

Table of recommended Bound Coherent Neutron Scattering Lengths of the Elements

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
1-H			-3.7409 ± 0.0011				GR	75Koe1
2-He			3.26 ± 0.03				IN	79Kai1
3-Li			-1.9 ± 0.03				CF	83Koe1
4-Be-9	100	3/2	7.79 ± 0.01				TM	78Was1
						0.24 ± 0.07	NP	87Gla2
5-B			5.3 ± 0.04				CF	83Koe1
6-C			6.6484 ± 0.0013				GR	75Koe1
7-N			9.36 ± 0.02				CF	85Mei1
			9.21 ± 0.02				BD	79Tak1
8-O			5.805 ± 0.004				M	79Koe2
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
10-Ne			4.6 ± 0.01				CF	85Mei1
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
12-Mg			5.375 ± 0.004				IN	78Bau1
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	79Gla1
14-Si			4.15071 ± 0.00022				IN	98Iof1
15-P-31	100	1/2	5.13 ± 0.01				CF	77Koe2
						0.8	NP	83Gla1
16-S			2.847 ± 0.001				GR	71Tru1
17-Cl			9.5792 ± 0.0008				GR	75Koe1
18-Ar			1.909 ± 0.006				TM	66Kro1
19-K			3.67 ± 0.02				BD	73Coo1
20-Ca			4.7 ± 0.02				CF	90Kno1

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref	
21-Sc-45	100	7/2	12.1 ± 0.1				NP	77Mar2	
				6.91 ± 0.22	18.99 ± 0.28		CF	93Koe1	
						-13.6 ± 0.9	NP	79Gla1	
22-Ti			-3.37 ± 0.013				CF	93Koe1	
23-V			-0.443 ± 0.014				CF	93Koe1	
24-Cr			3.635 ± 0.007				CF	78Koe2	
25-Mn-55	100	5/2	-3.75 ± 0.018	-4.93 ± 0.46	-1.46 ± 0.33		CF	93Koe1	
26-Fe			9.45 ± 0.02				TM	74Dil1	
27-Co-59	100	7/2	2.49 ± 0.02	-9.21 ± 0.1	3.58 ± 0.1		CF	97Kno1	
						-12.5 ± 0.4	NP	79Gla1	
28-Ni			10.3 ± 0.1				BD	51Shu1	
29-Cu			7.718 ± 0.004				IN	78Bau1	
30-Zn			5.68 ± 0.005				IN	78Bau1	
31-Ga			7.288 ± 0.002				GR	90Rei1	
32-Ge			8.185 ± 0.02				CF	87Koe1	
33-As-75	100	3/2	6.58 ± 0.01	6.04 ± 0.05	7.47 ± 0.08		CF	80Koe1	
						-1.43 ± 0.12	NP	79Gla1	
34-Se			7.97 ± 0.009				CF	80Koe1	
35-Br			6.79 ± 0.02				GR	75Koe1	
36-Kr			7.81 ± 0.02				CF	85Mei1	
37-Rb			7.08 ± 0.02				CF	72Koe3	
38-Sr			7.02 ± 0.02				CF	81Koe1	
39-Y-89	100	1/2	7.75 ± 0.02	8.4 ± 0.2	5.8 ± 0.5		CF	81Koe1	
						2.6 ± 0.7	NP	79Gla1	
40-Zr			7.16 ± 0.03				CF	81Koe1	
41-Nb-93	100	9/2	7.054 ± 0.003				IN	78Bau1	
				7.14 ± 0.03	7.06 ± 0.04	7.35 ± 0.04		TM	74Dil1
							-0.28 ± 0.02	NP	74Rou1
42-Mo			6.715 ± 0.02				CF	87Koe2	
43-Tc-99	210000 Y	9/2	6.8 ± 0.3				BD	63Mue1	

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
44-Ru			7.02 ± 0.02				CF	95Kno1
45-Rh-103	100	1/2	5.9 ± 0.04	8.15 ± 0.06	6.74 ± 0.06		CF	95Kno1
46-Pd			5.91 ± 0.06				BD	65Cab1
47-Ag			5.922 ± 0.007				IN	82Bon1
48-Cd			4.83 ± 0.05				CF	95Kno1
49-In			4.065 ± 0.02				CF	80Koe2
50-Sn			6.225 ± 0.002				GR	90Rei1
51-Sb			5.57 ± 0.03				CF	86Koe1
52-Te			5.68 ± 0.02				IN	97Iof1
53-I-127	100	5/2	6.15 ± 0.06	6.6 ± 0.2	3.4 ± 0.2		CF	86Koe1
54-Xe			4.69 ± 0.04				IN	79Kai1
55-Cs-133	100	7/2	5.42 ± 0.02			2.6 ± 0.3	CF NP	72Koe3 79Gla1
56-Ba			5.07 ± 0.03				CF	85Koe2
57-La			8.24 ± 0.04				CF	82Kno1
58-Ce			4.84 ± 0.02				CF	82Kno1
59-Pr-141	100	5/2	4.58 ± 0.05			-1.1 ± 0.06	CF NP	90Kno1 84Kaw1
60-Nd			7.69 ± 0.05				BD	75Bou1
61-Pm-147	2.62 Y	7/2	12.6 ± 0.4				TM	72Koe2
62-Sm			0 ± 0.05				BD	84Eng1
63-Eu			5.3 ± 0.3				IN	85Rau1
64-Gd			9.5 ± 0.2				BD	75Wat3
65-Tb-159	100	3/2	7.34 ± 0.02	6.8 ± 0.2	8.1 ± 0.2	-0.35 ± 0.14	CF NP	97Kno2 76Ako1
66-Dy			16.9 ± 0.3				IN	85Rau1
67-Ho-165	100	7/2	8.44 ± 0.03	6.9 ± 0.2	10.3 ± 0.2	-3.5 ± 0.4	CF NP	97Kno2 79Gla1
68-Er			7.79 ± 0.02				CF	97Kno2

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
69-Tm-169	100	1/2	7.07 ± 0.03			2 ± 0.6	CF NP	86Koe2 87Gla2
70-Yb			12.41 ± 0.03				CF	86Koe2
71-Lu			7.21 ± 0.03				CF	86Koe2
72-Hf			7.77 ± 0.14				BD	61Ato1
73-Ta			6.91 ± 0.07				CF	71Koe1
74-W			4.755 ± 0.018				IN	00Tom1
75-Re			9.2 ± 0.2				BD	61Wil1
76-Os			10.7 ± 0.2				BD	63Mue1
77-Ir			10.6 ± 0.3				BD	63Mue1
78-Pt			9.6 ± 0.01				IN	85Rau1
79-Au-197	100	3/2	7.9 ± 0.07	6.26 ± 0.1	9.9 ± 0.14	-3.5 ± 0.3	CF M NP	90Kno1 84Mug1 79Gla1
80-Hg			12.66 ± 0.02				GR	77Koe1
81-Tl			8.776 ± 0.005				GR	90Rei1
82-Pb			9.401 ± 0.002				IN	00Iof1
83-Bi-209	100	9/2	8.532 ± 0.002	8.26 ± 0.01	8.74 ± 0.01	0.44 ± 0.09	GR M NP	90Rei1 84Mug1 79Gla1
84-Po								
85-At								
86-Rn								
87-Fr								
88-Ra-226	1620 Y	0	10 ± 1.				TM	74Kal1
89-Ac								
90-Th-232	100	0	10.31 ± 0.03				CF	89Was1
91-Pa-231	32500 Y	3/2	9.1 ± 0.3				BD	73Wed1
92-U			8.417 ± 0.005				IN	82Boe1
93-Np-237	2140000 Y	5/2	10.55 ± 0.1				BD	67Hea1

Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
94-Pu-238	87.74 Y	0						
95-Am-243	7370 Y	5/2	8.3 ± 0.2				BD	79Boe1
96-Cm-244	17.9 Y	0	9.5 ± 0.3				BD	77Fou1