

$^{11}\text{B}(\text{n},\text{n}'\gamma)$ 1972Ni05

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu		NP A880,88 (2012)	1-Jan-2011

1970Al08: $^{11}\text{B}(\text{n},\text{n}),(\text{n},\text{n}') E=14.1$ MeV, measured $\sigma(E_{\text{N}'},\theta)$.
 1970Co12: $^{11}\text{B}(\text{n},\text{n}),(\text{n},\text{n}') E=9.72$ MeV, measured $\sigma(E_{\text{N}'},\theta)$.
 1972Ni05: $^{11}\text{B}(\text{N},\text{N}'\gamma) E=\text{fission spectrum}$, measured $\sigma(E_{\gamma})$. ^{11}B deduced levels, J, π , γ -branching.
 1974Hy01: $^{11}\text{B}(\text{n},\text{n}),(\text{n},\text{n}') E=14.1$ MeV, measured $\sigma(E_{\text{N}'},\theta)$. Deduced optical parameters.
 1982Gl02: $^{11}\text{B}(\text{n},\text{n}),(\text{n},\text{n}') E=8, 9, 9.7, 9.9, 11-14$ MeV, measured $\sigma(\theta)$. Deduced integrated $\sigma(E)$.
 1983Ko03: $^{11}\text{B}(\text{n},\text{n}),(\text{n},\text{n}') E=4.8-7.6$ MeV, measured $\sigma(\theta)$. R-matrix analysis.
 1984El12: $^{11}\text{B}(\text{N},\text{N}'\gamma) E=\text{fast}$, measured DSA. ^{11}B levels deduced $T_{1/2}$.
 1989Ge09: $^{11}\text{B}(\text{N},\text{N}'\gamma) E=\text{fast}$, measured γ -spectra, DSA. ^{11}B level deduced $T_{1/2}$, $B(\lambda)$.
 1995Xi06: $^{11}\text{B}(\text{n},\text{n}') E=7.54-20$ MeV, analyzed $\sigma(\theta)$, $\sigma(E)$. Deduced model parameters. Microscopic DWBA.

 ^{11}B Levels

E(level)	J^{π}	$T_{1/2}$	Comments
0			
2.12×10^3		4.3 fs 14	E(level): resolved In (1970Co12,1970Al08,1972Ni05,1974Hy01). Γ : from DSAM: (1984El12).
4.44×10^3		0.97 fs 6	E(level): resolved In (1970Co12,1970Al08,1972Ni05,1974Hy01). Γ : from DSAM: (1984El12).
5.02×10^3	$3/2^{-}$		E(level): resolved In (1970Co12,1972Ni05,1974Hy01). J^{π} from (1970Al08).
6.74×10^3			E(level): observed In (1970Co12,1970Al08,1972Ni05,1974Hy01). E(level): Unresolved.
6.79×10^3			E(level): observed In (1970Co12,1970Al08,1972Ni05,1974Hy01). E(level): Unresolved.
7.29×10^3			E(level): resolved In (1970Co12,1970Al08,1972Ni05).
7987			
8572			
8919			

 $\gamma(^{11}\text{B})$

E_{γ}	$I_{\gamma}^{\dagger}$	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	E_{γ}	$I_{\gamma}^{\dagger}$	$E_i(\text{level})$	J_i^{π}	E_f
2.12×10^3	100	2.12×10^3		0		5.02×10^3	80	5.02×10^3	$3/2^{-}$	0
2.27×10^3	10	7.29×10^3		5.02×10^3	$3/2^{-}$	5867	50	7987		2.12×10^3
2.30×10^3	30	6.74×10^3		4.44×10^3		6452	30	8572		2.12×10^3
2.85×10^3	5	7.29×10^3		4.44×10^3		6.74×10^3	70	6.74×10^3		0
2.90×10^3	20	5.02×10^3	$3/2^{-}$	2.12×10^3		6.79×10^3	75	6.79×10^3		0
3552	10	8572		5.02×10^3	$3/2^{-}$	7.29×10^3	85	7.29×10^3		0
4132	10	8572		4.44×10^3		7987	50	7987		0
4.44×10^3	100	4.44×10^3		0		8572	50	8572		0
4479	4	8919		4.44×10^3		8919	96	8919		0
4.67×10^3	25	6.79×10^3		2.12×10^3						

† From (1972Ni05).

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Level Scheme

Intensities: Type not specified

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

