

Fig. 1 Partial level schemes of mass 14 nuclei.

Table 2 Expected thin target yield

E (keV)	$\sigma(E)$ ( $\mu\text{b}$ )	Resonance + DC Y ( $\text{hr}^{-1}$ )	Resonance only Y ( $\text{hr}^{-1}$ )
200	0.014	0.6	0.3
300	0.26	10	7
350	0.87	31	25
400	2.9	100	70
450	12	430	390
500	111	$4.0 \times 10^3$	$3.8 \times 10^3$
526	330	$1.1 \times 10^4$	$1.1 \times 10^4$
550	115	$4.1 \times 10^3$	$4.2 \times 10^3$
575	45	$1.6 \times 10^3$	$1.7 \times 10^3$
600	24	870	970
650	11	390	460
700	6.5	230	300
750	4.4	160	230
800	3.2	120	190
850	2.5	89	150
900	2.0	71	130
950	1.6	58	110
1000	1.3	48	100

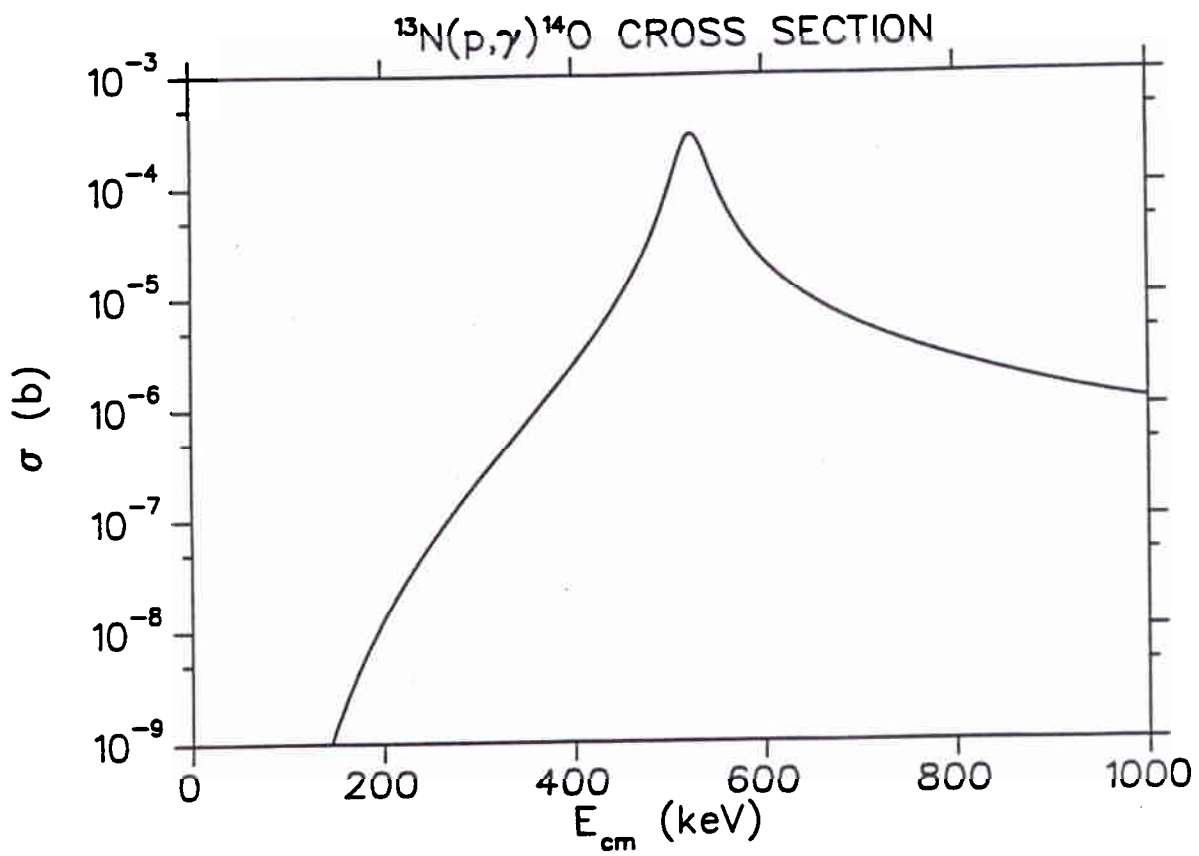


Fig. 4 Energy dependence of the cross section for the  $^{13}\text{N}(p,\gamma)^{14}\text{O}$  reaction. See text for details

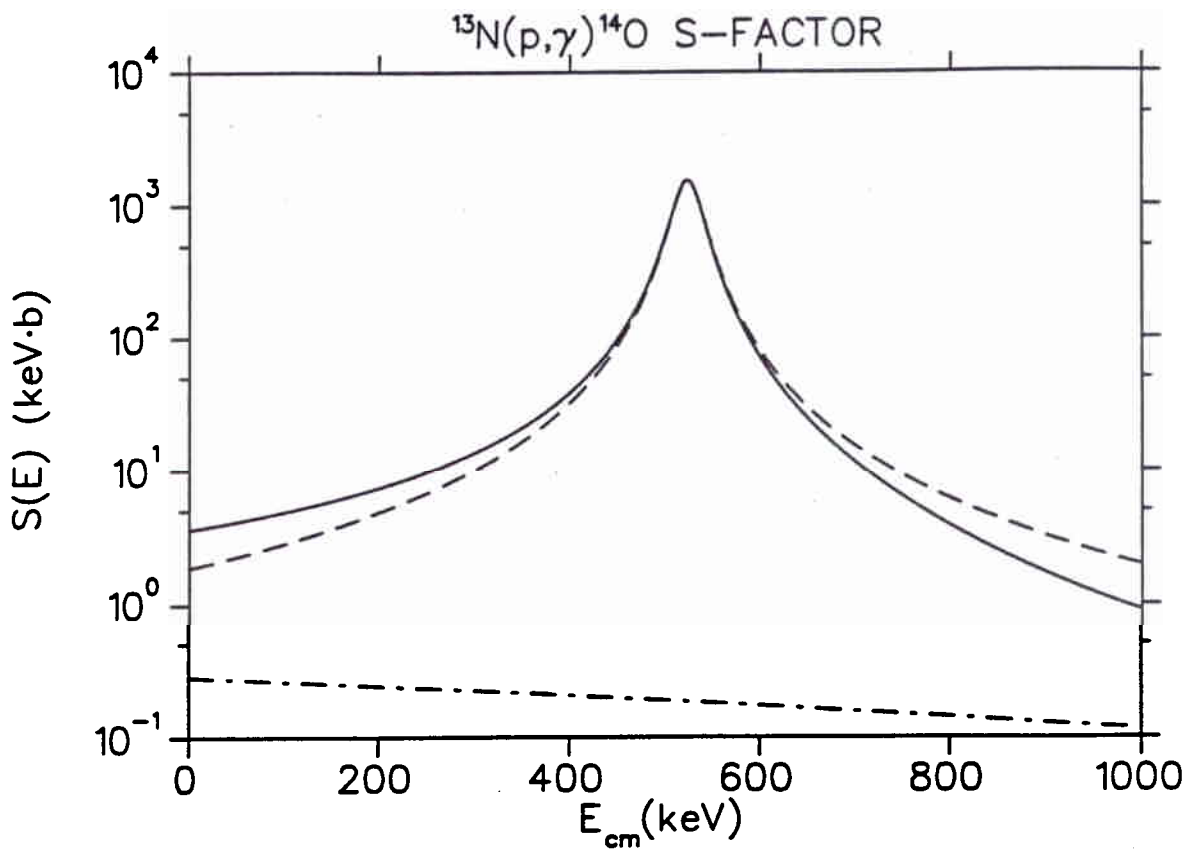


Fig. 3 Energy dependence of the S-factor for the  $^{13}\text{N}(p,\gamma)^{14}\text{O}$  reaction. See text for details.

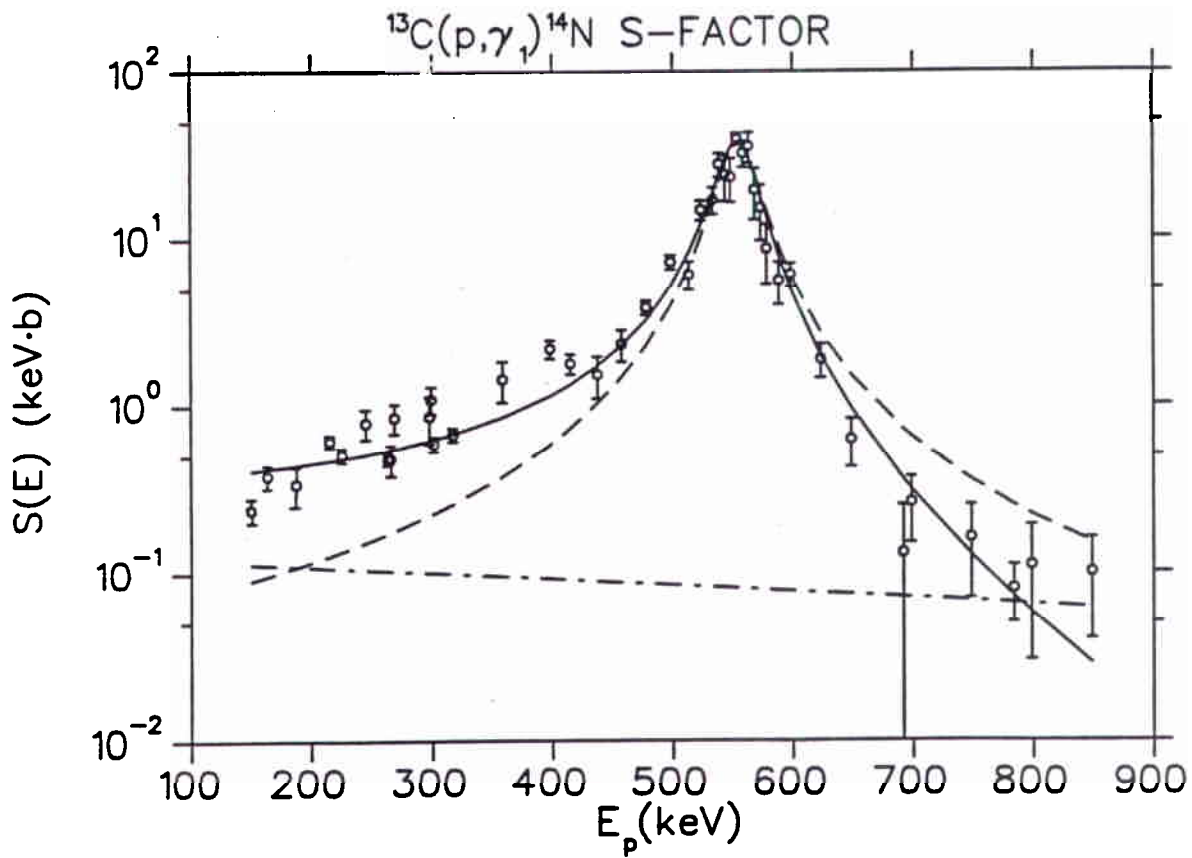


Fig. 2 Energy dependence of the S-factor for the  $^{13}\text{C}(p,\gamma)^{14}\text{N}$  reaction populating the 2.313 MeV state in  $^{14}\text{N}$ . See text for details.