30 The radioactive isotope caesium-137 decays to barium-137 by emitting a β^- particle.

The masses of the nuclei and of the β^- particle are given in the table.

nucleus or particle	mass / u
caesium-137	136.90709
barium-137	136.90583
β^- particle	5.49×10^{-4}

How much energy is released during the decay of one nucleus of caesium-137?

A 2.4×10^{-14} J

B 1.1×10^{-13} J

C 1.9×10^{-13} J

D 2.7×10^{-13} J