

Atomic Number	Atomic Mass	Abbr	Name	Spin	Natural Abundance	Quad Moment	Receptivity	Freq EFT-90	Freq EFT-60	Reference Compound
1	3	T3	Tritium	1/2	99.99%		5700	96.007	64.008	TMS (H3)
1	1	H1	Hydrogen	1/2	99.99%		5700	90.02	60.01	TMS
9	19	F19	Fluorine	1/2	100.00%		4730	84.687	56.461	CFCl ₃
2	3	He3	Helium	-1/2	0.00%			68.567	45.714	He gas
81	205	Tl205	Thalium	1/2	70.50%		769	52.014	34.678	Tl(NO ₃) ₃
81	203	Tl203	Thalium	1/2	29.50%		289	51.507	34.34	Tl(NO ₃) ₃
15	31	P31	Phosphorous	1/2	100.00%		377	36.437	24.292	H ₃ PO ₄
3	7	Li7	Lithium	3/2	92.58%	-0.045	1540	34.981	22.322	LiCl
50	119	Sn119	Tin	-1/2	8.60%		25.2	33.565	22.738	Sn(CH ₃) ₄
50	117	Sn117	Tin	-1/2	7.60%		19.54	32.073	21.33	Sn(CH ₃) ₄
37	87	Rb87	Rubidium	3/2	27.85%	0.12	277	29.452	19.636	RbCl
5	11	B11	Boron	3/2	80.42%	0.0355	754	28.868	19.246	BF ₃ :O(C ₂ H ₅) ₂
52	123	Te123	Tellurium	-1/2	0.87%		0.89	28.398	18.933	Te(CH ₃) ₂
31	71	Ga71	Gallium	3/2	39.60%	0.112	319	27.45	18.301	Ga(NO ₃) ₃
59	141	Pr141	Praseodymium	5/2	100.00%		1700	26.365	17.578	
29	65	Cu65	Copper	3/2	30.91%	-0.195	201	25.578	17.053	[Cu(CH ₃ CN) ₄][ClO ₄]
54	129	Xe129	Xenon	-1/2	26.44%		31.8	24.895	8.3	XeOF ₄
35	81	Br81	Bromine	3/2	49.46%	0.28	277	24.309	16.207	NaBr
29	63	Cu63	Copper	3/2	69.09%	-0.211	365	23.878	15.92	[Cu(CH ₃ CN) ₄][ClO ₄]
11	23	Na23	Sodium	3/2	100.00%	0.12	525	23.809	15.874	NaCl
52	125	Te125	Tellurium	-1/2	6.99%		12.5	23.555	15704	Te(CH ₃) ₂
13	27	Al27	Aluminum	5/2	100.00%	0.149	1170	23.454	15.637	Al(NO ₃) ₃
23	51	V51	Vanadium	7/2	99.76%	-0.052	2160	22.775	15.184	VOCl ₃
6	13	C13	Carbon	1/2	1.11%		1	22.635	15.091	TMS
35	79	Br79	Bromine	3/2	50.54%	0.33	226	22.551	15.035	NaBr
63	151	Eu151	Europium	5/2	47.82%	0.95	480	22.323	14.883	
25	55	Mn55	Manganese	5/2	100.00%	0.55	994	22.273	14.849	KMnO ₄
41	93	Nb93	Niobium	9/2	100.00%	-0.22	2740	22.031	14.688	KNbCl ₆
21	45	Sc45	Scandium	7/2	100.00%	-0.022	1710	21.865	14.577	Sc(NO ₃) ₃
31	69	Ga69	Gallium	3/2	60.40%	0.178	237	21.604	14.403	Ga(NO ₃) ₃
51	121	Sb121	Antimony	5/2	57.25%	-0.53	520	21.54	14.361	KSbCl ₆
27	59	Co59	Cobalt	7/2	100.00%	0.4	1570	21.357	14.239	K ₃ [Co(CN) ₆]

Frequency ratios and reference compounds taken from
 R.K. Harris et.al. Pure Appl. Chem., Vol. 73, No. 11, pp 1795-1818, 2001
 IUPAC Recommendations 2001 (copyrighted 2001 IUPAC)

Atomic Number	Atomic Mass	Abbr	Name	Spin	Natural Abundance	Quad Moment	Receptivity	Freq EFT-90	Freq EFT-60	Reference Compound
75	187	Re187	Rhenium	5/2	62.93%	2.6	490	20.479	13.653	KReO ₄
65	159	Tb159	Terbium	3/2	100.00%	1.3	339	20.413	13.609	
75	185	Re185	Rhenium	5/2	37.07%	2.8	280	20.274	13.517	KReO ₄
43	99	Tc99	Technetium	9/2		0.03	2134	20.26	13.507	
48	113	Cd113	Cadmium	-1/2	12.26%		7.6	19.963	13.309	Cd(CH ₃) ₂
49	115	In115	Indium	9/2	95.72%	0.83	1890	19.724	13.15	In(NO ₃) ₃
49	113	In113	Indium	9/2	4.28%	1.14	83.8	19.681	13.122	In(NO ₃) ₃
78	195	Pt195	Platinum	1/2	33.80%		19.1	19.351	12.902	Na ₂ PtCl ₆
48	111	Cd111	Cadmium	-1/2	12.75%		6.93	19.083	12.723	Cd(CH ₃) ₂
82	207	Pb207	Lead	1/2	22.60%		11.8	18.774	12.517	Pb(CH ₃) ₄
67	165	Ho165	Holmium	7/2	100.00%	3	1000	18.464	12.31	
53	127	I127	Iodine	5/2	100.00%	-0.79	530	18.01	12.007	KI
14	29	Si29	Silicon	1/2	4.70%		2.09	17.882	11.922	TMS
34	77	Se77	Selenium	1/2	7.58%		2.98	17.166	11.445	Se(CH ₃) ₂
80	199	Hg199	Mercury	1/2	15.84%		5.4	16.121	10.748	Hg(CH ₃) ₂ very toxic
70	171	Yb171	Ytterbium	1/2	14.31%		4.05	15.583	10.57	
33	75	As75	Arsenic	3/2	100.00%	0.29	143	15.412	10.275	NaAsF ₆
83	209	Bi209	Bismuth	9/2	100.00%	-0.34	777	14.464	9.643	Bi(NO ₃) ₂
1	2	D2	Deuterium	1	2.00%	0.00273	0.0082	13.817	9.212	D ₂ O
3	6	Li6	Lithium	1	7.42%	-0.0008	3.58	13.246	8.831	LiCl
57	139	La139	Lanthanum	7/2	99.91%	0.21	336	12.714	8.477	LaCl ₃
4	9	Be9	Beryllium	-3/2	100.00%	0.052	78.8	12.648	8.432	BeSO ₄
55	133	Cs133	Cesium	7/2	100.00%	-0.003	269	11.806	7.871	CsNO ₃
51	123	Sb123	Antimony	7/2	42.75%	-0.68	111	11.664	7.777	KSbCl ₆
8	17	O17	Oxygen	-5/2	4.00%	-0.026	0.0611	11.302	7.535	H ₂ O
73	181	Ta181	Tantalum	7/2	99.99%	3	204	10.792	7.195	KTaCl ₆
71	175	Lu175	Lutetium	7/2	97.41%	5.6	156	10.268	6.846	
56	137	Ba137	Barium	3/2	11.32%	0.28	4.41	10.003	6.669	BaCl ₂
63	153	Eu153	Europium	5/2	52.18%	2.42	45	9.857	6.572	
5	10	B10	Boron	3	19.58%	0.074	22	9.67	6.447	BF ₃ :O(C ₂ H ₅) ₂
7	15	N15	Nitrogen	-1/2	37.00%		0.0219	9.124	6.083	CH ₃ NO ₃
23	50	V50	Vanadium	6	24.00%	0.21	0.755	8.974	5.983	VOCl ₃

Frequency ratios and reference compounds taken from
R.K. Harris et.al. Pure Appl. Chem., Vol. 73, No. 11, pp 1795-1818, 2001
IUPAC Recommendations 2001 (copyrighted 2001 IUPAC)