

# *Bound coherent neutron scattering lengths*

<u>H</u>																	<u>He</u>	
<u>Li</u>	<u>Be</u>											<u>B</u>	<u>C</u>	<u>N</u>	<u>O</u>	<u>F</u>	<u>Ne</u>	
<u>Na</u>	<u>Mg</u>											<u>Al</u>	<u>Si</u>	<u>P</u>	<u>S</u>	<u>Cl</u>	<u>Ar</u>	
<u>K</u>	<u>Ca</u>	<u>Sc</u>	<u>Ti</u>	<u>V</u>	<u>Cr</u>	<u>Mn</u>	<u>Fe</u>	<u>Co</u>	<u>Ni</u>	<u>Cu</u>	<u>Zn</u>	<u>Ga</u>	<u>Ge</u>	<u>As</u>	<u>Se</u>	<u>Br</u>	<u>Kr</u>	
<u>Rb</u>	<u>Sr</u>	<u>Y</u>	<u>Zr</u>	<u>Nb</u>	<u>Mo</u>	<u>Tc</u>	<u>Ru</u>	<u>Rh</u>	<u>Pd</u>	<u>Ag</u>	<u>Cd</u>	<u>In</u>	<u>Sn</u>	<u>Sb</u>	<u>Te</u>	<u>I</u>	<u>Xe</u>	
<u>Cs</u>	<u>Ba</u>	-	<u>Lu</u>	<u>Hf</u>	<u>Ta</u>	<u>W</u>	<u>Re</u>	<u>Os</u>	<u>Ir</u>	<u>Pt</u>	<u>Au</u>	<u>Hg</u>	<u>Tl</u>	<u>Pb</u>	<u>Bi</u>	<u>Po</u>	<u>At</u>	<u>Rn</u>
<u>Fr</u>	<u>Ra</u>	--	Lr	Rf	Db	Sg	Bh	Hs	Mt	110								
			-	<u>La</u>	<u>Ce</u>	<u>Pr</u>	<u>Nd</u>	<u>Pm</u>	<u>Sm</u>	<u>Eu</u>	<u>Gd</u>	<u>Tb</u>	<u>Dy</u>	<u>Ho</u>	<u>Er</u>	<u>Tm</u>	<u>Yb</u>	
			--	<u>Ac</u>	<u>Th</u>	<u>Pa</u>	<u>U</u>	<u>Np</u>	<u>Pu</u>	<u>Am</u>	<u>Cm</u>	Bk	Cf	Es	Fm	Md	No	

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# Bound coherent neutron scattering lengths of the neutron



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
0-N-1	10.3 MIN	1/2	-37 ± 0.6		-37 ± 0.6		M	89Sla1
			-37.4 ± 1.2		-37.4 ± 1.2		HE	87Sch1
			-37 ± 0.8		-37 ± 0.8		HE	84Gab1
			-33.2 ± 0.8		-33.2 ± 0.8		HE	81Kul1
			-37.2 ± 1.		-37.2 ± 1.		HE	79Gab1
			-32.6 ± 1.2		-32.6 ± 1.2		HE	79Sou1
			-33.8 ± 1.2		-33.8 ± 1.2		HE	79Wit1
			-35 ± 8.1		-35 ± 8.1		HE	78One1
			-26.6 ± 7.		-26.6 ± 7.		HE	78One1
			-46.4 ± 7.2		-46.4 ± 7.2		HE	77Hai1
			-35		-35		HE	77Ald1
			-33.2 ± 1.1		-33.2 ± 1.1		HE	76Kue1
			-33.4 ± 2.6		-33.4 ± 2.6		HE	75Sal1
			-32 ± 2.4		-32.4 ± 2.4		HE	74Bre1
			-32.6 ± 2.		-32.6 ± 2.		HE	74Zei1
			-35 ± 1.		-35 ± 1.		HE	73Shk1
			-32.4 ± 2.4		-32.4 ± 2.4		HE	73Jer1
			-36.6 ± 4.		-36.6 ± 4.		HE	73Shi1
			-32.2 ± 1.8		-32.8 ± 1.8		HE	72Zei1
			-32 ± 2.4		-32 ± 2.4		HE	72Bre1
			-29 ± 1.6		-29 ± 1.6		HE	72Zei2
			-43.4 ± 2.4		-43.4 ± 2.4		HE	72Str1
			-46 ± 8.		-46 ± 8.		HE	72Sko1
			-50 ± 6.		-50 ± 6.		HE	72San1
			-32.8 ± 2.6		-32.8 ± 2.6		HE	72Sal1
			-30 ± 2.		-30 ± 2.		HE	72Kue1
			-33.6 ± 5.		-33.6 ± 5.		HE	72Dro1
			-32 ± 2.		-32 ± 2.		HE	71Gro1
			-31 ± 2.2		-31 ± 2.2		HE	70Ass1
			-34 ± 1.		-34 ± 1.		HE	70Gro1
			-46 ± 3.4		-46 ± 3.4		HE	70Lun1
			-32.8 ± 5.		-32.8 ± 5.		HE	70Zei1
			-32.4 ± 4.4		-32.4 ± 4.4		HE	69Gra1
			-32.2 ± 2.		-32.2 ± 2.		HE	66Bau1
			-32.8 ± 2.6		-32.8 ± 2.6		HE	65Had1

# Bound coherent neutron scattering lengths of hydrogen



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
1-H			<b>-3.7409 ± 0.0011</b>				GR	75Koe1
			-3.74 ± 0.02				IN	81Ham1
			-3.741 ± 0.004				IN	79Gra1
			-3.733 ± 0.004				TM	75Cal1
			-3.74 ± 0.02				TR	62Dic1
			-3.7 ± 0.6				BD	57Wor1
			-3.8 ± 0.05				TM	55Squ1
			3.8 ± 0.05				TR	53Ste1
			-4 ± 0.2				BD	51Shu1
			-3.78 ± 0.02				TR	51Bur1
			-3.75 ± 0.03				TR	50Hug1
			-3.9 ± 0.1				BD	48Shu1
			-3.9				TR	47Fer1
			-3.95 ± 0.12				TR	47Sut1
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
			-3.64 ± 0.03	10.96 ± 0.03	-47.41 ± 0.03		IN	79Kai1
			-3.7409 ± 0.0011	10.855 ± 0.006	-47.531 ± 0.016		GR	75Dil1
			-3.733 ± 0.003	10.825 ± 0.014	-47.436 ± 0.022		TM	75Cal1
				10.835 ± 0.01	-47.471 ± 0.026		TM	74Lom1
			-3.74 ± 0.003	10.828 ± 0.01	-47.54 ± 0.3		TR	71Koe2
			-3.756 ± 0.009	10.81 ± 0.012	-47.456 ± 0.026		TM	68Hou1
			-3.72 ± 0.002	10.98 ± 0.04	-47.8 ± 0.1		GR	67Koe1
			-3.74 ± 0.02	10.8 ± 0.04	-47.34 ± 0.06		TR	62Dic1
				10.8 ± 0.1	-49.8 ± 0.1		TM	55Nik1
			-3.8 ± 0.05	10.74 ± 0.08	-47.46 ± 0.14		TM	55Squ1
			-3.78 ± 0.02	10.75 ± 0.05	-47.38 ± 0.12		TR	51Bur1
1-H-2	0.0149	1	6.674 ± 0.006	9.53 ± 0.03	0.975 ± 0.06		M	77Koe1
			6.67 ± 0.03				CF	85Mei1
			6.67 ± 0.04				IN	81Ham1
			6.65 ± 0.05				CF	80Koe3
			6.706 ± 0.023				IN	79Gra2
			6.55 ± 0.08	9.54 ± 0.02	0.57 ± 0.25		IN	79Kai1
			6.674 ± 0.006				GR	74Nis1
			6.672 ± 0.007	9.53 ± 0.03	0.98 ± 0.06		GR	71Dil1

<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>
				9.2 ± 0.06	0.22 ± 0.05		NP	70Iva1
			6.51 ± 0.02				BD	69Cop1
			6.7 ± 0.05				CF	68Koe1
			6.21 ± 0.04	9.2 ± 0.06	0.2 ± 0.08		TR	68Bar1
				9.21 ± 0.09	0.17 ± 0.1		M	67Van1
				9.6	1.2		HE	64Wil2
			6.62 ± 0.09				TM	63Gis1
			6.77 ± 0.08				TR	63Bar1
			6.6 ± 0.5				BD	57Wor1
			6.74 ± 0.18	9.74 ± 0.2	0.86 ± 0.2		TM	55Nik1
			6.4 ± 0.2				BD	51Shu1
			6.79 ± 0.12	9.57 ± 0.09	1 ± 0.5		M	51Hur1
1-H-3	12.26 Y	1/2	4.792 ± 0.027	4.18 ± 0.15	6.56 ± 0.37		IN	85Rau2
			5.1 ± 0.1				IN	81Ham1
			4.94 ± 0.08	4.94 ± 0.3	4.94 ± 0.8		M	81Ham1
			4.91 ± 0.07	4.8 ± 0.12	5.22 ± 0.16		M	80Sea1
			4.87 ± 1.15	4.94 ± 0.66	4.67 ± 2.		TM	80Phi1
			5.1 ± 0.3				SA	72Kir1
			4.7 ± 0.3				SA	72Don1
			5 ± 0.3				SA	72Don1

# Bound coherent neutron scattering lengths of helium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
2-He			<b>3.26 ± 0.03</b>				IN	79Kai1
			3.24 ± 0.03				CF	85Mei1
			3.07 ± 0.03				AV	81Mug1
			3.11 ± 0.02				TN	69Ror1
			2.99 ± 0.07				TM	63Gen1
			3 ± 0.2				TR	51Mer1
2-He-3	0.00013	1/2	5.74 ± 0.07	4.7 ± 0.5	8.8 ± 1.4		IN	79Kai1
			5.7 ± 0.4	4.5 ± 0.3	9.3 ± 0.5		TM	81Bau1
				4.83 ± 0.2	8.73 ± 0.43		TM	81Alf1
			5.53	4.3 ± 0.7	10 ± 0.9		TM	78Fra1
				4.2	12.57		HE	78Kha1
			5.73 ± 0.05				IN	77Kai1
	6.1 ± 0.6			TR	74Kit1			
2-He-4	0.99987	0	3.26 ± 0.03				IN	79Kai1

# Bound coherent neutron scattering lengths of lithium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
3-Li			-1.9 ± 0.03				CF	83Koe1
			-2.03 ± 0.05				CF	77Koe1
			-1.94 ± 0.05				BD	62Cal1
			-1.8 ± 0.1				BD	51Shu1
			-5.9				BD	47Fer1
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
			2.15 ± 0.15	0.82 ± 0.17	4.81 ± 0.07		TM	70Asa1
			1.8				BD	62Pet1
3-Li-7	92.5	3/2	7 ± 1.				BD	51Shu1
			-2.22 ± 0.02	-4.15 ± 0.06	1 ± 0.08		CF	83Koe1
						-4.5 ± 0.2	NP	79Gla1
				-4.13 ± 0.08	0.91 ± 0.35		TM	82Alf1
						-4.5 ± 0.2	NP	74Rou1
			-2.1 ± 0.1			BD	62Pet1	
			-2.1 ± 0.1			BD	61Wil1	
			-2.5 ± 0.08			BD	51Shu1	

# Bound coherent neutron scattering lengths of beryllium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
4-Be-9	100	3/2	7.79 ± 0.01				TM	78Was1
						0.24 ± 0.07	NP	87Gla2
			7.74 ± 0.1				BD	61Will
			7.57				TR	52Har1
			7.8 ± 0.4				BD	51Shu1
			8.9				TR	47Fer1

# Bound coherent neutron scattering lengths of boron



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
5-B			$5.3 \pm 0.04$				CF	83Koe1
			$5.35 \pm 0.06$				CF	77Koe1
			$5.4 \pm 0.04$				TR	65Don1
			5.4				BD	62Pet1
5-B-10	19.4	3	$-0.2 \pm 0.4$	$-4.2 \pm 0.4$	$5.2 \pm 0.4$		CF	83Koe1
			$0 \pm 0.22$	-3.9	5.2		CF	77Koe1
			$1.4 \pm 1.5$				SA	66Don1
			$0.8 \pm 1.$				TR	65Don1
5-B-11	80.2	3/2	$6.65 \pm 0.04$	$5.6 \pm 0.3$	$8.3 \pm 0.3$		CF	83Koe1
			$6.53 \pm 0.35$				SA	66Don1
			$6.1 \pm 0.2$				BD	66Cra1
			$6.6 \pm 0.3$				TR	65Don1



# Bound coherent neutron scattering lengths of carbon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
6-C			<b>6.6484 ± 0.0013</b>				GR	75Koe1
			6.647 ± 0.005				IN	85Fre1
			6.648 ± 0.004				TM	71Hou1
			6.648 ± 0.005				TM	71Dil2
			6.648 ± 0.003				GR	71Koe2
			6.648 ± 0.004				GR	67Koe1
			6.4 ± 0.2				BD	51Shu1
			6.7				TM	47Fer1
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
							NP	79Gla1
							M	81Mug1
							CF	79Koe2
							BD	52Koe1

# Bound coherent neutron scattering lengths of nitrogen



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
7-N			<b>9.36 ± 0.02</b>				CF	<b>85Mei1</b>
			9.26 ± 0.02				CF	85Mei1
			9.21 ± 0.02				BD	79Tak1
			9.3 ± 0.08				IN	79Kai1
			9.36 ± 0.02				CF	76Koe1
			9.25 ± 0.04				BD	74Kvi1
			9.19 ± 0.11				TR	65Don1
			9.4 ± 0.15				BD	52Pet1
			8.5				BD	51Gol1
			8.5 ± 0.3				BD	51Shu1
			8.9 ± 0.7				TR	51Mcr1
			9.53 ± 0.05				TM	49Me11
			8.7				TM	47Fer1
7-N-14	99.635	1	9.37 ± 0.02	10.7 ± 0.2	6.2 ± 0.3		M	98Ale1
			9.37 ± 0.02	10.7 ± 0.2	6.5 ± 0.3		CF	76Koe1
7-N-15	0.365	1/2	6.44 ± 0.03	6.77 ± 0.1	6.21 ± 0.1		M	98Ale1
			6.44 ± 0.03	6.43 ± 0.03	6.48 ± 0.03		CF	76Koe1
			6.5 ± 0.2				BD	72Kuz1

# Bound coherent neutron scattering lengths of oxygen



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
8-O			<b>5.805 ± 0.004</b>				<b>M</b>	<b>79Koe2</b>
			5.83 ± 0.05				IN	79Kai1
			5.83 ± 0.002				PD	76Sch1
			5.801 ± 0.006				GR	74Nis1
			5.804 ± 0.007				TM	71Dil1
			5.8 ± 0.05				TR	65Don1
			5.8 ± 0.2				BD	62Roo1
			5.81 ± 0.2				BD	51Shu1
			5.79 ± 0.03				TM	49Mel1
			6.1				TM	47Fer1
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
				5.93 ± 0.15	5.58 ± 0.2	0.35 ± 0.12	NP	81Mal1
				5.66 ± 0.05	5.86 ± 0.07	5.41 ± 0.17	TH	81Mug1
				5.62 ± 0.45			CF	79Koe2
				5.78 ± 0.15			BD	68Val1
8-O-18	0.208	0	5.84 ± 0.07				CF	79Koe2
			6 ± 0.13				BD	66Con1

# Bound coherent neutron scattering lengths of fluorine



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
			5.66 ± 0.02				GR	75Koe1
			5.63 ± 0.04				TM	74Sin1
			5.603 ± 0.011	5.58 ± 0.01	5.72 ± 0.01		TM	74Dil1
			5.6 ± 0.05				BD	73Pet1
						-0.135 ± 0.02	NP	72Abr1
			5.79 ± 0.17				TR	68Bar1
			5.74 ± 0.09				TR	63Bar1
			5.5 ± 0.16				BD	51Shu1
			6				TM	47Fer1

# Bound coherent neutron scattering lengths of neon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
10-Ne			<b>4.6 ± 0.01</b>				CF	85Mei1
			4.547 ± 0.011				CF	80Koe3
			4.63 ± 0.04				IN	79Kai1
			4.6 ± 0.03				TM	69Ror1
			4.59 ± 0.01				TM	66Kro1
			4.6				BD	58Hen1
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

# Bound coherent neutron scattering lengths of sodium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref		
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	
					3.6 ± 0.05			IN	83Kis1	
					3.58 ± 0.005	6.42 ± 0.005	-1.11 ± 0.05		GR	83Rei1
						6.42 ± 0.04	-1 ± 0.06		M	79Koe2
								7.1 ± 0.3	NP	75Abr1
						3.5 ± 0.2			BD	51Shu1
						3.6			BD	51Gol1
						5.6			BD	47Fer1

# Bound coherent neutron scattering lengths of magnesium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref	
12-Mg			<b>5.375 ± 0.004</b>				IN	78Bau1	
			5.376 ± 0.02				CF	79Koe2	
			5.23 ± 0.17				BD	72Abu1	
			5.43 ± 0.1				BD	71Jon1	
			5.16 ± 0.06				BD	63Sab1	
			4.8 ± 0.2				BD	63Mue1	
			5.2 ± 0.1				BD	52Bac1	
			4.4 ± 0.3				BD	51Shu1	
			5.6				BD	47Fer1	
12-Mg-24	78.99	0	5.49 ± 0.18				BD	72Abu1	
12-Mg-25	10	5/2	3.62 ± 0.14						
					4.73 ± 0.3	1.76 ± 0.2		M	98Ale1
							3 ± 0.2	NP	87Gla2
				4.6 ± 0.4	2.7 ± 0.5		M	79Koe2	
12-Mg-26	11	0	4.89 ± 0.15				BD	72Abu1	

# Bound coherent neutron scattering lengths of aluminum



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
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
				3.2 ± 0.08	3.8 ± 0.12		M	79Koe2
			3.45 ± 0.02				IN	79Kik1
			3.447 ± 0.005				IN	76Rau1
			3.447 ± 0.005				IN	76Bau1
						0.5 ± 0.03	NP	74Rou1
			3.449 ± 0.009				CF	71Koe1
			3.442 ± 0.002				TM	65Tri1
			3.5 ± 0.2				BD	51Shu1



# Bound coherent neutron scattering lengths of silicon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
14-Si			<b>4.15071 ± 0.00022</b>				IN	98Iof1
			4.1571 ± 0.0028				IN	90Tup1
			4.165 ± 0.036				SA	90Tup1
			4.24 ± 0.04				CF	80Bad1
			4.1478 ± 0.0016				PR	76Sch1
			4.147 ± 0.002				PR	73Sch2
			4.149 ± 0.001				DD	72Shu1
			4.159 ± 0.006				CF	71Koe1
			4.145 ± 0.004				TM	71Di12
			4.165 ± 0.002				DD	68Shu1
			4.04 ± 0.2				TM	66Nik1
			4.2 ± 1.2				SA	51Wei1
	14-Si-28	92.2	0	4.106 ± 0.006				CF
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
			4.7 ± 0.1	4.09 ± 0.15	6.6 ± 0.4		CF	79Koe3
14-Si-30	3.1	0	4.58 ± 0.08				CF	79Koe3

# Bound coherent neutron scattering lengths of phosphorus



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
15-P-31	100	1/2	5.13 ± 0.01				CF	77Koe2
						0.8	NP	83Gla1
						0.7	NP	81Gla1
			5.13 ± 0.01				CF	76Koe1
			5.3 ± 0.2				BD	61Wil1
			5.1				BD	53Bac1
			5 ± 0.07				BD	52Lev1

# Bound coherent neutron scattering lengths of sulfur



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
16-S			<b>2.847 ± 0.001</b>				GR	71Tru1
			2.8 ± 0.1				BD	65Men1
			3.1 ± 0.2				BD	51Shu1
			2.8				BD	47Fer1
16-S-32	95	0	2.804 ± 0.002				CF	79Koe3
16-S-33	0.74	3/2	4.74 ± 0.19			3 ± 3.	CF	79Koe3
							CF	78Koe1
16-S-34	4.2	0	3.48 ± 0.03				CF	79Koe3
			3 ± 1.				TH	86Sea1

# Bound coherent neutron scattering lengths of chlorine



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
17-Cl			<b>9.5792 ± 0.0008</b>				<b>GR</b>	<b>75Koe1</b>
			9.59 ± 0.07				CF	77Koe3
			9.58 ± 0.002				GR	71Koe2
			9.54				BD	69Neu1
			9.633 ± 0.006				GR	67Koe1
			9.9 ± 0.2				BD	51Shu1
			9.7				BD	51Gol1
			11.3				TM	47Fer1
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
						13 ± 1.	NP	81Gla1
			11.8				BD	67Shu1
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
						0.4	NP	81Gla1
			2.6				BD	67Shu1

# Bound coherent neutron scattering lengths of argon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
18-Ar			<b>1.909 ± 0.006</b>				TM	66Kro1
			1.88 ± 0.02				CF	85Mei1
			1.85 ± 0.1				CF	79Koe1
			2.07 ± 0.02				IN	79Kai1
			1.8 ± 0.2				CF	77Koe1
			1.83 ± 0.01				TM	69Ror1
			2 ± 0.2				TR	51Mer1
18-Ar-36	0.34	0	24.9 ± 0.07				TR	66Kro1
			24.3 ± 0.4				TM	69And1
			24.9 ± 1.9				TM	62Chr1
			25.4 ± 1.5				TM	57Hen1
18-Ar-38	0.07	0						
			3.5 ± 3.5				TH	81Mug1
18-Ar-40	99.59	0	1.7				TM	62Chr1
			1.84 ± 0.03				TH	81Mug1
			1.83 ± 0.05				TH	73Mug1
			1.7				TM	57Hen1
			2.1				TM	50Har1

# Bound coherent neutron scattering lengths of potassium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
19-K			$3.67 \pm 0.02$				BD	73Coo1
			$3.71 \pm 0.02$				CF	72Koe3
			$3.67 \pm 0.02$				BD	72Coo1
			$3.7 \pm 0.04$				BD	66Bro1
			$3.4 \pm 0.2$				BD	63Mue1
			$3.5 \pm 0.1$				BD	51Shu1
			3.5				TM	47Fer1
19-K-39	93.3	3/2	$3.79 \pm 0.02$	5.15	1.51		CF	79Koe4
						$2.8 \pm 0.7$	NP	83Gla1
						3	NP	79Gla1
			$3.7 \pm 0.1$				BD	63Mue1
19-K-40	0.012	4						
			$3 \pm 1.$				TH	86Sea1
19-K-41	6.7	3/2	$2.69 \pm 0.08$				CF	87Kno1
			$2.58 \pm 0.06$				CF	79Koe4

# Bound coherent neutron scattering lengths of calcium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
20-Ca			<b>4.7 ± 0.02</b>				CF	90Kno1
			4.66 ± 0.05				BD	89Ram1
			4.76 ± 0.06				CF	87Kno1
			4.9 ± 0.03				CF	77Koe1
			4.74 ± 0.03				BD	69Loo1
			4.84 ± 0.13				BD	61Ato2
			4.9 ± 0.17				BD	51Shu1
			7.9				BD	47Fer1
20-Ca-40	96.94	0	4.78 ± 0.05				CF	90Kno1
			4.73 ± 0.05				BD	89Ram1
			4.99 ± 0.07				TH	81Mug1
			4.9 ± 0.2				BD	51Shu1
20-Ca-42	0.64	0	3.36 ± 0.1				BD	89Ram1
			3.15 ± 0.2				TH	81Mug1
20-Ca-43	0.13	7/2	-1.56 ± 0.09				BD	89Ram1
			0.2 ± 0.2				TH	81Mug1
20-Ca-44	2.13	0	1.42 ± 0.06				BD	89Ram1
			1.8 ± 0.1				BD	51Shu1
20-Ca-46	0.003	0	3.55 ± 0.21				BD	89Ram1
			2.55 ± 0.25				TH	81Mug1
20-Ca-48	0.18	0	0.39 ± 0.09				BD	89Ram1
			1.5 ± 0.2				TH	81Mug1

# Bound coherent neutron scattering lengths of scandium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref		
21-Sc-45	100	7/2	12.1 ± 0.1	6.91 ± 0.22	18.99 ± 0.28		NP	77Mar2		
								CF	93Koe1	
								-13.6 ± 0.9	NP	79Gla1
			12.24 ± 0.13	7 ± 0.5	19 ± 0.5		AV	81Mug1		
								-11.8	NP	79Koe5
				6.7	19			-12.3	NP	77Mar2
			12.29 ± 0.11	7 ± 0.4	19.1 ± 0.5		CF	75Koe2		
			12.15 ± 0.13	17.4	5.4		TM	74Dil1		
								-12 ± 0.3	NP	74Rou1
								-15.5 ± 1.5	TM	65Rom1
			11.8 ± 0.5				BD	53Lev1		



# Bound coherent neutron scattering lengths of titanium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
22-Ti			-3.37 ± 0.013				CF	93Koe1
			-3.438 ± 0.002				IN	78Bau1
			-3.37 ± 0.02				CF	77Koe1
			-3.4 ± 0.2				BD	60Shu1
			-3.8 ± 0.2				BD	51Shu1
			-3.56 ± 0.3				SA	51Wei1
22-Ti-46	8	0	4.72 ± 0.05				CF	93Koe1
			4.7 ± 0.2				AV	81Mug1
			4.73 ± 0.06				CF	80Koe4
			4.8 ± 0.2				BD	60Shu1
22-Ti-47	7.5	5/2	3.53 ± 0.07	0.46 ± 0.23	7.64 ± 0.13		CF	93Koe1
			3.2 ± 0.2				AV	81Mug1
			3.49 ± 0.12	0.6 ± 0.3	7.6 ± 0.4		CF	80Koe4
			3.3 ± 0.2				BD	60Shu1
22-Ti-48	73.7	0	-5.86 ± 0.02				CF	93Koe1
			5.85 ± 0.03				AV	81Mug1
			-5.84 ± 0.02				CF	80Koe4
			-5.8 ± 0.2				BD	60Shu1
			-5.8				BD	59Sid1
22-Ti-49	5.5	7/2	0.98 ± 0.05	2.6 ± 0.3	-1.2 ± 0.4		CF	93Koe1
			0.7 ± 0.2				AV	81Mug1
			1 ± 0.05	5.5 ± 0.3	-4.8 ± 0.3		CF	80Koe4
			0.8				BD	60Shu1
22-Ti-50	5.3	0	5.88 ± 0.1				CF	93Koe1
			5.4 ± 0.2				M	81Mug1
			5.93 ± 0.08				CF	80Koe4
			5.5				BD	60Shu1

# Bound coherent neutron scattering lengths of vanadium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
23-V			<b>-0.443 ± 0.014</b>				CF	93Koe1
			-0.41 ± 0.01				AV	81Mug1
			-0.3824 ± 0.0012				IN	78Bau1
			-0.408 ± 0.002				IN	76Rau1
			-0.5 ± 0.05				BD	52Pet1
			-0.47 ± 0.01				TR	50Mer1
23-V-50	0.25	6	7.6 ± 0.7				TH	86Sea1
23-V-51	99.75	7/2		4.93 ± 0.25	-7.58 ± 0.28		CF	93Koe1
						12.81 ± 0.08	NP	87Gla1
			-0.4024 ± 0.21				M	86Sea1
						12.94	NP	79Gla1
			-0.414	5.11 ± 0.28	-7.52 ± 0.22		NP	77Mar1
			5.06 ± 0.12	-7.6 ± 0.12		TM	74Dil1	

# Bound coherent neutron scattering lengths of chromium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
24-Cr			$3.635 \pm 0.007$				CF	78Koe2
			$3.532 \pm 0.01$				CF	71Koe1
			$3.7 \pm 0.1$				BD	51Shu1
24-Cr-50	4.35	0	$-4.5 \pm 0.05$				CF	78Koe2
24-Cr-52	83.8	0	$4.914 \pm 0.015$				CF	78Koe2
			4.9				BD	69Bac1
24-Cr-53	9.59	3/2	$-4.2 \pm 0.03$	$1.16 \pm 0.1$	$-13 \pm 0.2$		CF	78Koe2
24-Cr-54	2.36	0	$4.55 \pm 0.1$				CF	78Koe2

# Bound coherent neutron scattering lengths of manganese



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
25-Mn-55	100	5/2	<b>-3.75 ± 0.018</b>	<b>-4.93 ± 0.46</b>	<b>-1.46 ± 0.33</b>		CF	93Koe1
			-3.73 ± 0.02	-2.21 ± 0.05	-5.84 ± 0.07		CF	77Koe1
			-3.7 ± 0.1				BD	61Will
			-3.3 ± 0.2				BD	51Shu1
			-4.4				TM	47Fer1

# Bound coherent neutron scattering lengths of iron



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
26-Fe			<b>9.45 ± 0.02</b>				TM	74Dil1
			9.54 ± 0.06				PR	71Sch1
			9.16 ± 0.13				TR	62Ball
			9.5				BD	62Shu1
			8.2				TR	47Fer1
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

# Bound coherent neutron scattering lengths of cobalt



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref			
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		
			2.44 ± 0.04				CF	83Kno1			
			2.53 ± 0.05				IN	82Kis1			
			2.78 ± 0.04				-2.92 ± 0.06	10.1 ± 0.08	CF	74Koe1	
			2.5				-3.8 ± 0.54	10.6 ± 0.7	NP	69Jto1	
			2.5 ± 0.03						BD	64Moo1	
			2.5				-3.5 ± 0.2	10.3 ± 0.3	TM	63Sch1	
									-13.8 ± 0.5	NP	63Sch1
			2.5							BD	58Rot1
2.8 ± 0.1				BD	51Shu1						

# Bound coherent neutron scattering lengths of nickel



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
28-Ni			10.3 ± 0.1				BD	51Shu1
			16 ± 5.				SA	51Wei1
			10.4				BD	50Koe1
			10.9				TR	47Fer1
28-Ni-58	67.88	0	14.4 ± 0.1				M	81Mug1
			14.4 ± 0.1				M	73Mug1
			15 ± 0.5				BD	52Ber1
			14.8				BD	50Koe1
28-Ni-60	26.23	0	2.8 ± 0.1				BD	51Shu1
			2.8				BD	50Koe1
28-Ni-61	1.19	3/2	7.6 ± 0.06				BD	67Sid1
28Ni-62	3.66	0	-8.7 ± 0.2				BD	61Wil1
			-8.5				BD	50Koe1
28-Ni-64	1.08	0	-0.37 ± 0.07				BD	67Sid1

# Bound coherent neutron scattering lengths of copper



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
29-Cu			<b>7.718 ± 0.004</b>				IN	78Bau1
			7.66 ± 0.04				IN	85Bon1
			7.6 ± 1.				TM	77Kro1
			7.689 ± 0.006				PR	76Sch1
			7.61 ± 0.03				TM	74Dil1
			7.63 ± 0.04				BD	73Mug1
			7.5 ± 0.15				TM	72Ste1
			7.58 ± 0.05				BD	72Zig1
			7.46 ± 0.15				TR	62Ball
			7.9 ± 0.23				TR	58Kea1
			7.35 ± 0.3				TR	56Hei1
			7.6 ± 0.3				BD	51Shu1
	29-Cu-63	69.1	3/2	6.477 ± 0.013				IN
						0.45 ± 0.05	NP	79Gla1
6.4 ± 0.14							M	81Mug1
29-Cu-65	30.9	3/2	6.72 ± 0.15				TR	58Kea1
			10.204 ± 0.02				IN	00Tom1
						3.7 ± 0.2	NP	79Gla1
			10.57 ± 0.18				M	81Mug1
			11.09 ± 0.19				TR	58Kea1



# Bound coherent neutron scattering lengths of zinc



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
30-Zn			<b>5.68 ± 0.005</b>				IN	78Bau1
			5.689 ± 0.014				CF	85Koe1
			5.71 ± 0.02				CF	82Koe1
			5.73 ± 0.04				TM	74Dil1
			5.7 ± 0.02				BD	73Coo2
			5.69 ± 0.03				CF	72Koe4
			5.7 ± 0.1				BD	65Fis1
			5.9 ± 0.2				BD	51Shu1
			5.8				TR	47Fer1
30-Zn-64	48.9	0	5.23 ± 0.04				CF	85Koe1
			5.23 ± 0.1				CF	82Koe1
			5.6 ± 0.2				BD	67Shu1
30-Zn-66	27.8	0	5.98 ± 0.05				CF	85Koe1
			6.01 ± 0.12				CF	82Koe1
			6.3 ± 0.2				BD	67Shu1
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
			7.64 ± 0.15				CF	82Koe1
30-Zn-68	18.6	0	6.04 ± 0.03				CF	85Koe1
			6.05 ± 0.12				CF	82Koe1
			6.7 ± 0.2				BD	67Shu1
30-Zn-70	0.62	0	6 ± 1.				TH	86Sea1

# Bound coherent neutron scattering lengths of gallium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref	
31-Ga			<b>7.288 ± 0.002</b>				GR	90Rei1	
			7.284 ± 0.015				CF	84Koe1	
			7.2879 ± 0.0016				GR	83Rei1	
			7.288 ± 0.01				GR	82Koe1	
			7.21 ± 0.05				BD	81Tib1	
			7.3 ± 0.2				BD	64Kon1	
			7.2 ± 0.1				BD	63Am1	
31-Ga-69	60	3/2	8.053 ± 0.016				BD	63Kon1	
			7.88 ± 0.04	6.3 ± 0.2	10.5 ± 0.4		IN	99Tom1	
								CF	84Koe1
							-1.75 ± 0.11	NP	87Gla2
31-Ga-71	40	3/2		9.5 ± 0.2	5.2 ± 0.4		CF	84Koe1	
			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
			7.3 ± 0.6	5 ± 1.		CF	84Koe1		

# Bound coherent neutron scattering lengths of germanium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
32-Ge			<b>8.185 ± 0.02</b>				CF	87Koe1
			8.2 ± 1.1				TM	87Abi1
			8.1929 ± 0.0017				PR	76Sch1
			8.1858 ± 0.0036				DD	73Shu1
			8.4 ± 0.2				BD	51Shu1
32-Ge-70	20.7	0	10 ± 0.1				CF	87Koe1
			8.4 ± 0.4				TM	70Ver1
32-Ge-72	27.5	0	8.51 ± 0.1				CF	87Koe1
			7.8 ± 0.4				TM	70Ver1
32-Ge-73	7.7	9/2	5.02 ± 0.04	8.1 ± 0.4	1.2 ± 0.4		CF	87Koe1
			2.8 ± 1.3				TM	70Ver1
32-Ge-74	36.4	0	7.58 ± 0.1				CF	87Koe1
			7 ± 0.2				TM	70Ver1
32-Ge-76	7.7	0	8.2 ± 1.5				CF	87Koe1

# Bound coherent neutron scattering lengths of arsenic



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
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
			6.73 ± 0.02				CF	77Koe1
			6.4 ± 0.1				BD	63Am1
			6 ± 0.3				SA	51Wei1
			6.3 ± 0.2			BD	51Shu1	

# Bound coherent neutron scattering lengths of selenium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
34-Se			<b>7.97 ± 0.009</b>				CF	80Koe1
			8.23 ± 0.23				TM	83Sal1
			7.95 ± 0.04				CF	77Koe1
			8.1 ± 0.05				BD	71Kre1
			8.5				BD	68Fue1
			8.6				BD	68And1
			7.8				BD	67Col1
			8.9 ± 0.3				BD	51Shu1
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

# Bound coherent neutron scattering lengths of bromine



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref	
35-Br			<b>6.79 ± 0.02</b>				<b>GR</b>	<b>75Koe1</b>	
			6.78 ± 0.04				CF	81Koe1	
			6.77 ± 0.02				CF	72Koe3	
			6.7 ± 0.04				BD	72Ato1	
			6.7 ± 0.2				BD	51Shu1	
			5.6				BD	47Fer1	
35-Br-79	50.49	3/2	6.79 ± 0.07				CF	81Koe1	
							-2.2 ± 0.4	NP	83Gla1
							-2.3	NP	81Gla1
35-Br-81	49.31	3/2	6.78 ± 0.07				CF	81Koe1	
							1.2 ± 0.3	NP	83Gla1
							1.2	NP	81Gla1

# Bound coherent neutron scattering lengths of krypton



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
36-Kr			<b>7.81 ± 0.02</b>				CF	85Mei1
			7.8 ± 0.1				CF	80Koe3
			7.52 ± 0.06				IN	79Kai1
			7.91 ± 0.15				TM	73Kro1
			7.06 ± 0.06				TM	69Ror1
			7.83 ± 0.2				TM	66Kro1
			7.68 ± 0.19				TR	56Cro1
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

# Bound coherent neutron scattering lengths of rubidium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
37-Rb			$7.08 \pm 0.02$				CF	72Koe3
			$7.09 \pm 0.02$				CF	81Koe1
			$7.05 \pm 0.05$				BD	77Cop1
			$7.05 \pm 0.25$				BD	70Wan1
			$7.04 \pm 0.08$				BD	70Mer1
			$6.85 \pm 0.1$				BD	70Cop1
			6.3				BD	64Pic1
			$8.5 \pm 0.1$				BD	63Mue1
			$5.5 \pm 0.2$				BD	51Shu1
37-Rb-85	72.17	5/2	$7.07 \pm 0.1$				CF	81Koe1
			$7 \pm 0.4$				BD	77Cop1
			$8.3 \pm 0.1$				BD	63Mue1
			6.9				BD	61Agr1
37-Rb-87	27.83	3/2	$7.27 \pm 0.12$				CF	81Koe1
			$7.1 \pm 0.7$				BD	77Cop1



# Bound coherent neutron scattering lengths of strontium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
38-Sr			<b>7.02 ± 0.02</b>				CF	81Koe1
			6.92 ± 0.06				BD	72Cool
			6.88 ± 0.13				BD	71Cool
			6.83 ± 0.07				BD	69Loo1
			5.7 ± 0.2				BD	51Shu1
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

# Bound coherent neutron scattering lengths of yttrium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
39-Y-89	100	1/2	$7.75 \pm 0.02$	$8.4 \pm 0.2$	$5.8 \pm 0.5$	$2.6 \pm 0.7$	CF	81Koe1
							NP	79Gla1
			$7.75 \pm 0.02$				CF	77Koe1
			$7.65 \pm 0.07$				BD	75Bon1
			7.1				BD	65Vil1
			$7.81 \pm 0.08$				BD	65Pat1
			$7.71 \pm 0.02$				TM	64Rus1
			$8.2 \pm 0.8$				BD	62Kuz1
			$8.16 \pm 0.7$				BD	62Kuz2
			$7.9 \pm 0.2$				BD	62Fer1
			$7.86 \pm 0.17$				BD	61Ato2
			$8 \pm 0.1$				BD	57Pri1

# Bound coherent neutron scattering lengths of zirconium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
40-Zr			<b>7.16 ± 0.03</b>				CF	81Koe1
			6.9				BD	68Bur1
			7 ± 0.1				BD	63Mue1
			6.2 ± 0.2				BD	51Shu1
			6.4				BD	51Gol1
40-Zr-90	51.48	0	6.5 ± 0.1				CF	81Koe1
			6.5 ± 0.2				TH	81Mug1
40-Zr-91	11.23	5/2	8.8 ± 0.1	7.9 ± 0.2	10.1 ± 0.2		CF	81Koe1
			9 ± 0.3	-2.2 ± 0.3	NP		79Gla1	
				TH	81Mug1			
				4.8 ± 0.7	NP		74Rou1	
40-Zr-92	17.11	0	7.5 ± 0.2				CF	81Koe1
40-Zr-94	17.4	0	8.3 ± 0.2				CF	81Koe1
			7.1 ± 0.2	TH	81Mug1			
40-Zr-96	2.8	0	5.5 ± 0.1				CF	81Koe1
			7.2 ± 0.2	TH	81Mug1			

# Bound coherent neutron scattering lengths of niobium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
41-Nb-93	100	9/2	<b>7.054 ± 0.003</b>				IN	78Bau1
			7.14 ± 0.03	7.06 ± 0.04	7.35 ± 0.04		TM	74Dil1
						-0.28 ± 0.02	NP	74Rou1
			7.08 ± 0.02				IN	76Rau1
			7.11 ± 0.04				CF	71Koe1
			6.9 ± 0.2				BD	51Shu1

# Bound coherent neutron scattering lengths of molybdenum



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
<b>42-Mo</b>			<b>6.715 ± 0.02</b>				CF	<b>87Koe2</b>
			6.76 ± 0.16				TM	81Sal1
			6.52 ± 0.08				AV	81Mug1
			6.44 ± 0.06				TM	78Kro1
			6.95 ± 0.07				CF	77Koe1
			6.4 ± 0.2				BD	51Shu1
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

# Bound coherent neutron scattering lengths of technetium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
43-Tc-99	210000 Y	9/2	6.8 ± 0.3				BD	63Mue1

# Bound coherent neutron scattering lengths of ruthenium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
44-Ru			7.02 ± 0.02				CF	95Kno1
			7.21 ± 0.07				CF	77Koe1
			7.3 ± 0.1				BD	61Will
			7.3 ± 0.1				BD	59Sid1
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						

# Bound coherent neutron scattering lengths of rhodium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
45-Rh-103	100	1/2	5.9 ± 0.04	8.15 ± 0.06	6.74 ± 0.06		CF	95Kno1
			5.88 ± 0.04				CF	77Koe1
			5.91 ± 0.04				BD	65Sid1
			5.85 ± 0.05				BD	64Shi1
			5.7				TM	53Bro1



# Bound coherent neutron scattering lengths of palladium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
46-Pd			5.91 ± 0.06				BD	65Cab1
			5.7 ± 0.3				TH	81Mug1
			5.1 ± 0.2				BD	77Kre1
			6				BD	66Ato1
			5.9				BD	60Ber1
			5.9 ± 0.3				BD	57Wor1
			6 ± 2.				SA	51Wei1
			6.3 ± 0.2				BD	51Shu1
	46-Pd-102	1	0					
46-Pd-104	11	0						
46-Pd-105	22.53	5/2				-5.2 ± 3.2	NP	87Gla2
			5.5 ± 0.3				TH	81Mug1
46Pd-106	27.33	0						
			6.4 ± 0.4				TH	81Mug1
46-Pd-108	26.71	0						
			4.1 ± 0.3				TH	81Mug1
46-Pd-110	11.8	0						

# Bound coherent neutron scattering lengths of silver



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
47-Ag			<b>5.922 ± 0.007</b>				IN	<b>82Bon1</b>
			5.97 ± 0.01				CF	80Koe2
			5.923 ± 0.006				IN	78Bau1
			6.02 ± 0.02				CF	75Wun1
			6.1 ± 0.2				BD	51Shu1
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
			7.64 ± 0.04	8.22 ± 0.09	5.9 ± 0.2	CF	80Koe2	
47-Ag-109	48.2	1/2	8.3 ± 0.2				BD	51Shu1
			4.165 ± 0.011	3.24 ± 0.08	6.9 ± 0.2		IN	82Bon1
						-3.7 ± 0.3	NP	79Gla1
			4.19 ± 0.03	3.27 ± 0.08	7 ± 0.2	CF	80Koe2	
			4.3 ± 0.1			BD	51Shu1	

# Bound coherent neutron scattering lengths of cadmium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
48-Cd			<b>4.83 ± 0.05</b>				CF	95Kno1
			3.8				BD	62Pet1
			5.1 ± 0.3				BD	62Arn1
			4.9 ± 0.2				TR	62Ball
			4.4 ± 0.4				BD	61Pet1
			5.8 ± 0.3				BD	61Arn1
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
			7.4 ± 0.2				TM	69Ver1
48-Cd-113	12.36	1/2	-8 ± 0.1				CF	95Kno1
			-15				TH	81Mug1
			-8				BD	64Smi1
48-Cd-114	28.86	0	7.48 ± 0.05				CF	95Kno1
			6.4 ± 0.2				TM	69Ver1
48-Cd-116	7.58	0	6.26 ± 0.09				CF	95Kno1
			7.1 ± 0.2				TM	69Ver1

# Bound coherent neutron scattering lengths of indium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
49-In			<b>4.065 ± 0.02</b>				CF	80Koe2
			4.01 ± 0.04				BD	81Tib1
			4.08 ± 0.04				CF	77Koe1
			3.9 ± 0.1				BD	63Am1
			3.6 ± 0.3				BD	59Sid1
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

# Bound coherent neutron scattering lengths of tin



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
50-Sn			<b>6.225 ± 0.002</b>				<b>GR</b>	<b>90Rei1</b>
			6.2257 ± 0.0015				GR	83Rei1
			6.228 ± 0.004				IN	78Bau1
			6.217 ± 0.0015				GR	78Koe3
			6.22 ± 0.002				IN	76Rau1
			6.22 ± 0.002				IN	76Bau1
			6.1 ± 0.1				BD	51Shu1
50-Sn-112	1	0	6.2 ± 1.				TH	86Sea1
50-Sn-114	0.66	0	6 ± 0.3				TH	81Mug1
			6.2 ± 1.				TH	86Sea1
50-Sn-115	0.35	1/2	6.2 ± 1.				TH	86Sea1
50-Sn-116	14.3	0	6.1 ± 0.01				CF	97Kno1
			5.8 ± 0.1				BD	67Kay1
50-Sn-117	7.61	1/2	6.59 ± 0.08	0.22 ± 0.1	-0.23 ± 0.1		CF	97Kno1
			6.4 ± 0.25				BD	67Kay1
50-Sn-118	24.03	0	6.23 ± 0.04				CF	97Kno1
			5.8 ± 0.1				BD	67Kay1
50-Sn-119	8.58	1/2	6.28 ± 0.03	0.14 ± 0.1	0 ± 0.1		CF	97Kno1
			6 ± 0.25				BD	67Kay1
50-Sn-120	32.86	0	6.67 ± 0.04				CF	97Kno1
			6.4 ± 0.1				BD	67Kay1
50-Sn-122	4.72	0	5.93 ± 0.03				CF	97Kno1
			5.5 ± 0.3				BD	67Kay1
50-Sn-124	5.94	0	6.15 ± 0.03				CF	97Kno1
			5.9 ± 0.2				BD	67Kay1

# Bound coherent neutron scattering lengths of antimony



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
51-Sb			5.57 ± 0.03				CF	86Koe1
			5.641 ± 0.012				CF	71Koe1
			5.4 ± 0.1				BD	63Arn1
			5.6 ± 0.3				SA	51Wei1
			5.4 ± 0.1				BD	51Shu1
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

# Bound coherent neutron scattering lengths of tellurium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
52-Te			<b>5.68 ± 0.02</b>				IN	97Iof1
			5.8 ± 0.03				CF	86Koe1
			5.6 ± 0.1				IN	85Rau1
			5.8 ± 0.05				BD	73Lin1
			5.43 ± 0.04				CF	71Koe1
			5.6 ± 0.2				TR	56Hei1
52-Te-120	0.09	0	5.3 ± 0.5				TR	56Hei1
			5.1 ± 0.5				TH	81Mug1
52-Te-122	2.4	0	3.8 ± 0.2				CF	86Koe1
			4.6 ± 0.3				TH	81Mug1
52-Te-123	0.87	1/2	-0.05 ± 0.25	-1.2	3.5		CF	86Koe1
			5.6 ± 0.3				TH	81Mug1
			5.8 ± 0.3				TR	56Hei1
52-Te-124	4.61	0	7.95 ± 0.1				CF	86Koe1
			5.5 ± 0.3				TH	81Mug1
			5.6 ± 0.3				BD	61Wil1
52-Te-125	6.99	1/2	5.01 ± 0.08	4.9	5.5		CF	86Koe1
			5.6 ± 0.3				BD	61Wil1
52-Te-126	18.71	0	5.55 ± 0.07				CF	86Koe1
			5.3 ± 0.2				TH	81Mug1
52-Te-128	31.79	0	5.88 ± 0.07				CF	86Koe1
			5.6 ± 0.3				TH	81Mug1
52-Te-130	34.48	0	6.01 ± 0.07				CF	86Koe1
			5.5 ± 0.3				TH	81Mug1
			5.7 ± 0.3				TR	56Hei1

# Bound coherent neutron scattering lengths of iodine



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
53-I-127	100	5/2	6.15 ± 0.06	6.6 ± 0.2	3.4 ± 0.2		CF	86Koe1
			5.28 ± 0.02				CF	72Koe3
			5.25 ± 0.04				BD	72Ato1
			5.2 ± 0.2				BD	51Shu1
			3.6				BD	47Fer1



# Bound coherent neutron scattering lengths of xenon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
54-Xe			<b>4.69 ± 0.04</b>				IN	79Kai1
			4.92 ± 0.03				CF	85Mei1
			4.69 ± 0.04				IN	79Kai1
			4.8 ± 0.07				BD	73Pet1
			4.85 ± 0.13				BD	73Kro1
			4.87 ± 0.1				BD	63Bur1
			5.1 ± 0.17				TR	56Cro1
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						

# Bound coherent neutron scattering lengths of cesium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
55-Cs-133	100	7/2	5.42 ± 0.02				CF	72Koe3
						2.6 ± 0.3	NP	79Gla1
			5.5 ± 0.2				BD	71Cox1
			5.2 ± 0.2				BD	71Cha1
			7.5				BD	66Ziv1
			4.9 ± 0.2				BD	51Shu1

# Bound coherent neutron scattering lengths of barium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
56-Ba			<b>5.07 ± 0.03</b>				CF	85Koe2
			5.28 ± 0.05				CF	77Koe1
			5.3 ± 0.15				BD	72Jac1
			5.25 ± 0.04				BD	72Coo1
			5.28 ± 0.05				BD	72Coo1
			5.22 ± 0.13				BD	71Coo1
			5.31 ± 0.08				BD	69Loo1
			7.9				BD	47Fer1
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

# Bound coherent neutron scattering lengths of lutetium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
71-Lu			7.21 ± 0.03				CF	86Koe2
			7.3 ± 0.2				BD	61Ato1
71-Lu-175	97.4	7/2	7.28 ± 0.09				CF	86Koe2
			7.28 ± 0.09				CF	86Koe1
			7.4 ± 0.3				TH	84Mug1
71-Lu-176	2.6	7	6.1 ± 0.2				CF	86Koe2
			6.1 ± 0.2				CF	86Koe1
			3.8 ± 0.5				TH	84Mug1

# Bound coherent neutron scattering lengths of hafnium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
72-Hf			$7.77 \pm 0.14$				BD	61Ato1
			8.8				BD	56Sid1
72-Hf-174	0.184	0	$10.9 \pm 1.1$				TM	73Ver1
72-Hf-176	5.2	0	$6.61 \pm 0.18$				TM	73Ver1
72-Hf-177	18.5	0						
			$0.7 \pm 1.$				TH	86Sea1
72-Hf-178	27.2	0	$5.9 \pm 0.2$				TM	73Ver1
72-Hf-179	13.8	9/2	$7.46 \pm 0.16$				TM	73Ver1
72-Hf-180	35.1	0	$13.2 \pm 0.3$				TM	73Ver1

# Bound coherent neutron scattering lengths of tantalum



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
73-Ta			$6.91 \pm 0.07$				CF	71Koe1
			$7 \pm 0.3$				BD	51Shu1
73-Ta-180	0.012	9					TH	86Sea1
73-Ta-181	99.98	7/2	$6.91 \pm 0.07$				CF	71Koe1
							-0.59 $\pm$ 0.06	NP

# Bound coherent neutron scattering lengths of tungsten



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
74-W			<b>4.755 ± 0.018</b>				IN	00Tom1
			4.86 ± 0.02				CF	87Kno2
			4.77 ± 0.05				CF	69Koe1
			5.1 ± 0.3				BD	51Shu1
74-W-180	0.13	0						
			5 ± 3.				TH	86Sea1
74-W-182	26.3	1/2	7.04 ± 0.04				CF	87Kno2
			8.33 ± 0.14				BD	69Ale1
74-W-183	14.3	1/2	6.59 ± 0.04	6.3 ± 0.4	7 ± 0.4		CF	87Kno2
			4.3 ± 0.5				BD	69Ale1
74-W-184	30.7	0	7.55 ± 0.06				CF	87Kno2
			7.59 ± 0.09				BD	69Ale1
74-W-186	28.6	0	-0.73 ± 0.04				CF	87Kno2
			-1.19 ± 0.05				BD	79Ale1
			-1.19 ± 0.05				BD	69Ale1

# Bound coherent neutron scattering lengths of rhenium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
75-Re			9.2 ± 0.2				BD	61Wil1
75-Re-185	37.5	5/2						
			9 ± 0.3				TH	84Mug1
75-Re-187	62.5	5/2						
			9.3 ± 0.3				TH	84Mug1



# Bound coherent neutron scattering lengths of osmium



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>
			10.8				BD	57Hea1
76-Os-184	0.02	0						
			10 ± 2.				TH	86Sea1
76-Os-186	1.6	0	12 ± 1.7				TM	75Ver1
76-Os-187	1.6	1/2						
			9.7 ± 2.				TH	86Sea1
76-Os-188	13.3	0	7.8 ± 0.3				BD	63Mue1
			7.2 ± 0.6				TM	75Ver1
76-Os-189	16.1	3/2	11 ± 0.3				BD	63Mue1
76-Os-190	26.4	0	11.4 ± 0.3				BD	63Mue1
			12 ± 0.7				TM	75Ver1
76-Os-192	41	0	11.9 ± 0.4				BD	63Mue1
			11.6 ± 0.3				TM	75Ver1

# Bound coherent neutron scattering lengths of iridium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
77-Ir			<b>10.6 ± 0.3</b>				<b>BD</b>	<b>63Mue1</b>
			10				BD	63Fel1
			3.6				BD	59Sid1
77-Ir-191	37.4	3/2						
77-Ir-193	62.6	3/2						

# Bound coherent neutron scattering lengths of platinum



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
78-Pt			<b>9.6 ± 0.01</b>				IN	85Rau1
			9.48 ± 0.11				IN	90Tup1
			9.44 ± 0.16				M	84Mug1
			9.5 ± 0.3				BD	51Shu1
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

# Bound coherent neutron scattering lengths of gold



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
79-Au-197	100	3/2	7.9 ± 0.07				CF	90Kno1
				6.26 ± 0.1	9.9 ± 0.14		M	84Mug1
						-3.5 ± 0.3	NP	79Gla1
			7.63 ± 0.06			-2.3 ± 0.4	CF	77Koe1
			7.66 ± 0.02				CF	74Wun1
			7.7 ± 0.4				BD	51Shu1

# Bound coherent neutron scattering lengths of mercury



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
80-Hg			<b>12.66 ± 0.02</b>				GR	77Koe1
			12.67 ± 0.13				TR	68Bar1
			12.69 ± 0.02				GR	65Koe1
			12.67 ± 0.06				TR	63Bar1
			13.1 ± 0.07				TR	51Hib1
80-Hg-196	0.15	0	30.3				TH	84Mug1
80-Hg-198	10.1	0						
80-Hg-199	16.9	0	16.9 ± 0.4				TH	84Mug1
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						

# Bound coherent neutron scattering lengths of thallium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
81-Tl			<b>8.776 ± 0.005</b>				GR	90Rei1
			8.776 ± 0.005				GR	83Rei1
			8.785 ± 0.01				GR	82Koe1
			8.89 ± 0.02				CF	77Koe1
			8.89 ± 0.02				CF	72Koe3
			8.9				BD	57Hea1
			7.5 ± 0.8				BD	49Win1
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
			6.99 ± 0.16				TH	84Mug1
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
			9.54 ± 0.28	9.47	9.78		TH	84Mug1

# Bound coherent neutron scattering lengths of lead



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
82-Pb			9.401 ± 0.002				IN	00Iof1
			9.405 ± 0.003				GR	90Rei1
			9.4017 ± 0.002				GR	86Koe2
			9.4054 ± 0.0027				GR	83Rei1
			9.4003 ± 0.0014				GR	76Koe2
			9.39 ± 0.06				CF	72Koe3
			9.409 ± 0.004				TM	71Di12
			9.4 ± 0.01				GR	69Nue1
			9.6 ± 0.4				BD	51Shu1
82-Pb-204	1.4	0	10.893 ± 0.078				IN	00Iof1
			9.9 ± 0.1			TR	87Sch1	
82-Pb-206	24.1	0	9.221 ± 0.078				IN	00Iof1
			9.22 ± 0.05			TR	87Sch1	
			8.8			TH	84Mug1	
82-Pb-207	22.1	1/2	9.286 ± 0.016				IN	00Iof1
						0.33 ± 0.13	NP	87Gla2
			9.28 ± 0.06			TR	87Sch1	
			9.46			TH	84Mug1	
82-Pb-208	52.4	0				0.2 ± 0.4	NP	79Gla1
			9.494 ± 0.03			IN	00Iof1	
			9.26 ± 0.13			IN	89Ale1	
			9.5 ± 0.02			TR	87Sch1	

# Bound coherent neutron scattering lengths of bismuth



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
83-Bi-209	100	9/2	8.532 ± 0.002				GR	90Rei1
				8.26 ± 0.01	8.74 ± 0.01		M	84Mug1
						0.44 ± 0.09	NP	79Gla1
			8.521 ± 0.004				IN	88Rau1
			8.5165 ± 0.0062				IN	88Tup1
			8.508 ± 0.021				IN	88Tup1
			8.5307 ± 0.002				GR	86Koe2
			8.5313 ± 0.002				GR	83Rei1
			8.503 ± 0.012				IN	78Bau1
			8.58 ± 0.05				IN	76Bau1
			8.58 ± 0.008				IN	76Rau1
			8.5256 ± 0.0014				TR	76Koe2
			8.53 ± 0.005				TM	71Dil2
			8.5239 ± 0.0019				GR	69Nue1
			8.625 ± 0.004				TM	65Tri1
8.9 ± 0.4				BD	51Shu1			



# Bound coherent neutron scattering lengths of polonium



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Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
84-Po								

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# Bound coherent neutron scattering lengths of astatine



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Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
85-At								

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# Bound coherent neutron scattering lengths of radon



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
86-Rn								

# Bound coherent neutron scattering lengths of francium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
87-Fr								

# Bound coherent neutron scattering lengths of radium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
88-Ra-226	1620 Y	0	10 ± 1.				TM	74Ka11
			10 ± 1.				TM	72Ka11

# Bound coherent neutron scattering lengths of lanthanum



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
57-La			<b>8.24 ± 0.04</b>				CF	82Kno1
			8.27 ± 0.05				CF	77Koe1
			8.32 ± 0.14				BD	61Ato2
			8.3 ± 0.3				BD	53Koe1
57-La-138	0.09	5	5 ± 1.			TH	86Sea1	
57-La-139	99.91	7/2	8.24 ± 0.04	11.4 ± 0.3	4.5 ± 0.4		CF	82Kno1
							NP	79Gla1
							NP	74Rou1

# Bound coherent neutron scattering lengths of cerium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
58-Ce			<b>4.84 ± 0.02</b>				CF	82Kno1
			4.8 ± 0.2				BD	79Adi1
			4.83 ± 0.04				CF	77Koe1
			4.82 ± 0.06				BD	65Val1
			4.84 ± 0.06				BD	61Ato2
			4.6 ± 0.2				BD	53Koe1
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
			4.7 ± 0.1				BD	53Koe1
58-Ce-142	11.07	0	4.72 ± 0.09				CF	82Kno1
			4.5 ± 0.2				BD	53Koe1

# Bound coherent neutron scattering lengths of praseodymium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
59-Pr-141	100	5/2	4.58 ± 0.05				CF	90Kno1
						-1.1 ± 0.06	NP	84Kaw1
			4.45 ± 0.05				CF	77Koe1
						-0.72 ± 0.07	NP	76Ako2
			4.9 ± 0.15				BD	75Ako1
			4.4 ± 0.4				BD	53Koe1



# Bound coherent neutron scattering lengths of neodymium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
60-Nd			<b>7.69 ± 0.05</b>				<b>BD</b>	<b>75Bou1</b>
			7.8 ± 0.07				CF	77Koe1
			7.5 ± 0.1				BD	73Sch1
			7.2 ± 0.2				BD	53Koe1
60-Nd-142	27.11	0	7.7 ± 0.3				BD	53Koe1
60-Nd-143	12.17	7/2						
			14.2 ± 0.5			TH	86Sea1	
60-Nd-144	23.85	0	2.8 ± 0.3				BD	53Koe1
			2.4 ± 0.1			TH	73Mug1	
60-Nd-145	8.5	7/2						
			14.2 ± 0.5			TH	86Sea1	
60-Nd-146	17.22	0	8.7 ± 0.2				BD	53Koe1
60-Nd-148	5.7	0						
			5.7 ± 0.3			TH	86Sea1	
60-Nd-150	5.6	0	5.28 ± 0.2				TM	75Ver1
			5.28 ± 0.2			TM	81Mug1	

# Bound coherent neutron scattering lengths of promethium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
61-Pm-147	2.62 Y	7/2	12.6 ± 0.4				TM	72Koe2

# Bound coherent neutron scattering lengths of samarium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
62-Sm			$0 \pm 0.05$				BD	84Eng1
			$0.7 \pm 0.2$				IN	85Rau1
			$1.4 \pm 0.3$				TM	84Mug1
			$0 \pm 0.1$				BD	74Koe3
			$-0.12 \pm 0.04$				BD	69Sik1
62-Sm-144	3.1	0						
			$4 \pm 4.$				TH	86Sea1
62-Sm-147	15	7/2						
			$14 \pm 3.$				TH	84Mug1
62-Sm-148	11.2	0						
			$33 \pm 6.$				TH	86Sea1
62-Sm-149	13.8	7/2						
			$18.7 \pm 0.28$				IN	82Wor1
			$-24$				TH	84Mug1
62-Sm-150	7.4	0						
			$14 \pm 3.$				TH	84Mug1
62-Sm-152	26.7	0						
			$-5 \pm 0.6$				BD	53Koe1
62-Sm-154	22.8	0						
			$8 \pm 1.$				BD	53Koe1
			$9.25 \pm 1.$				BD	84Mug1

# Bound coherent neutron scattering lengths of europium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
63-Eu			5.3 ± 0.3				IN	85Rau1
			6.73 ± 0.03				AV	84Mug1
			6.8 ± 0.4				BD	72Koe2
			6.3 ± 0.3				BD	62Ner1
			6 ± 0.4				BD	62Am1
			8 ± 0.5				BD	61Am1
			5.5 ± 0.4				BD	61Am1
63-Eu-151	47.8	5/2						
63-Eu-151			6.92 ± 0.15				TH	84Mug1
			8.22 ± 0.12				IN	81Kis1
63-Eu-153	52.8	5/2	8.22 ± 0.12				IN	81Kis1
			8.3 ± 0.3				BD	71Als1

# Bound coherent neutron scattering lengths of gadolinium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
64-Gd			9.5 ± 0.2				BD	75Wat3
			5.1 ± 0.4				IN	85Rau1
			6.2				TH	84Mug1
			9.5 ± 0.2				BD	75Wat2
			11.5 ± 1.5				BD	75Wat1
			14 ± 0.5				BD	74Ish1
			15 ± 2.				BD	64Wil1
64-Gd-152	0.2	0						
			10 ± 3.				TH	86Sea1
64-Gd-154	2.2	0						
			10 ± 3.				TH	86Sea1
64-Gd-155	14.9	3/2						
			13.8				TH	84Mug1
64-Gd-156	20.6	0						
			6.3 ± 0.4				TH	84Mug1
64-Gd-157	15.7	3/2						
			40	60	7.1		TH	84Mug1
64-Gd-158	24.7	0						
			8.9 ± 2.				TH	86Sea1
64-Gd-160	21.7	0	9.15 ± 0.05				BD	72Moo1
			9.15 ± 0.05				BD	72Koe1
			9.1 ± 0.4				BD	67Chi1

# Bound coherent neutron scattering lengths of terbium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
65-Tb-159	100	3/2	$7.34 \pm 0.02$	$6.8 \pm 0.2$	$8.1 \pm 0.2$		CF	97Kno2
						$-0.35 \pm 0.14$	NP	76Ako1
			$7.28 \pm 0.04$	$7.25 \pm 0.06$	$7.6 \pm 0.06$	NP	80Sch1	
			$7.38 \pm 0.03$			CF	77Koe1	
			$7.35 \pm 0.1$			BD	76Fue1	
			$7.6 \pm 0.2$			BD	63Fel1	
			$7.56 \pm 0.2$			BD	61Ato1	
			$7.6 \pm 0.2$			BD	61Ato2	

# Bound coherent neutron scattering lengths of dysprosium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
66-Dy			<b>16.9 ± 0.3</b>				IN	<b>85Rau1</b>
			16.9 ± 0.4				BD	68Chi1
			17.3 ± 0.3				IN	90Tup1
			17.1 ± 0.3				CF	77Koe1
			17.1 ± 0.5				BD	62Bet1
66-Dy-156	0.06	0						
			6.1 ± 0.5				TH	84Mug1
66-Dy-158	0.1	0						
			6 ± 4.				TH	86Sea1
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
				14.5 ± 0.5	4.2 ± 0.5		TH	84Mug1
66-Dy-162	25.5	0	-1.4 ± 0.5				BD	68Chi1
			4.5 ± 0.8				TM	70Ver1
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
			45.7 ± 0.6				TM	70Ver1

# Bound coherent neutron scattering lengths of holmium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref	
67-Ho-165	100	7/2	8.44 ± 0.03	6.9 ± 0.2	10.3 ± 0.2		CF	97Kno2	
						-3.5 ± 0.4	NP	79Gla1	
			8.46 ± 0.05				CF	86Kno1	
			8.01 ± 0.08				IN	85Bou1	
				6.5 ± 0.2	10.1 ± 0.25		M	84Mug1	
			8.01 ± 0.02				IN	83Kis1	
			8.37 ± 0.05				NP	80Sch1	
			8.08 ± 0.05				BD	79Bou1	
							-2.94 ± 0.15	NP	77Bou1
							-3.5 ± 0.4	NP	77Bou1
							-3.6 ± 0.4	NP	76Abr1
				7 ± 0.4	10.4 ± 0.4			NP	74Lit1
							-3.4 ± 0.3	BD	74Lit1
							-3.4 ± 0.4	NP	73Her1
				8.5 ± 0.2				BD	57Koe1



# Bound coherent neutron scattering lengths of erbium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
68-Er			7.79 ± 0.02				CF	97Kno2
			7.76 ± 0.05				CF	86Kno1
			8.03 ± 0.03				CF	77Koe1
			7.9 ± 0.2				BD	53Koe1
68-Er-162	0.14	0	9.01 ± 0.11				CF	97Kno2
			6.8 ± 2.				TH	86Sea1
68-Er-164	1.6	0	7.95 ± 0.14				CF	97Kno2
			9.8 ± 0.7				TM	70Ver1
68-Er-166	33.4	0	10.51 ± 0.19				CF	97Kno2
			10.6 ± 0.8				TH	84Mug1
			12.3 ± 0.6				TM	70Ver1
			12.3 ± 0.6				TM	68Kol1
68-Er-167	22.9	7/2	3.06 ± 0.05	5.3 ± 0.3	0 ± 0.3		CF	97Kno2
			3.5 ± 1.				TH	84Mug1
68-Er-168	27	0	7.43 ± 0.08				CF	97Kno2
			8.1 ± 1.4				TH	84Mug1
			10.2 ± 0.5				TM	70Ver1
68-Er-170	15	0	9.61 ± 0.06				CF	97Kno2
			10.9 ± 0.5				TM	70Ver1

# Bound coherent neutron scattering lengths of thulium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
69-Tm-169	100	1/2	7.07 ± 0.03				CF	86Koe2
						2 ± 0.6	NP	87Gla2
			7.07 ± 0.03				CF	86Koe1
			7.05 ± 0.05				CF	77Koe1
						4.2	NP	76Ako2
			7.05 ± 0.05				BD	72Lan1
			7.2 ± 0.06				BD	70Ato1
			6.9 ± 0.2				BD	62Koe1
			6.9 ± 0.2				BD	62Bet1
			5.5				BD	56Will

# Bound coherent neutron scattering lengths of ytterbium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
70-Yb			<b>12.41 ± 0.03</b>				CF	86Koe2
			12.4 ± 0.1				CF	82Koe1
			12.6 ± 0.6				CF	77Koe1
			12.9 ± 0.07				BD	70Ato1
			12.62 ± 0.12				BD	61Ato1
70-Yb-168	0.14	0	9 ± 3.				TH	86Sea1
70-Yb-170	3	0	6.8 ± 0.1				CF	86Koe2
			6.8 ± 0.1				CF	86Koe1
			6.77 ± 0.1				CF	82Koe1
70-Yb-171	14.3	1/2	9.7 ± 0.1	6.5 ± 0.2	19.4 ± 0.4		CF	86Koe2
			9.7 ± 0.1	6.5 ± 0.2	19.4 ± 0.4		CF	86Koe1
			9.66 ± 0.1				CF	82Koe1
70-Yb-172	21.9	0	9.5 ± 0.1				CF	86Koe2
			9.5 ± 0.1				CF	86Koe1
			9.43 ± 0.1				CF	82Koe1
70-Yb-173	16.3	5/2	9.56 ± 0.1	2.5 ± 0.2	13.3 ± 0.3		CF	86Koe2
			9.56 ± 0.1	2.5 ± 0.2	13.3 ± 0.3		CF	86Koe1
			9.56 ± 0.1				CF	82Koe1
70-Yb-174	31.8	0	19.2 ± 0.1				CF	86Koe2
			19.2 ± 0.1				CF	86Koe1
			19.2 ± 0.2				CF	82Koe1
70-Yb-176	12.7	0	8.7 ± 0.1				CF	86Koe2
			8.7 ± 0.1				CF	86Koe1
			8.72 ± 0.1				CF	82Koe1

# Bound coherent neutron scattering lengths of actinium



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Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
89-Ac								

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# Bound coherent neutron scattering lengths of thorium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
90-Th-232	100	0	10.31 ± 0.03				CF	89Was1
			10.31 ± 0.04				CF	87Kno1
			10.52 ± 0.03				IN	84Boe1
			10.08 ± 0.04				AV	84Mug1
			10.52 ± 0.06				CF	77Koe1
			9.84 ± 0.03				TM	65Ray1
			10 ± 0.09				BD	63Wil1
			9.8 ± 0.1				BD	62Roo1
			10.66				TM	52Hib1
			10.1 ± 0.5				BD	51Shu1

# Bound coherent neutron scattering lengths of protoactinium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
91-Pa-231	32500 Y	3/2	9.1 ± 0.3				BD	73Wed1
			13 ± 2.				BD	73Wed1

# Bound coherent neutron scattering lengths of uranium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
92-U			<b>8.417 ± 0.005</b>				IN	<b>82Boe1</b>
			8.42 ± 0.02				BD	79Cool
			8.44 ± 0.04				BD	79Coo2
			8.61 ± 0.04				CF	77Koe1
			8.52 ± 0.09				BD	70Tay1
			8.36 ± 0.03				BD	68Rou1
			8.5 ± 0.2				BD	66Ato1
			8.5 ± 0.06				BD	63Will
			8.4 ± 0.2				BD	62Roo1
			8.78 ± 0.56				BD	61Ato2
92-U-233	159000 Y	5/2						
92-U-234	0.005	0						
			12.4 ± 0.3				TH	84Mug1
92-U-235	0.72	7/2						
			10.5 ± 0.03				IN	86Kai1
			10.74 ± 0.04				IN	87Ari1
			9.8 ± 0.6				BD	66Ato1
			9.8 ± 0.6				BD	63Will
92-U-238	99.27	0						
			8.407 ± 0.007				IN	82Boe1
			8.63 ± 0.04				CF	74Koe2
			8.55 ± 0.06				BD	66Ato1
			8.5 ± 0.06				BD	63Will
			8.4 ± 0.5				BD	62Roo1

# Bound coherent neutron scattering lengths of neptunium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
93-Np-237	2140000 Y	5/2	10.55 ± 0.1				BD	67Heal
			10.55 ± 0.1				BD	74Heal
			10.57 ± 0.15				BD	67Cox1



# Bound coherent neutron scattering lengths of plutonium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
94-Pu-238	87.74 Y	0						
			14.1 ± 0.5				TH	84Mug1
94-Pu-239	24400 Y	1/2	7.7 ± 0.1				BD	70Gre1
			7.5 ± 0.3				BD	66Ato1
			7.5 ± 0.3				BD	62Roo1
94-Pu-240	6540 Y	0	3.5 ± 0.1				BD	71Lan1
			3.6 ± 0.1				AV	84Mug1
			3.8 ± 0.2				BD	70Gre1
94-Pu-242	376000 Y	0	8.1 ± 0.1				BD	71Lan1

# Bound coherent neutron scattering lengths of americium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
95-Am-243	7370 Y	5/2	8.3 ± 0.2				BD	79Boel
			7.6 ± 0.1				BD	74Muel

# Bound coherent neutron scattering lengths of curium



Z-Symb-A	% or T1/2	I	bc	b+	b-	b+-b-	Meth	Ref
96-Cm-244	17.9 Y	0	9.5 ± 0.3				BD	77Fou1
			7 ± 0.2				BD	74Mue1
			9.3 ± 0.2				TH	84Mug1
			7.7 ± 0.2				TH	84Mug1