665 + 11 \cdot 0,000549 - 22,98977) \text{ u}$$
$$= 0,200285 \text{ u}$$

Bindningsenergin per nukleon:

$$\frac{0,200285 \cdot 931,49 \text{ MeV}}{23} = \underline{\underline{8,11 \text{ MeV/nukleon}}}$$



Massdefekten

$$\Delta m = (12 \cdot 1,007276 + 11 \cdot 1,008665 + 12 \cdot 0,000549 - 22,99412) \text{ u}$$
$$= 0,195095 \text{ u}$$

Bindningsenergi per nukleon:

$$\frac{0,195095 \cdot 931,49 \text{ MeV}}{23} = \underline{\underline{7,90 \text{ MeV/nukleon}}}$$

Slutsats:

pga störst
bindningsenergi
per nukleon

${}^{23}\text{Na}$ är mest stabil,

${}^{23}\text{F}$ är minst stabil