

7. If M_{Cr} is the mass of a ^{52}Cr nucleus and M_{Mg} is the mass of a ^{26}Mg nucleus, then the disintegration energy is $Q = (M_{\text{Cr}} - 2M_{\text{Mg}}) c^2 = [51.94051 \text{ u} - 2(25.98259 \text{ u})] (931.5 \text{ MeV/u}) = -23.0 \text{ MeV}$.