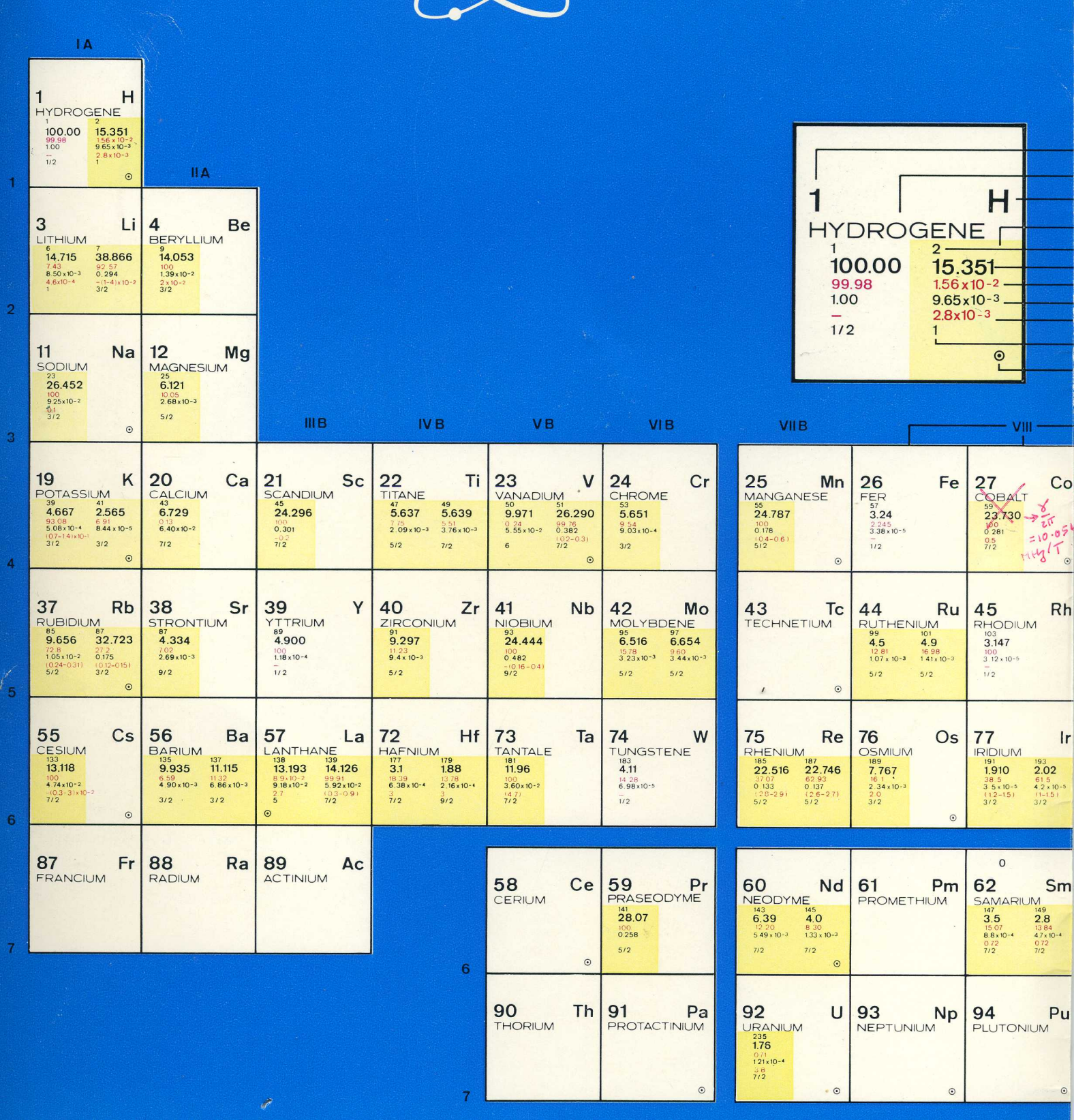
IA
IIA
IIIB
IVB
VB
VIB
VIIB
VIII
1 H
HYDROGENE
1
100.00
99.98
1.00
–
1/2
2
15.351
1.56 x 10-2
9.65 x 10-3
2.8 x 10-3
1
⊙
3 Li
LITHIUM
6
14.715
7.43
8.50 x 10-3
4.6 x 10-4
1
7
38.866
92.57
0.294
–(1-4) x 10-2
3/2
4 Be
BERYLLIUM
9
14.053
100
1.39 x 10-2
2 x 10-2
3/2
11 Na
SODIUM
23
26.452
100
9.25 x 10-2
0.1
3/2
12 Mg
MAGNESIUM
25
6.121
10.05
2.68 x 10-3
5/2
19 K
POTASSIUM
39
4.667
93.08
5.08 x 10-4
(0.7-1.4) x 10-1
3/2
41
2.565
6.91
8.44 x 10-5
3/2
20 Ca
CALCIUM
43
6.729
0.13
6.40 x 10-2
7/2
21 Sc
SCANDIUM
45
24.296
100
0.301
~0.2
7/2
22 Ti
TITANE
47
5.637
7.75
2.09 x 10-3
5/2
49
5.639
5.51
3.76 x 10-3
7/2
23 V
VANADIUM
50
9.971
0.24
5.55 x 10-2
6
51
26.290
99.76
0.382
(0.2-0.3)
7/2
24 Cr
CHROME
53
5.651
9.54
9.03 x 10-4
3/2
25 Mn
MANGANESE
55
24.787
100
0.178
(0.4-0.6)
5/2
26 Fe
FER
57
3.24
2.245
3.38 x 10-5
–
1/2
27 Co
COBALT
59
23.730
100
0.281
~
0.5
7/2
37 Rb
RUBIDIUM
85
9.656
72.8
1.05 x 10-2
(0.24-0.31)
5/2
87
32.723
27.2
0.175
(0.12-0.15)
3/2
38 Sr
STRONTIUM
87
4.334
7.02
2.69 x 10-3
9/2
39 Y
YTTRIUM
89
4.900
100
1.18 x 10-4
–
1/2
40 Zr
ZIRCONIUM
91
9.297
11.23
9.4 x 10-3
5/2
41 Nb
NIOBIUM
93
24.444
100
0.482
~0.16-0.4)
9/2
42 Mo
MOLYBDENE
95
6.516
15.78
3.23 x 10-3
5/2
97
6.654
9.60
3.44 x 10-3
5/2
43 Tc
TECHNETIUM
44 Ru
RUTHENIUM
99
4.5
12.81
1.07 x 10-3
5/2
101
4.9
16.98
1.41 x 10-3
5/2
45 Rh
RHODIUM
103
3.147
100
3.12 x 10-5
–
1/2
55 Cs
CESIUM
133
13.118
100
4.74 x 10-2
~(0.3-3) x 10-2
7/2
56 Ba
BARIUM
135
9.935
6.59
4.90 x 10-3
3/2
137
11.115
11.32
6.86 x 10-3
3/2
57 La
LANTHANE
138
13.193
8.9 x 10-2
9.18 x 10-2
2.7
5
139
14.126
99.91
5.92 x 10-2
(0.3-0.9)
7/2
72 Hf
HAFNIUM
177
3.1
18.39
6.38 x 10-4
3
7/2
179
1.88
13.78
2.16 x 10-4
3
9/2
73 Ta
TANTALE
181
11.96
100
3.60 x 10-2
(4.7)
7/2
74 W
TUNGSTENE
183
4.11
14.28
6.98 x 10-5
–
1/2
75 Re
RHENIUM
185
22.516
37.07
0.133
(2.8-2.9)
5/2
187
22.746
62.93
0.137
(2.6-2.7)
5/2
76 Os
OSMIUM
189
7.767
16.1
2.34 x 10-3
2.0
3/2
77 Ir
IRIDIUM
191
1.910
38.5
3.5 x 10-5
(1.2-1.5)
3/2
193
2.02
61.5
4.2 x 10-5
(1-1.5)
3/2
87 Fr
FRANCIUM
88 Ra
RADIUM
89 Ac
ACTINIUM
58 Ce
CERIUM
59 Pr
PRASEODYME
141
28.07
100
0.258
5/2
60 Nd
NEODYME
143
6.39
12.20
5.49 x 10-3
7/2
145
4.0
8.30
1.33 x 10-3
7/2
61 Pm
PROMETHIUM
0
62 Sm
SAMARIUM
147
3.5
15.07
8.8 x 10-4
0.72
7/2
149
2.8
13.84
4.7 x 10-4
0.72
7/2
90 Th
THORIUM
91 Pa
PROTACTINIUM
92 U
URANIUM
235
1.76
0.71
1.21 x 10-4
3.8
7/2
93 Np
NEPTUNIUM
94 Pu
PLUTONIUM
1
2
3
4
5
6
7
6
7

Gaz inertes

- Numéro atomique
- Element
- Symbole
- La couleur indique l'existence d'un moment quadrupolaire électrique
- Isotope
- Frequence RMN à 2.3488T(23.488kG)
- Abondance isotopique naturelle (/)
- Sensibilité RMN à champ constant par rapport à un nombre de protons équivalent
- Moment quadrupolaire électrique ($10^{-24}cm^2$) valeur moyenne d'après plusieurs références
- Spin nucléaire (unité multiple de $h/2\pi$)
- Ce symbole précise l'existence d'isotopes nucléaires actifs magnétiquement, radioactifs ou de faible abondance naturelle

IB IIB IIIA IVA VA VIA VIIA

2 He HELIUM
3 — 76.183 — 10⁻⁵–10⁻⁷ — 0.442 — – — 1/2

5 B BORE
10 — 10.746 — 18.83 — 1.99 x 10⁻² — (74–111)10⁻² — 3
11 — 32.085 — 81.17 — 0.165 — 3.6 x 10⁻² — 3/2

6 C CARBONE
13 — 25.144 — 1.108 — 1.59 x 10⁻² — – — 1/2

7 N AZOTE
14 — 7.225 — 99.64 — 1.01 x 10⁻³ — (2.7)x10⁻² — 1
15 — 10.135 — 0.365 — 1.04 x 10⁻³ — – — 1/2

8 O OXYGENE
17 — 13.557 — 3.7 x 10⁻² — 2.91 x 10⁻² — –(4.5)x10⁻³ — 5/2

9 F FLUOR
19 — 94.081 — 100 — 0.833 — – — 1/2

10 Ne NEON
21 — 7.899 — 0.257 — 2.46 x 10⁻³ — 3/2

13 Al ALUMINIUM
27 — 26.058 — 100 — 0.206 — 0.15 — 5/2

14 Si SILICIUM
29 — 19.866 — 4.70 — 7.84 x 10⁻³ — – — 1/2

15 P PHOSPHORE
31 — 40.484 — 100 — 6.63 x 10⁻² — – — 1/2

16 S SOUFRE
33 — 7.671 — 0.74 — 2.26 x 10⁻³ — –(5–6.7)x10⁻² — 3/2

17 Cl CHLORE
35 — 9.799 — 75.4 — 4.70 x 10⁻³ — –(3.8–8.5)10⁻² — 3/2
37 — 8.155 — 24.6 — 2.71 x 10⁻³ — –(6.2–7.9)10⁻² — 3/2

18 Ar ARGON

28 Ni NICKEL
61 — 8.90 — 1.25 — 3.53 x 10⁻³ — 3/2

29 Cu CUIVRE
63 — 26.506 — 69.09 — 9.31 x 10⁻² — –(0.15–0.16) — 3/2
65 — 28.397 — 30.91 — 0.114 — –(0.14–0.15) — 3/2

30 Zn ZINC
67 — 6.257 — 4.12 — 2.86 x 10⁻³ — 0.18 — 5/2

31 Ga GALLIUM
69 — 24.002 — 60.2 — 6.91 x 10⁻² — (0.18–0.24) — 3/2
71 — 30.497 — 39.8 — 0.142 — (0.11–0.15) — 3/2

32 Ge GERMANIUM
73 — 3.488 — 7.61 — 1.40 x 10⁻³ — –0.22 — 9/2

33 As ARSENIC
75 — 17.127 — 100 — 2.51 x 10⁻² — 3/2

34 Se SELENIUM
77 — 19.098 — 7.50 — 6.93 x 10⁻³ — – — 1/2

35 Br BROME
79 — 25.055 — 50.57 — 7.86 x 10⁻² — 0.3 — 3/2
81 — 27.009 — 49.43 — 9.85 x 10⁻² — 0.28 — 3/2

36 Kr KRYPTON
83 — 3.85 — 11.55 — 1.88x10⁻³ — (0.15–0.16) — 9/2

46 Pd PALLADIUM
105 — 4.09 — 22.23 — 7.94 x 10⁻⁴ — – — 5/2

47 Ag ARGENT
107 — 4.047 — 51.35 — 6.62 x 10⁻⁵ — – — 1/2
109 — 4.653 — 48.65 — 1.01 x 10⁻⁴ — – — 1/2

48 Cd CADMIUM
111 — 21.205 — 12.86 — 9.54 x 10⁻³ — – — 1/2
113 — 22.182 — 12.34 — 1.09 x 10⁻² — – — 1/2

49 In INDIUM
113 — 21.867 — 4.16 — 0.345 — (0.75–1.18) — 9/2
115 — 21.912 — 95.84 — 0.347 — (0.76–1.2) — 9/2

50 Sn ETAIN
117 — 35.63 — 7.65 — 4.52 x 10⁻² — – — 1/2
119 — 37.28 — 8.68 — 5.18 x 10⁻² — – — 1/2

51 Sb ANTIMOINE
121 — 23.93 — 57.25 — 0.160 — –(0.5–1.2) — 5/2
123 — 12.961 — 42.75 — 4.57 x 10⁻² — –(0.68–1.5) — 7/2

52 Te TELLURE
123 — 26.21 — 0.89 — 1.80 x 10⁻² — – — 1/2
125 — 31.59 — 7.03 — 3.16 x 10⁻² — – — 1/2

53 I IODE
127 — 20.009 — 100 — 9.34 x 10⁻² — –(0.6–0.75) — 5/2

54 Xe XENON
129 — 27.67 — 26.24 — 2.12 x 10⁻² — – — 1/2
131 — 8.197 — 21.24 — 2.75 x 10⁻³ — –0.12 — 3/2

78 Pt PLATINE
195 — 21.499 — 33.7 — 9.94 x 10⁻³ — – — 1/2

79 Au OR
197 — 1.717 — 100 — 2.53 x 10⁻⁵ — (5.6–6.) 10⁻¹ — 3/2

80 Hg MERCURE
199 — 17.85 — 16.86 — 5.67 x 10⁻³ — 1/2
201 — 6.58 — 13.24 — 1.42 x 10⁻³ — (0.45–0.65) — 3/2

81 Tl THALLIUM
203 — 57.15 — 29.52 — 0.187 — – — 1/2
205 — 57.71 — 70.48 — 0.192 — – — 1/2

82 Pb PLOMB
207 — 20.902 — 21.11 — 9.13 x 10⁻³ — – — 1/2

83 Bi BISMUTH
209 — 16.070 — 100 — 0.137 — –0.4 — 9/2

84 Po POLONIUM

85 At ASTATINE

86 Rn RADON

63 Eu EUROPIUM
151 — 24.64 — 47.77 — 0.175 — 1.2 — 5/2
153 — 10.894 — 52.23 — 1.51 x 10⁻² — 2.5 — 5/2

64 Gd GADOLINIUM
155 — 2.8 — 14.86 — 1.33 x 10⁻⁴ — 1.1 — 3/2
157 — 4.0 — 15.64 — 3.34 x 10⁻⁴ — 1.0 — 3/2

65 Tb TERBIUM
159 — 18.13 — 100 — 2.99 x 10⁻² — 3/2

66 Dy DYSPROSIUM
161 — 2.8 — 18.73 — 2.35 x 10⁻⁴ — 5/2
163 — 3.8 — 24.97 — 6.38 x 10⁻⁴ — 5/2

67 Ho HOLMIUM
165 — 16.96 — 100 — 0.102 — 2 — 7/2

68 Er ERBIUM
167 — 2.44 — 22.82 — 3.11 x 10⁻⁴ — 10 — 7/2

69 Tm THULIUM
169 — 8.20 — 100 — 5.51 x 10⁻⁴ — – — 1/2

70 Yb YTTERBIUM
171 — 17.64 — 14.27 — 5.50 x 10⁻³ — – — 1/2
173 — 4.9 — 16.08 — 1.33 x 10⁻³ — (0.4–3.9) — 5/2

71 Lu LUTETIUM
175 — 11.42 — 97.40 — 3.12 x 10⁻² — (5.7–6.5) — 7/2
176 — 12.45 — 2.60 — 0.110 — 8 — 6

95 Am AMERICIUM

96 Cm CURIUM

97 Bk BERKELIUM

98 Cf CALIFORNIUM

99 Es EINSTEINIUM

100 Fm FERMIUM

101 Md MENDELEVIUM

102 No NOBELIUM

103 Lw LAWRENCIUM