

⁷⁶Se(pol γ, γ') 2013Go19

Type	Author	History	Citation	Literature Cutoff Date
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See also ⁷⁶Se(γ, γ') dataset based on 2012Co17 paper.

2013Go19 (also 2015CoZV thesis): E(γ)=4-9 MeV polarized nearly monoenergetic photon beam produced at HI γ S facility at TUNL. Photon beam is produced by the intercavity Compton backscattering of linearly polarized free-electron laser photons with a high-energy electron beam. Target=11.96 g of 97% enriched ⁷⁶Se powder. Measured E γ , I γ , $\gamma(\theta, \phi)$ using four HPGe detectors at (θ, ϕ)=(90°,0°), (90°,90°), (90°,180°), (90°,270°), where θ =polar angle with respect to the incoming beam and ϕ =azimuthal angle measured from the polarization plane. A fifth Ge detector was placed at (θ, ϕ)=(135°,0°) to distinguish spins of the positive-parity states. Deduced levels, J, π , widths and level lifetimes, B(E1), B(M1), branching ratios. 2013Go19 state that results of ⁷⁶Se(pol γ, γ') for energy below 5 MeV will be published in a forthcoming paper. Some misprints in paper, as indicated in the dataset, have been checked with P. Goddard through e-mails of Dec 31, 2013, Jan 14, 2014.

⁷⁶Se Levels

E(level) [†]	J π [‡]	T _{1/2} [#]	Γ (meV) ^a	Comments
0.0	0 ⁺			
559.103 @ 5	2 ⁺ @			
1216.154 @ 6	2 ⁺ @			
4055.2 3	1 ⁺	29.3 fs 26	15.6 14	
4125.5 10	1 ⁺	98 fs 38	4.6 18	
4218.9 3	1 ⁺	2.98 fs 35	154 17	
4535.5 6	1 ⁺	10.1 fs 24	45 10	
4601.6 11	1 ⁻	8.0 fs 24	57 17	
4662.9 4	1 ⁻	5.4 fs 9	85 14	
4673.7 14	1 ⁺	54 fs 18	8.5 29	
4720.7 7	1 ⁻	6.4 fs 10	71 11	J ^π : 1 ⁺ in Table I of 2013Go19 is a misprint; should be 1 ⁻ according to e-mail reply of Dec 9, 2013 from P.M. Goddard.
4880.0 4	1 ⁻	19 fs 4	24 5	
4887.1 3	1 ⁻	27 fs 9	17 6	
4931.6 17	1 ⁻	79 fs 21	5.8 15	
4984.5 5	1 ⁻	6.0 fs 11	76 14	
5001.5 3	1 ⁻	8.4 fs 6	54.5 40	
5010.5 3	1 ⁻	3.7 fs 7	121 26	
5073.9 2	1 ⁻	2.43 fs 28	187 20	
5194.7 3	1 ⁻	2.29 fs 28	200 22	
5217.8 11	1 ⁻	12.1 fs 26	37.6 81	
5297.9 & 3	1 ⁽⁺⁾	13.7 fs 8	33.4 20	
5298.6 & 2	1 ⁻	3.56 fs 23	128 8	
5324.0 4	1 ⁻	3.12 fs 35	147 17	
5346.2 4	1 ⁻	3.5 fs 8	133 30	
5375.8 4	1 ⁻	1.46 fs 14	319 35	
5405.2 18	1 ⁻	26 fs 8	17.7 55	
5412.6 14	1 ⁻	1.5 fs 4	319 35	
5425.3 6	1 ⁻	3.6 fs 5	127 18	
5551.8 15	1 ⁻	9.4 fs 24	48 12	
5629.8 15	1 ⁻	24 fs 8	18.7 58	
5637.7 15	1 ⁻	24 fs 8	19 6	
5669.2 15	1 ⁻	22 fs 8	20.9 74	
5685.5 4	1 ⁻	8.0 fs 7	57.4 51	
5709.8 5	1 ⁻	7.4 fs 7	61.9 57	
5740.7 5	1 ⁻	5.6 fs 5	81.1 66	
5762.0 10	1 ⁻	15.7 fs 34	29 6	
5773.3 20	1 ⁻	17.1 fs 26	26.6 40	

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$^{76}\text{Se}(\text{pol } \gamma, \gamma')$ **2013Go19** (continued) ^{76}Se Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} [#]	Γ (meV) ^a	Comments
5781.2 2	1 ⁻	4.4 fs 10	102 22	
5803.6 7	1 ⁻	2.6 fs 6	178 43	
5813.9 5	1 ⁻	8.0 fs 8	57.2 54	
5842.2 3	1 ⁻	2.1 fs 6	221 65	
5865.3 7	1 ⁻	7.6 fs 11	59.8 85	
5879.6 7	1 ⁻	14.8 fs 19	31 4	
5892.1 6	1 ⁻	3.4 fs 6	136 24	
5998.7 14	1 ⁻	5.3 fs 12	85 19	
6035.7 5	1 ⁻	2.6 fs 4	174 26	
6099.2 6	1 ⁻	2.8 fs 5	164 27	Mean lifetime $\tau=4.00$ fs 7 in Table I of 2013Go19 should be 4.0 fs 7.
6131.5 6	1 ⁻	11.5 fs 18	39.6 61	
6156.6 14	1 ⁻	55 fs 10	84 15	
6165.1 11	1 ⁻	21 fs 6	22.3 66	
6196.2 11	1 ⁻	10.0 fs 13	45.7 61	
6208.7 15	1 ⁻	5.0 fs 10	91 18	
6242.7 6	1 ⁻	2.6 fs 11	175 76	
6250.7 5	1 ⁻	5.8 fs 15	79 20	
6297.9 14	1 ⁻	10.0 fs 15	45.8 66	
6315.9 4	1 ⁻	5.1 fs 12	91 23	
6336.8 20	1 ⁻	2.1 fs 10	69 35	
6342.6 11	1 ⁻	0.28 fs 7	144×10 ¹ 35	
6387.5 14	1 ⁻	6.7 fs 10	68 11	
6449.0 20	1 ⁻	6.1 fs 10	75 12	
6497.7 6	1 ⁻	2.2 fs 7	210 65	
6532.7 4	1 ⁻	3.05 fs 28	150 14	
6551.0 3	1 ⁺	11.0 fs 19	41.6 74	
6562.9 9	1 ⁻	7.69 fs 28	59 3	
6570.4 9	1 ⁻	4.9 fs 6	95 13	
6596.2 7	1 ⁻	5.5 fs 7	83 10	
6608.5 9	1 ⁻	6.0 fs 8	76 10	
6633.2 12	1 ⁻	1.39 fs 28	327 50	
6641.3 17	1 ⁻	5.5 fs 12	84 18	
6653.7 14	1 ⁻	3.3 fs 7	136 27	
6680.0 18	1 ⁻	6.1 fs 7	75 17	
6691.5 8	1 ⁻	10.2 fs 17	44.7 74	
6700.3 20	1 ⁻	8.2 fs 21	56 14	
6709.0 21	1 ⁻	9.1 fs 25	51 14	
6736.2 15	1 ⁻	9.1 fs 25	50 14	
6743.5 3	1 ⁻	1.11 fs 14	401 39	
6749.2 5	1 ⁻	1.32 fs 21	532 51	E(level): 6751.2 listed in table I of 2013Go19 should be 6749.2.
6813.9 20	1 ⁻	16 fs 6	24.1 71	
6830.2 15	1 ⁻	8.3 fs 18	55 12	
6882.2 14	1 ⁻	1.52 fs 28	296 59	
6908.3 20	1 ⁻	15 fs 4	29.9 78	
6913.3 17	1 ⁺	14 fs 4	33 11	
6922.2 18	1 ⁻	12.6 fs 33	36.1 94	
6970.3 5	1 ⁻	4.0 fs 9	115 26	
6992.8 5	1 ⁻	3.3 fs 5	130 18	
7018.0 18	1 ⁻	11 fs 5	41 17	
7025.0 20	1 ⁺	12 fs 4	37 13	
7047.4 15	1 ⁺	14 fs 5	33 11	
7053.1 19	1 ⁻	12.5 fs 37	36 11	
7093.1 20	1 ⁻	11.2 fs 30	41 11	
7101.1 19	1 ⁻	11.4 fs 35	40 12	
7110.1 19	1 ⁺	10.0 fs 29	46 13	

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⁷⁶Se(pol γ, γ') 2013Go19 (continued)

⁷⁶Se Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} [#]	Γ (meV) ^a	Comments
7114.0 19	1 ⁻	2.9 fs 10	115 51	
7127.7 13	1 ⁻	0.80 fs 21	57×10 ¹ 15	T _{1/2} : mean lifetime τ=2.9 fs 2 listed in Table I of 2013Go19 should be 1.15 fs 30.
7156.0 17	1 ⁻	7.6 fs 21	61 17	
7168.1 18	1 ⁻	11.8 fs 35	39 11	
7195.6 14	1 ⁻	6.3 fs 18	72 21	
7225.6 20	1 ⁻	6.0 fs 15	77 19	
7241.6 7	1 ⁻	4.9 fs 10	94 19	
7292.8 15	1 ⁻	4.0 fs 10	115 31	
7324.6 18	1 ⁻	8.3 fs 24	56 16	
7335.0 20	1 ⁻	10.3 fs 33	44 14	
7342.2 14	1 ⁻	4.6 fs 12	99 26	
7362.2 21	1 ⁻	12 fs 4	37 12	
7392.6 8	1 ⁻	13 fs 4	35 11	
7406.4 15	1 ⁻	2.4 fs 12	188 99	
7427.1 14	1 ⁻	4.2 fs 11	108 28	
7455.5 13	1 ⁻	2.6 fs 6	178 46	
7464.7 18	1 ⁻	1.8 fs 6	252 88	
7508.4 8	1 ⁻	4.0 fs 5	114 24	
7522.1 7	1 ⁻	1.18 fs 21	396 71	
7546.9 6	1 ⁻	1.66 fs 14	280 29	
7580.5 16	1 ⁻	8.3 fs 23	55 16	
7617.2 17	1 ⁻	5.5 fs 11	83 17	
7627.8 15	1 ⁻	4.1 fs 8	111 20	
7643.3 17	1 ⁻	7.5 fs 19	61 15	
7652.9 17	1 ⁻	4.1 fs 8	110 22	
7658.7 2	1 ⁻	6.4 fs 10	71 12	
7698.6 9	1 ⁻	0.97 fs 28	46×10 ¹ 14	
7729.7 16	1 ⁻	3.7 fs 8	122 25	
7781.6 18	1 ⁻	6.9 fs 22	67 22	
7817.4 10	1 ⁻	9.7 fs 35	47 17	
7830.0 9	1 ⁻	9.0 fs 35	50 20	
7866.1 17	1 ⁻	8.3 fs 27	55 18	
7890.9 18	1 ⁻	7.8 fs 25	59 19	
7920.1 17	1 ⁻	5.1 fs 16	90 28	
7927.6 17	1 ⁻	5.3 fs 17	87 27	
7952.0 21	1 ⁻	7.1 fs 24	64 21	
7960.3 18	1 ⁻	5.9 fs 19	77 24	
7978.9 8	1 ⁻	3.3 fs 8	139 34	
8017.9 23	1 ⁻	6.6 fs 21	69 23	
8062.5 22	1 ⁻	5.4 fs 17	85 27	
8084.7 26	1 ⁻	2.3 fs 8	22×10 ¹ 10	
8107.3 22	1 ⁻	5.7 fs 17	80 25	
8132.1 22	1 ⁻	5.7 fs 17	79 24	
8154.9 21	1 ⁻	6.5 fs 19	70 21	
8170.1 22	1 ⁻	6.0 fs 17	76 22	
8197.5 13	1 ⁻	0.76 fs 14	58×10 ¹ 12	
8210.5 20	1 ⁻	4.0 fs 10	114 29	
8222.5 20	1 ⁻	2.5 fs 6	183 45	
8251.9 23	1 ⁻	12 fs 5	37 15	
8288.5 23	1 ⁻	3.6 fs 9	127 32	
8316.7 22	1 ⁻	6.1 fs 21	75 25	
8340.7 10	1 ⁻	4.4 fs 13	104 31	
8394.9 19	1 ⁻	2.50 fs 35	180 26	
8453.5 21	1 ⁻	2.8 fs 7	162 60	

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⁷⁶Se(pol γ, γ') **2013Go19** (continued)

⁷⁶Se Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} [#]	Γ (meV) [@]	E(level) [†]	J ^π [‡]	T _{1/2} [#]	Γ (meV) [@]
8486.5 18	1 ⁻	0.91 fs 23	50×10 ¹ 12	8719.5 21	1 ⁻	3.0 fs 10	154 54
8526.5 5	1 ⁻	0.48 fs 10	95×10 ¹ 21	8770.9 23	1 ⁻	1.9 fs 6	236 67
8540.9 20	1 ⁻	0.94 fs 17	488 91	8843.8 18	1 ⁻	0.83 fs 42	56×10 ¹ 29
8571.7 19	1 ⁻	1.7 fs 5	270 71	8864.8 20	1 ⁻	2.9 fs 9	158 50
8590.1 20	1 ⁻	2.3 fs 8	199 64	8890.8 19	1 ⁻	2.1 fs 6	209 60
8654.9 19	1 ⁻	2.0 fs 6	228 68	8918.8 19	1 ⁻	2.1 fs 6	221 64
8709.9 13	1 ⁻	1.66 fs 28	274 42	8935.6 20	1 ⁻	2.6 fs 8	178 56

[†] From a least-squares fit to γ -ray energies, unless otherwise noted.

[‡] From 2013Go19, parity from measured polarization asymmetry. J^π=1⁺ levels near 4 MeV are interpreted as Scissors mode excitation while those near 7 MeV are attributed to M1 spin-flip resonance excitation. All the 1⁻ states are interpreted as Pygmy-dipole resonances (PDR) on the low-energy tail of E1 Giant Dipole Resonance (GDR).

[#] Deduced by 2013Go19 from level widths.

[@] From Adopted Levels.

[&] 5297.9 and 5298.4 form a doublet with opposite parities. Energy difference in the fitted peak position is 0.7 keV 3. Total integrated σ =66.6 eVb 42 in Darmstadt experiment (2012Co17). From the present data separate cross sections are estimated as: 53 eVb 3 for 5298.6 level and 13.7 eVb 8 for 5297.9 level. The ordering of the two levels as M1 and E1 has been double-checked by P. Goddard in e-mail reply of Jan 6, 2014.

^a Values are from 2013Go19, deduced from integrated cross sections and gamma-ray branching ratios.

$\gamma(^{76}\text{Se})$

Polarization asymmetry values POL are displayed in Fig. 2 of 2013Go19. Numerical values listed here were obtained in e-mail reply of Dec 9, 2013 from P.M. Goddard. Expected values are -0.77 2 for negative-parity J=1 states and +0.94 6 for positive-parity J=1 states, using the geometry stated in 2013Go19. Deviations from these values are due to detection sensitivity or peak-resolution issues, still the parities of such states are firmly assigned from the plane in which the scattered gamma rays are observed.

B(E1)_↓ and B(M1)_↓ values are deduced from corresponding B(E1)_↑ and B(M1)_↑ values listed in Table I of 2013Go19 .

B(E1,M1)_↓=(1/3)B(E1,M1)_↑ for 1 to 0 transition, and (5/3)B(E1,M1)_↑ for 1 to 2 transition. Units of B(E1) have been converted to e²b here, consistent with those used in ENSDF database.

E _i (level)	J _i ^π	E _γ [†]	I _γ	E _f	J _f ^π	Mult. [#]	Comments
4055.2	1 ⁺	4055.1 3		0.0	0 ⁺	M1	B(M1) _↓ =0.0202 26 POL=+0.82 18.
4125.5	1 ⁺	4125.4 10		0.0	0 ⁺	M1	B(M1) _↓ =0.0057 23 POL=+1.64 68.
4218.9	1 ⁺	3659.6 2 4218.8 3	51 6 49 6	559.103	2 ⁺ 0 ⁺	[M1] M1	B(M1) _↓ =0.139 15 B(M1) _↓ =0.086 10 POL=+0.99 4.
4535.5	1 ⁺	3977.2 11 4535.4 6	40 9 60 11	559.103	2 ⁺ 0 ⁺	[M1] M1	B(M1) _↓ =0.024 8 B(M1) _↓ =0.0250 27 POL=+0.94 12.
4601.6	1 ⁻	4601.5 [‡] 11		0.0	0 ⁺	E1	B(E1) _↓ =0.56×10 ⁻⁵ 17 POL=-0.52 27.
4662.9	1 ⁻	4104.2 5 4662.7 4	24 4 76 10	559.103	2 ⁺ 0 ⁺	[E1] E1	B(E1) _↓ =0.28×10 ⁻⁵ 5 B(E1) _↓ =0.61×10 ⁻⁵ 8 POL=-0.95 7.
4673.7	1 ⁺	4673.5 [‡] 14		0.0	0 ⁺	M1	B(M1) _↓ =0.0072 24 POL=+1.28 49.
4720.7	1 ⁻	4160.7 4	60 9	559.103	2 ⁺	E1	B(E1) _↓ =0.57×10 ⁻⁵ 8 I _γ : 0.6 9 in Table I of 2013Go19 should be 0.60 9.

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⁷⁶Se(pol γ, γ') **2013Go19 (continued)**

$\gamma(^{76}\text{Se})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.#</u>	<u>Comments</u>
4720.7	1 ⁻	4720.5 7	40 7	0.0	0 ⁺	E1	B(E1) \downarrow =0.26 \times 10 ⁻⁵ 4 I _{γ} : 0.4 7 in Table I of 2013Go19 should be 0.40 7. POL=-1.14 49.
4880.0	1 ⁻	4879.8 4		0.0	0 ⁺	E1	B(E1) \downarrow =0.20 \times 10 ⁻⁵ 4 POL=-0.95 11.
4887.1	1 ⁻	4886.9 3		0.0	0 ⁺	E1	B(E1) \downarrow =0.14 \times 10 ⁻⁵ 5 POL=-1.18 20.
4931.6	1 ⁻	4931.4 17		0.0	0 ⁺	E1	B(E1) \downarrow =0.050 \times 10 ⁻⁵ 17 POL=-0.48 41.
4984.5	1 ⁻	4426.1 5 4984.3 5	42 8 58 8	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.35 \times 10 ⁻⁵ 7 B(E1) \downarrow =0.34 \times 10 ⁻⁵ 5 POL=-1.12 23.
5001.5	1 ⁻	5001.3 \ddagger 3		0.0	0 ⁺	E1	B(E1) \downarrow =0.42 \times 10 ⁻⁵ 4 POL=-0.87 9.
5010.5	1 ⁻	4451.8 3 5010.3 3	25 5 75 7	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.33 \times 10 ⁻⁵ 7 B(E1) \downarrow =0.69 \times 10 ⁻⁵ 7 POL=-1.00 7.
5073.9	1 ⁻	4515.8 3 5073.7 2	26 3 74 7	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.50 \times 10 ⁻⁵ 5 B(E1) \downarrow =1.02 \times 10 ⁻⁵ 9 POL=-0.95 4.
5194.7	1 ⁻	4635.1 3 5194.5 3	40 4 60 6	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.78 \times 10 ⁻⁵ 8 B(E1) \downarrow =0.81 \times 10 ⁻⁵ 8 POL=-0.72 9.
5217.8	1 ⁻	5217.6 \ddagger 11		0.0	0 ⁺	E1	B(E1) \downarrow =0.25 \times 10 ⁻⁵ 5 POL=-0.62 23.
5297.9	1 ⁽⁺⁾	5297.7 \ddagger 3		0.0	0 ⁺	(M1)	B(M1) \downarrow =0.0194 11 E _{γ} : from level energy with recoil correction removed. E _{γ} =5298.4 2 is listed by 2013Go19 , same as for 5298.6 level.
5298.6	1 ⁻	5298.4 2		0.0	0 ⁺	E1	B(E1) \downarrow =0.82 \times 10 ⁻⁵ 5 POL=-0.64 4.
5324.0	1 ⁻	4766.9 \ddagger 10 5323.8 4	40 6 60 6	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.52 \times 10 ⁻⁵ 8 B(E1) \downarrow =0.55 \times 10 ⁻⁵ 8 POL=-0.88 11.
5346.2	1 ⁻	4131.5 9 4788.0 3 5346.0 4	21 4 24 4 55 7	1216.154 559.103 0.0	2 ⁺ 2 ⁺ 0 ⁺	[E1] [E1] E1	B(E1) \downarrow =0.38 \times 10 ⁻⁵ 7 B(E1) \downarrow =0.28 \times 10 ⁻⁵ 5 B(E1) \downarrow =0.46 \times 10 ⁻⁵ 6 POL=-0.54 11.
5375.8	1 ⁻	4816.1 2 5375.6 4	55 6 45 5	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =1.48 \times 10 ⁻⁵ 17 B(E1) \downarrow =0.89 \times 10 ⁻⁵ 10 POL=-0.55 8.
5405.2	1 ⁻	5405.0 \ddagger 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 3 E _{γ} : 5405 18 in table I of 2013Go19 should be 5405.0 18. POL=-0.47 18.
5412.6	1 ⁻	4852.0 3 5412.4 14	78 21 22 8	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =1.9 \times 10 ⁻⁵ 5 B(E1) \downarrow =0.39 \times 10 ⁻⁵ 14 POL=-0.54 17.
5425.3	1 ⁻	4865.9 3 5425.1 6	50 7 50 7	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.52 \times 10 ⁻⁵ 7 I _{γ} : 0.5 7 in Table I of 2013Go19 should be 0.50 7. B(E1) \downarrow =0.38 \times 10 ⁻⁵ 5 I _{γ} : 0.5 7 in Table I of 2013Go19 should be 0.50 7. POL=-0.97 22.

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⁷⁶Se(pol γ, γ') **2013Go19** (continued)

$\gamma(^{76}\text{Se})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult. #</u>	<u>Comments</u>
5551.8	1 ⁻	5551.6 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.27 \times 10 ⁻⁵ 7 POL=-0.61 17.
5629.8	1 ⁻	5629.6 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.10 \times 10 ⁻⁵ 3 POL=-0.45 22.
5637.7	1 ⁻	5637.5 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.10 \times 10 ⁻⁵ 3 POL=-0.8 5.
5669.2	1 ⁻	5669.0 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 4 POL=-0.41 33.
5685.5	1 ⁻	5685.3 4		0.0	0 ⁺	E1	B(E1) \downarrow =0.30 \times 10 ⁻⁵ 4 POL=-0.66 10.
5709.8	1 ⁻	5709.6 5		0.0	0 ⁺	E1	B(E1) \downarrow =0.32 \times 10 ⁻⁵ 4 POL=-0.72 12.
5740.7	1 ⁻	5740.5 5		0.0	0 ⁺	E1	B(E1) \downarrow =0.41 \times 10 ⁻⁵ 5 POL=-0.77 10.
5762.0	1 ⁻	5761.8 [‡] 10		0.0	0 ⁺	E1	B(E1) \downarrow =0.14 \times 10 ⁻⁵ 3 POL=-1.29 30.
5773.3	1 ⁻	5773.1 10		0.0	0 ⁺	E1	B(E1) \downarrow =0.133 \times 10 ⁻⁵ 27 POL=-1.07 32.
5781.2	1 ⁻	5781.0 2		0.0	0 ⁺	E1	B(E1) \downarrow =0.51 \times 10 ⁻⁵ 11 POL=-0.90 6.
5803.6	1 ⁻	5246.1 14 5803.4 7	64 16 36 9	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.77 \times 10 ⁻⁵ 18 B(E1) \downarrow =0.31 \times 10 ⁻⁵ 7 POL=-0.65 10.
5813.9	1 ⁻	5813.7 5		0.0	0 ⁺	E1	B(E1) \downarrow =0.28 \times 10 ⁻⁵ 4 POL=-0.78 8.
5842.2	1 ⁻	5283.8 10 5842.0 3	20 6 80 9	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.28 \times 10 ⁻⁵ 8 B(E1) \downarrow =0.85 \times 10 ⁻⁵ 30 POL=-0.94 3.
5865.3	1 ⁻	5865.1 [‡] 7		0.0	0 ⁺	E1	B(E1) \downarrow =0.28 \times 10 ⁻⁵ 4 POL=-0.84 8.
5879.6	1 ⁻	5879.4 7		0.0	0 ⁺	E1	B(E1) \downarrow =0.147 \times 10 ⁻⁵ 27 POL=-0.95 18.
5892.1	1 ⁻	5333.1 5 5891.9 6	44 8 56 9	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.77 \times 10 ⁻⁵ 18 B(E1) \downarrow =0.31 \times 10 ⁻⁵ 7 POL=-0.79 10.
5998.7	1 ⁻	5435.2 11 5998.4 14	59 13 41 11	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.30 \times 10 ⁻⁵ 7 B(E1) \downarrow =0.16 \times 10 ⁻⁵ 4 POL=-0.96 44.
6035.7	1 ⁻	5474.6 [‡] 13 6035.4 5	34 7 66 8	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.35 \times 10 ⁻⁵ 7 B(E1) \downarrow =0.49 \times 10 ⁻⁵ 9 POL=-0.76 13.
6099.2	1 ⁻	5540.2 7 6098.9 6	35 6 65 10	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.32 \times 10 ⁻⁵ 5 B(E1) \downarrow =0.45 \times 10 ⁻⁵ 7 POL=-0.63 10.
6131.5	1 ⁻	6131.2 6		0.0	0 ⁺	E1	B(E1) \downarrow =0.16 \times 10 ⁻⁵ 4 POL=-0.40 12.
6156.6	1 ⁻	6156.3 [‡] 14		0.0	0 ⁺	E1	B(E1) \downarrow =0.34 \times 10 ⁻⁵ 6 POL=-0.55 12.
6165.1	1 ⁻	6164.8 [‡] 11		0.0	0 ⁺	E1	B(E1) \downarrow =0.090 \times 10 ⁻⁵ 27 POL=-0.49 18.
6196.2	1 ⁻	6195.9 [‡] 11		0.0	0 ⁺	E1	B(E1) \downarrow =0.18 \times 10 ⁻⁵ 3 POL=-0.24 24.

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⁷⁶Se(pol γ,γ') 2013Go19 (continued)

γ(⁷⁶Se) (continued)

E _i (level)	J _i ^π	E _γ [†]	I _γ	E _f	J _f ^π	Mult. #	Comments
6208.7	1 ⁻	6208.4 [‡] 15		0.0	0 ⁺	E1	B(E1)↓=0.36×10 ⁻⁵ 7 POL=-0.84 17.
6242.7	1 ⁻	6242.4 6		0.0	0 ⁺	E1	B(E1)↓=0.7×10 ⁻⁵ 3 POL=-1.36 47.
6250.7	1 ⁻	6250.4 5		0.0	0 ⁺	E1	B(E1)↓=0.31×10 ⁻⁵ 8 POL=-1.00 17.
6297.9	1 ⁻	6297.6 14		0.0	0 ⁺	E1	B(E1)↓=0.18×10 ⁻⁵ 4 POL=-1.21 42.
6315.9	1 ⁻	6315.6 4		0.0	0 ⁺	E1	B(E1)↓=0.34×10 ⁻⁵ 9 POL=-1.15 16.
6336.8	1 ⁻	6336.5 20		0.0	0 ⁺	E1	B(E1)↓=0.26×10 ⁻⁵ 5 POL=-0.72 15.
6342.6	1 ⁻	5783.3 [‡] 3 6342.3 11	72 10 28 5	559.103	2 ⁺ 0 ⁺	[E1] E1	B(E1)↓=5.6×10 ⁻⁵ 11 B(E1)↓=1.5×10 ⁻⁵ 3 POL=-0.75 17.
6387.5	1 ⁻	6387.2 14		0.0	0 ⁺	E1	B(E1)↓=0.25×10 ⁻⁵ 5 POL=-0.59 22.
6449.0	1 ⁻	6448.7 20		0.0	0 ⁺	E1	B(E1)↓=0.27×10 ⁻⁵ 7 POL=-0.95 39.
6497.7	1 ⁻	6497.4 6		0.0	0 ⁺	E1	B(E1)↓=0.73×10 ⁻⁵ 23 POL=-0.67 19.
6532.7	1 ⁻	6532.4 4		0.0	0 ⁺	E1	B(E1)↓=0.51×10 ⁻⁵ 7 POL=-0.91 7.
6551.0	1 ⁺	6550.7 3		0.0	0 ⁺	M1	B(M1)↓=0.013 3 POL=+0.39 35.
6562.9	1 ⁻	6562.6 9		0.0	0 ⁺	E1	B(E1)↓=0.200×10 ⁻⁵ 23 POL=-0.64 12.
6570.4	1 ⁻	6570.1 9		0.0	0 ⁺	E1	B(E1)↓=0.32×10 ⁻⁵ 6 POL=-0.72 11.
6596.2	1 ⁻	6595.9 7		0.0	0 ⁺	E1	B(E1)↓=0.28×10 ⁻⁵ 5 POL=-0.79 12.
6608.5	1 ⁻	6608.2 9		0.0	0 ⁺	E1	B(E1)↓=0.25×10 ⁻⁵ 5 POL=-0.56 12.
6633.2	1 ⁻	6071.8 8 6632.9 12	28 14 71 22	559.103	2 ⁺ 0 ⁺	[E1] E1	B(E1)↓=0.40×10 ⁻⁵ 18 B(E1)↓=0.77×10 ⁻⁵ 13 POL=-0.82 5.
6641.3	1 ⁻	6641.0 [‡] 17		0.0	0 ⁺	E1	B(E1)↓=0.27×10 ⁻⁵ 6 POL=-0.58 12.
6653.7	1 ⁻	6653.4 [‡] 14		0.0	0 ⁺	E1	B(E1)↓=0.44×10 ⁻⁵ 9 POL=-0.88 9.
6680.0	1 ⁻	6679.7 [‡] 18		0.0	0 ⁺	E1	B(E1)↓=0.24×10 ⁻⁵ 5 POL=-0.58 14.
6691.5	1 ⁻	6691.2 8		0.0	0 ⁺	E1	B(E1)↓=0.143×10 ⁻⁵ 23 POL=-0.49 13.
6700.3	1 ⁻	6700.0 [‡] 20		0.0	0 ⁺	E1	B(E1)↓=0.18×10 ⁻⁵ 4 POL=-0.45 19.
6709.0	1 ⁻	6708.7 [‡] 21		0.0	0 ⁺	E1	B(E1)↓=0.16×10 ⁻⁵ 4 POL=-0.41 21.
6736.2	1 ⁻	6735.9 [‡] 15		0.0	0 ⁺	E1	B(E1)↓=0.16×10 ⁻⁵ 4 POL=-0.45 21.
6743.5	1 ⁻	6182.8 7 6743.2 3	23 4 77 10	559.103	2 ⁺ 0 ⁺	[E1] E1	B(E1)↓=0.37×10 ⁻⁵ 8 B(E1)↓=0.96×10 ⁻⁵ 9 POL=-1.01 7.

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⁷⁶Se(pol γ, γ') **2013Go19** (continued)

$\gamma(^{76}\text{Se})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult. #	Comments
6749.2	1 ⁻	6190.0 6 6748.7 5	34 9 66 13	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.48 \times 10 ⁻⁵ 15 B(E1) \downarrow =0.72 \times 10 ⁻⁵ 9 POL=-1.02 20.
6813.9	1 ⁻	6813.6 \ddagger 20		0.0	0 ⁺	E1	B(E1) \downarrow =0.073 \times 10 ⁻⁵ 20 POL=-0.83 35.
6830.2	1 ⁻	6829.9 \ddagger 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.16 \times 10 ⁻⁵ 4 POL=-0.58 14.
6882.2	1 ⁻	6323.4 6 6881.9 14	46 16 54 14	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.52 \times 10 ⁻⁵ 20 B(E1) \downarrow =0.47 \times 10 ⁻⁵ 8 POL=-0.74 11.
6908.3	1 ⁻	6908.0 \ddagger 20		0.0	0 ⁺	E1	B(E1) \downarrow =0.087 \times 10 ⁻⁵ 23 POL=-0.96 56.
6913.3	1 ⁺	6913.0 \ddagger 17		0.0	0 ⁺	M1	B(M1) \downarrow =0.087 28 E_γ : 6913 17 in table I of 2013Go19 should be 6913.0 17. POL=+0.93 35.
6922.2	1 ⁻	6921.9 \ddagger 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.103 \times 10 ⁻⁵ 27 POL=-0.86 23.
6970.3	1 ⁻	6970.0 5		0.0	0 ⁺	E1	B(E1) \downarrow =0.32 \times 10 ⁻⁵ 7 POL=-0.41 11.
6992.8	1 ⁻	6992.5 5		0.0	0 ⁺	E1	B(E1) \downarrow =0.37 \times 10 ⁻⁵ 5 POL=-0.88 9.
7018.0	1 ⁻	7017.7 \ddagger 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 5 POL=-0.58 24.
7025.0	1 ⁺	7024.7 \ddagger 20		0.0	0 ⁺	M1	B(M1) \downarrow =0.093 32 POL=+0.87 37.
7047.4	1 ⁺	7047.0 \ddagger 15		0.0	0 ⁺	M1	B(M1) \downarrow =0.082 28 E_γ : 7047 15 in table I of 2013Go19 should be 7047.0 15. POL=+0.51 32.
7053.1	1 ⁻	7052.7 \ddagger 19		0.0	0 ⁺	E1	B(E1) \downarrow =0.10 \times 10 ⁻⁵ 3 POL=-0.71 19.
7093.1	1 ⁻	7092.7 \ddagger 20		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 3 POL=-0.35 18.
7101.1	1 ⁻	7100.7 \ddagger 19		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 3 POL=-0.81 22.
7110.1	1 ⁺	7109.7 \ddagger 19		0.0	0 ⁺	M1	B(M1) \downarrow =0.011 3 POL=+0.31 19.
7114.0	1 ⁻	6557.2 \ddagger 16 7113.6 \ddagger 19	51 19 49 18	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.22 \times 10 ⁻⁵ 10 B(E1) \downarrow =0.20 \times 10 ⁻⁵ 8 POL=-0.58 37.
7127.7	1 ⁻	6570.6 \ddagger 19 7127.3 \ddagger 13	23 17 77 23	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.43 \times 10 ⁻⁵ 33 B(E1) \downarrow =1.17 \times 10 ⁻⁵ 47 POL=-0.89 7.
7156.0	1 ⁻	7155.6 \ddagger 17		0.0	0 ⁺	E1	B(E1) \downarrow =0.16 \times 10 ⁻⁵ 4 POL=-0.51 15.
7168.1	1 ⁻	7167.7 \ddagger 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.10 \times 10 ⁻⁵ 3 POL=-0.27 18.
7195.6	1 ⁻	7195.2 \ddagger 14		0.0	0 ⁺	E1	B(E1) \downarrow =0.19 \times 10 ⁻⁵ 5 POL=-0.79 16.
7225.6	1 ⁻	7225.2 \ddagger 20		0.0	0 ⁺	E1	B(E1) \downarrow =0.19 \times 10 ⁻⁵ 5 POL=-0.92 20.

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⁷⁶Se(pol γ, γ') **2013Go19 (continued)**

$\gamma(^{76}\text{Se})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult. #</u>	<u>Comments</u>
7241.6	1 ⁻	7241.2 7		0.0	0 ⁺	E1	B(E1) \downarrow =0.24 \times 10 ⁻⁵ 5 POL=-0.84 8.
7292.8	1 ⁻	7292.4 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.28 \times 10 ⁻⁵ 8 POL=-0.84 9.
7324.6	1 ⁻	7324.2 [‡] 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.14 \times 10 ⁻⁵ 4 POL=-0.62 15.
7335.0	1 ⁻	7334.6 [‡] 20		0.0	0 ⁺	E1	B(E1) \downarrow =0.11 \times 10 ⁻⁵ 3 POL=-0.73 18.
7342.2	1 ⁻	7341.8 [‡] 14		0.0	0 ⁺	E1	B(E1) \downarrow =0.24 \times 10 ⁻⁵ 6 POL=-0.79 10.
7362.2	1 ⁻	7361.8 [‡] 21		0.0	0 ⁺	E1	B(E1) \downarrow =0.09 \times 10 ⁻⁵ 3 POL=-0.66 23.
7392.6	1 ⁻	7392.2 [‡] 8		0.0	0 ⁺	E1	B(E1) \downarrow =0.083 \times 10 ⁻⁵ 27 POL=-0.33 18.
7406.4	1 ⁻	6846.0 [‡] 17 7406.0 [‡] 15	31 20 69 26	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.13 \times 10 ⁻⁵ 12 B(E1) \downarrow =0.31 \times 10 ⁻⁵ 20 POL=-0.86 8.
7427.1	1 ⁻	7426.7 [‡] 14		0.0	0 ⁺	E1	B(E1) \downarrow =0.25 \times 10 ⁻⁵ 7 POL=-0.84 9.
7455.5	1 ⁻	7455.1 13		0.0	0 ⁺	E1	B(E1) \downarrow =0.41 \times 10 ⁻⁵ 11 POL=-1.04 7.
7464.7	1 ⁻	6905.8 [‡] 21 7464.3 [‡] 18	45 19 55 20	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.33 \times 10 ⁻⁵ 15 B(E1) \downarrow =0.32 \times 10 ⁻⁵ 14 POL=-0.82 14.
7508.4	1 ⁻	7508.0 8		0.0	0 ⁺	E1	B(E1) \downarrow =0.26 \times 10 ⁻⁵ 3 POL=-1.12 22.
7522.1	1 ⁻	6963.9 7 7521.7 7	36 11 64 16	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.40 \times 10 ⁻⁵ 13 B(E1) \downarrow =0.57 \times 10 ⁻⁵ 10 POL=-0.89 13.
7546.9	1 ⁻	7546.5 6		0.0	0 ⁺	E1	B(E1) \downarrow =0.62 \times 10 ⁻⁵ 6 POL=-0.91 10.
7580.5	1 ⁻	7580.1 [‡] 16		0.0	0 ⁺	E1	B(E1) \downarrow =0.12 \times 10 ⁻⁵ 3 POL=-0.76 18.
7617.2	1 ⁻	7616.8 [‡] 17		0.0	0 ⁺	E1	B(E1) \downarrow =0.18 \times 10 ⁻⁵ 4 POL=-0.56 15.
7627.8	1 ⁻	7627.4 [‡] 15		0.0	0 ⁺	E1	B(E1) \downarrow =0.24 \times 10 ⁻⁵ 4 POL=-0.71 10.
7643.3	1 ⁻	7642.9 [‡] 17		0.0	0 ⁺	E1	B(E1) \downarrow =0.13 \times 10 ⁻⁵ 3 POL=-0.36 14.
7652.9	1 ⁻	7652.5 [‡] 17		0.0	0 ⁺	E1	B(E1) \downarrow =0.24 \times 10 ⁻⁵ 5 POL=-0.73 9.
7658.7	1 ⁻	7658.3 2		0.0	0 ⁺	E1	B(E1) \downarrow =0.150 \times 10 ⁻⁵ 23 POL=-0.53 21.
7698.6	1 ⁻	7137.0 [‡] 20 7698.2 9	35 14 65 16	559.103 0.0	2 ⁺ 0 ⁺	[E1] E1	B(E1) \downarrow =0.43 \times 10 ⁻⁵ 17 B(E1) \downarrow =0.62 \times 10 ⁻⁵ 23 POL=-0.77 8.
7729.7	1 ⁻	7729.3 [‡] 16		0.0	0 ⁺	E1	B(E1) \downarrow =0.25 \times 10 ⁻⁵ 5 POL=-0.62 14.
7781.6	1 ⁻	7781.2 [‡] 18		0.0	0 ⁺	E1	B(E1) \downarrow =0.14 \times 10 ⁻⁵ 4 POL=-0.69 19.

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⁷⁶Se(pol γ, γ') **2013Go19** (continued)

$\gamma(^{76}\text{Se})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.#</u>	<u>Comments</u>
7817.4	1 ⁻	7817.1 [‡] 10		0.0	0 ⁺	E1	B(E1) _↓ =0.093×10 ⁻⁵ 33 POL=-0.41 19.
7830.0	1 ⁻	7829.6 [‡] 9		0.0	0 ⁺	E1	B(E1) _↓ =0.100×10 ⁻⁵ 33 POL=-0.90 22.
7866.1	1 ⁻	7865.7 [‡] 17		0.0	0 ⁺	E1	B(E1) _↓ =0.107×10 ⁻⁵ 33 POL=-0.36 14.
7890.9	1 ⁻	7890.5 [‡] 18		0.0	0 ⁺	E1	B(E1) _↓ =0.11×10 ⁻⁵ 4 POL=-0.77 16.
7920.1	1 ⁻	7919.7 [‡] 17		0.0	0 ⁺	E1	B(E1) _↓ =0.17×10 ⁻⁵ 5 POL=-0.54 11.
7927.6	1 ⁻	7927.2 [‡] 17		0.0	0 ⁺	E1	B(E1) _↓ =0.17×10 ⁻⁵ 5 POL=-0.63 11.
7952.0	1 ⁻	7951.6 [‡] 21		0.0	0 ⁺	E1	B(E1) _↓ =0.12×10 ⁻⁵ 4 POL=-0.45 15.
7960.3	1 ⁻	7959.9 [‡] 18		0.0	0 ⁺	E1	B(E1) _↓ =0.15×10 ⁻⁵ 5 POL=-0.43 12.
7978.9	1 ⁻	7978.5 8		0.0	0 ⁺	E1	B(E1) _↓ =0.26×10 ⁻⁵ 6 POL=-0.70 8.
8017.9	1 ⁻	8017.4 [‡] 23		0.0	0 ⁺	E1	B(E1) _↓ =0.13×10 ⁻⁵ 4 POL=-0.36 15.
8062.5	1 ⁻	8062.0 [‡] 22		0.0	0 ⁺	E1	B(E1) _↓ =0.15×10 ⁻⁵ 5 POL=-0.50 21.
8084.7	1 ⁻	7521.3 [‡] 25	54 26	559.103	2 ⁺	[E1]	B(E1) _↓ =0.27×10 ⁻⁵ 15
		8084.2 [‡] 26	46 25	0.0	0 ⁺	E1	B(E1) _↓ =0.19×10 ⁻⁵ 10 POL=-0.28 28.
8107.3	1 ⁻	8106.8 [‡] 22		0.0	0 ⁺	E1	B(E1) _↓ =0.14×10 ⁻⁵ 4 POL=-0.52 21.
8132.1	1 ⁻	8131.6 [‡] 22		0.0	0 ⁺	E1	B(E1) _↓ =0.14×10 ⁻⁵ 4 POL=-0.61 21.
8154.9	1 ⁻	8154.4 [‡] 21		0.0	0 ⁺	E1	B(E1) _↓ =0.123×10 ⁻⁵ 37 POL=-0.77 18.
8170.1	1 ⁻	8169.6 [‡] 22		0.0	0 ⁺	E1	B(E1) _↓ =0.133×10 ⁻⁵ 37 POL=-0.58 18.
8197.5	1 ⁻	6982.8 15	48 16	1216.154	2 ⁺	[E1]	B(E1) _↓ =0.78×10 ⁻⁵ 30
		8196.5 13	52 14	0.0	0 ⁺	E1	B(E1) _↓ =0.52×10 ⁻⁵ 9 POL=-0.62 10.
8210.5	1 ⁻	8210.0 [‡] 20		0.0	0 ⁺	E1	B(E1) _↓ =0.26×10 ⁻⁵ 6 POL=-0.85 17.
8222.5	1 ⁻	8222.0 [‡] 20		0.0	0 ⁺	E1	B(E1) _↓ =0.30×10 ⁻⁵ 7 POL=-0.78 20.
8251.9	1 ⁻	8251.4 [‡] 23		0.0	0 ⁺	E1	B(E1) _↓ =0.063×10 ⁻⁵ 27 POL=-0.27 20.
8288.5	1 ⁻	8288.0 [‡] 23		0.0	0 ⁺	E1	B(E1) _↓ =0.21×10 ⁻⁵ 5 POL=-0.88 11.
8316.7	1 ⁻	8316.2 [‡] 22		0.0	0 ⁺	E1	B(E1) _↓ =0.123×10 ⁻⁵ 33 POL=-0.51 17.
8340.7	1 ⁻	8340.2 [‡] 10		0.0	0 ⁺	E1	B(E1) _↓ =0.17×10 ⁻⁵ 5 POL=-0.81 17.
8394.9	1 ⁻	8394.4 19		0.0	0 ⁺	E1	B(E1) _↓ =0.29×10 ⁻⁵ 4 POL=-0.65 13.

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⁷⁶Se(pol γ, γ') **2013Go19** (continued)

$\gamma(^{76}\text{Se})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}[†]</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.[#]</u>	<u>Comments</u>
8453.5	1 ⁻	8453.0 [‡] 21		0.0	0 ⁺	E1	B(E1) _↓ =0.090×10 ⁻⁵ 33 POL=-0.62 28.
8486.5	1 ⁻	8486.0 [‡] 18		0.0	0 ⁺	E1	B(E1) _↓ =0.28×10 ⁻⁵ 7 POL=-0.92 14.
8526.5	1 ⁻	7970.8 6	50 15	559.103	2 ⁺	[E1]	B(E1) _↓ =0.90×10 ⁻⁵ 33 E _{γ} : poor fit. Level-energy difference=7967.5.
		8526.0 5	50 12	0.0	0 ⁺	E1	B(E1) _↓ =0.73×10 ⁻⁵ 12 POL=-0.84 11.
8540.9	1 ⁻	7979.7 [‡] 13	62 18	559.103	2 ⁺	[E1]	B(E1) _↓ =0.53×10 ⁻⁵ 27
		8540.4 [‡] 20	38 15	0.0	0 ⁺	E1	B(E1) _↓ =0.28×10 ⁻⁵ 16 POL=-0.59 23.
8571.7	1 ⁻	8571.2 [‡] 19		0.0	0 ⁺	E1	B(E1) _↓ =0.15×10 ⁻⁵ 4 POL=-0.88 19.
8590.1	1 ⁻	8589.6 [‡] 20		0.0	0 ⁺	E1	B(E1) _↓ =0.113×10 ⁻⁵ 37 POL=-0.48 22.
8654.9	1 ⁻	8654.4 [‡] 19		0.0	0 ⁺	E1	B(E1) _↓ =0.173×10 ⁻⁵ 37 POL=-0.43 20.
8709.9	1 ⁻	8709.4 13		0.0	0 ⁺	E1	B(E1) _↓ =0.40×10 ⁻⁵ 6 POL=-0.61 11.
8719.5	1 ⁻	8719.0 [‡] 21		0.0	0 ⁺	E1	B(E1) _↓ =0.22×10 ⁻⁵ 8 POL=-0.61 18.
8770.9	1 ⁻	8770.4 [‡] 23		0.0	0 ⁺	E1	B(E1) _↓ =0.33×10 ⁻⁵ 10 POL=-0.67 14.
8843.8	1 ⁻	8283.3 [‡] 20	32 20	559.103	2 ⁺	[E1]	B(E1) _↓ =0.30×10 ⁻⁵ 17
		8843.2 [‡] 18	68 26	0.0	0 ⁺	E1	B(E1) _↓ =0.53×10 ⁻⁵ 3 POL=-0.60 11.
8864.8	1 ⁻	8864.2 [‡] 20		0.0	0 ⁺	E1	B(E1) _↓ =0.22×10 ⁻⁵ 7 POL=-0.55 16.
8890.8	1 ⁻	8890.2 [‡] 19		0.0	0 ⁺	E1	B(E1) _↓ =0.28×10 ⁻⁵ 8 POL=-0.50 12.
8918.8	1 ⁻	8918.2 [‡] 19		0.0	0 ⁺	E1	B(E1) _↓ =0.30×10 ⁻⁵ 9 POL=-0.75 17.
8935.6	1 ⁻	8935.0 [‡] 20		0.0	0 ⁺	E1	B(E1) _↓ =0.24×10 ⁻⁵ 8 POL=-0.71 16.

[†] From Darmstadt High Intensity Photon setup (DHIPS) (2012Co17), unless otherwise indicated.

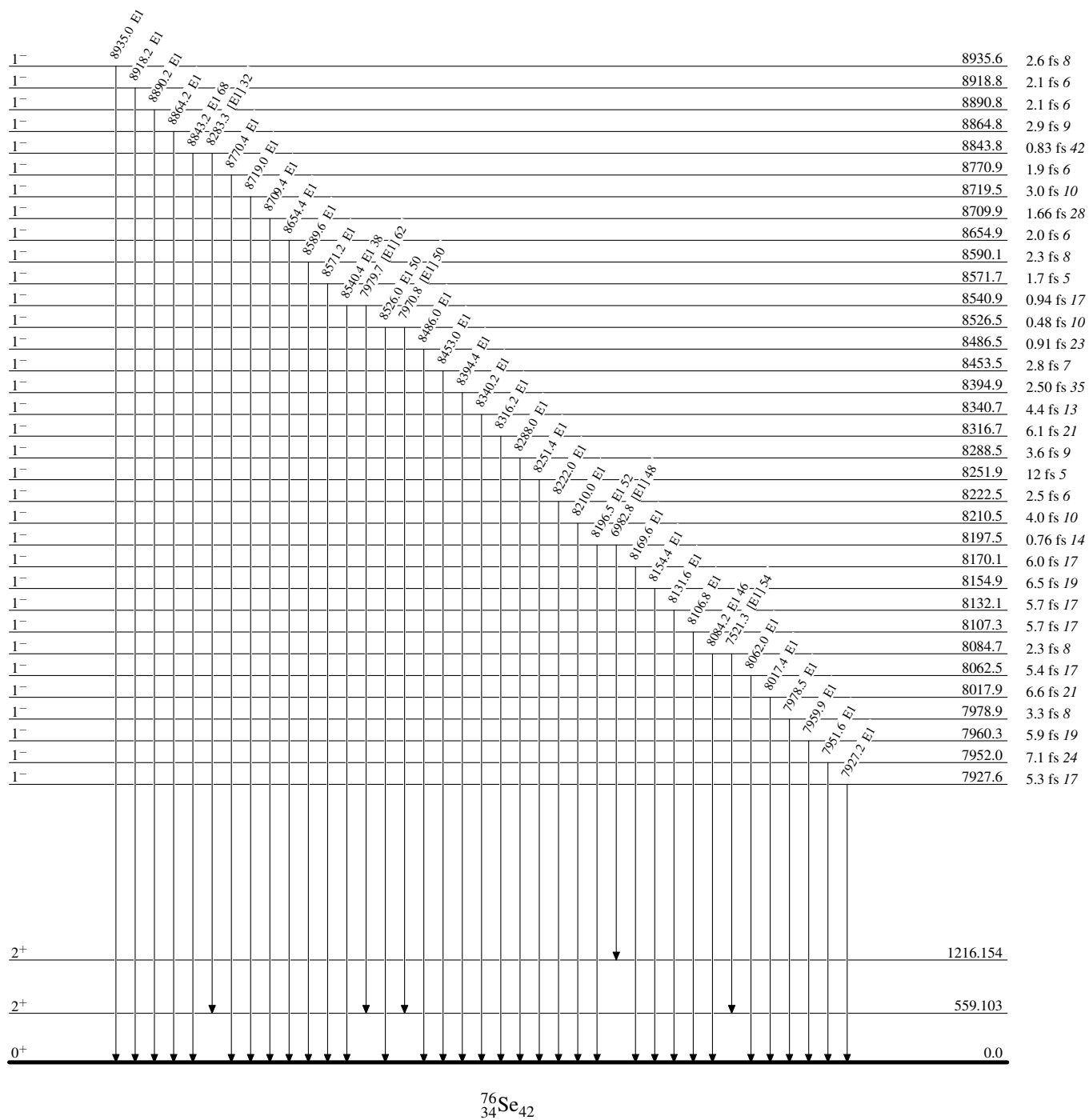
[‡] From TUNL HI γ S, experimental data in 2013Go19.

[#] Implied by polarization asymmetries measured in 2013Go19. When no polarization data are available, evaluators assign assumed multiplicity in square brackets.

$^{76}\text{Se}(\text{pol } \gamma, \gamma')$ 2013Go19

Level Scheme

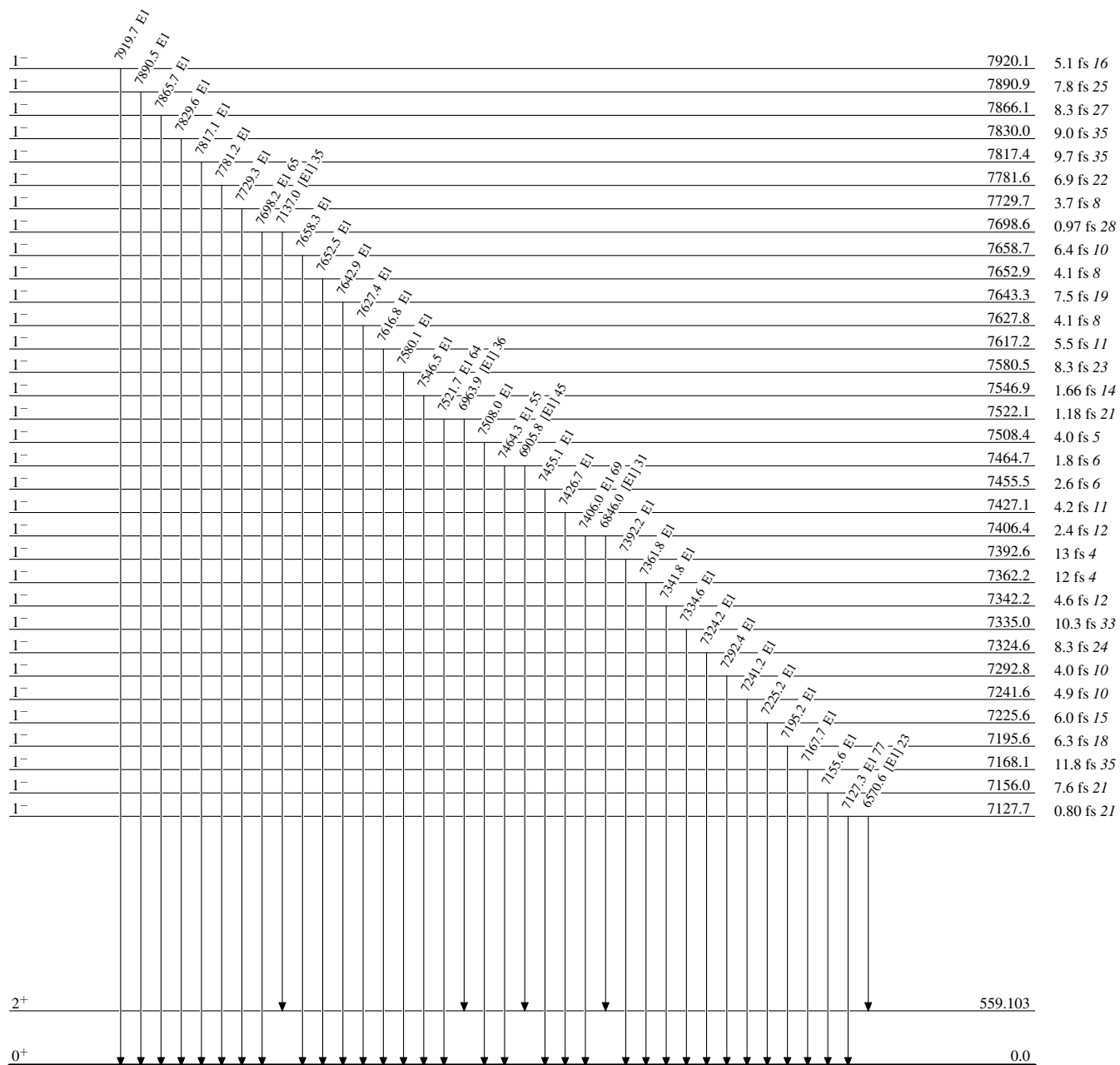
Intensities: % photon branching from each level



⁷⁶Se(pol γ,γ') 2013Go19

Level Scheme (continued)

Intensities: % photon branching from each level

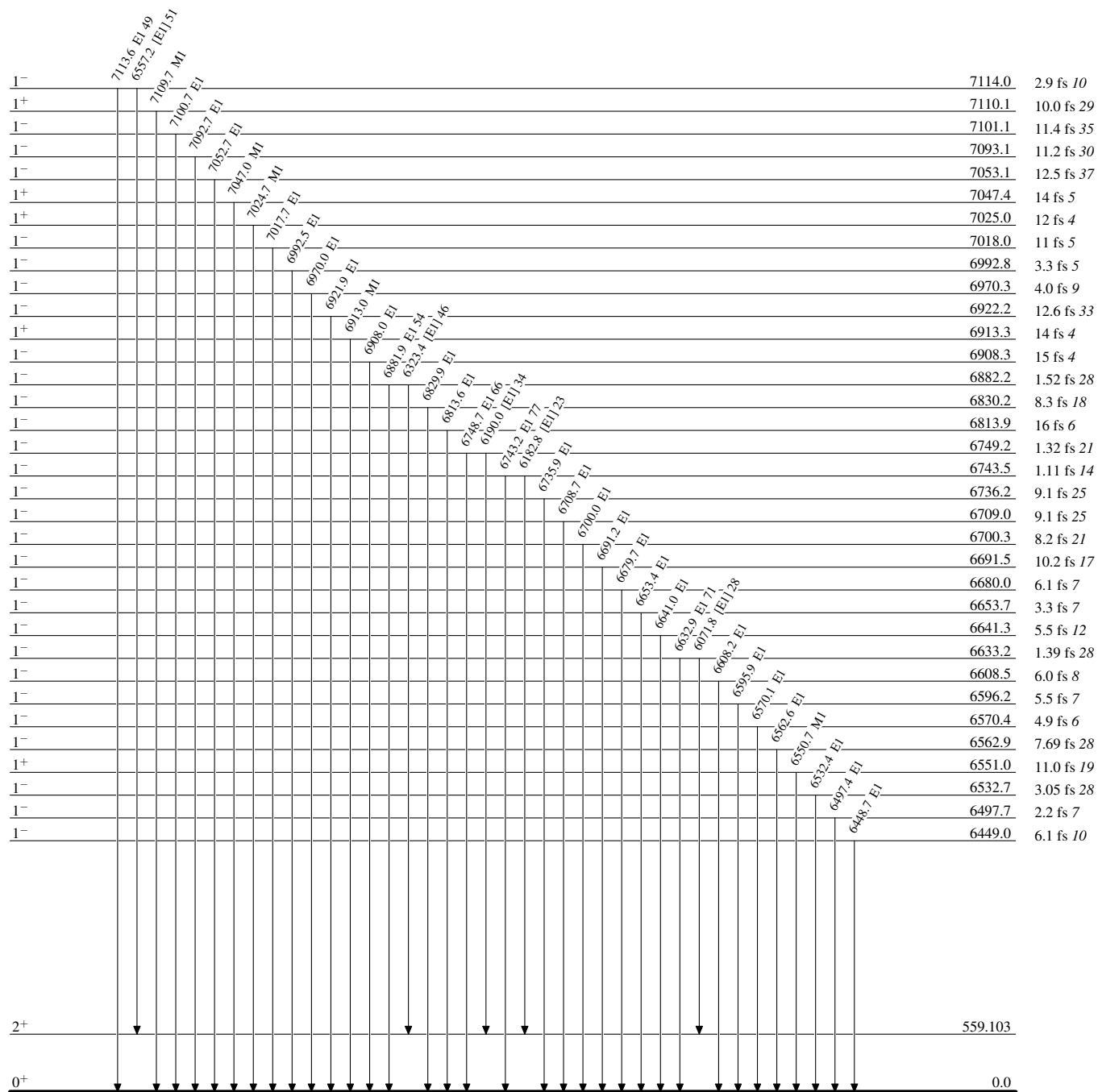


⁷⁶Se₄₂

⁷⁶Se(pol γ, γ') 2013Go19

Level Scheme (continued)

Intensities: % photon branching from each level



⁷⁶Se₃₄

$^{76}\text{Se}(\text{pol } \gamma, \gamma')$ 2013Go19

Level Scheme (continued)

Intensities: % photon branching from each level

