

Table of Nuclides with $I = 1/2$

Nuclide	Natural abundance N [%]	Gyromagnetic ratio γ [$10^7 \text{ rad T}^{-1} \text{ s}^{-1}$]	NMR frequency ^{a)} Ξ [MHz]	Standard	Receptivity D ^{b)}
^1H	99.985	26.7522	100.000 000	Me_4Si	$5.68 \cdot 10^3$
^3H	-	28.5335	106.663	Me_4Si	-
^3He	$1.3 \cdot 10^{-4}$	-20.378	76.178		$3.26 \cdot 10^{-3}$
^{13}C	1.108	6.7283	25.145 004	Me_4Si	1.00
^{15}N	0.37	-2.7126	10.136 767	MeNO_2 (neat)	$2.19 \cdot 10^{-2}$
^{19}F	100.0	25.1815	94.094 003	CCl_3F	4.73
^{29}Si	4.70	-5.319	19.867 184	Me_4Si	2.09
^{31}P	100.0	10.8394	40.480 747	85% H_3PO_4	$3.77 \cdot 10^2$
^{57}Fe	2.19	0.8687	3.237 798	$\text{Fe}(\text{CO})_5$	$4.19 \cdot 10^{-3}$
^{77}Se	7.58	5.101	19.091 523	Me_2Se	2.98
^{89}Y	100.0	-1.3163	4.920	$\text{Y}(\text{NO}_3)_3/\text{H}_2\text{O}$	0.668
^{103}Rh	100.0	-0.8468	3.17		0.177
^{109}Ag	48.18	-1.2519	4.653 623	$\text{Ag}^+/\text{H}_2\text{O}$	0.276
^{113}Cd	12.26	-5.99609	22.193 173	CdMe_2	7.59
^{119}Sn	8.58	-10.0318	37.290 665	Me_4Sn	25.2
^{125}Te	6.99	-8.453	31.549 802	Me_2Te	12.5
^{129}Xe	26.44	-7.3995	27.661	XeOF_4	31.8
^{169}Tm	100.0	-2.21	8.272		3.21
^{171}Yb	14.31	4.7117	17.613		4.44
^{183}W	14.28	1.1283	4.151 888	$\text{W}(\text{CO})_6$	$5.89 \cdot 10^{-2}$
^{187}Os	1.64	0.6193	2.282 343	OsO_4	$1.14 \cdot 10^{-3}$
^{195}Pt	33.8	5.8383	21.414 376	$[\text{Pt}(\text{CN})_6]^{2-}$	19.1
^{199}Hg	16.84	4.8458	17.910 841	Me_2Hg (neat)	5.42
^{205}Tl	70.50	15.6922	57.633 833	$\text{TlNO}_3/\text{aq.}$	$7.69 \cdot 10^2$
^{207}Pb	22.6	5.56264	20.920 597	Me_4Pb	11.8

a) values given in 9 digits as measured for the standard compounds, other calculated from the γ -values in column 3. b) receptivity relative to ^{13}C

Table of Selected Quadrupolar Nuclei with $I > 1/2$

Nuclide	Spin I	Quadru- pole moment Q [10^{-28}m^2]	Natural abundance N [%]	Gyromagnetic ratio γ [10^7 rad $\Gamma^{-1}\text{s}^{-1}$]	NMR frequency Ξ [MHz] ^{a)}	Standard	Recepti- vity D^b
² H	1	2.7·10 ⁻³	0.015	4.1064	15.351	CDCl ₃	8.2·10 ⁻³
⁶ Li	1	-6.4·10 ⁻⁴	7.42	3.9371	14.717	Li ⁺ /aq.	3.58
⁷ Li	3/2	-3.7·10 ⁻²	92.58	10.396	38.864	Li ⁺ /aq.	1.54·10 ³
⁹ Be	3/2	5.2·10 ⁻²	100	-3.7594	14.053	Be ²⁺ /aq.	78.8
¹¹ B	3/2	3.6·10 ⁻²	80.42	8.5827	32.084	BF ₃ ·OEt ₂	7.54·10 ²
¹⁴ N	1	1.6·10 ⁻²	99.63	1.9324	7.224	CH ₃ NO ₂	5.69
¹⁷ O	5/2	2.6·10 ⁻²	0.037	-3.6266	13.557	H ₂ O	6.1·10 ⁻²
²³ Na	3/2	0.1	100	7.0704	26.429	Na ⁺ /aq.	5.25·10 ²
²⁵ Mg	5/2	0.22	10.13	-1.6389	6.126	Mg ²⁺ /aq.	1.54
²⁷ Al	5/2	0.14	100	6.9762	26.077	Al(H ₂ O) ₆ ³⁺	1.17·10 ³
³³ S	3/2	-6.4·10 ⁻²	0.76	2.0517	7.670	Cs ₂ SO ₄ /aq.	9.7·10 ⁻²
³⁵ Cl	3/2	-7.9·10 ⁻²	75.53	2.6212	9.798	Cl ⁻ /aq.	20.2
³⁷ Cl	3/2	-6.2·10 ⁻²	24.47	2.182	8.156	Cl ⁻ /aq.	3.77
³⁹ K	3/2	-5.5·10 ⁻²	93.1	1.2484	4.672	K ⁺ /aq.	2.69
⁴³ Ca	7/2	0.2	0.145	-1.7999	6.728	Ca ²⁺ /aq.	5.3·10 ⁻²
⁴⁵ Sc	7/2	-0.22	100	6.4989	24.294	Sc ³⁺ /aq.	1.71·10 ³
⁴⁷ Ti	5/2	0.29	7.28	-1.5106	5.62476	TiCl ₄ (neat)	0.864
⁴⁹ Ti	7/2	0.24	5.51	-1.5110	5.638	TiCl ₄ (neat)	1.18
⁵¹ V	7/2	-5.2·10 ⁻²	99.76	7.0492	26.350	VOCl ₃ (neat)	2.16·10 ³
⁵³ Cr	3/2		9.55	-1.5120	5.652		0.49
⁵⁵ Mn	5/2	0.55	100	6.598	24.67	KMnO ₄ /aq.	9.94·10 ²
⁵⁹ Co	7/2	0.42	100	6.3015	23.727118	K ₃ Co(CN) ₆	1.57·10 ³
⁶³ Cu	3/2	-0.22	69.09	7.1088	26.515473	[Cu(NCMe) ₄] ⁺	3.65·10 ²
⁶⁵ Cu	3/2	-0.195	30.91	7.6104	28.403659	[BF ₄] ⁻	2.01·10 ²
⁶⁷ Zn	5/2	0.15	4.11	1.6726	6.252		0.665
⁷¹ Ga	3/2	0.112	39.6	8.1578	30.495	Ga ³⁺ /aq.	3.19·10 ²
⁷³ Ge	9/2	-0.2	7.76	-0.9332	3.488	GeMe ₄	0.617
⁷⁵ As	3/2	0.3	100	4.5816	17.127	KAsF ₆	1.43·10 ²
⁸¹ Br	3/2	0.28	49.46	7.2245	27.006	Br ⁻ /aq.	2.77·10 ²
⁸³ Kr	9/2	0.15	11.55	-1.029	3.848		1.23
⁸⁷ Rb	3/2	0.13	27.85	8.7851	32.839	Rb ⁺ /aq.	2.77·10 ²
⁸⁷ Sr	9/2	0.36	7.02	-1.1594	4.334	Sr ²⁺ /aq.	1.07
⁹³ Nb	9/2	-0.32	100	6.5674	24.549	Nb(O)Cl ₃	2.74·10 ³
⁹⁵ Mo	5/2	-1.5·10 ⁻²	15.72	1.7514	6.547	MoO ₄ ²⁻ /aq.	2.88
¹¹⁵ In	9/2	1.16	95.72	5.8622	21.914		1.89·10 ³
¹²¹ Sb	5/2	-0.5	57.25	6.4016	23.930	SbCl ₆ ⁻	5.2·10 ²
¹²⁷ I	5/2	-0.7	100	5.3521	20.007	I ⁻ /aq.	5.3·10 ²
¹³¹ Xe	3/2	-0.12	21.18	2.1935	8.200	XeOF ₄	3.31
¹³³ Cs	7/2	-3·10 ⁻³	100	3.5089	13.117	Cs ⁺ /aq.	2.69·10 ²
¹³⁷ Ba	3/2	0.28	11.32	2.9729	11.113	Ba ²⁺ /aq.	4.41
¹³⁹ La	7/2	0.21	99.911	3.7789	14.126		3.36·10 ²
¹⁸¹ Ta	7/2	3	99.988	3.202	11.97	TaF ₆ ⁻	2.04·10 ²
¹⁸⁷ Re	5/2	2.6	62.93	6.0844	22.744	ReO ₄ ⁻	4.9·10 ²
¹⁸⁹ Os	3/2	0.8	16.1	2.0756	7.759	OsO ₄	2.13
²⁰¹ Hg	3/2	0.5	13.22	-1.7655	6.600		1.08
²⁰⁹ Bi	9/2	-0.4	100	4.2988	16.070		7.77·10 ²

a) values given in 9 digits as measured for the standard compounds, other data calculated from the γ -values in column 3. b) receptivity relative to ¹³C