

Target isotope:  $^{144}_{62}\text{Sm}$   $I^\pi_\circ = 0^+$  Abundance: 3.07(7) %  $S_p = 3314.7(27)$  keV

**$^{145}_{63}\text{Eu}(\text{p})$**

$E_\circ$	$2J^\pi$	$\Gamma_\text{p}$	$\Gamma$	$E^*_{\text{analog}}$	$S_{\text{pp}}$	$S_{\text{dp}}$	$E_{\text{cm}}$	$E^*$	Ref.			
[keV]		[keV]	[keV]	[keV]			[keV]	[keV]				
9288(10)	$7^-$	7	43	0.0	0.98	0.58	9224	12539(10)	66Ma26	68Ha0A	72Se07	77Cl02
10170(10)	$3^-$	22	70	894	0.50	0.34	10100	13415(10)	66Ma26	68Ha0A	72Se07	77Cl02
10780(20)	$9^-$	0.7	47	1423	0.55	0.31	10706	14020(20)				77Cl02
10940(20)	$1^-$	31.5	90	1608	0.41	0.40	10865	14179(20)	66Ma26	68Ha0A	72Se07	77Cl02
10973(10)	$5^-$	4.1	51	1658	0.13	0.11	10897	14212(10)	66Ma26	68Ha0A		77Cl02
11140(20)	$9^-$	0.3	50	1784	0.18	0.07	11063	14378(20)				77Cl02
11220(20)	$7^-$	1.7	36	1876	0.04	0.08	11143	14457(20)				77Cl02
11320(20)	$3^-$	9.7	62	1972	0.10		11242	14557(20)				77Cl02
11340(20)	$5^-$	6.9	45	1997	0.18	0.34	11262	14576(20)	66Ma26			77Cl02
11490(20)	$3^-$	2.2	52	2112	0.02		11411	14725(20)				77Cl02
11500(20)	$1^-$	2.5	40	2138	0.03	0.10	11421	14735(20)				77Cl02
11640(20)	$\langle 3^- \rangle$	3.4	145	2297	0.03		11560	14874(20)				77Cl02
11690(20)	$5^-$	0.9	35	2349	0.02		11609	14924(20)				77Cl02
11780(20)	$5^-$	1.8	41	2429	0.04		11699	15013(20)				77Cl02
12040(20)	$7^-$	0.9	40	2690	0.02		11957	15272(20)				77Cl02
12160(20)	$\langle 5^- \rangle$	0.9	120	2724	0.02	0.08	12076	15391(20)				77Cl02
12350(20)	$\langle 11^- \rangle$	0.5	120	3018	0.12		12265	15580(20)				77Cl02
12430(20)	$1^-$	5.1	78	3092	0.05		12344	15659(20)				77Cl02
12490(20)	$3^-$	5.5	85	3132	0.04	0.09	12404	15719(20)				77Cl02

Additional data on this isotope can be found in [86Pe09, 73Ma31, 68Ha02, 67Jo04, 66Jo02, 66Lo06, 66Me10, 65Mo18].

Target isotope:  $^{148}_{62}\text{Sm}$   $I^\pi_\circ = 0^+$  Abundance: 11.24(10) %  $S_p = 4393.9(39)$  keV

**$^{149}_{63}\text{Eu}(\text{p})$**

$E_\circ$	$2J^\pi$	$\Gamma_\text{p}$	$\Gamma$	$E^*_{\text{analog}}$	$S_{\text{pp}}$	$S_{\text{dp}}$	$E_{\text{cm}}$	$E^*$	Ref.			
[keV]		[keV]	[keV]	[keV]			[keV]	[keV]				
9944(20)	$7^-$	$\langle 30 \rangle$	$\langle 100 \rangle$	0.0			9878	14271(20)	66Ba12	72Se07		
10455(20)	$\langle 3^- \rangle$	$\langle 30 \rangle$	$\langle 100 \rangle$	529(5)			10385	14779(20)	66Ba12	72Se07		

Target isotope:  $^{150}_{62}\text{Sm}$   $I^\pi_\circ = 0^+$  Abundance: 7.38(1) %  $S_p = 4890.78(55)$  keV

**$^{151}_{63}\text{Eu}(\text{p})$**

$E_\circ$	$2J^\pi$	$\Gamma_\text{p}$	$\Gamma$	$E^*_{\text{analog}}$	$S_{\text{pp}}$	$S_{\text{dp}}$	$E_{\text{cm}}$	$E^*$	Ref.			
[keV]		[keV]	[keV]	[keV]			[keV]	[keV]				
10258(20)	$7^-$			66(5)			10190	15081(20)	66Ba12	72Se07		
10550(20)	$3^-$		$\langle 100 \rangle$				10480	15371(20)	66Ba12			