

Target isotope:  $^{89}_{39}\text{Y}$   $I^\pi = 1/2^-$  Abundance: 100 %  $S_p = 8354.8(16)$  keV

$^{90}_{40}\text{Zr}(\text{p})$

$E_o$	$J^\pi$	$\Gamma_p$	$\Gamma$	$\Gamma_\gamma$	$E^*_{\text{analog}}$	$S_{pp}$	$S_{dp}$	$E_{cm}$	$E^*$	Ref.				
[keV]		[keV]	[keV]	[eV]	[keV]			[keV]	[keV]					
4807(4)	$\langle 2^- \rangle$	3.8(5)	25.5(20)		0.0	0.70	1.03	4753	13108	73Gr08	68Du10	68Jo01	67Bl07	72Sp02
5010(4)	$\langle 3^- \rangle$	5.3(5)	27.7(20)		203	0.74	0.88	4956	13311	68Jo01	72Sp02	67Bl07	66Bl0A	73Gr08
5645					777			5585	13940	67Bl07	66Bl0A			
5800					954			5735	14090	67Bl07	66Bl0A			
5930					1048			5865	14220	67Bl07	66Bl0A			
5980(30)	$\langle 0^-, 1^- \rangle$				1212			5915	14270	69Li17	67Bl07	66Bl0A		
6025								5955	14310	67Bl07	66Bl0A			
6120								6055	14410	67Bl07	66Bl0A			
6150	$\langle 1^- \rangle$	51	105(5)	40	1371			6085	14440	69Li17	67Bl07	65Fo03	69Ma27	73Ha62
6470								6395	14750	69Li17	68Lo04			
6600								6525	14880	69Li17	68Lo04			
6650(30)	$2^-$							6575	14930	69Li17	68Lo04			
7230(30)	$1^-$	31	75(20)		2474			7195	15550	69Li17	73Ha62			73Ha62
7420	$\langle 1^- \rangle$		90(20)		2624			7335	15690	69Li17	65Fo03	64Bl09		73Ha62
7620								7595	15950	97Br34				
7880								7795	16150	97Br34				
7990								7905	16260	97Br34				
8040	$\langle 2^-, 3^- \rangle$		77(5)	85	3145			7935	16290	65Fo03	69Ma27	97Br34	64Bl09	73Ha62
9000								8945	17300	97Br34				73Ha62
11100			180(10)					11045	19400	97Br34	69Ha41			73Ha62
12550(150)			900(100)					12445	20800	67Ax0A	97Br34	69Ha41		73Ha62
13600								13445	21800	97Br34				
15500								15345	23700	97Br34				

Additional data on this isotope can be found in [92Ek02, 79Sz06, 77Di01, 75RiZH, 74Ra04, 71Um02, 70Sp0A, 69Ir01, 69Mi18, 68VaZZ, 67Li03, 66Ki08, 64Bl09, 64Fo03].