

^{142}Pr $Z = 59$ $N = 83$ adopted link ENSDF link

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

BE = 1183.755 (0.002) MeV
 Qbeta- = 2.164 (0.002) MeV
 Qbeta+ = 0.747 (0.003) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-0.302 (0.002)				
142PR 1			0.000 2-		1 19.12 H 4
142PR 2			0.004 5-		2 14.6 M 5
142PR 3			0.018 3-		3
142PR 4			0.064 6-		4
142PR 5			0.072 4-		5
142PR 6			0.085 1-		6
142PR 7				0.090 (6-)	7
142PR 8			0.128 5-		8
142PR 9			0.145 4-		9
142PR 10				0.154	10

142PR 11				0.177 (3)-	11
142PR 12				0.201 (2)-	12
142PR 13				0.358 (7)-	13
142PR 14				0.631	14
142PR 15			0.637 4-		15
142PR 16				0.665	16
142PR 17				0.682	17
142PR 18				0.702	18
142PR 19				0.705 3-,4-	19
142PR 20				0.747 2-,3-	20

142PR 21				0.767	21
142PR 22				0.790 3-,2-	22
142PR 23				0.823 2-,3-	23
142PR 24				0.890	24
142PR 25				0.911 (9+)	25 61 NS 6
142PR 26				0.978 2-,3-	26
142PR 27				1.042 2-,3-	27
142PR 28				1.072	28
142PR 29				1.112	29
142PR 30				1.115	30

142PR 31				1.120 3-,4-	31
142PR 32				1.151 2-,3-,4-	32
142PR 33				1.157	33
142PR 34				1.159	34
142PR 35				1.176	35

142PR 36				1.182	36
142PR 37				1.200	37
142PR 38				1.220	38
142PR 39				1.237	39
142PR 40				1.251	40

142PR 41				1.263	41
142PR 42				1.291	42
142PR 43				1.347	43
142PR 44				1.363	44
142PR 45				1.382	45
142PR 46				1.394	46
142PR 47				1.403	47
142PR 48				1.429	48
142PR 49				1.445	49
142PR 50				1.460	50

142PR 51				1.466	51
142PR 52				1.471	52
142PR 53				1.495	53
142PR 54				1.499	54
142PR 55				1.512	55
142PR 56				1.518	56
142PR 57				1.527	57
142PR 58				1.538	58
142PR 59				1.540	59
142PR 60				1.556	60

142PR 61				1.564	61
142PR 62				1.567	62
142PR 63				1.591	63
142PR 64				1.599	64
142PR 65				1.616	65
142PR 66				1.623	66
142PR 67				1.640	67
142PR 68				1.650	68
142PR 69				1.666	69
142PR 70				1.679	70

142PR 71				1.684	71
142PR 72				1.693	72
142PR 73				1.709	73
142PR 74				1.722	74
142PR 75				1.734	75
142PR 76				1.747	76
142PR 77				1.753	77
142PR 78				1.759	78
142PR 79				1.764	79
142PR 80				1.769	80

142PR 81				1.785	81
142PR 82				1.793	82
142PR 83				1.798	83
142PR 84				1.807	84
142PR 85				1.814	85
142PR 86				1.824	86
142PR 87				1.826	87
142PR 88				1.831	88
142PR 89				1.842	89
142PR 90				1.866	90

142PR 91				1.876	91
142PR 92				1.880	92
142PR 93				1.884	93
142PR 94				1.896	94
142PR 95				1.902	95
142PR 96				1.914	96
142PR 97				1.920	97
142PR 98				1.923	98
142PR 99				1.928	99
142PR 100				1.932	100

142PR 101				1.941	101
142PR 102				1.950	102
142PR 103				1.954	103
142PR 104				1.959	104
142PR 105				1.969	105
142PR 106				1.971	106
142PR 107				1.975	107
142PR 108				1.980	108
142PR 109				1.985	109
142PR 110				1.993	110

142PR 111				2.013	111
142PR 112				2.017	112
142PR 113				2.023	113
142PR 114				2.028	114
142PR 115				2.031	115
142PR 116				2.037	116
142PR 117				2.043	117
142PR 118				2.048	118
142PR 119				2.053	119
142PR 120				2.058	120

142PR 121				2.061	121
142PR 122				2.067	122
142PR 123				2.071	123
142PR 124				2.075	124
142PR 125				2.081	125
142PR 126				2.092	126

142PR 127			2.097	127
142PR 128			2.101	128
142PR 129			2.107	129
142PR 130			2.115	130

142PR 131			2.127	131
142PR 132			2.129	132
142PR 133			2.133	133
142PR 134			2.142	134
142PR 135			2.148	135
142PR 136			2.151	136
142PR 137			2.153	137
142PR 138			2.165	138
142PR 139			2.168	139
142PR 140			2.179	140

142PR 141			2.183	141
142PR 142			2.185	142
142PR 143			2.189	143
142PR 144			2.191	144
142PR 145			2.193	145
142PR 146			2.197	146
142PR 147			2.201	147
142PR 148			2.212	148
142PR 149			2.214	149
142PR 150			2.223	150

142PR 151			2.228	151
142PR 152			2.233	152
142PR 153			2.241	153
142PR 154			2.244	154
142PR 155			2.252	155
142PR 156			2.255	156
142PR 157			2.261	157
142PR 158			2.268	158
142PR 159			2.274	159
142PR 160			2.277	160

142PR 161			2.278	161
142PR 162			2.280	162
142PR 163			2.286	163
142PR 164			2.293	164
142PR 165			2.308	165
142PR 166			2.310	166
142PR 167			2.316	167
142PR 168			2.320	168
142PR 169			2.329	169
142PR 170			2.334	170

142PR 171			2.591	171

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S-p    =  5.644 ( 0.002)-----
S-n    =  5.843 ( 0.002)-----
S-2p   = 14.052 ( 0.002)-----
S-2n   = 15.243 ( 0.006)-----
S-alpha= -0.302 ( 0.002)-----

S+p    = -7.505 ( 0.002)
S+n    = -7.353 ( 0.002)
S+2p   = -12.208 ( 0.003)
S+2n   = -13.107 ( 0.003)
S+alpha =  1.907 ( 0.005)

gap p   = -1.861 ( 0.003)
gap n   = -1.510 ( 0.003)
gap 2p  =  1.844 ( 0.004)
gap 2n  =  2.136 ( 0.007)
gap alpha =  1.605 ( 0.005)
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