E08050U04 九州せいはおおのさと氏

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Neutrino Hypothesisについて.

$\Delta W < -mc^2 + E$: e^-

$mc^2 + E < \Delta W$: e^+

$-mc^2 + E < \Delta W < mc^2 + E$

$\Delta W < -mc^2 + E$: e^-

$-mc^2 + E < \Delta W < mc^2 + E$: electron absorption

$mc^2 + E < \Delta W$: e^+

$|E| > \mu c^2$

$E \approx mc^2 + E_0 - \Delta W$

$E \geq -2mc^2$

$\begin{cases} N^{14} + \alpha^4 \rightarrow O^{17} + p \\ N^{14} + \alpha^4 \rightarrow F^{17} + n \end{cases}$

$\therefore\ 2m > \mu$

$$N^{14}_{7} + He^4_2 + K_1 = O^{17}_{8} + H^1_1$$
$$\quad '' \quad + K_2 = F^{17}_{9} + n^1_0$$

$$\Delta W = F^{17}_{9} - O^{17}_{8} = 4.0 \times 10^6 - 1.25 \times 10^6 + -(n^1_0 - H^1_1)$$
$$= 2.75 \times 10^6 - (n^1_0 - H^1_1)$$
$$> 4mc^2$$

$E = mc^2 + F$