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Table 1
Magnetic properties of NMR nuclei (Spin I = Spin quantum number I)

Isotope	Spin I	Magnetic moment μ / μ_N	Magnetogyric ratio $\gamma \cdot 10^{-7}$ [rad T^{-1} s^{-1}]	Natural abundance [%]	Relative Receptivity		Precessional frequency ν at $\lvert B_0 \rvert$ = 2.35 T [MHz]	Quadrupole moment Q [fm^2]
					D^p	D^c		
^{1}H	1/2	4.837353570	26.7522128	99.9885	1.000	$5.87 \cdot 10^{3}$	100.000000	
^{2}H	1	1.21260077	4.10662791	0.0115	$1.11 \cdot 10^{-6}$	$6.52 \cdot 10^{-3}$	15.350609	0.2860
^{3}He	1/2	−3.685154336	−20.3801587	$1.37 \cdot 10^{-4}$	$6.06 \cdot 10^{-7}$	$3.56 \cdot 10^{-3}$	76.179437	
^{6}Li	1	1.1625637	3.9371709	7.59	$6.45 \cdot 10^{-4}$	3.79	14.716086	−0.0808
^{7}Li	3/2	4.20407505	10.3977013	92.41	0.271	$1.59 \cdot 10^{3}$	38.863797	−4.01
^{9}Be	3/2	−1.520136	−3.759666	100	$1.39 \cdot 10^{-2}$	81.5	14.051813	5.288
^{10}B	3	2.0792055	2.8746786	19.9	$3.95 \cdot 10^{-3}$	23.2	10.743658	8.459
^{11}B	3/2	3.4710308	8.5847044	80.1	0.132	$7.77 \cdot 10^{2}$	32.083974	4.059
^{13}C	1/2	1.216613	6.728284	1.07	$1.70 \cdot 10^{-4}$	1.00	25.145020	
^{14}N	1	0.57100428	1.9337792	99.632	$1.00 \cdot 10^{-3}$	5.90	7.226317	2.044
^{15}N	1/2	−0.490	−2.71261804	0.368	$3.84 \cdot 10^{-6}$	$2.25 \cdot 10^{-2}$	10.136767	
^{17}O	5/2	−2.24077	−3.62808	0.038	$1.11 \cdot 10^{-5}$	$6.50 \cdot 10^{-2}$	13.556457	−2.558
^{19}F	1/2	4.553333	25.18148	100.00	0.834	$4.90 \cdot 10^{3}$	94.094011	
^{23}Na	3/2	2.8629811	7.0808493	100	$9.27 \cdot 10^{-2}$	$5.45 \cdot 10^{2}$	26.451900	10.4
^{25}Mg	5/2	−1.01220	−1.63887	10.00	$2.68 \cdot 10^{-4}$	1.58	6.121635	19.94
^{27}Al	5/2	4.3086865	6.9762715	100	0.207	$1.22 \cdot 10^{3}$	26.056859	14.66
^{29}Si	1/2	−0.96179	−5.3190	4.6832	$3.68 \cdot 10^{-4}$	2.16	19.867187	
^{31}P	1/2	1.959	10.8394	100.00	$6.65 \cdot 10^{-2}$	$3.91 \cdot 10^{2}$	40.480742	
^{33}S	3/2	0.8311696	2.055685	0.76	$1.72 \cdot 10^{-5}$	0.101	7.676000	−6.78
^{35}Cl	3/2	1.061035	2.624198	75.78	$3.58 \cdot 10^{-3}$	21.0	9.797909	−8.165
^{37}Cl	3/2	0.8831998	2.184368	24.22	$6.59 \cdot 10^{-4}$	3.87	8.155725	−6.435

^{39}K	3/2	0.50543376	1.2500608	93.2581	$4.76 \cdot 10^{-4}$	2.79	4.666373	5.85
^{43}Ca	7/2	−1.494067	−1.803069	0.135	$8.68 \cdot 10^{-6}$	$5.10 \cdot 10^{-2}$	6.730029	−4.08
^{45}Sc	7/2	5.3933489	6.5087973	100	0.302	$1.78 \cdot 10^{3}$	24.291747	−22.0
^{47}Ti	5/2	−0.93294	−1.5105	7.44	$1.56 \cdot 10^{-4}$	0.918	5.637534	30.2
^{49}Ti	7/2	−1.25201	−1.51095	5.41	$2.05 \cdot 10^{-4}$	1.20	5.639037	24.7
^{51}V	7/2	5.8380835	7.0455117	99.750	0.383	$2.25 \cdot 10^{3}$	26.302948	−5.2
^{53}Cr	3/2	−0.61263	−1.5152	9.501	$8.63 \cdot 10^{-5}$	0.507	5.652496	−15.0
^{55}Mn	5/2	4.1042437	6.6452546	100	0.179	$1.05 \cdot 10^{3}$	24.789218	33.0
^{57}Fe	1/2	0.1569636	0.8680624	2.119	$7.24 \cdot 10^{-7}$	$4.25 \cdot 10^{-3}$	3.237778	
^{59}Co	7/2	5.247	6.332	100	0.278	$1.64 \cdot 10^{3}$	23.727074	42.0
^{61}Ni	3/2	−0.96827	−2.3948	1.1399	$4.09 \cdot 10^{-5}$	0.240	8.936051	16.2
^{63}Cu	3/2	2.8754908	7.1117890	69.17	$6.50 \cdot 10^{-2}$	$3.82 \cdot 10^{2}$	26.515473	−22.0
^{65}Cu	3/2	3.07465	7.60435	30.83	$3.54 \cdot 10^{-2}$	$2.08 \cdot 10^{2}$	28.403693	−20.4
^{67}Zn	5/2	1.035556	1.676688	4.10	$1.18 \cdot 10^{-4}$	0.692	6.256803	15.0
^{71}Ga	3/2	3.307871	8.181171	39.892	$5.71 \cdot 10^{-2}$	$3.35 \cdot 10^{2}$	30.496704	10.7
^{73}Ge	9/2	−0.9722881	−0.9360303	7.73	$1.09 \cdot 10^{-4}$	0.642	3.488315	−19.6
^{75}As	3/2	1.858354	4.596163	100	$2.54 \cdot 10^{-2}$	$1.49 \cdot 10^{2}$	17.122614	31.4
^{77}Se	1/2	0.92677577	5.1253857	7.63	$5.37 \cdot 10^{-4}$	3.15	19.071513	
^{81}Br	3/2	2.931283	7.249776	49.31	$4.91 \cdot 10^{-2}$	$2.88 \cdot 10^{2}$	27.006518	26.2
^{87}Rb	3/2	3.552582	8.786400	27.83	$4.93 \cdot 10^{-2}$	$2.90 \cdot 10^{2}$	32.720454	13.35
^{87}Sr	9/2	−1.2090236	−1.1639376	7.00	$1.90 \cdot 10^{-4}$	1.12	4.333822	33.5
^{89}Y	1/2	−0.23801049	−1.3162791	100	$1.19 \cdot 10^{-4}$	0.700	4.900198	
^{91}Zr	5/2	−1.54246	−2.49743	11.22	$1.07 \cdot 10^{-3}$	6.26	9.296298	−17.6
^{93}Nb	9/2	6.8217	6.5674	100	0.488	$2.87 \cdot 10^{3}$	24.476170	−32.0
^{95}Mo	5/2	−1.082	−1.751	15.92	$5.21 \cdot 10^{-4}$	3.06	6.516926	−2.2
^{99}Ru	5/2	−0.7588	−1.229	12.76	$1.44 \cdot 10^{-4}$	0.848	4.605151	7.9

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Table 1 (continued)

Isotope	Spin I	Magnetic moment μ / μ_N	Magnetogyric ratio $\gamma \cdot 10^{-7}$ [rad T^{-1} s^{-1}]	Natural abundance [%]	Relative Receptivity		Precessional frequency ν at $\lvert B_0 \rvert$ = 2.35 T [MHz]	Quadrupole moment Q [fm^2]
					D^p	D^c		
^{101}Ru	5/2	−0.8505	−1.377	17.06	$2.71 \cdot 10^{-4}$	1.59	5.161369	45.7
^{103}Rh	1/2	−0.1531	−0.8468	100	$3.17 \cdot 10^{-5}$	0.186	3.186447	
^{105}Pd	5/2	−0.760	−1.23	22.33	$2.53 \cdot 10^{-4}$	1.49	4.576100	66.0
^{109}Ag	1/2	−0.22636279	−1.2518634	48.161	$4.94 \cdot 10^{-5}$	0.290	4.653533	
^{113}Cd	1/2	−1.0778568	−5.9609155	12.22	$1.35 \cdot 10^{-3}$	7.94	22.193175	
^{119}Sn	1/2	−1.813	−10.0317	8.59	$4.53 \cdot 10^{-3}$	26.6	37.290	
^{121}Sb	5/2	3.9796	6.4435	57.21	$9.33 \cdot 10^{-2}$	$5.48 \cdot 10^{2}$	23.930577	−36.0
^{125}Te	1/2	−1.5389360	−8.5108404	7.07	$2.28 \cdot 10^{-3}$	13.4	31.549769	−0.79
^{127}I	5/2	3.328710	5.389573	100.00	$9.54 \cdot 10^{-2}$	$5.60 \cdot 10^{2}$	20.007486	−71.0
^{129}Xe	1/2	−1.347494	−7.452103	26.44	$5.72 \cdot 10^{-3}$	33.6	27.810186	
^{133}Cs	7/2	2.9277407	3.5332539	100	$4.84 \cdot 10^{-2}$	$2.84 \cdot 10^{2}$	13.116142	−0.343
^{137}Ba	3/2	1.21013	2.99295	11.232	$7.87 \cdot 10^{-4}$	4.62	11.112928	24.5
^{139}La	7/2	3.1556770	3.8083318	99.910	$6.05 \cdot 10^{-2}$	$3.56 \cdot 10^{2}$	14.125641	20.0
^{183}W	1/2	0.20400919	1.1282403	14.31	$1.07 \cdot 10^{-5}$	$6.31 \cdot 10^{-2}$	4.166387	
^{187}Os	1/2	0.1119804	0.6192895	1.96	$2.43 \cdot 10^{-7}$	$1.43 \cdot 10^{-3}$	2.282331	
^{195}Pt	1/2	1.0557	5.8385	33.832	$3.51 \cdot 10^{-3}$	20.7	21.496784	
^{199}Hg	1/2	0.87621937	4.8457916	16.87	$1.00 \cdot 10^{-3}$	5.89	17.910822	
^{205}Tl	1/2	2.83747094	15.6921808	70.476	0.142	$8.36 \cdot 10^{2}$	57.683838	
^{207}Pb	1/2	1.00906	5.58046	22.1	$2.01 \cdot 10^{-3}$	11.8	20.920599	
^{209}Bi	9/2	4.5444	4.3750	100	0.144	$8.48 \cdot 10^{2}$	16.069288	−51.6

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