

$^{11}\text{B}(\text{d},\text{p}\gamma), ^2\text{H}(^{11}\text{B},\text{p})$ 1980Aj01,1994Ma05,2010Le02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu		NP A968, 71 (2017)	1-Jan-2017
1935Cr02: $^{11}\text{B}(\text{d},\text{p}\gamma)$.				
1966Ga09: $^{11}\text{B}(\text{d},\text{p})$ E=5.5 MeV, measured $\sigma(E_p, \theta)$. ^{12}B deduced S.				
1968Go17,1968Go18: $^{11}\text{B}(\text{d},\text{P}_1)$ E=0.5-5.5 MeV, measured $\sigma(E, E_\gamma, \theta)$, γ -polarization. ^{12}B level deduced J, π , δ .				
1969Fo10: $^{11}\text{B}(\text{d},\text{p})$ E=12 MeV, measured $\sigma(\theta)$. ^{12}B level deduced J, π . DWBA analysis.				
1969Ga16,1970Ga09: $^{11}\text{B}(\text{d},\text{p})$ E=2.1 MeV, measured Doppler shift attenuation. ^{12}B levels deduced $T_{1/2}$.				
1970Fi07: $^{11}\text{B}(\vec{\text{d}},\text{p})$ E=10,12 MeV, measured analyzing power A(θ).				
1970Vo09: $^{11}\text{B}(\text{d},\text{p})$ E=0.7-3.5 MeV, analyzed $\sigma(\theta)$. DWBA.				
1970Wi17: $^{11}\text{B}(\text{d},\text{p})$ E=1.5 MeV, measured $I_B(\theta, H)$, nuclear spin-lattice relaxation times in Au, Pd, Pt. ^{12}B deduced μ , quadrupole moment.				
1971Bu02: $^{11}\text{B}(\text{d},\text{p})$ E=8 MeV, analyzed $\sigma(\theta)$ to unbound states. ^{12}B resonances deduced Γ , S.				
1971Mo14: $^{11}\text{B}(\text{d},\text{p})$ E not given, analyzed $\sigma(E)$. ^{12}B levels deduced N-widths.				
1974Ka29: $^{11}\text{B}(\text{d},\text{P}\gamma)$ E=1 MeV, measured P $\gamma(\theta)$. Deduced anisotropies.				
1974Po05: $^{11}\text{B}(\text{d},\text{p})$ E=1.5 MeV, measured P(^{12}B). ^{12}B deduced average polarization induced by capture of polarized muons.				
1976Ta07: $^{11}\text{B}(\text{d},\text{p})$ E=1.3-3.0 MeV, measured polarization. Deduced magnetic substate populations, J-mixing of transferred neutron, reaction mechanism. $^{11}\text{B}(\text{d},\text{p}\gamma)$, measured $\text{p}\gamma(\theta)$. ^{12}B deduced sign on quadrupole moment. PWBA, DWBA.				
1982Go05: $^{11}\text{B}(\text{d},\text{p})$ E=12 MeV, analyzed data. ^{12}B level deduced S. DWBA.				
1985Ab10: $^{11}\text{B}(\text{d},\text{p})$ E=3-10 MeV, measured $\sigma(E)$.				
1985Ar01,1986Ar12: $^{11}\text{B}(\text{d},\text{p})$ E=5,6 MeV, measured residual production yield.				
1988Na09: $^{11}\text{B}(\text{d},\text{p})$ E=1.5 MeV, measured $I(\beta)$, $I(\gamma)$, β - γ -coin. Deduced mirror asymmetry. ^{12}B deduced Gamow-Teller branching ratio.				
1990No14: $^{11}\text{B}(\text{d},\text{p})$ E \approx 4 MeV, measured residuals polarization.				
1994Ma05: $^{11}\text{B}(\text{d},\text{p})$ E=26.3 MeV, measured $\sigma(\theta_p)$. ^{12}B deduced levels, Γ , J, π .				
1997Ya02,1997Ya08: $^{11}\text{B}(\text{d},\text{p})$ $E_{c.m.}$ =57-144 MeV, measured energy spectra, $\sigma(\theta)$. Deduced σ , astrophysical S-factor vs. E.				
2000El08: $^{11}\text{B}(\text{d},\text{p})$ E=0.7-3.4 MeV, measured E_γ , I_γ . Deduced thick target γ -ray yields.				
2001Li42,2001Li45: $^{11}\text{B}(\text{d},\text{p})$ E=11.8 MeV, measured $\sigma(\theta)$. Deduced asymptotic normalization coefficients. ^{12}B levels deduced radii, halo features.				
2006Sz07: $^{11}\text{B}(\text{d},\text{p}\gamma)$ E=0.6-2 MeV, measured E_γ , I_γ . Deduced γ -ray production σ .				
2009Ko09: $^{11}\text{B}(\text{d},\text{p})$ E=900-1200 keV, measured $\sigma(\theta, E)$.				
2010Le02: $^2\text{H}(^{11}\text{B},\text{p})$ E=81 MeV, measured proton and ^{12}B particle spectra $\sigma(\theta)$. ^{12}B deduced levels, J, π , l -transfers.				
2010Zh03: $^{11}\text{B}(\text{d},\text{p})$, measured β -NMR spectra; deduced magnetic moments.				

 ^{12}B Levels

E(level) [†]	J $^\pi$	$T_{1/2}$ or Γ	L	S	Comments
0	1 ⁺		1	0.69	
953.14 60	2 ⁺	180 fs 28	1	0.55	
1673.65 60	2 ⁻	<35 fs	0	0.57	
2620.8 12	1 ⁻	<49 fs	0	0.75	
2723 11	0 ⁺		1	0.21	
3383 9	3 ⁻		2	0.58	$\Gamma_n/\Gamma_\gamma=95.5$.
3.76×10^3	2 ⁺		1		
4.30×10^3 ‡	1 ⁻		2		
4.52×10^3			2		
10199#		9 keV 3			
10564#		11 keV 4			
10880#		16 keV 6			

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$^{11}\text{B}(\text{d},\text{p}\gamma), ^2\text{H}(^{11}\text{B},\text{p})$ 1980Aj01,1994Ma05,2010Le02 (continued) ^{12}B Levels (continued)

† See discussion and references in (1980Aj01).

‡ From (2010Le02).

From (1994Ma05).

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ
953.14	2 ⁺	953.10	100	0	1 ⁺	E2+M1	-0.08 6
1673.65	2 ⁻	720.34	3.2 4	953.14	2 ⁺		
		1673.52	96.8 4	0	1 ⁺		
2620.8	1 ⁻	947.11	14 3	1673.65	2 ⁻		
		1667.54	80 3	953.14	2 ⁺		
		2620.5	6 1	0	1 ⁺		
2723	0 ⁺	2722.7	>85	0	1 ⁺		

 $^{11}\text{B}(\text{d},\text{p}\gamma), ^2\text{H}(^{11}\text{B},\text{p})$ 1980Aj01,1994Ma05,2010Le02Level Scheme

Intensities: % photon branching from each level

