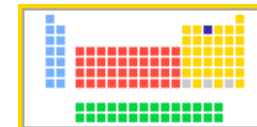


Chemistry: WebElements Periodic Table: Professional Edition: Nitrogen: NMR data



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7

N

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nitrogen compounds

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NMR data

Common reference compound: CH₃NO₂ /neat CDCl₃.

Isotope

Natural abundance /%

Spin (I)

Isotope 1

¹⁴N

99.632

1

Isotope 2

¹⁵N

0.368

1/2

Isotope 3

compounds

Select formula from below:

Fluorides

N₂F₂

	\uparrow	\downarrow
reduction potentials		
nuclear properties		
NMR		
Naturally occurring isotopes		
Radioisotopes		
elemental properties		
Bulk properties (density, resistivity, etc.)		
Thermal properties (melting point, etc.)		
Thermodynamic properties		
Crystal structure		
electronic properties		
Electronic configuration		
Ionization energies		
Electron affinities		
Electronegativities		
Effective nuclear charges		
Electron binding energies		
Atom radii		
Valence shell radii		

	\uparrow	\downarrow
spin (ν)		
Frequency relative to $^1\text{H} = 100$ (MHz)	7.226317	10.136767
Receptivity, D^P, relative to $^1\text{H} = 1.00$	0.00100	0.00000384
Receptivity, D^C, relative to $^{13}\text{C} = 1.00$	5.90	0.0225
Magnetogyric ratio, γ ($10^7 \text{ rad T}^{-1} \text{ s}^{-1}$)	1.9337792	-2.71261804
Magnetic moment, μ (μ_N)	0.57100428	-0.49049746
Nuclear quadrupole moment, Q (barn)	2.044	-
Line width factor, $10^{56} \text{I} (\text{m}^4)$	21	-

N_2F_2
 NF_3
 N_2F_4

Chlorides
 NCl_3

Bromides
 NBr_3

Iodides
 NI_3

Hydrides
 none listed

Oxides
 NO

NO_2
 N_2O

N_2O_3
 N_2O_4
 N_2O_5

Sulfides
 none listed

Selenides
 none listed

Tellurides
 none listed

Nitrides
 H_2NNH_2



Notes

I am grateful to [Professor Robin Harris](#) (University of Durham, UK) who provided much of the NMR data, which are copyright 1996 IUPAC, adapted from his contribution contained within reference 1. Where given, data for certain radioactive nuclei are from reference 2. I am also grateful to [Professor Pekka Pyykkö](#) (University of Helsinki, Finland) who provided the nuclear quadrupole moment data (references 3 – 5). The isotopic abundances are taken from the naturally occurring isotopes section within WebElements.

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3. P. Pyykkö, *Z. Naturforsch.*, 1992, **47a**, 189.
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: A Ready-Reference Book of Chemical and Physical Data (CRC Handbook of Chemistry and Physics, CRC Press, Boca Raton, Florida, USA, 79th edition, 1998.

5. P. Pyykkö, *personal communication*, 1998.

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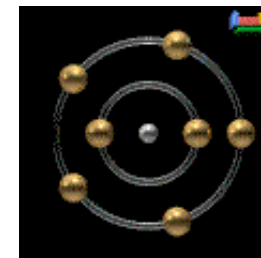
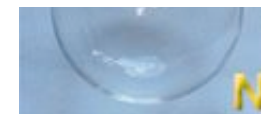
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