

$^{199}\text{Bi}$        $Z = 83$        $N = 116$       adopted link    ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE      =    1562.055 ( 0.011) MeV  
Qbeta+ =     4.434 ( 0.013) MeV

	Energy	T	J+	J-	J-other		T1/2
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S-alpha=	-4.933 ( 0.015)-						
199BI 1			0.000	9/2-			1 27 M 1
199BI 2					0.667 (1/2+)		2 24.70 M 15
199BI 3					0.846 (5/2)-		3
199BI 4					0.880 (7/2)-		4
199BI 5					0.913 (3/2+)		5
199BI 6			1.002	13/2-			6
199BI 7			1.034	11/2-			7
199BI 8					1.119 (5/2+)		8
199BI 9					1.197 (11/2,13/2)-		9
199BI 10					1.248 (-)		10
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199BI 11					1.321 (-)		11
199BI 12					1.396 (13/2)+		12
199BI 13					1.459 (1/2+,3/2+,5/2+)		13)
199BI 14			1.502	17/2-			14
199BI 15					1.524		15
199BI 16					1.619		16
199BI 17					1.636 (13/2)+		17
199BI 18	1.648		17/2+				18 34.1 NS 24
199BI 19					1.663		19
199BI 20					1.683		20
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199BI 21					1.706		21
199BI 22					1.822		22
199BI 23					1.922 (21/2+)		23 50 NS LT

S-p      =    2.019 ( 0.014)-  
S-n      =    9.495 ( 0.030)-  
S-2p     =    7.021 ( 0.017)-  
S-2n     =    17.253 ( 0.013)-  
S-alpha= -4.933 ( 0.015)-

S+p      =   -3.433 ( 0.013)  
S+n      =   -7.644 ( 0.025)  
S+2p     =   -4.570 ( 0.013)  
S+2n     =   -16.774 ( 0.016)  
S+alpha   =    6.210 ( 0.015)

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gap p      = -1.414 ( 0.019)
gap n      =  1.851 ( 0.039)
gap 2p     =  2.452 ( 0.022)
gap 2n     =  0.479 ( 0.021)
gap alpha =  1.277 ( 0.021)
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