

$^{20}\text{Ne}(\text{d},\text{n}),(\text{d},\text{n}\gamma)$ **1993Te05**

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

- 1969Ro11:** $^{20}\text{Na}(\text{d},\text{n}\gamma)$ E(d)=2.37-5.32 MeV, measured E_γ , $\text{n}\gamma$ -coincidence, $\text{n}\gamma\gamma$, $\text{n}\gamma(\theta)$.
1970Ch12: $^{20}\text{Na}(\text{d},\text{n})$ E(d)=4.5 MeV, measured $\sigma(\text{En},\theta)$.
1972Ha56: $^{20}\text{Na}(\text{d},\text{n})$ E(d)=3.6-6.0 MeV, measured absolute $\sigma(\theta)$.
1968Bu12: $^{20}\text{Ne}(\text{d},\text{n})$ E(d)=3.92, 5.16, 6.08 MeV, measured $\sigma(\theta)$.
1993Te05: $^{20}\text{Ne}(\text{d},\text{n})$ E(d)=25 MeV, measured $\sigma(\theta)$.

 ^{21}Na Levels

E(level) [†]	J ^π #	L [‡]	S [@]	Comments
0				
331.9 5	(3/2,5/2) ⁺	2	3.76	
1723 4				
2432 2	1/2 ⁺	0	1.93	
2790	(1/2,3/2) ⁻	1	0.26	
3535 12		2	0.16	
3673 12		1	0.20	
3857 12				
4170	(1/2,3/2) ⁻	1	0.85	
4285 12	(3/2,5/2) ⁺	2	1.29	
4453 12	(3/2,5/2) ⁺	2	1.44	
5020	(5/2,7/2) ⁻	3	3.23	J ^π : In consistent with adopted J ^π .
6510	(3/2,5/2) ⁺	2	0.71	E(level): Possibly same as 6468 adopted level.
6910	(3/2 ⁺ ,5/2 ⁺)	2	0.44	E(level): Inconsistent with Adopted Levels.

[†] From **1969Ro11** for E<2.5 MeV, **1970Ch12** for E>2.5 MeV. Values with no uncertainty from **1993Te05**. Note systematic deviation from adopted energies.

[‡] From **1993Te05**.

From L-transfer, DWBA.

@ (2J+1)C²S from **1993Te05**.

 $\gamma(^{21}\text{Na})$

E _γ	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.	δ	Comments
331.9 5	331.9	(3/2,5/2) ⁺	0		M1+E2	+0.04 4	Mult.: A ₂ =-0.35 5, A ₄ =0.00 7.
1391 4	1723		331.9	(3/2,5/2) ⁺	M1+E2	+0.95 80	Mult.: A ₂ =-0.75 28, A ₄ =-0.09 38.
2432 2	2432	1/2 ⁺	0		D+Q		Mult.: A ₂ =+0.02 3, A ₄ =-0.06 4.

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Level Scheme

