207 Pb(18 O, 19 N), 208 Pb(18 O, 19 N) 1979Ba31

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1979Ba31: A beam of 93 MeV 18 O ions impinged on either a 208 Pb (98.2% enriched) or a 207 Pb (92.4% enriched) lead target (each was $\approx 250~\mu \text{g/cm}^2$ on 5 $\mu \text{g/cm}^2$ carbon foil backings). Reaction products were detected at $\theta = 80^\circ$ and $\theta = 85^\circ$ using the Chalk River QD³ spectrometer focal plane with energy resolutions that were typically $\Delta E \approx 260~\text{keV}$. The Q(β^-)value =-18.44 MeV 15 was deduced for the reaction on 208 Pb, which corresponds to $\Delta M(^{19}N) = 15.96~\text{MeV}$ 15.

¹⁹N Levels

E(level) Comments

0 $\Delta M(^{19}N)=15.96 \text{ MeV } 15 \text{ was deduced.}$