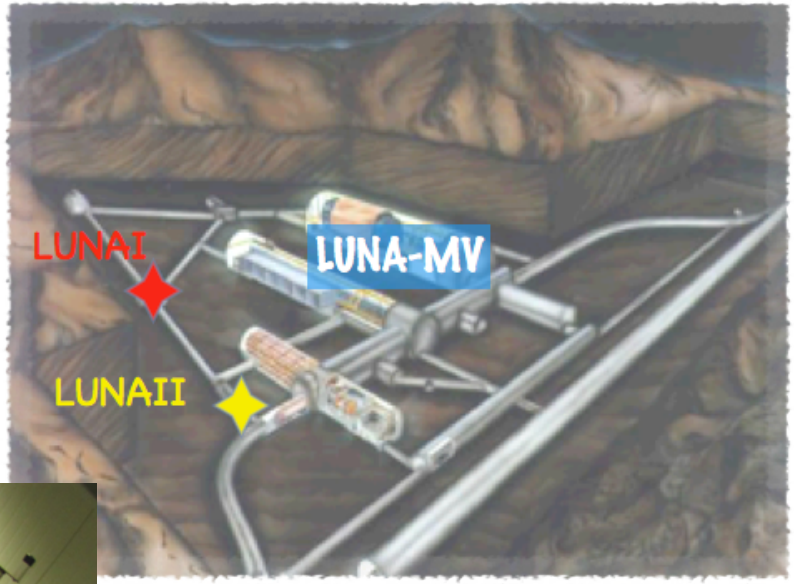
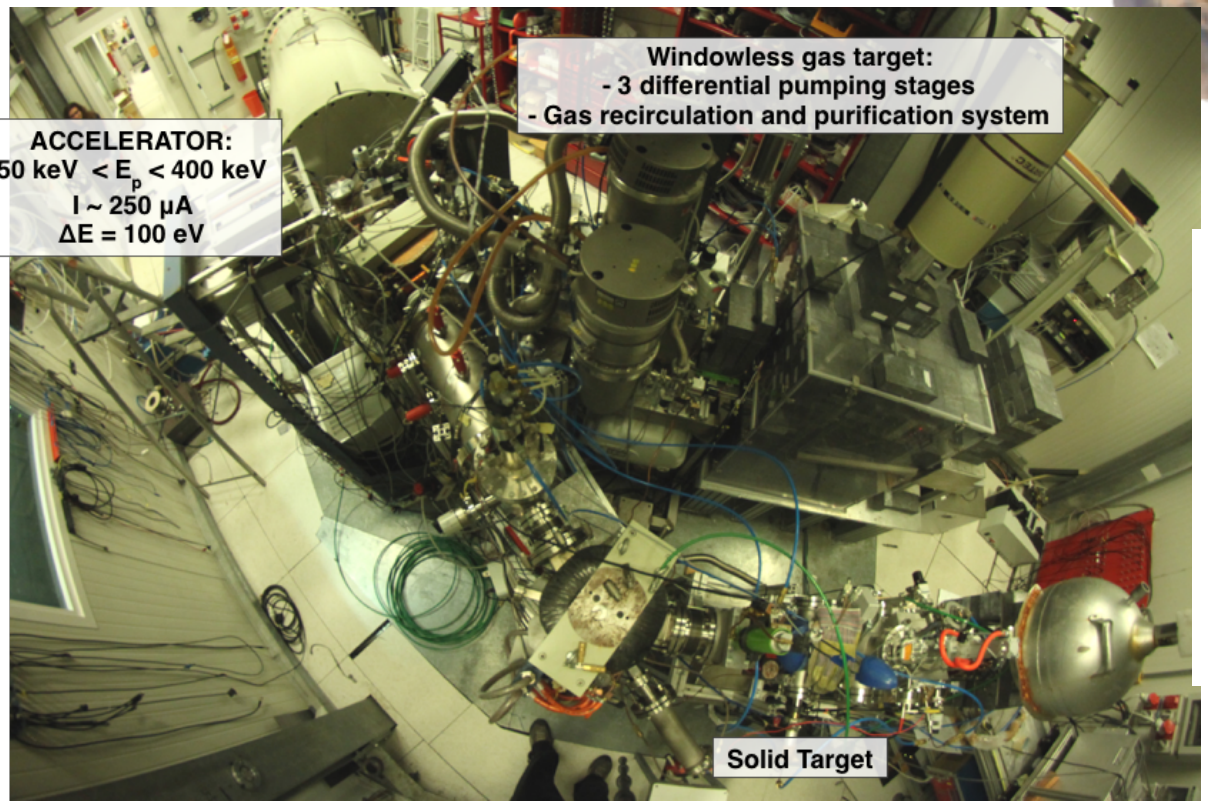
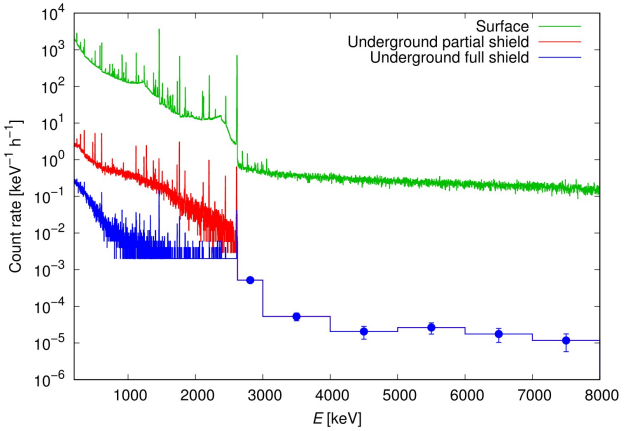
LUNA @ LNGS



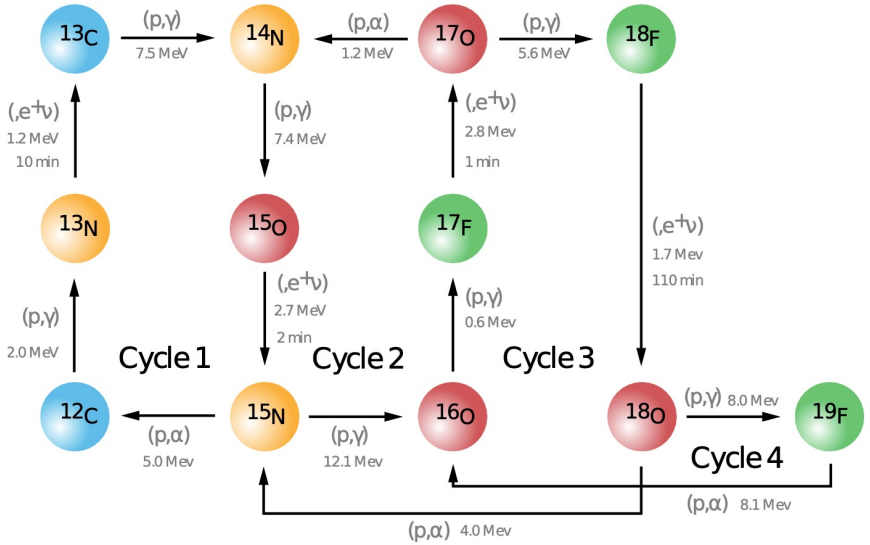


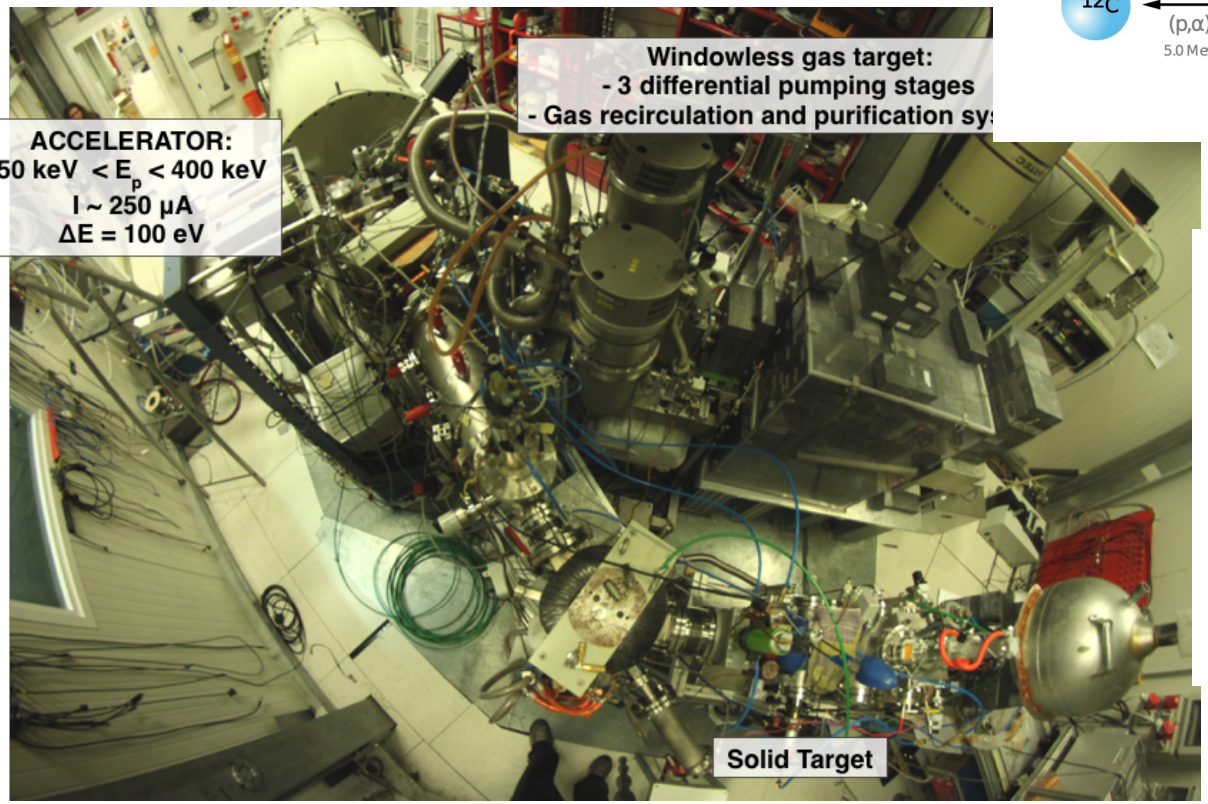


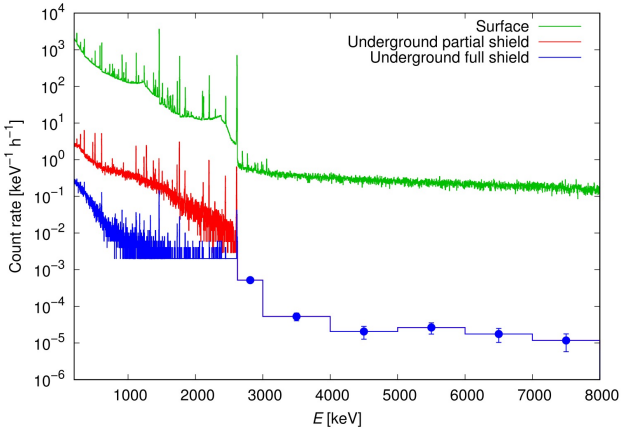
https://www.pd.infn.it/eng/luna/

$^{12}C(p,\gamma)^{13}N$

$m(^{12}C)+ m(p) – m(^{13}N) = 1943$ keV







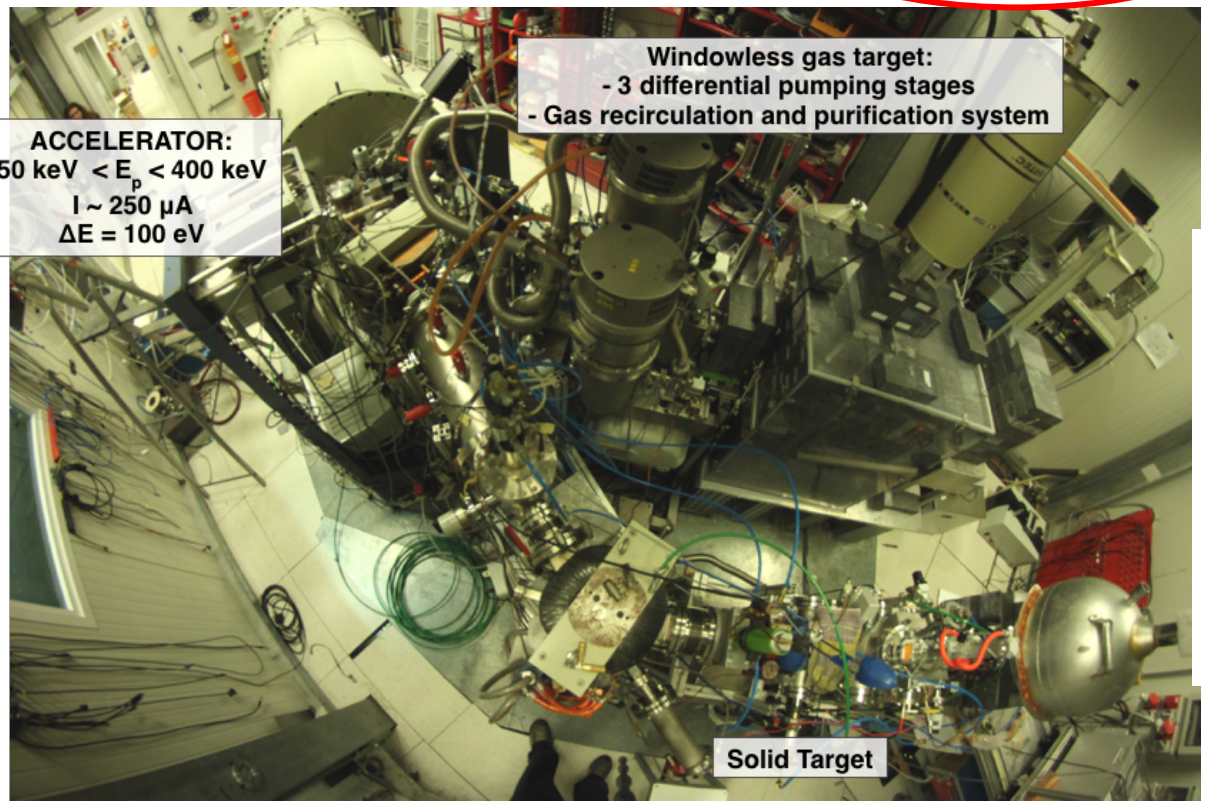
https://www.pd.infn.it/eng/luna/

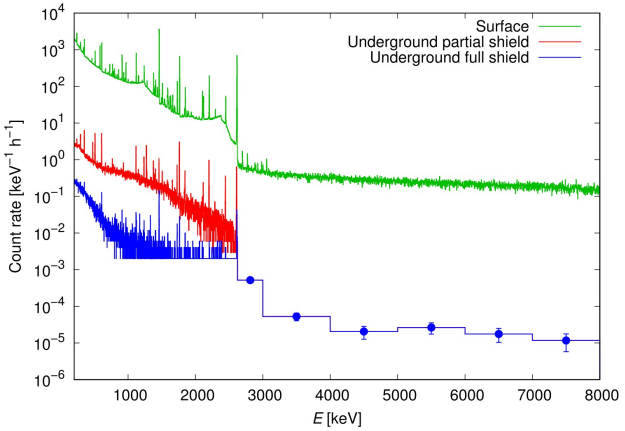
$^{12}C(p,\gamma)^{13}N$

$m(^{12}C) + m(p) - m(^{13}N) = 1943$ keV

$E_{acc} + m(^{12}C) + m(p) - m(^{13}N) = 1943$ keV + E_{acc}

Dove va tutta questa energia?????





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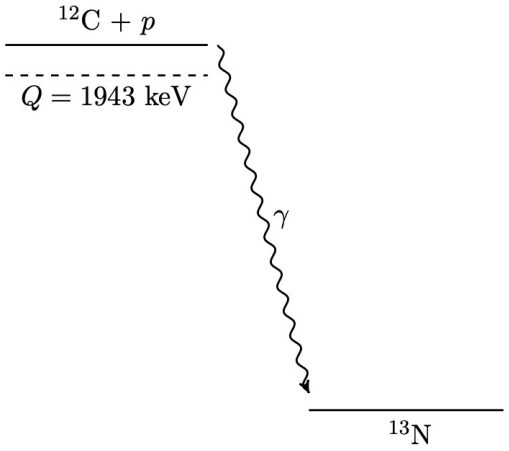
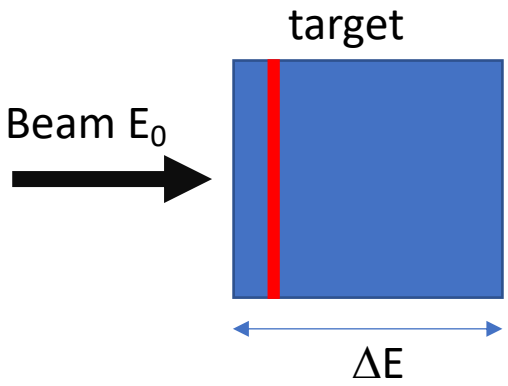
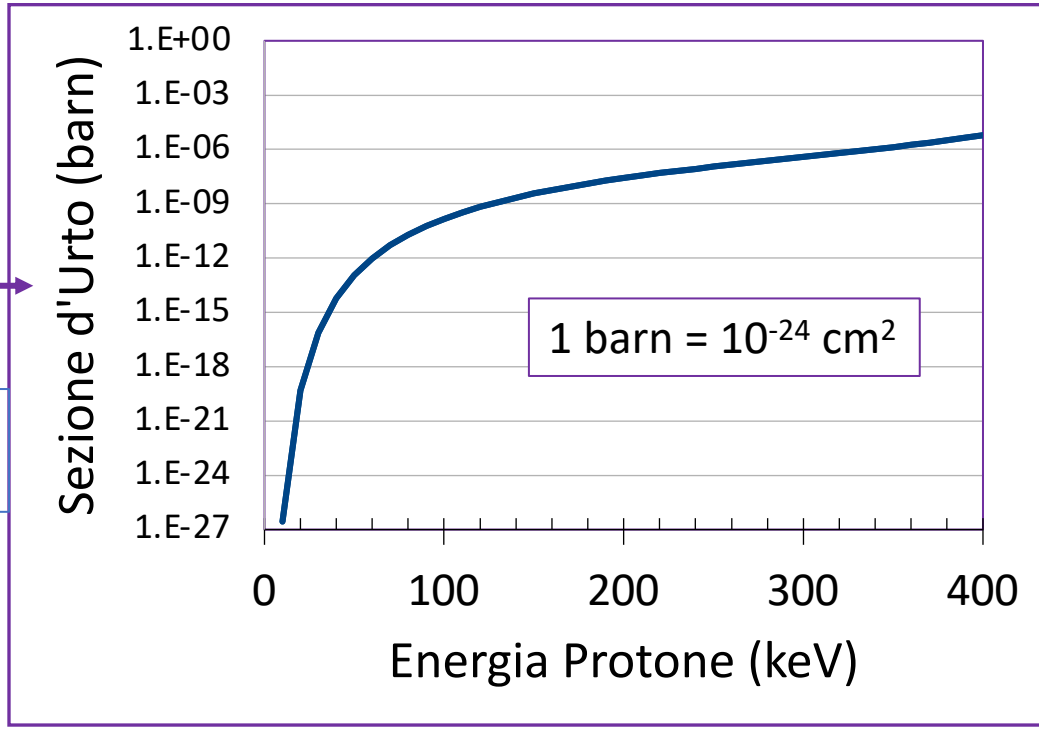
LUNA @ LNGS





$$N_{reazioni} = N_p \times N_C \times \sigma$$

- N_{gamma} / efficienza
- Numero protoni: 10^{15} p/s
- Numero atomi carbonio per unità di superficie: 10^{18} atomi/cm^2



EFFICIENZA

Scende con l'energia del gamma (dipende dal tipo di rivelatore utilizzato
Scende anche allontanando il rivelatore dal bersaglio (dipende dalla geometria)