(T < 10<sup>8</sup> ° K)

$$C^{12} + H^{1} \rightarrow N^{13} + \gamma$$

$$N^{13} \rightarrow C^{13} + e^{+} + \nu$$

$$C^{13} + H^{1} \rightarrow N^{14} + \gamma$$

$$N^{14} + H^{1} \rightarrow O^{15} + \gamma$$

$$O^{15} \rightarrow N^{15} + e^{+} + \nu$$

$$N^{15} + H^{1} \rightarrow C^{12} + He^{4}$$

$$Or (\sim 4 \times 10^{-4})$$

 $N^{15} + H^{1} \rightarrow O^{16} + \gamma$ 

 $0^{16} + H^1 \rightarrow F^{17} + \gamma$ 

017 + H1 - N14 + He4

 $F^{17} \rightarrow O^{17} + e^+ + \nu$ 

$$\begin{cases} \tau = 178 \sec \\ \log \tau \text{ (years)} = -5.25 \end{cases}$$

 $\tau = 95 \sec 0$   $\log \tau \text{ (years)} = -5.52$