

$${}^A_ZX^N \rightarrow {}^A_{Z+1}Y^{N-1} + e^- + \bar{\nu}_e \quad (\beta^-)$$

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

$$\nu_e + e^+ + n \leftarrow p \quad (\beta^+)$$

$$\nu_e + e^+ + {}^A_{Z-1}Y^{N+1} \leftarrow {}^A_ZX^N$$

$$\nu_e + n \leftarrow p + e^- \quad (CE)$$

$$\nu_e + {}^A_{Z-1}Y^{N+1} \leftarrow {}^A_ZX^N + e^-$$