

Table 5-2 The CNO reactions

<i>Reaction</i>	<i>Q value, Mev</i>	<i>Average ν loss, Mev</i>	<i>$S(E = 0)$, kev barns</i>	<i>$\frac{dS}{dE}$, barns</i>	<i>B</i>
$\text{C}^{12}(p, \gamma)\text{N}^{13}$	1.944	0.710	1.40	4.26×10^{-3}	136.93
$\text{N}^{13}(\beta^+ \nu)\text{C}^{13}$	2.221				
$\text{C}^{13}(p, \gamma)\text{N}^{14}$	7.550		5.50	1.34×10^{-2}	137.20
$\text{N}^{14}(p, \gamma)\text{O}^{15}$	7.293	1.00	2.75		152.31
$\text{O}^{15}(\beta^+ \nu)\text{N}^{15}$	2.761				
$\text{N}^{15}(p, \alpha)\text{C}^{12}$	4.965		5.34×10^4	8.22×10^2	152.54
$\text{N}^{15}(p, \gamma)\text{O}^{16}$	12.126	0.94	2.74×10^1	1.86×10^{-1}	152.54
$\text{O}^{16}(p, \gamma)\text{F}^{17}$	0.601		1.03×10^1	-2.81×10^{-2}	166.96
$\text{F}^{17}(\beta^+ \nu)\text{O}^{17}$	2.762				
$\text{O}^{17}(p, \alpha)\text{N}^{14}$	1.193		Resonant reaction		167.15