^{20}Ne(^{3}He,d) E=25.83 MeV 2006Mu08

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 127, 1 (2015)	15-Jan-2015

E=25.83 MeV. Measured deuterons and angular distributions using a pair of ΔE-E telescopes consisting of Si(Li) and Si barrier detectors. DWBA analysis, deduced asymptotic normalization coefficients (ANC) using different combinations of optical-model parameters. Calculated S_{lj} and C^2_{lj}=ANC. These ANC′s are used by 2006Mu08 to deduce astrophysical factor S(0)=590 keV b *12* for ^{20}Ne(p,γ)^{21}Na reaction.

^{21}Na Levels

E(level)	J^π	S	Comments
0.00	$(3/2^+)$	0.0409	S: corresponding to ANC=0.21 *4*. Other values range from 0.0357 to 0.0423 for different sets of optical potential parameters.
332	$(5/2^+)$	0.488	S: corresponding to ANC=2.78 *43*. Other values range from 0.409 to 0.492 for different sets of optical potential parameters.
1716	$(7/2^+)$	0.0429	S: corresponding to ANC=(0.00011 *3*). Other values range from 0.0328 to 0.0412 for different sets of optical potential parameters.
2425	$(1/2^+)$	0.562	S: corresponding to ANC=$(6.1\times10^{33}$ *8*). Other values range from 0.572 to 0.629 for different sets of optical potential parameters.