

La Tabella Periodica ufficiale IUPAC riportata a pag.3, con il nome degli elementi in italiano e con le masse atomiche relative riportate con quattro cifre significative, può essere utilizzata dagli studenti durante la prova scritta.

La tabella contiene una novità molto importante per la chimica e tutte le altre scienze: la IUPAC ha ufficialmente riconosciuto che per 10 elementi non è possibile dare un unico valore di massa atomica a causa della variabilità della composizione isotopica dell'elemento nei diversi campioni considerati.

Per tali elementi viene riportato un intervallo di valori [a,b] entro cui può essere compresa la massa atomica relativa per l'elemento in un dato campione (vedi H, Li, B, C, N, O, Si, S, Cl, Tl).

Ai fini analitici e commerciali per tali elementi IUPAC ammette che possono essere utilizzati i seguenti valori di massa atomica

B	10.81
C	12.011
Cl	35.45
H	1.008
Li	6.94
N	14.007
O	15.999
Si	28.085
S	32.06
Tl	204.38

che approssimati a 4 cifre significative diventano

B	10.81
C	12.01
Cl	35.45
H	1.008
Li	6.94
N	14.01
O	16.00
Si	28.09
S	32.06
Tl	204.4

Per maggiori dettagli relativi alla decisione IUPAC vedi: <http://www.iupac.org>

IUPAC Periodic Table of the Elements

1 H hydrogen [1.007; 1.009]																	18 He helium 4.003																		
3 Li lithium [6.938; 6.997]	4 Be beryllium 9.012											5 B boron [10.80; 10.83]	6 C carbon [12.00; 12.02]	7 N nitrogen [14.00; 14.01]	8 O oxygen [15.99; 16.00]	9 F fluorine 19.00	10 Ne neon 20.18																		
11 Na sodium 22.99	12 Mg magnesium 24.31											13 Al aluminium 26.98	14 Si silicon [28.08; 28.09]	15 P phosphorus 30.97	16 S sulfur [32.05; 32.08]	17 Cl chlorine [35.44; 35.46]	18 Ar argon 39.95																		
19 K potassium 39.10	20 Ca calcium 40.08	21 Sc scandium 44.96	22 Ti titanium 47.87	23 V vanadium 50.94	24 Cr chromium 52.00	25 Mn manganese 54.94	26 Fe iron 55.85	27 Co cobalt 58.93	28 Ni nickel 58.69	29 Cu copper 63.55	30 Zn zinc 65.38(2)	31 Ga gallium 69.72	32 Ge germanium 72.63	33 As arsenic 74.92	34 Se selenium 78.96(3)	35 Br bromine 79.90	36 Kr krypton 83.80																		
37 Rb rubidium 85.47	38 Sr strontium 87.62	39 Y yttrium 88.91	40 Zr zirconium 91.22	41 Nb niobium 92.91	42 Mo molybdenum 95.96(2)	43 Tc technetium	44 Ru ruthenium 101.1	45 Rh rhodium 102.9	46 Pd palladium 106.4	47 Ag silver 107.9	48 Cd cadmium 112.4	49 In indium 114.8	50 Sn tin 118.7	51 Sb antimony 121.8	52 Te tellurium 127.6	53 I iodine 126.9	54 Xe xenon 131.3																		
55 Cs caesium 132.9	56 Ba barium 137.3	57-71 lanthanoids	72 Hf hafnium 178.5	73 Ta tantalum 180.9	74 W tungsten 183.8	75 Re rhenium 186.2	76 Os osmium 190.2	77 Ir iridium 192.2	78 Pt platinum 195.1	79 Au gold 197.0	80 Hg mercury 200.6	81 Tl thallium [204.3; 204.4]	82 Pb lead 207.2	83 Bi bismuth 209.0	84 Po polonium	85 At astatine	86 Rn radon																		
87 Fr francium	88 Ra radium	89-103 actinoids	104 Rf rutherfordium	105 Db dubnium	106 Sg seaborgium	107 Bh bohrium	108 Hs hassium	109 Mt meitnerium	110 Ds darmstadtium	111 Rg roentgenium	112 Cn copernicium			114 Fl flerovium			116 Lv livermorium																		
																		57 La lanthanum 138.9	58 Ce cerium 140.1	59 Pr praseodymium 140.9	60 Nd neodymium 144.2	61 Pm promethium	62 Sm samarium 150.4	63 Eu europium 152.0	64 Gd gadolinium 157.3	65 Tb terbium 158.9	66 Dy dysprosium 162.5	67 Ho holmium 164.9	68 Er erbium 167.3	69 Tm thulium 168.9	70 Yb ytterbium 173.1	71 Lu lutetium 175.0			
																		89 Ac actinium	90 Th thorium 232.0	91 Pa protactinium 231.0	92 U uranium 238.0	93 Np neptunium	94 Pu plutonium	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 Lr lawrencium			

Key:
 atomic number
Symbol
 name
 standard atomic weight



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Notes

- IUPAC 2009 Standard atomic weights abridged to four significant digits (Table 4 published in *Pure Appl. Chem.* 83, 359-396 [2011]; doi:10.1351/PAC-REP-10-09-14). The uncertainty in the last digit of the standard atomic weight value is listed in parentheses following the value. In the absence of parentheses, the uncertainty is one in that last digit. An interval in square brackets provides the lower and upper bounds of the standard atomic weight for that element. No values are listed for elements which lack isotopes with a characteristic isotopic abundance in natural terrestrial samples. See PAC for more details.

- "Aluminum" and "caesium" are commonly used alternative spellings for "aluminium" and "caesium."

- Claims for the discovery of all the remaining elements in the last row of the Table, namely elements with atomic numbers 113, 115, 117 and 118, and for which no assignments have yet been made, are being considered by a IUPAC and IUPAP Joint Working Party.

For updates to this table, see iupac.org/reports/periodic_table/. This version is dated 1 June 2012.

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Tabella Periodica degli Elementi

1 H Idrogeno 1.008																	2 He Elio 4.003																														
3 Li Litio 6.94	4 Be Berillio 9.012	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> numero atomico Simbolo nome massa atomica </div>										5 B Boro 10.81	6 C Carbonio 12.01	7 N Azoto 14.01	8 O Ossigeno 16.00	9 F Fluoro 19.00	10 Ne Neon 20.18																														
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19 K Potassio 39.10	20 Ca Calcio 40.08	21 Sc Scandio 44.96	22 Ti Titanio 47.87	23 V Vanadio 50.94	24 Cr Cromo 52.00	25 Mn Manganese 54.94	26 Fe Ferro 55.85	27 Co Cobalto 58.93	28 Ni Nichel 58.69	29 Cu Rame 63.55	30 Zn Zinco 65.38	31 Ga Gallio 69.72	32 Ge Germanio 72.63	33 As Arsenico 74.92	34 Se Selenio 78.96	35 Br Bromo 79.90	36 Kr Kripton 83.80																														
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55 Cs Cesio 132.9	56 Ba Bario 137.3	57-71 Lantanoidi	72 Hf Afnio 178.5	73 Ta Tantalio 180.9	74 W Tungsteno 183.8	75 Re Renio 186.2	76 Os Osmio 190.2	77 Ir Iridio 192.2	78 Pt Platino 195.1	79 Au Oro 197.0	80 Hg Mercurio 200.6	81 Tl Tallio 204.4	82 Pb Piombo 207.2	83 Bi Bismuto 209.0	84 Po Polonio [209]	85 At Astatio [210]	86 Rn Radon [222]																														
87 Fr Francio [223]	88 Ra Radio [226]	89-103 Attinoidi	104 Rf Rutherfordio [265]	105 Db Dubnio [268]	106 Sg Seaborgio [271]	107 Bh Bohrnio [270]	108 Hs Assio [277]	109 Mt Meitnerio [276]	110 Ds Darmstadtio [281]	111 Rg Roentgenio [280]	112 Cn Copernicio [285]		114 Fl Flerovio [289]		116 Lv Livermorio [293]																																
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IUPAC (www.iupac.org/reports/periodic_table)

- Le *masse atomiche relative* sono riportate con quattro cifre significative.
- In assenza di composizione isotopica costante viene riportato tra parentesi quadre il *numero di massa* dell'isotopo radioattivo più stabile.