Liquid Drop Model

B.E. = Volume + Surface + Coulomb + Asym.

If I move convert j protons into neutrons

Each gain energy $\sim \frac{j}{2}\Delta E$

total gain $\sim j\left(\frac{j}{2}\right)\Delta E$

$\sim \frac{(N-Z)^2}{A}$

Antimatter

proton — anti-proton

exactly same except for charge

p^+	$\bar{p}^-$
n	$\bar{n}$
e^-	e^+ positron

$n \rightarrow p^+ + e^- + \bar{\nu}$

$p^+ \rightarrow n + \bar{e}^+ + \nu$