

# Table of recommended Bound Coherent Neutron Scattering Lengths

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>0-N-1</b>	<b>10.3 MIN</b>	<b>1/2</b>	<b>-37 ± 0.6</b>		<b>-37 ± 0.6</b>		<b>M</b>	<b>89Sla1</b>
<b>1-H</b>			<b>-3.7409 ± 0.0011</b>				<b>GR</b>	<b>75Koe1</b>
1-H-1	99.985	1/2	-3.7423 ± 0.0012	10.817 ± 0.005	-47.42 ± 0.014		TM	79Koe1
						58.2 ± 0.4	NP	79Gla1
1-H-2	0.0149	1	6.674 ± 0.006	9.53 ± 0.03	0.975 ± 0.06		M	77Koe1
1-H-3	12.26 Y	1/2	4.792 ± 0.027	4.18 ± 0.15	6.56 ± 0.37		IN	85Rau2
<b>2-He</b>			<b>3.26 ± 0.03</b>				<b>IN</b>	<b>79Kai1</b>
2-He-3	0.00013	1/2	5.74 ± 0.07	4.7 ± 0.5	8.8 ± 1.4		IN	79Kai1
2-He-4	0.99987	0	3.26 ± 0.03				IN	79Kai1
<b>3-Li</b>			<b>-1.9 ± 0.03</b>				<b>CF</b>	<b>83Koe1</b>
3-Li-6	7.5	1	2 ± 0.1	0.67 ± 0.14	4.67 ± 0.17		CF	83Koe1
						-3.8 ± 0.5	NP	78Gla1
3-Li-7	92.5	3/2	-2.22 ± 0.02	-4.15 ± 0.06	1 ± 0.08		CF	83Koe1
						-4.5 ± 0.2	NP	79Gla1
<b>4-Be-9</b>	<b>100</b>	<b>3/2</b>	<b>7.79 ± 0.01</b>				<b>TM</b>	<b>78Was1</b>
						0.24 ± 0.07	NP	87Gla2
<b>5-B</b>			<b>5.3 ± 0.04</b>				<b>CF</b>	<b>83Koe1</b>
5-B-10	19.4	3	-0.2 ± 0.4	-4.2 ± 0.4	5.2 ± 0.4		CF	83Koe1
5-B-11	80.2	3/2	6.65 ± 0.04	5.6 ± 0.3	8.3 ± 0.3		CF	83Koe1
<b>6-C</b>			<b>6.6484 ± 0.0013</b>				<b>GR</b>	<b>75Koe1</b>
6-C-12	98.89	0	6.6535 ± 0.0014				GR	79Koe2
6-C-13	1.11	1/2	6.19 ± 0.09	5.6 ± 0.5	6.2 ± 0.5		M	98Ale1
						-1.2 ± 0.2	NP	79Gla1
<b>7-N</b>			<b>9.36 ± 0.02</b>				<b>CF</b>	<b>85Mei1</b>
			9.21 ± 0.02				BD	79Tak1
7-N-14	99.635	1	9.37 ± 0.02	10.7 ± 0.2	6.2 ± 0.3		M	98Ale1
7-N-15	0.365	1/2	6.44 ± 0.03	6.77 ± 0.1	6.21 ± 0.1		M	98Ale1
<b>8-O</b>			<b>5.805 ± 0.004</b>				<b>M</b>	<b>79Koe2</b>
8-O-16	99.75	0	5.805 ± 0.005				M	79Koe2
8-O-17	0.039	5/2	5.6 ± 0.5	5.52 ± 0.2	5.17 ± 0.2		NP	98Ale1
8-O-18	0.208	0	5.84 ± 0.07				CF	79Koe2

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
9-F-19	100	1/2	5.654 ± 0.012	5.632 ± 0.01	5.767 ± 0.01		CF	79Koe2
						-0.19 ± 0.02	NP	79Gla1
<b>10-Ne</b>			<b>4.6 ± 0.01</b>				CF	85Mei1
10-Ne-20	90.5	0	4.631 ± 0.006				TM	66Kro1
10-Ne-21	0.27	3/2	6.66 ± 0.19				TM	66Kro1
10-Ne-22	9.2	0	3.87 ± 0.01				TM	66Kro1
11-Na-23	100	3/2	3.63 ± 0.02				CF	72Koe3
				6.42 ± 0.04	-1 ± 0.06	M	79Gla1	
						7.1 ± 0.3	NP	79Gla1
<b>12-Mg</b>			<b>5.375 ± 0.004</b>				IN	78Bau1
12-Mg-24	78.99	0	5.49 ± 0.18				BD	72Abu1
12-Mg-25	10	5/2	3.62 ± 0.14				BD	72Abu1
				4.73 ± 0.3	1.76 ± 0.2	M	98Ale1	
						3 ± 0.2	NP	87Gla2
12-Mg-26	11	0	4.89 ± 0.15				BD	72Abu1
13-Al-27	100	5/2	3.449 ± 0.005				IN	78Bau1
				3.455 ± 0.005	3.7 ± 0.03	3.15 ± 0.04	TM	74Dil1
					3.67 ± 0.02	3.15 ± 0.02	M	84Gla1
							0.52 ± 0.02	NP
<b>14-Si</b>			<b>4.15071 ± 0.00022</b>				IN	98Iof1
14-Si-28	92.2	0	4.106 ± 0.006				CF	79Koe3
14-Si-29	4.7	1/2	4.7 ± 0.1	4.5 ± 0.15	4.7 ± 0.4		M	98Ale1
						0.3	NP	87Gla2
14-Si-30	3.1	0	4.58 ± 0.08				CF	79Koe3
15-P-31	100	1/2	5.13 ± 0.01				CF	77Koe2
						0.8	NP	83Gla1
<b>16-S</b>			<b>2.847 ± 0.001</b>				GR	71Tru1
16-S-32	95	0	2.804 ± 0.002				CF	79Koe3
16-S-33	0.74	3/2	4.74 ± 0.19				CF	79Koe3
						3 ± 3.	CF	78Koe1
16-S-34	4.2	0	3.48 ± 0.03				CF	79Koe3

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>17-Cl</b>			<b>9.5792 ± 0.0008</b>				<b>GR</b>	<b>75Koe1</b>
17-Cl-35	75.77	3/2	11.7 ± 0.09	16.3 ± 0.2	4 ± 0.3		CF	77Koe3
						12.5 ± 0.9	NP	83Gla1
17-Cl-37	24.23	3/2	3.08 ± 0.06	3.1 ± 0.07	3.05 ± 0.07		CF	77Koe3
						0.4	NP	83Gla1
<b>18-Ar</b>			<b>1.909 ± 0.006</b>				<b>TM</b>	<b>66Kro1</b>
18-Ar-36	0.34	0	24.9 ± 0.07				TR	66Kro1
18-Ar-38	0.07	0						
18-Ar-40	99.59	0	1.7				TM	62Chr1
<b>19-K</b>			<b>3.67 ± 0.02</b>				<b>BD</b>	<b>73Coo1</b>
19-K-39	93.3	3/2	3.79 ± 0.02	5.15	1.51		CF	79Koe4
						2.8 ± 0.7	NP	83Gla1
19-K-40	0.012	4						
19-K-41	6.7	3/2	2.69 ± 0.08				CF	87Kno1
<b>20-Ca</b>			<b>4.7 ± 0.02</b>				<b>CF</b>	<b>90Kno1</b>
20-Ca-40	96.94	0	4.78 ± 0.05				CF	90Kno1
20-Ca-42	0.64	0	3.36 ± 0.1				BD	89Ram1
20-Ca-43	0.13	7/2	-1.56 ± 0.09				BD	89Ram1
20-Ca-44	2.13	0	1.42 ± 0.06				BD	89Ram1
20-Ca-46	0.003	0	3.55 ± 0.21				BD	89Ram1
20-Ca-48	0.18	0	0.39 ± 0.09				BD	89Ram1
<b>21-Sc-45</b>	<b>100</b>	<b>7/2</b>	<b>12.1 ± 0.1</b>				<b>NP</b>	<b>77Mar2</b>
				6.91 ± 0.22	18.99 ± 0.28		CF	93Koe1
						-13.6 ± 0.9	NP	79Gla1
<b>22-Ti</b>			<b>-3.37 ± 0.013</b>				<b>CF</b>	<b>93Koe1</b>
22-Ti-46	8	0	4.72 ± 0.05				CF	93Koe1
22-Ti-47	7.5	5/2	3.53 ± 0.07	0.46 ± 0.23	7.64 ± 0.13		CF	93Koe1
22-Ti-48	73.7	0	-5.86 ± 0.02				CF	93Koe1
22-Ti-49	5.5	7/2	0.98 ± 0.05	2.6 ± 0.3	-1.2 ± 0.4		CF	93Koe1
22-Ti-50	5.3	0	5.88 ± 0.1				CF	93Koe1
<b>23-V</b>			<b>-0.443 ± 0.014</b>				<b>CF</b>	<b>93Koe1</b>
23-V-50	0.25	6						
23-V-51	99.75	7/2		4.93 ± 0.25	-7.58 ± 0.28		CF	93Koe1
						12.81 ± 0.08	NP	87Gla1

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>24-Cr</b>			<b>3.635 ± 0.007</b>				<b>CF</b>	<b>78Koe2</b>
24-Cr-50	4.35	0	-4.5 ± 0.05				CF	78Koe2
24-Cr-52	83.8	0	4.914 ± 0.015				CF	78Koe2
24-Cr-53	9.59	3/2	-4.2 ± 0.03	1.16 ± 0.1	-13 ± 0.2		CF	78Koe2
24-Cr-54	2.36	0	4.55 ± 0.1				CF	78Koe2
<b>25-Mn-55</b>	<b>100</b>	<b>5/2</b>	<b>-3.75 ± 0.018</b>	<b>-4.93 ± 0.46</b>	<b>-1.46 ± 0.33</b>		<b>CF</b>	<b>93Koe1</b>
<b>26-Fe</b>			<b>9.45 ± 0.02</b>				<b>TM</b>	<b>74Dil1</b>
26-Fe-54	5.8	0	4.2 ± 0.1				BD	51Shu1
26-Fe-56	91.7	0	10.1 ± 0.2				BD	51Shu1
26-Fe-57	2.19	1/2	2.3 ± 0.1				BD	51Shu1
26-Fe-58	0.28	0	15 ± 7.				TR	77Web1
<b>27-Co-59</b>	<b>100</b>	<b>7/2</b>	<b>2.49 ± 0.02</b>	<b>-9.21 ± 0.1</b>	<b>3.58 ± 0.1</b>		<b>CF</b>	<b>97Kno1</b>
						-12.5 ± 0.4	NP	79Gla1
<b>28-Ni</b>			<b>10.3 ± 0.1</b>				<b>BD</b>	<b>51Shu1</b>
28-Ni-58	67.88	0	14.4 ± 0.1				M	81Mug1
28-Ni-60	26.23	0	2.8 ± 0.1				BD	51Shu1
28-Ni-61	1.19	3/2	7.6 ± 0.06				BD	67Sid1
28Ni-62	3.66	0	-8.7 ± 0.2				BD	61Will1
28-Ni-64	1.08	0	-0.37 ± 0.07				BD	67Sid1
<b>29-Cu</b>			<b>7.718 ± 0.004</b>				<b>IN</b>	<b>78Bau1</b>
29-Cu-63	69.1	3/2	6.477 ± 0.013				IN	00Tom1
						0.45 ± 0.05	NP	79Gla1
29-Cu-65	30.9	3/2	10.204 ± 0.02				IN	00Tom1
						3.7 ± 0.2	NP	79Gla1
<b>30-Zn</b>			<b>5.68 ± 0.005</b>				<b>IN</b>	<b>78Bau1</b>
30-Zn-64	48.9	0	5.23 ± 0.04				CF	85Koe1
30-Zn-66	27.8	0	5.98 ± 0.05				CF	85Koe1
30-Zn-67	4.1	5/2	7.58 ± 0.08	5.8 ± 0.5	10.1 ± 0.7		CF	85Koe1
						-3.05 ± 0.15	NP	87Gla2
30-Zn-68	18.6	0	6.04 ± 0.03				CF	85Koe1
30-Zn-70	0.62	0						

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>31-Ga</b>			<b>7.288 ± 0.002</b>				<b>GR</b>	<b>90Rei1</b>
31-Ga-69	60	3/2	8.053 ± 0.016				IN	99Tom1
			7.88 ± 0.04	6.3 ± 0.2	10.5 ± 0.4		CF	84Koe1
						-1.75 ± 0.11	NP	87Gla2
31-Ga-71	40	3/2	6.17 ± 0.011				IN	99Tom1
			6.4 ± 0.03	5.5 ± 0.6	7.8 ± 1.		CF	84Koe1
						-1.69 ± 0.15	NP	87Gla2
<b>32-Ge</b>			<b>8.185 ± 0.02</b>				<b>CF</b>	<b>87Koe1</b>
32-Ge-70	20.7	0	10 ± 0.1				CF	87Koe1
32-Ge-72	27.5	0	8.51 ± 0.1				CF	87Koe1
32-Ge-73	7.7	9/2	5.02 ± 0.04	8.1 ± 0.4	1.2 ± 0.4		CF	87Koe1
32-Ge-74	36.4	0	7.58 ± 0.1				CF	87Koe1
32-Ge-76	7.7	0	8.2 ± 1.5				CF	87Koe1
<b>33-As-75</b>	<b>100</b>	<b>3/2</b>	<b>6.58 ± 0.01</b>	<b>6.04 ± 0.05</b>	<b>7.47 ± 0.08</b>		<b>CF</b>	<b>80Koe1</b>
						-1.43 ± 0.12	NP	79Gla1
<b>34-Se</b>			<b>7.97 ± 0.009</b>				<b>CF</b>	<b>80Koe1</b>
34-Se-74	0.9	0	0.8 ± 3.				CF	80Koe1
34-Se-76	9	0	12.2 ± 0.1				CF	80Koe1
34-Se-77	7.5	0	8.25 ± 0.08				CF	80Koe1
34-Se-78	23.5	0	8.24 ± 0.09				CF	80Koe1
34-Se-80	50	0	7.48 ± 0.03				CF	80Koe1
34-Se-82	8.84	0	6.34 ± 0.08				CF	80Koe1
<b>35-Br</b>			<b>6.79 ± 0.02</b>				<b>GR</b>	<b>75Koe1</b>
35-Br-79	50.49	3/2	6.79 ± 0.07				CF	81Koe1
						-2.2 ± 0.4	NP	83Gla1
35-Br-81	49.31	3/2	6.78 ± 0.07				CF	81Koe1
						1.2 ± 0.3	NP	83Gla1
<b>36-Kr</b>			<b>7.81 ± 0.02</b>				<b>CF</b>	<b>85Mei1</b>
36-Kr-78	0.35	0						
36-Kr-80	2.5	0						
36-Kr-82	11.6	0						
36-Kr-83	11.5	9/2						
36-Kr-84	57	0						
36-Kr-86	17.3	0	8.07 ± 0.26				IN	93Ter1

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>37-Rb</b>			<b>7.08 ± 0.02</b>				CF	<b>72Koe3</b>
37-Rb-85	72.17	5/2	7.07 ± 0.1				CF	81Koe1
37-Rb-87	27.83	3/2	7.27 ± 0.12				CF	81Koe1
<b>38-Sr</b>			<b>7.02 ± 0.02</b>				CF	<b>81Koe1</b>
38-Sr-84	0.56	0	5 ± 2.				M	86Sea1
38-Sr-86	9.9	0	5.68 ± 0.05				CF	81Koe1
38-Sr-87	7	9/2	7.41 ± 0.07				CF	81Koe1
38-Sr-88	82.6	0	7.16 ± 0.06				CF	81Koe1
<b>39-Y-89</b>	<b>100</b>	<b>1/2</b>	<b>7.75 ± 0.02</b>	<b>8.4 ± 0.2</b>	<b>5.8 ± 0.5</b>		CF	<b>81Koe1</b>
						2.6 ± 0.7	NP	79Gla1
<b>40-Zr</b>			<b>7.16 ± 0.03</b>				CF	<b>81Koe1</b>
40-Zr-90	51.48	0	6.5 ± 0.1				CF	81Koe1
40-Zr-91	11.23	5/2	8.8 ± 0.1	7.9 ± 0.2	10.1 ± 0.2		CF	81Koe1
						-2.2 ± 0.3	NP	79Gla1
40-Zr-92	17.11	0	7.5 ± 0.2				CF	81Koe1
40-Zr-94	17.4	0	8.3 ± 0.2				CF	81Koe1
40-Zr-96	2.8	0	5.5 ± 0.1				CF	81Koe1
<b>41-Nb-93</b>	<b>100</b>	<b>9/2</b>	<b>7.054 ± 0.003</b>				IN	<b>78Bau1</b>
			7.14 ± 0.03	7.06 ± 0.04	7.35 ± 0.04		TM	74Dil1
						-0.28 ± 0.02	NP	74Rou1
<b>42-Mo</b>			<b>6.715 ± 0.02</b>				CF	<b>87Koe2</b>
42-Mo-92	15.48	0	6.93 ± 0.08				CF	87Koe2
42-Mo-94	9.1	0	6.82 ± 0.07				CF	87Koe2
42-Mo-95	15.72	5/2	6.93 ± 0.06				CF	87Koe2
42-Mo-96	16.53	0	6.22 ± 0.06				CF	87Koe2
42-Mo-97	9.5	5/2	7.26 ± 0.08				CF	87Koe2
42-Mo-98	23.78	0	6.6 ± 0.07				CF	87Koe2
42-Mo-100	9.6	0	6.75 ± 0.07				CF	87Koe2
<b>43-Tc-99</b>	<b>210000 Y</b>	<b>9/2</b>	<b>6.8 ± 0.3</b>				BD	<b>63Mue1</b>

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>44-Ru</b>			<b>7.02 ± 0.02</b>				<b>CF</b>	<b>95Kno1</b>
44-Ru-96	5.8	0						
44-Ru-98	1.9	0						
44-Ru-99	12.7	5/2						
44-Ru-100	12.6	0						
44-Ru-101	17.07	5/2						
44-Ru-102	31.61	0						
44-Ru-104	18.58	0						
<b>45-Rh-103</b>	<b>100</b>	<b>1/2</b>	<b>5.9 ± 0.04</b>	<b>8.15 ± 0.06</b>	<b>6.74 ± 0.06</b>		<b>CF</b>	<b>95Kno1</b>
<b>46-Pd</b>			<b>5.91 ± 0.06</b>				<b>BD</b>	<b>65Cab1</b>
46-Pd-102	1	0						
46-Pd-104	11	0						
46-Pd-105	22.53	5/2				-5.2 ± 3.2	NP	87Gla2
46Pd-106	27.33	0						
46-Pd-108	26.71	0						
46-Pd-110	11.8	0						
<b>47-Ag</b>			<b>5.922 ± 0.007</b>				<b>IN</b>	<b>82Bon1</b>
47-Ag-107	51.8	1/2	7.555 ± 0.011	8.14 ± 0.09	5.8 ± 0.3		IN	82Bon1
						2.3 ± 0.3	NP	79Gla1
47-Ag-109	48.2	1/2	4.165 ± 0.011	3.24 ± 0.08	6.9 ± 0.2		IN	82Bon1
						-3.7 ± 0.3	NP	79Gla1
<b>48-Cd</b>			<b>4.83 ± 0.05</b>				<b>CF</b>	<b>95Kno1</b>
48-Cd-106	1.2	0						
48-Cd-108	0.9	0	5.31 ± 0.24				CF	95Kno1
48-Cd-110	12.39	0	5.78 ± 0.08				CF	95Kno1
48-Cd-111	12.75	1/2	6.47 ± 0.08				CF	95Kno1
48-Cd-112	24.07	0	6.34 ± 0.06				CF	95Kno1
48-Cd-113	12.36	1/2	-8 ± 0.1				CF	95Kno1
48-Cd-114	28.86	0	7.48 ± 0.05				CF	95Kno1
48-Cd-116	7.58	0	6.26 ± 0.09				CF	95Kno1
<b>49-In</b>			<b>4.065 ± 0.02</b>				<b>CF</b>	<b>80Koe2</b>
49-In-113	4.28	9/2	5.39 ± 0.06				CF	80Koe2
49-In-115	95.72	9/2	4 ± 0.03	2.1 ± 0.1	6.4 ± 0.4		CF	80Koe2

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>50-Sn</b>			<b>6.225 ± 0.002</b>				<b>GR</b>	<b>90Rei1</b>
50-Sn-112	1	0						
50-Sn-114	0.66	0						
50-Sn-115	0.35	1/2						
50-Sn-116	14.3	0	6.1 ± 0.01				CF	97Kno1
50-Sn-117	7.61	1/2	6.59 ± 0.08	0.22 ± 0.1	-0.23 ± 0.1		CF	97Kno1
50-Sn-118	24.03	0	6.23 ± 0.04				CF	97Kno1
50-Sn-119	8.58	1/2	6.28 ± 0.03	0.14 ± 0.1	0 ± 0.1		CF	97Kno1
50-Sn-120	32.86	0	6.67 ± 0.04				CF	97Kno1
50-Sn-122	4.72	0	5.93 ± 0.03				CF	97Kno1
50-Sn-124	5.94	0	6.15 ± 0.03				CF	97Kno1
<b>51-Sb</b>			<b>5.57 ± 0.03</b>				<b>CF</b>	<b>86Koe1</b>
51-Sb-121	57.25	5/2	5.71 ± 0.06	5.7	5.8		CF	86Koe1
51-Sb-123	42.75	7/2	5.38 ± 0.07	5.2 ± 0.2	5.4 ± 0.2		CF	86Koe1
<b>52-Te</b>			<b>5.68 ± 0.02</b>				<b>IN</b>	<b>97Iof1</b>
52-Te-120	0.09	0	5.3 ± 0.5				TR	56Hei1
52-Te-122	2.4	0	3.8 ± 0.2				CF	86Koe1
52-Te-123	0.87	1/2	-0.05 ± 0.25	-1.2	3.5		CF	86Koe1
52-Te-124	4.61	0	7.95 ± 0.1				CF	86Koe1
52-Te-125	6.99	1/2	5.01 ± 0.08	4.9	5.5		CF	86Koe1
52-Te-126	18.71	0	5.55 ± 0.07				CF	86Koe1
52-Te-128	31.79	0	5.88 ± 0.07				CF	86Koe1
52-Te-130	34.48	0	6.01 ± 0.07				CF	86Koe1
<b>53-I-127</b>	<b>100</b>	<b>5/2</b>	<b>6.15 ± 0.06</b>	<b>6.6 ± 0.2</b>	<b>3.4 ± 0.2</b>		<b>CF</b>	<b>86Koe1</b>
<b>54-Xe</b>			<b>4.69 ± 0.04</b>				<b>IN</b>	<b>79Kai1</b>
54-Xe-124	0.1	0						
54-Xe-126	0.09	0						
54-Xe-128	1.9	0						
54-Xe-129	26.14	1/2						
54-Xe-130	3.3	0						
54-Xe-131	21.18	3/2						
54-Xe-132	26.89	0						
54-Xe-134	10.4	0						
54-Xe-136	8.9	0						
<b>55-Cs-133</b>	<b>100</b>	<b>7/2</b>	<b>5.42 ± 0.02</b>				<b>CF</b>	<b>72Koe3</b>
						2.6 ± 0.3	NP	79Gla1

<b>Z-Symb-A</b>	<b>% or T1/2</b>	<b>I</b>	<b>bc</b>	<b>b+</b>	<b>b-</b>	<b>b+-b-</b>	<b>Meth</b>	<b>Ref</b>
<b>56-Ba</b>			<b>5.07 ± 0.03</b>				<b>CF</b>	<b>85Koe2</b>
56-Ba-130	0.1	0	-3.6 ± 0.6				CF	85Koe2
56-Ba-132	0.09	0	7.8 ± 0.3				CF	85Koe2
56-Ba-134	2.4	0	5.7 ± 0.1				CF	85Koe2
56-Ba-135	6.59	3/2	4.66 ± 0.1				CF	85Koe2
56-Ba-136	7.81	0	4.9 ± 0.08				CF	85Koe2
56-Ba-137	11.32	3/2	6.82 ± 0.1				CF	85Koe2
56-Ba-138	71.66	0	4.83 ± 0.08				CF	85Koe2
<b>57-La</b>			<b>8.24 ± 0.04</b>				<b>CF</b>	<b>82Kno1</b>
57-La-138	0.09	5						
57-La-139	99.91	7/2	8.24 ± 0.04	11.4 ± 0.3	4.5 ± 0.4		CF	82Kno1
						6.1 ± 0.4	NP	79Gla1
<b>58-Ce</b>			<b>4.84 ± 0.02</b>				<b>CF</b>	<b>82Kno1</b>
58-Ce-136	0.19	0	5.76 ± 0.09				CF	82Kno1
58-Ce-138	0.26	0	6.65 ± 0.09				CF	82Kno1
58-Ce-140	88.48	0	4.81 ± 0.09				CF	82Kno1
58-Ce-142	11.07	0	4.72 ± 0.09				CF	82Kno1
<b>59-Pr-141</b>	<b>100</b>	<b>5/2</b>	<b>4.58 ± 0.05</b>				<b>CF</b>	<b>90Kno1</b>
						-1.1 ± 0.06	NP	84Kaw1
<b>60-Nd</b>			<b>7.69 ± 0.05</b>				<b>BD</b>	<b>75Bou1</b>
60-Nd-142	27.11	0	7.7 ± 0.3				BD	53Koe1
60-Nd-143	12.17	7/2						
60-Nd-144	23.85	0	2.8 ± 0.3				BD	53Koe1
60-Nd-145	8.5	7/2						
60-Nd-146	17.22	0	8.7 ± 0.2				BD	53Koe1
60-Nd-148	5.7	0						
60-Nd-150	5.6	0	5.28 ± 0.2				TM	75Ver1
<b>61-Pm-147</b>	<b>2.62 Y</b>	<b>7/2</b>	<b>12.6 ± 0.4</b>				<b>TM</b>	<b>72Koe2</b>
<b>62-Sm</b>			<b>0 ± 0.05</b>				<b>BD</b>	<b>84Eng1</b>
62-Sm-144	3.1	0						
62-Sm-147	15	7/2						
62-Sm-148	11.2	0						
62-Sm-149	13.8	7/2	18.7 ± 0.28				IN	82Wor1
62-Sm-150	7.4	0						
62-Sm-152	26.7	0	-5 ± 0.6				BD	53Koe1
62-Sm-154	22.8	0	8 ± 1.				BD	53Koe1

<b>Z-Symb-A</b>	<b>% or T1/2</b>	<b>I</b>	<b>bc</b>	<b>b+</b>	<b>b-</b>	<b>b+-b-</b>	<b>Meth</b>	<b>Ref</b>
<b>63-Eu</b>			<b>5.3 ± 0.3</b>				<b>IN</b>	<b>85Rau1</b>
63-Eu-151	47.8	5/2						
63-Eu-153	52.8	5/2	8.22 ± 0.12				IN	81Kis1
<b>64-Gd</b>			<b>9.5 ± 0.2</b>				<b>BD</b>	<b>75Wat3</b>
64-Gd-152	0.2	0						
64-Gd-154	2.2	0						
64-Gd-155	14.9	3/2						
64-Gd-156	20.6	0						
64-Gd-157	15.7	3/2						
64-Gd-158	24.7	0						
64-Gd-160	21.7	0	9.15 ± 0.05				BD	72Moo1
<b>65-Tb-159</b>	<b>100</b>	<b>3/2</b>	<b>7.34 ± 0.02</b>	<b>6.8 ± 0.2</b>	<b>8.1 ± 0.2</b>		<b>CF</b>	<b>97Kno2</b>
						-0.35 ± 0.14	NP	76Ako1
<b>66-Dy</b>			<b>16.9 ± 0.3</b>				<b>IN</b>	<b>85Rau1</b>
66-Dy-156	0.06	0						
66-Dy-158	0.1	0						
66-Dy-160	2.3	0	6.7 ± 0.4				BD	68Chi1
66-Dy-161	18.9	5/2	10.3 ± 0.4				BD	68Chi1
66-Dy-162	25.5	0	-1.4 ± 0.5				BD	68Chi1
66-Dy-163	24.9	5/2	5 ± 0.4	6.1 ± 0.5	3.5 ± 0.5		BD	68Chi1
66-Dy-164	28.2	0	49.4 ± 0.5				BD	68Chi1
<b>67-Ho-165</b>	<b>100</b>	<b>7/2</b>	<b>8.44 ± 0.03</b>	<b>6.9 ± 0.2</b>	<b>10.3 ± 0.2</b>		<b>CF</b>	<b>97Kno2</b>
						-3.5 ± 0.4	NP	79Gla1
<b>68-Er</b>			<b>7.79 ± 0.02</b>				<b>CF</b>	<b>97Kno2</b>
68-Er-162	0.14	0	9.01 ± 0.11				CF	97Kno2
68-Er-164	1.6	0	7.95 ± 0.14				CF	97Kno2
68-Er-166	33.4	0	10.51 ± 0.19				CF	97Kno2
68-Er-167	22.9	7/2	3.06 ± 0.05	5.3 ± 0.3	0 ± 0.3		CF	97Kno2
68-Er-168	27	0	7.43 ± 0.08				CF	97Kno2
68-Er-170	15	0	9.61 ± 0.06				CF	97Kno2
<b>69-Tm-169</b>	<b>100</b>	<b>1/2</b>	<b>7.07 ± 0.03</b>				<b>CF</b>	<b>86Koe2</b>
						2 ± 0.6	NP	87Gla2

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>70-Yb</b>			<b>12.41 ± 0.03</b>				<b>CF</b>	<b>86Koe2</b>
70-Yb-168	0.14	0						
70-Yb-170	3	0	6.8 ± 0.1				CF	86Koe2
70-Yb-171	14.3	1/2	9.7 ± 0.1	6.5 ± 0.2	19.4 ± 0.4		CF	86Koe2
70-Yb-172	21.9	0	9.5 ± 0.1				CF	86Koe2
70-Yb-173	16.3	5/2	9.56 ± 0.1	2.5 ± 0.2	13.3 ± 0.3		CF	86Koe2
70-Yb-174	31.8	0	19.2 ± 0.1				CF	86Koe2
70-Yb-176	12.7	0	8.7 ± 0.1				CF	86Koe2
<b>71-Lu</b>			<b>7.21 ± 0.03</b>				<b>CF</b>	<b>86Koe2</b>
71-Lu-175	97.4	7/2	7.28 ± 0.09				CF	86Koe2
71-Lu-176	2.6	7	6.1 ± 0.2				CF	86Koe2
<b>72-Hf</b>			<b>7.77 ± 0.14</b>				<b>BD</b>	<b>61Ato1</b>
72-Hf-174	0.184	0	10.9 ± 1.1				TM	73Ver1
72-Hf-176	5.2	0	6.61 ± 0.18				TM	73Ver1
72-Hf-177	18.5	0						
72-Hf-178	27.2	0	5.9 ± 0.2				TM	73Ver1
72-Hf-179	13.8	9/2	7.46 ± 0.16				TM	73Ver1
72-Hf-180	35.1	0	13.2 ± 0.3				TM	73Ver1
<b>73-Ta</b>			<b>6.91 ± 0.07</b>				<b>CF</b>	<b>71Koe1</b>
73-Ta-180	0.012	9						
73-Ta-181	99.98	7/2	6.91 ± 0.07				CF	71Koe1
						-0.59 ± 0.06	NP	79Gla1
<b>74-W</b>			<b>4.755 ± 0.018</b>				<b>IN</b>	<b>00Tom1</b>
74-W-180	0.13	0						
74-W-182	26.3	1/2	7.04 ± 0.04				CF	87Kno2
74-W-183	14.3	1/2	6.59 ± 0.04	6.3 ± 0.4	7 ± 0.4		CF	87Kno2
74-W-184	30.7	0	7.55 ± 0.06				CF	87Kno2
74-W-186	28.6	0	-0.73 ± 0.04				CF	87Kno2
<b>75-Re</b>			<b>9.2 ± 0.2</b>				<b>BD</b>	<b>61Wil1</b>
75-Re-185	37.5	5/2						
75-Re-187	62.5	5/2						

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>76-Os</b>			<b>10.7 ± 0.2</b>				<b>BD</b>	<b>63Mue1</b>
76-Os-184	0.02	0					TM	75Ver1
76-Os-186	1.6	0	12 ± 1.7					
76-Os-187	1.6	1/2						
76-Os-188	13.3	0	7.8 ± 0.3				BD	63Mue1
76-Os-189	16.1	3/2	11 ± 0.3				BD	63Mue1
76-Os-190	26.4	0	11.4 ± 0.3				BD	63Mue1
76-Os-192	41	0	11.9 ± 0.4				BD	63Mue1
<b>77-Ir</b>			<b>10.6 ± 0.3</b>				<b>BD</b>	<b>63Mue1</b>
77-Ir-191	37.4	3/2						
77-Ir-193	62.6	3/2						
<b>78-Pt</b>			<b>9.6 ± 0.01</b>				<b>IN</b>	<b>85Rau1</b>
78-Pt-190	0.01	0	9 ± 1.				TM	75Ver1
78-Pt-192	1.78	0	9.9 ± 0.5				TM	75Ver1
78-Pt-194	32.9	0	10.55 ± 0.08				TM	75Ver1
78-Pt-195	33.8	1/2	8.91 ± 0.09	9.5 ± 0.3	7.2 ± 0.3		M	84Mug1
						2.3 ± 0.4	NP	79Gla1
78-Pt-196	25.3	0	9.89 ± 0.08				TM	75Ver1
78-Pt-198	7.2	0	7.8 ± 0.1				TM	75Ver1
<b>79-Au-197</b>	<b>100</b>	<b>3/2</b>	<b>7.9 ± 0.07</b>				<b>CF</b>	<b>90Kno1</b>
				6.26 ± 0.1	9.9 ± 0.14		M	84Mug1
						-3.5 ± 0.3	NP	79Gla1
<b>80-Hg</b>			<b>12.66 ± 0.02</b>				<b>GR</b>	<b>77Koe1</b>
80-Hg-196	0.15	0						
80-Hg-198	10.1	0						
80-Hg-199	16.9	0						
80-Hg-200	23.1	0						
80-Hg-201	13.2	3/2						
80-Hg-202	29.7	0	11.002 ± 0.043				IN	00Tom1
80-Hg-204	6.8	0						
<b>81-Tl</b>			<b>8.776 ± 0.005</b>				<b>GR</b>	<b>90Rei1</b>
81-Tl-203	29.5	1/2	8.51 ± 0.08	9.08 ± 0.1	6.62 ± 0.1		CF	95Kno1
						2.45 ± 0.032	NP	87Gla2
81-Tl-205	70.5	1/2	8.87 ± 0.07	5.15 ± 0.1	9.43 ± 0.1		CF	95Kno1
						-0.56 ± 0.04	NP	87Gla2

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>82-Pb</b>			<b>9.401 ± 0.002</b>				<b>IN</b>	<b>00Iof1</b>
82-Pb-204	1.4	0	10.893 ± 0.078				IN	00Iof1
82-Pb-206	24.1	0	9.221 ± 0.078				IN	00Iof1
82-Pb-207	22.1	1/2	9.286 ± 0.016				IN	00Iof1
						0.33 ± 0.13	NP	87Gla2
82-Pb-208	52.4	0	9.494 ± 0.03				IN	00Iof1
<b>83-Bi-209</b>	<b>100</b>	<b>9/2</b>	<b>8.532 ± 0.002</b>				<b>GR</b>	<b>90Rei1</b>
				8.26 ± 0.01	8.74 ± 0.01		M	84Mug1
						0.44 ± 0.09	NP	79Gla1
<b>84-Po</b>								
<b>85-At</b>								
<b>86-Rn</b>								
<b>87-Fr</b>								
<b>88-Ra-226</b>	<b>1620 Y</b>	<b>0</b>	<b>10 ± 1.</b>				<b>TM</b>	<b>74Kal1</b>
<b>89-Ac</b>								
<b>90-Th-232</b>	<b>100</b>	<b>0</b>	<b>10.31 ± 0.03</b>				<b>CF</b>	<b>89Was1</b>
<b>91-Pa-231</b>	<b>32500 Y</b>	<b>3/2</b>	<b>9.1 ± 0.3</b>				<b>BD</b>	<b>73Wed1</b>
<b>92-U</b>			<b>8.417 ± 0.005</b>				<b>IN</b>	<b>82Boe1</b>
92-U-233	159000 Y	5/2						
92-U-234	0.005	0						
92-U-235	0.72	7/2	10.5 ± 0.03				IN	86Kai1
92-U-238	99.27	0	8.407 ± 0.007				IN	82Boe1
<b>93-Np-237</b>	<b>2140000 Y</b>	<b>5/2</b>	<b>10.55 ± 0.1</b>				<b>BD</b>	<b>67Hea1</b>
<b>94-Pu-238</b>	<b>87.74 Y</b>	<b>0</b>						
94-Pu-239	24400 Y	1/2	7.7 ± 0.1				BD	70Gre1
94-Pu-240	6540 Y	0	3.5 ± 0.1				BD	71Lan1
94-Pu-242	376000 Y	0	8.1 ± 0.1				BD	71Lan1
<b>95-Am-243</b>	<b>7370 Y</b>	<b>5/2</b>	<b>8.3 ± 0.2</b>				<b>BD</b>	<b>79Boe1</b>
<b>96-Cm-244</b>	<b>17.9 Y</b>	<b>0</b>	<b>9.5 ± 0.3</b>				<b>BD</b>	<b>77Fou1</b>