La masa atómica de un elemento es la masa media ponderada de sus isótopos naturales.

Cl-35 en un 75,5 % y Cl-37 en un 24,5 %.

TABLA PERIÓDICA GENERAL: NÚMERO ATÓMICO Y MASA ATÓMICA

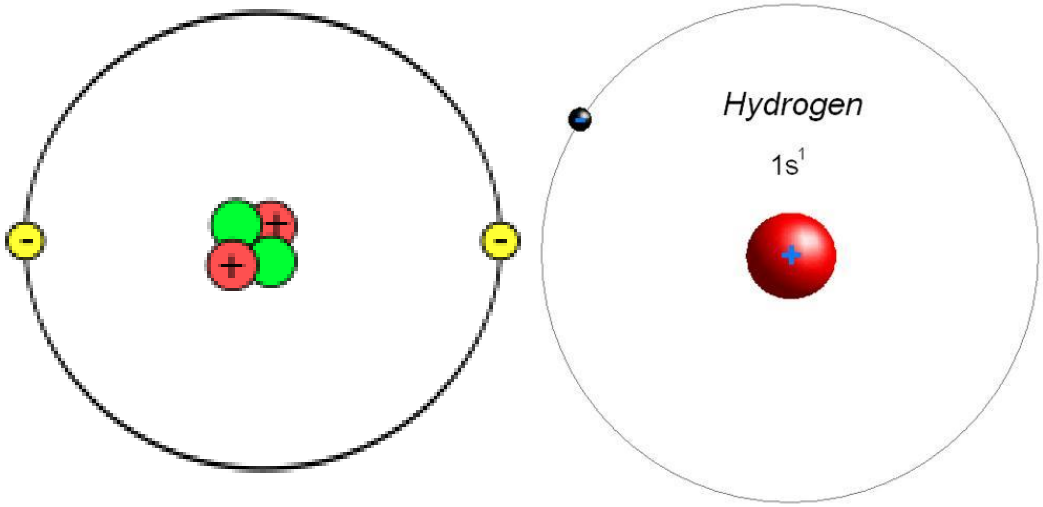
1 **H** 1,008																	2 **He** 4,003
3 **Li** 6,94	4 **Be** 9,01											5 **B** 10,81	6 **C** 12,01	7 **N** 14,01	8 **O** 16,00	9 **F** 19,00	10 Ne 20,18
11 **Na** 22,99	12 **Mg** 24,31											13 **Al** 26,98	14 **Si** 28,09	15 **P** 30,97	16 **S** 32,07	17 **Cl** 35,45	18 **Ar** 39,95
19 **K** 39,10	20 **Ca** 40,08	21 **Sr** 44,96	22 **Ti** 47,87	23 **V** 50,94	24 **Cr** 52,00	25 **Mn** 54,94	26 **Fe** 55,85	27 **Co** 58,93	28 **Ni** 58,69	29 **Cu** 63,55	30 **Zn** 65,39	31 **Ga** 69,72	32 **Ge** 72,61	33 **As** 74,92	34 **Se** 78,96	35 **Br** 79,90	36 **Kr** 83,80
37 **Rb** 85,47	38 **Sr** 87,62	39 **Y** 88,91	40 **Zr** 91,22	41 **Nb** 92,91	42 **Mo** 95,94	43 **Tc** (98,91)	44 **Ru** 101,07	45 **Rh** 102,91	46 **Pd** 106,42	47 **Ag** 107,87	48 **Cd** 112,41	49 **In** 114,82	50 **Sn** 118,71	51 **Sb** 121,76	52 **Te** 127,60	53 **I** 126,90	54 **Xe** 131,29
55 **Cs** 132,91	56 **Ba** 137,33	57 **La** 138,91	72 **Hf** 178,49	73 **Ta** 180,95	74 **W** 183,84	75 **Re** 186,21	76 **Os** 190,23	77 **Ir** 192,22	78 **Pt** 195,08	79 **Au** 196,97	80 **Hg** 200,59	81 **Tl** 204,38	82 **Pb** 207,20	83 **Bi** 208,98	84 **Po** (208,98)	85 **At** (209,99)	86 **Rn** (222,02)
87 **Fr** (223,02)	88 **Ra** (226,03)	89 **Ac** (227,03)	104 **Rf** (261,11)	105 **Db** (262,11)	106 **Sg** (263,12)	107 **Bh** (264,12)	108 **Hs** (265,13)	109 **Mt** (268)	110 **Ds** (269)	111 **Rg** (272)	112 **Uub** (277)		114 **Uuq** (285)		116 **Uuh** (289)		

58 **Ce** 141,12	59 **Pr** 140,91	60 **Nd** 144,24	61 **Pm** (144,91)	62 **Sm** 150,36	63 **Eu** 151,96	64 **Gd** 157,25	65 **Tb** 158,93	66 **Dy** 162,50	67 **Ho** 164,93	68 **Er** 167,26	69 **Tm** 168,93	70 **Yb** 173,04	71 **Lu** 174,97
90 **Th** 232,04	91 **Pa** 231,04	92 **U** 238,03	93 **Np** (237,05)	94 **Pu** (244,06)	95 **Am** (243,06)	96 **Cm** (247,07)	97 **Bk** (247,07)	98 **Cf** (251,08)	99 **Es** (252,08)	100 **Fm** (257,10)	101 **Md** (258,10)	102 **No** (259,10)	103 **Lr** (262,11)

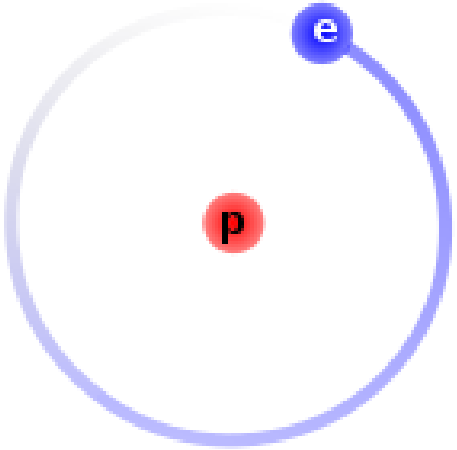
					2 **He** 4,003
5 **B** 10,81	6 **C** 12,01	7 **N** 14,01	8 **O** 16,00	9 **F** 19,00	10 **Ne** 20,18
13 **Al** 26,98	14 **Si** 28,09	15 **P** 30,97	16 **S** 32,07	17 **Cl** 35,45	18 **Ar** 39,95

Número atómico: número de protones en el núcleo.

Masa atómica

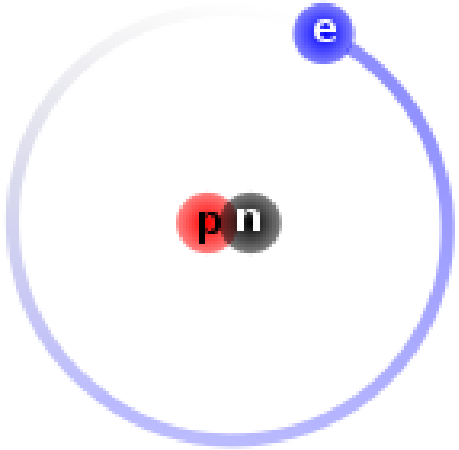


1 **H** 1,008



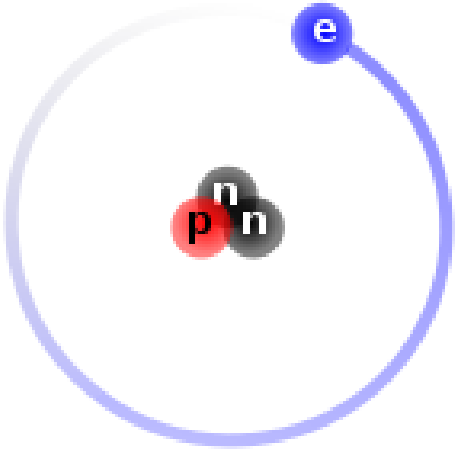
1

$_{1}H$



2

$_{1}H$

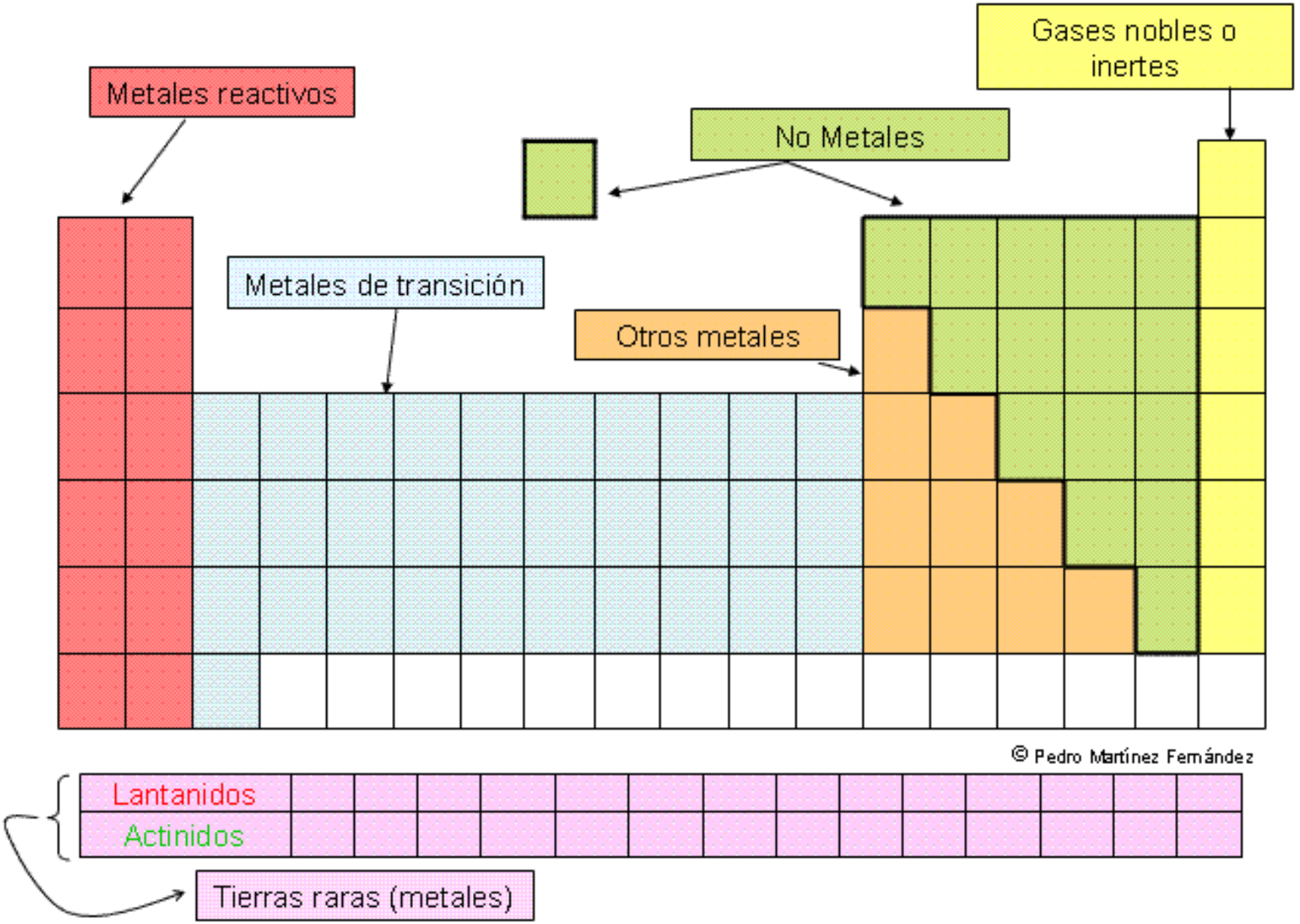


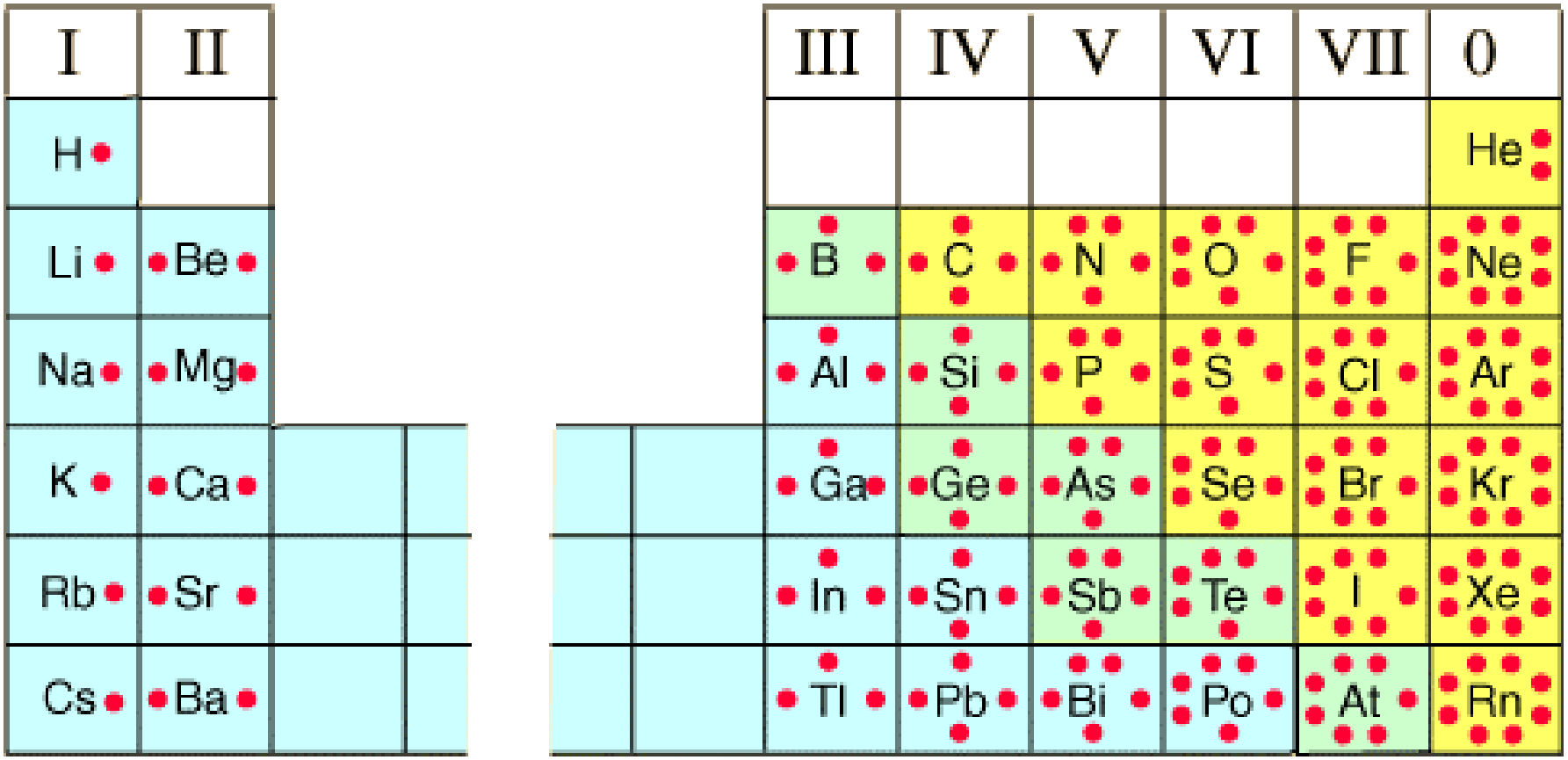
3

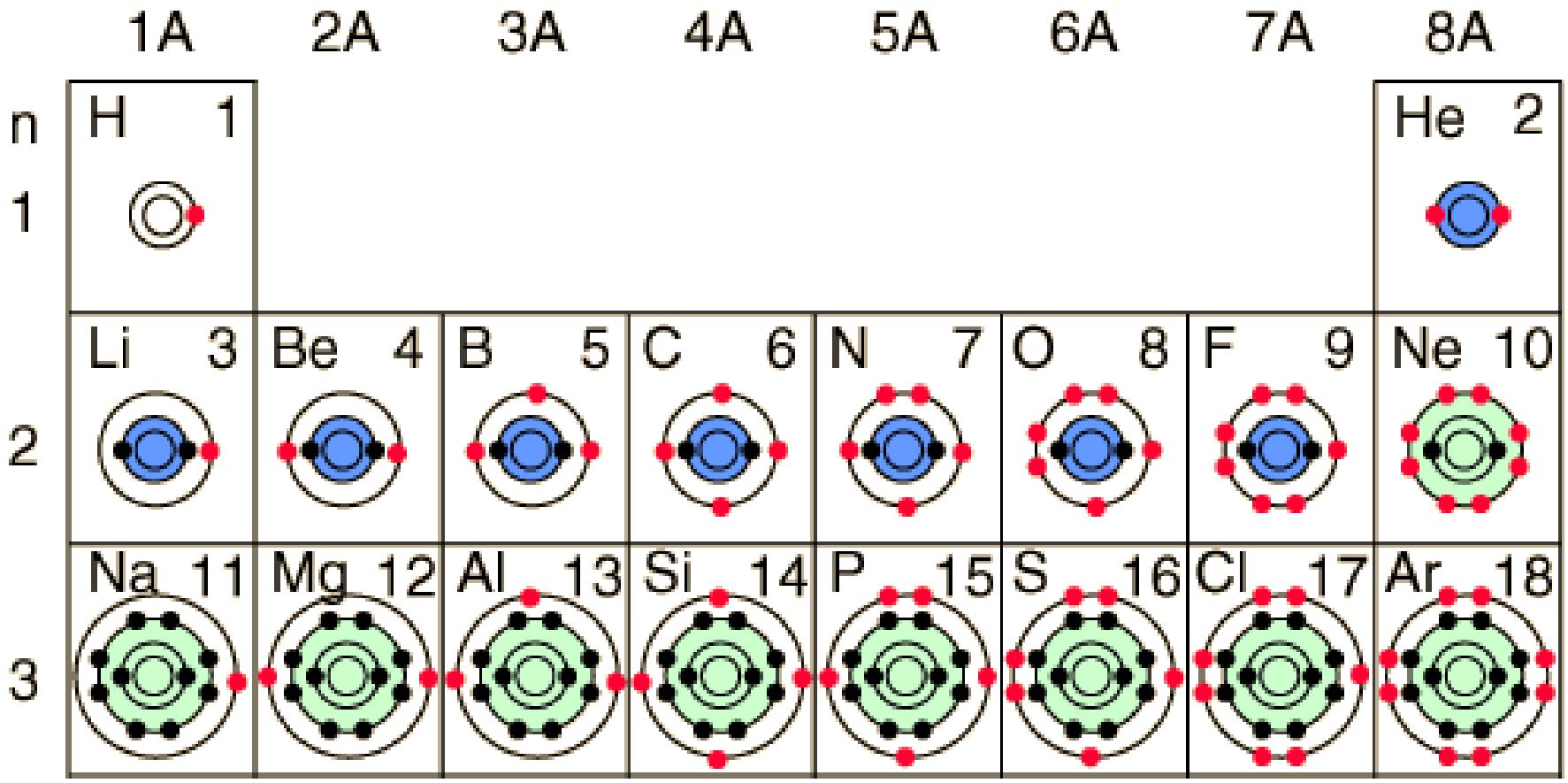
$_{1}H$

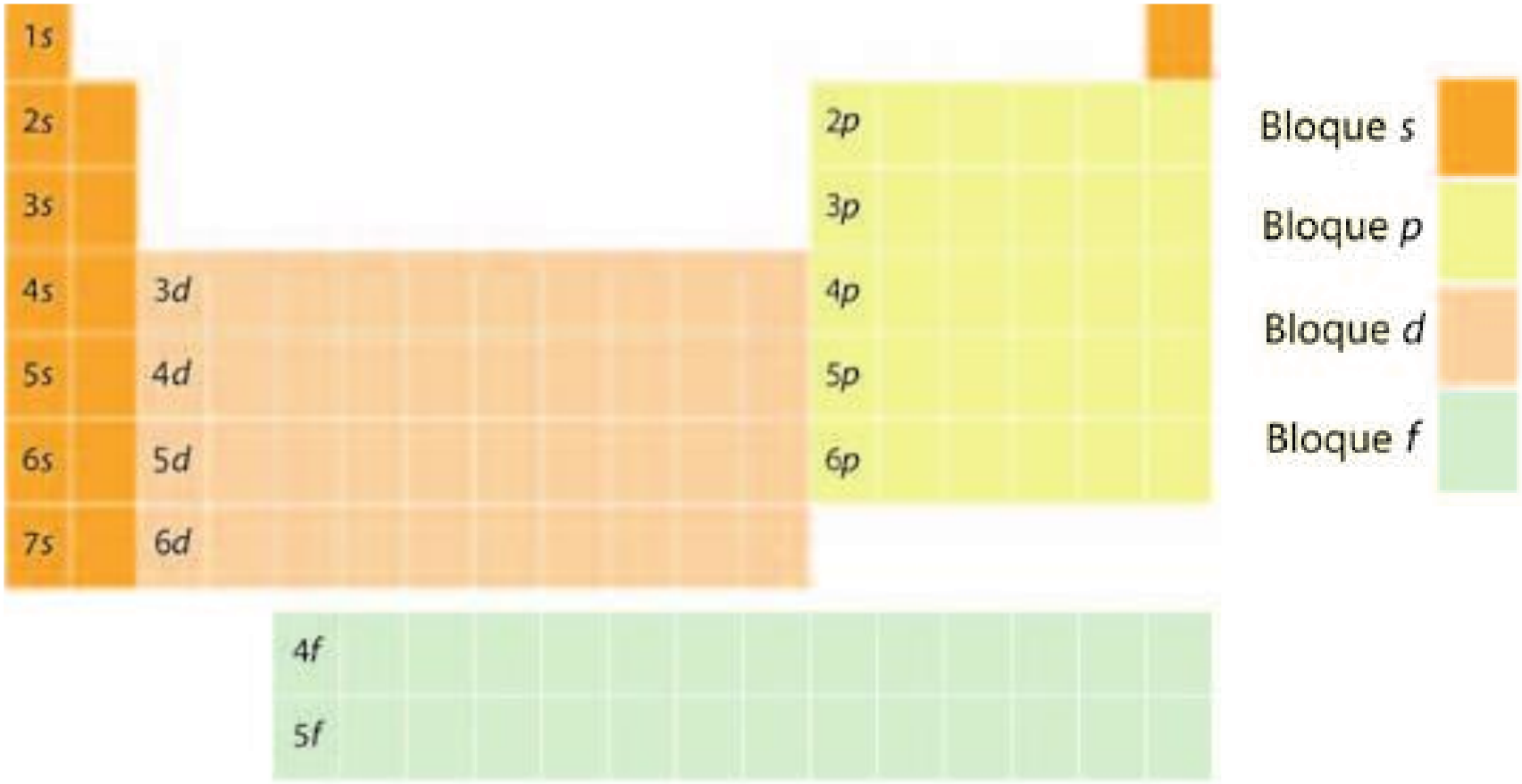
Elemento	Isótopo	Masa*	Abundancia relativa	Peso atómico
Hidrógeno	^{1}H	1,007825	99,985	1,00797
	^{2}H	2,010423	0,015	
	^{3}H	3,023751	0,000	
Boro	^{10}B	10,01293	19,780	10,811
	^{11}B	11,00931	80,220	
Carbono	^{12}C	12,00000	98,892	12,01115
	^{13}C	13,00335	1,117	
	^{14}C	14,01270	0,000	
Nitrógeno	^{14}N	14,00307	99,631	14,0067
	^{15}N	15,00011	0,369	
Oxígeno	^{16}O	15,99491	99,759	15,9994
	^{17}O	16,99884	0,037	
	^{18}O	17,99726	0,204	
Cloro	^{35}Cl	34,96885	75,531	35,453
	^{37}Cl	36,96600	24,469	

UMA es una unidad de masa y se define como la doceava parte (1/12) de la masa de un átomo, neutro y no enlazado, de carbono-12

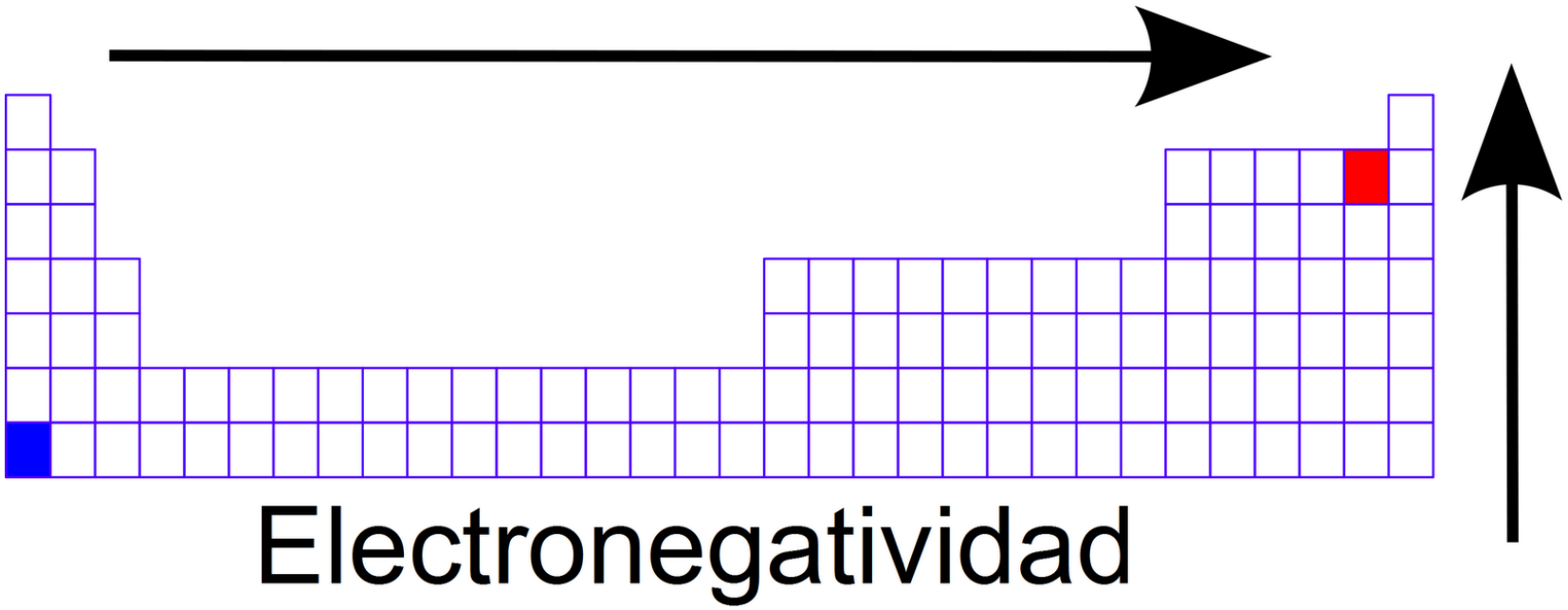

Gases nobles o inertes
Metales reactivos
No Metales
Metales de transición
Otros metales
© Pedro Martínez Fernández
Lantanidos
Actinidos
Tierras raras (metales)


I
II
III
IV
V
VI
VII
0
H
He
Li
Be
B
C
N
O
F
Ne
Na
Mg
Al
Si
P
S
Cl
Ar
K
Ca
Ga
Ge
As
Se
Br
Kr
Rb
Sr
In
Sn
Sb
Te
I
Xe
Cs
Ba
Tl
Pb
Bi
Po
At
Rn


1A
2A
3A
4A
5A
6A
7A
8A
n
1
2
3
H 1
He 2
Li 3
Be 4
B 5
C 6
N 7
O 8
F 9
Ne 10
Na 11
Mg 12
Al 13
Si 14
P 15
S 16
Cl 17
Ar 18

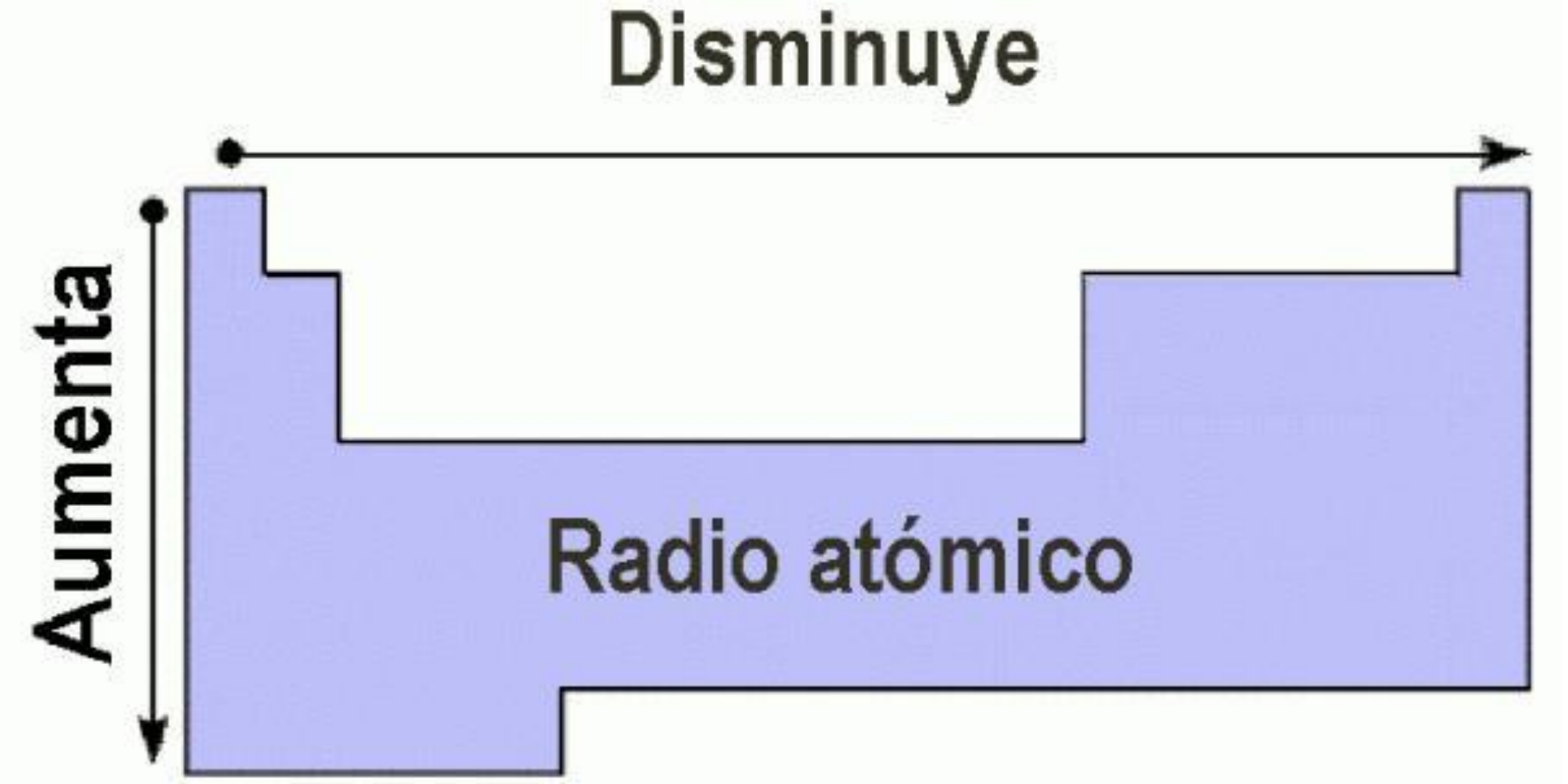


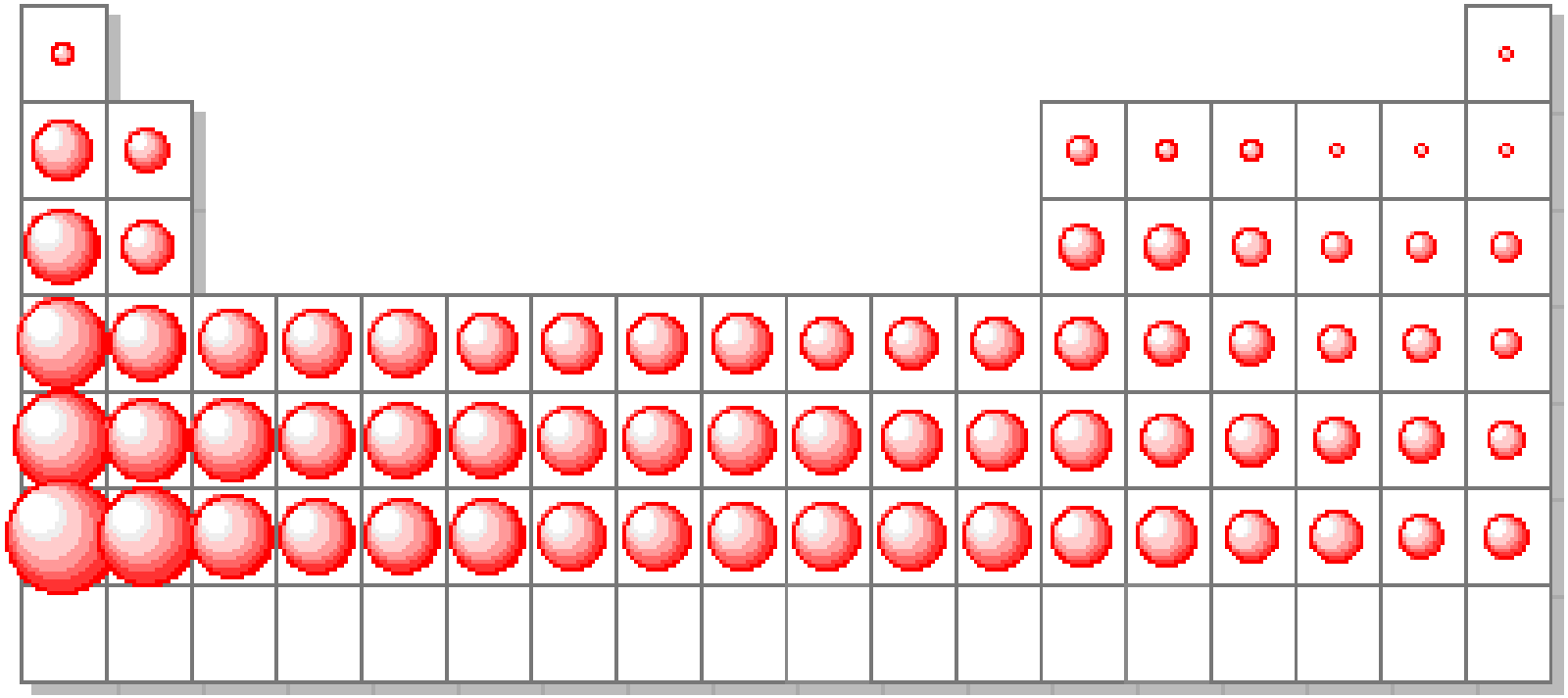
1s			
2s			2p
3s			3p
4s		3d	4p
5s		4d	5p
6s	4f	5d	6p
7s	5f	6d	7p

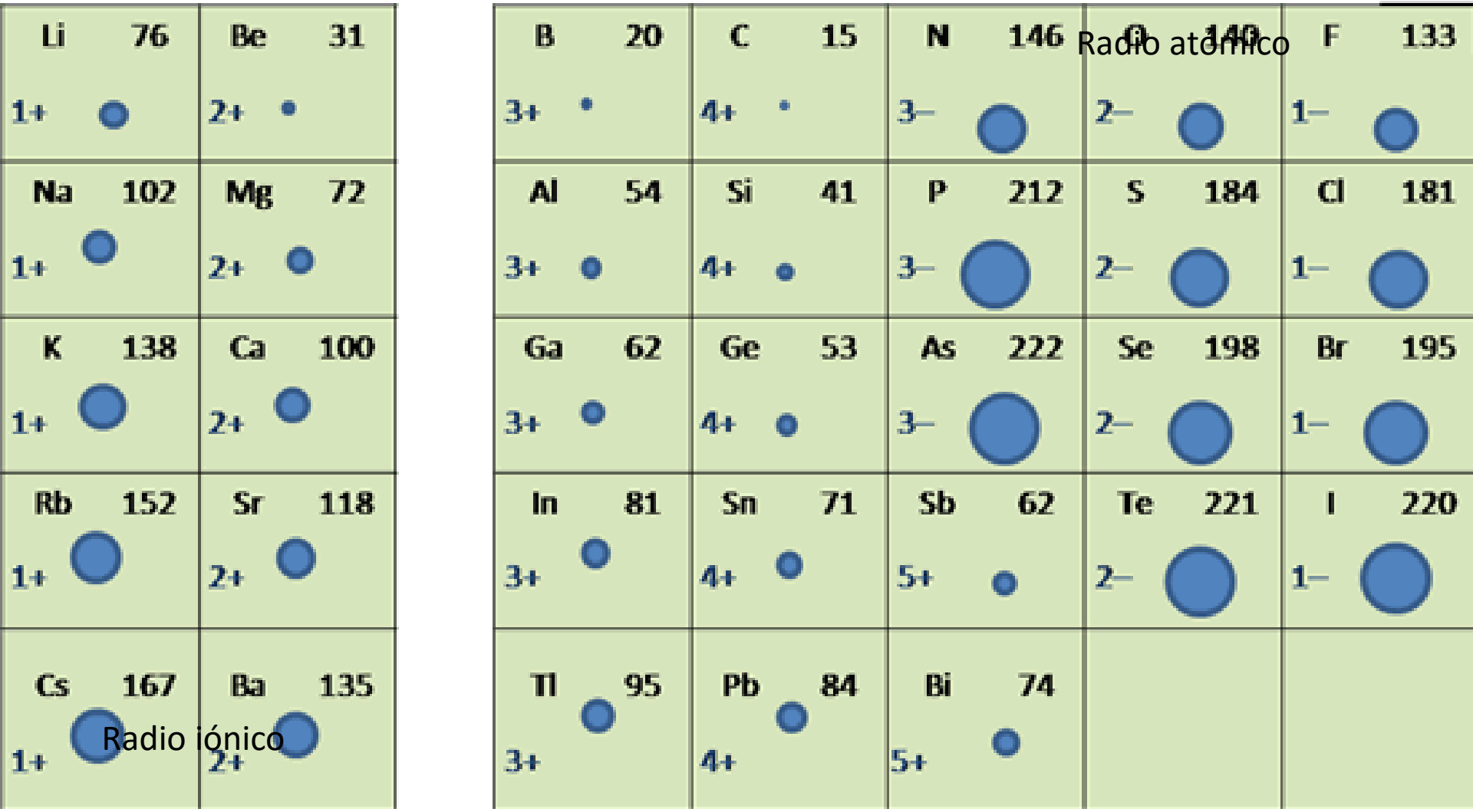

Electronegatividad

Valores de Electronegatividad según Pauling

1	H 2.1																He
2	Li 1.0	Be 1.5											B 2.0	C 2.5	N 3.0	O 3.5	F 4.0	Ne
3	Na 0.9	Mg 1.2											Al 1.5	Si 1.8	P 2.1	S 2.5	Cl 3.0	Ar
4	K 0.8	Ca 1.0	Sc 1.3	Ti 1.5	V 1.6	Cr 1.6	Mn 1.5	Fe 1.8	Co 1.9	Ni 1.8	Cu 1.9	Zn 1.6	Ga 1.6	Ge 1.8	As 2.0	Se 2.4	Br 2.8	Kr
5	Rb 0.8	Sr 1.0	Y 1.2	Zr 1.4	Nb 1.6	Mo 1.8	Tc 1.9	Ru 2.2	Rh 2.2	Pd 2.2	Ag 1.9	Cd 1.7	In 1.7	Sn 1.8	Sb 1.9	Te 2.1	I 2.5	Xe
6	Cs 0.7	Ba 0.9	Lu	Hf 1.3	Ta 1.5	W 1.7	Re 1.9	Os 2.2	Ir 2.2	Pt 2.2	Au 2.4	Hg 1.9	Tl 1.8	Pb 1.9	Bi 1.9	Po 2.0	At 2.2	Rn
7	Fr 0.7	Ra 0.9	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Uuu	Uub	Uut	Uuq	Uup	Uuh	Uus	Uuo


Disminuye
Aumenta
Radio atómico




Radio atómico
Li 76
1+
Be 31
2+
B 20
3+
C 15
4+
N 146
3–
O 140
2–
F 133
1–
Na 102
1+
Mg 72
2+
Al 54
3+
Si 41
4+
P 212
3–
S 184
2–
Cl 181
1–
K 138
1+
Ca 100
2+
Ga 62
3+
Ge 53
4+
As 222
3–
Se 198
2–
Br 195
1–
Rb 152
1+
Sr 118
2+
In 81
3+
Sn 71
4+
Sb 62
5+
Te 221
2–
I 220
1–
Cs 167
1+
Ba 135
2+
Tl 95
3+
Pb 84
4+
Bi 74
5+
Radio iónico

Elaborar un mapa conceptual

Tabla periódica

Propiedades macroscópicas

Prust

Triadas

Número atómico

Masa atómica

Electronegatividad

Radio atómico

Radio iónico

Familias o grupos

Periodos

Elementos

Átomos

Electrones de valencia

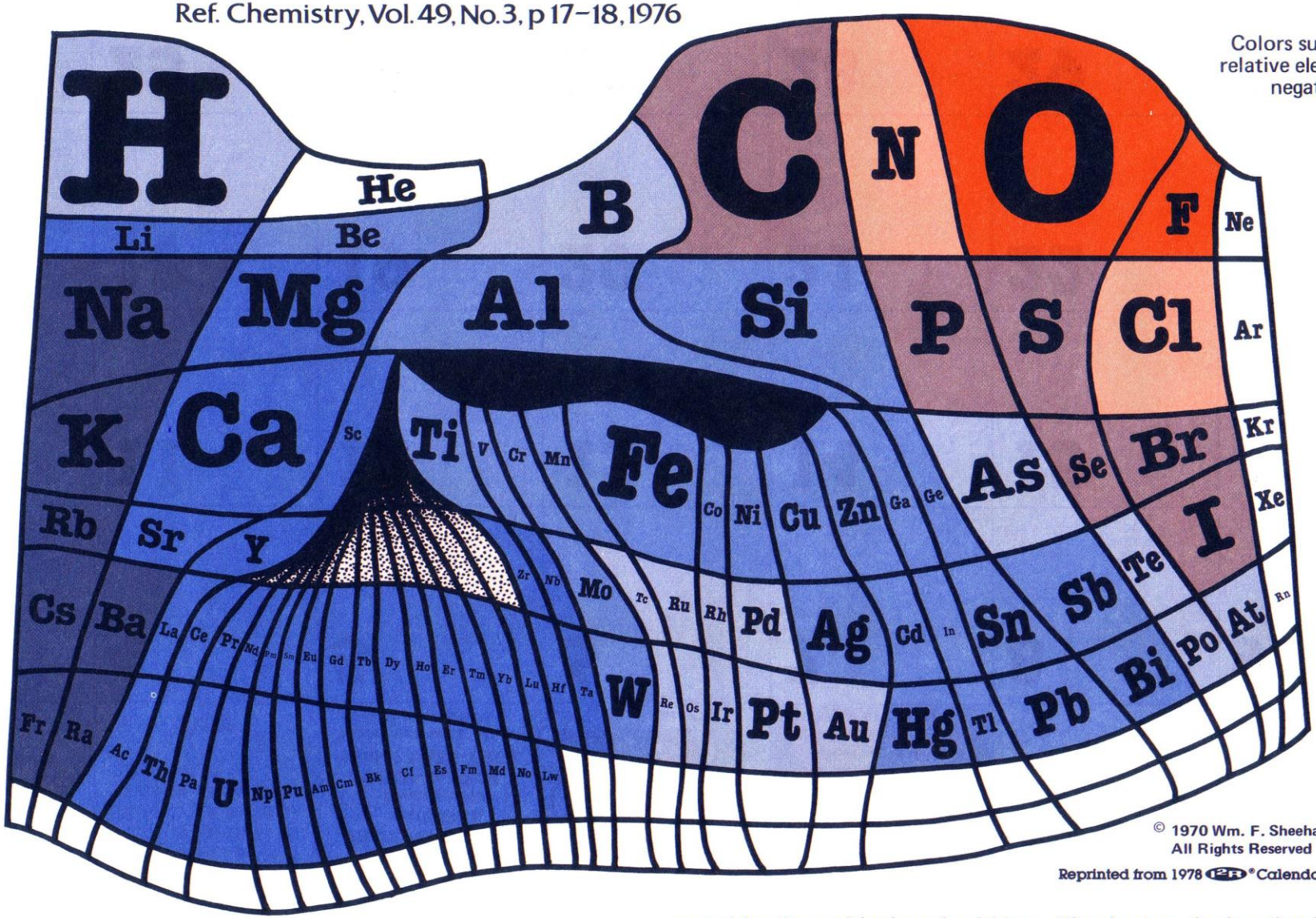
Niveles de energía

The Elements According to Relative Abundance

A Periodic Chart by Prof. Wm. F. Sheehan, University of Santa Clara, CA 95053

Ref. Chemistry, Vol. 49, No. 3, p 17–18, 1976

Colors suggest relative electro-negativity



Reprinted from 1978 Ⓟ® Calendar.

Roughly, the size of an element's own niche ("I almost wrote square") is proportioned to its abundance on Earth's surface, and in addition, certain chemical similarities (e.g., Be and Al, or B and Si) are suggested by the positioning of neighbors. The chart emphasizes that in real life a chemist will probably meet O, Si, Al, . . . and that he better do something about it. Periodic tables based upon elemental abundance would, of course, vary from planet to planet. . . **W.F.S.**

NOTE: TO ACCOMMODATE ALL ELEMENTS SOME DISTORTIONS WERE NECESSARY, FOR EXAMPLE SOME ELEMENTS DO NOT OCCUR NATURALLY.