

**MASSA SPECIFICA, PUNTI DI FUSIONE
E DI EBOLLIZIONE E CALORE SPECIFICO
DEGLI ELEMENTI**

**SPECIFIC MASS, MELTING/ BOILING
POINTS AND SPECIFIC HEAT
OF THE ELEMENTS**

| N | Nome / Name | S | R | PF | PE | CS | % |
|----|--------------------------------|----|--------|--------|---------|--------|-----------------------|
| 72 | Afnio <i>Hafnium</i> | Hf | 13310 | 2227.0 | 4602.0 | 146.5 | 4,5x10 ⁻⁴ |
| 13 | Alluminio <i>Aluminium</i> | Al | 2698.9 | 660.4 | 2467.0 | 900.2 | 7.73 |
| 95 | Americio <i>Americium</i> | Am | 13670 | 994.0 | 2607.0 | 138.2 | - |
| 51 | Antimonio <i>Antimony</i> | Sb | 6692 | 630.7 | 1750.0 | 205.2 | 1x10 ⁻⁴ |
| 47 | Argento <i>Silver</i> | Ag | 10500 | 961.9 | 2212.0 | 234.5 | 1x10 ⁻⁵ |
| 18 | Argo <i>Argon</i> | Ar | 1.7837 | -189.2 | -185.7 | 523.4 | 3,6x10 ⁻⁴ |
| 33 | Arsenico <i>Arsenic</i> | As | 5730 | 817.0 | 613,0* | 343.3 | 5x10 ⁻⁴ |
| 85 | Astato <i>Astatine</i> | At | - | 302.0 | 337.0 | - | 4x10 ⁻²³ |
| 89 | Attinio <i>Actinium</i> | Ac | 10070 | 1050.0 | 3200.0 | - | 3x10 ⁻¹⁴ |
| 7 | Azoto <i>Nitrogen</i> | N | 1.2506 | -209.9 | -195.8 | 1034.1 | 0.03 |
| 56 | Bario <i>Barium</i> | Ba | 3500 | 725.0 | 1640.0 | 284.7 | 0.04 |
| 4 | Berilio <i>Beryllium</i> | Be | 1848 | 1278.0 | 2970.0 | 1884.1 | 6x10 ⁻⁴ |
| 83 | Bismuto <i>Bismuth</i> | Bi | 9747 | 271.3 | 1560.0 | 142.4 | 2x10 ⁻⁵ |
| 5 | Boro <i>Boron</i> | B | 2340 | 2300.0 | 2250,0* | 1293.7 | 0.001 |
| 35 | Bromo <i>Bromium</i> | Br | 7590 | -7.2 | 58.8 | 293.1 | 2,5x10 ⁻⁴ |
| 48 | Cadmio <i>Cadmio</i> | Cd | 8650 | 320.9 | 765.0 | 230.3 | 1,8x10 ⁻⁵ |
| 20 | Calcio <i>Calcium</i> | Ca | 1550 | 839.0 | 1484.0 | 623.8 | 3.45 |
| 6 | Carbonio <i>Carbon</i> | C | 2260 | 3550.0 | 4827.0 | 690.8 | 0.087 |
| 58 | Cerio <i>Cerium</i> | Ce | 6657 | 798.0 | 3257.0 | 175.8 | 0.004 |
| 55 | Cesio <i>Cesium</i> | Cs | 1873 | 28.4 | 678.4 | 217.7 | 3,2x10 ⁻⁴ |
| 17 | Cloro <i>Chlorine</i> | Cl | 3.214 | -101.0 | -34.6 | 485.7 | 0.14 |
| 27 | Cobalto <i>Cobalt</i> | Co | 8900 | 1495.0 | 2870.0 | 414.5 | 0.004 |
| 24 | Cromo <i>Chromium</i> | Cr | 7190 | 1857.0 | 2672.0 | 460.5 | 0.018 |
| 66 | Disprosio <i>Dysprosium</i> | Dy | 8550 | 1409.0 | 2335.0 | 171.7 | 4,5x 10 ⁻⁴ |
| 2 | Elio <i>Helium</i> | He | 0.1785 | -272.2 | -268.9 | 5233.5 | 3x10 ⁻⁷ |
| 68 | Erbio <i>Erbium</i> | Er | 9066 | 1522.0 | 2510.0 | 167.5 | 2,5x10 ⁻⁴ |

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| 63 | Europio <i>Europium</i> | Eu | 5243 | 822.0 | 1597.0 | 163.3 | 1x10 ⁻⁴ |
| 26 | Ferro <i>Iron</i> | Fe | 7874 | 1535.0 | 2750.0 | 460.5 | 4.75 |
| 9 | Fluoro <i>Fluorine</i> | F | 1.696 | -219.6 | -188.1 | 753.6 | 0.072 |
| 15 | Fosforo <i>Phosphorus</i> | P | 1820W | 44.1 | 280.0 | 741.1 | 0.11 |
| 87 | Francio <i>Francium</i> | Fr | - | (27)c | (677,)c | - | 7x10 ⁻²³ |
| 64 | Gadolinio <i>Gadolinium</i> | Gd | 7900 | 1311.0 | 3233.0 | 297.3 | 6,5x10 ⁻⁴ |
| 31 | Gallio <i>Gallium</i> | Ga | 5904 | 29.8 | 2403.0 | 330.8 | 0.015 |
| 32 | Germanio <i>Germanium</i> | Ge | 5323 | 937.4 | 2830.0 | 305.6 | 7x10 ⁻⁴ |
| 1 | Idrogeno <i>Hydrogen</i> | H | 0.089 | -259.1 | -252.9 | 14444.5 | 0.76 |
| 49 | Indio <i>Indium</i> | In | 7310 | 156.6 | 2080.0 | 238.6 | 1x10 ⁻⁵ |
| 53 | Iodio <i>Iodine</i> | I | 4930 | 113.5 | 184.4 | 217.7 | 3x10 ⁻⁵ |
| 77 | Iridio <i>Iridium</i> | Ir | 22420 | 2410.0 | 4130.0 | 129.8 | 1x10 ⁻⁷ |
| 70 | Itterbio <i>Ytterbium</i> | Yb | 6965 | 824.0 | 1193.0 | 146.5 | 2,7x10 ⁻⁴ |
| 39 | Ittrio <i>Yttrium</i> | Y | 4469 | 1523.0 | 3337.0 | 297.3 | 0.0028 |
| 36 | Kripto <i>Krypton</i> | Kr | 3.733 | -156.6 | -152.3 | - | 2x10 ⁻⁸ |
| 57 | Lantanio <i>Lanthanum</i> | La | 6145 | 920.0 | 3454.0 | 188.4 | 0.0018 |
| 3 | Litio <i>Lithium</i> | Li | 534 | 180.5 | 1357.0 | 3307.6 | 0.0065 |
| 71 | Lutezio <i>Lutetium</i> | Lu | 9840 | 1656.0 | 3315.0 | 154.9 | 7,5x10 ⁻⁵ |
| 12 | Magnesio <i>Magnesium</i> | Mg | 1738 | 648.8 | 1090.0 | 1046.7 | 2 |
| 25 | Manganese <i>Manganese</i> | Mn | 7430 | 1244.0 | 1962.0 | 481.5 | 0.085 |
| 80 | Mercurio <i>Mercury</i> | Hg | 13546 | -38.9 | 356.6 | 138.2 | 5x10 ⁻⁵ |
| 42 | Molibdeno <i>Molybdenum</i> | Mo | 10220 | 2617.0 | 4612.0 | 255.4 | 7,5x10 ⁻⁴ |
| 10 | Neo <i>Neon</i> | Ne | 0.8999 | -248.6 | -246.0 | - | 5x10 ⁻⁷ |
| 60 | Neodimio <i>Neodymium</i> | Nd | 700 | 1010.0 | 3127.0 | 188.4 | 0.0024 |
| 93 | Nettunio <i>Neptunium</i> | Np | 20250 | 640.0 | 3902.0 | - | 4x10 ⁻¹⁷ |
| 28 | Nichel <i>Nickel</i> | Ni | 8902 | 1453.0 | 2732.0 | 439.6 | 0.01 |

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| 41 | Niobio <i>Niobium</i> | Nb | 8570 | 2468.0 | 4742.0 | 272.1 | 0.0024 |
| 67 | Olmio <i>Holmium</i> | Ho | 8795 | 1470.0 | 2720.0 | 163.3 | 1,1x 10 ⁻⁴ |
| 79 | Oro <i>Gold</i> | Au | 19320 | 1064.0 | 2807.0 | 129.8 | 5x10 ⁻⁷ |
| 76 | Osmio <i>Osmium</i> | Os | 22570 | 3045.0 | 5027.0 | 129.8 | 1x10 ⁻⁷ |
| 8 | Ossigeno <i>Oxygen</i> | O | 1.14 | -218.4 | 183.0 | 912.7 | 48.6 |
| 46 | Palladio <i>Palladium</i> | Pd | 12020 | 1552.0 | 3140.0 | 242.8 | 5x10 ⁻⁷ |
| 82 | Piombo <i>Lead</i> | Pb | 11350 | 327.5 | 1740.0 | 129.8 | 0.0016 |
| 78 | Platino <i>Platinum</i> | Pt | 21450 | 1772.0 | 3827.0 | 134.0 | 5x10 ⁻⁷ |
| 94 | Plutonio <i>Plutonium</i> | Pu | 19840 | 641.0 | 3232.0 | - | 2x10 ⁻¹⁹ |
| 84 | Polonio <i>Polonium</i> | Po | 9320 | 254.0 | 962.0 | - | 3x10 ⁻¹⁴ |
| 19 | Potassio <i>Potassium</i> | K | 862 | 63.7 | 774.0 | 741.1 | 2.47 |
| 59 | Praseodimio <i>Praseodymium</i> | Pr | 6770a | 931.0 | 3212.0 | 201.0 | 5,5x10 ⁻⁴ |
| 61 | Promezio <i>Promethium</i> | Pm | - | 1080.0 | 2460.0 | - | ? |
| 91 | Protoattinio <i>Protoactinium</i> | Pa | 15370c | 1600.0 | - | - | 8x10 ⁻¹¹ |
| 88 | Radio <i>Radium</i> | Ra | 5000 | 700.0 | 1140.0 | - | 1,3x10 ¹⁰ |
| 86 | Rado <i>Radon</i> | Rn | 9.73 | -71.0 | -61.8 | - | 6x10 ⁻¹⁶ |
| 29 | Rame <i>Copper</i> | Cu | 8960 | 1083.4 | 2567.0 | 385.2 | 0.007 |
| 75 | Renio <i>Rhenium</i> | Re | 21020 | 3180.0 | 5627.0 | 138.2 | 1x10 ⁻⁷ |
| 45 | Rodio <i>Rhodium</i> | Rh | 12410 | 1966.0 | 3727.0 | 247.0 | 1x10 ⁻⁷ |
| 37 | Rubidio <i>Rubidium</i> | Rb | 1532 | 38.9 | 688.0 | 334.9 | 0.028 |
| 44 | Rutenio <i>Ruthenium</i> | Ru | 12410 | 2310.0 | 4877.0 | 238.6 | 1x10 ⁻⁷ |
| 62 | Samaro <i>Samarium</i> | Sm | 7520 | 1072.0 | 1778.0 | 175.8 | 6,5x10 ⁻⁴ |

nota: **N** = numero atomico; **S** = simbolo; **R** = massa specifica; **PF** = punto di fusione (in °C); **PE** = punto di ebollizione (in °C); **CS** = calore specifico (in kj/kg°C); **%** = percentuale sulla terra (atmosfera, idrosfera, litosfera); * = sublima; **()c** = calcolato; **α** = forma α; **w** = bianco; **g** = grigio; **r** = rombico; **?** = non ponderato

| N | Nome / Name | S | R | PF | PE | CS | % |
|----|-------------------------------|----|--------|--------|--------|--------|----------------------|
| 21 | Scandio <i>Scandium</i> | Sc | 2989 | 1539.0 | 2832.0 | 544.3 | 5x10 ⁻⁴ |
| 34 | Selenio <i>Selenium</i> | Se | 4790 g | 217.0 | 684.9 | 351.7 | 9x10 ⁻⁶ |
| 14 | Silicio <i>Silicon</i> | Si | 2330 | 1410.0 | 2355.0 | 678.3 | 26.3 |
| 11 | Sodio <i>Sodium</i> | Na | 971 | 97.8 | 882.9 | 1235.1 | 2.74 |
| 50 | Stagno <i>Tin</i> | Sn | 7310w | 232.0 | 907.0 | 226.1 | 0.04 |
| 38 | Stronzio <i>Strontium</i> | Sr | 2540 | 769.0 | 1384.0 | 736.9 | 0,0 15 |
| 81 | Tallio <i>Thallium</i> | Tl | 11850 | 303.5 | 1457.0 | 129.8 | 3x10 ⁻⁵ |
| 73 | Tantalo <i>Tantalum</i> | Ta | 16654 | 2996.0 | 5425.0 | 150.7 | 2x10 ⁻⁴ |
| 43 | Tecnezio <i>Technetium</i> | Tc | 11500c | 2172.0 | 4877 | - | ? |
| 52 | Tellurio <i>Tellurium</i> | Te | 6240 | 449.5 | 989.8 | 196.8 | 2x10 ⁻⁷ |
| 65 | Terbio <i>Terbium</i> | Tb | 8229 | 1360.0 | 3041.0 | 184.2 | 9x10 ⁻⁵ |
| 22 | Titanio <i>Titanium</i> | Ti | 4540 | 1660.0 | 3287.0 | 527.5 | 0.42 |
| 90 | Torio <i>Thorium</i> | Th | 11720 | 1750.0 | 4790.0 | 142.4 | 0.0015 |
| 69 | Tulio <i>Thulium</i> | Tm | 9321 | 1545.0 | 1727.0 | 159.1 | 2x10 ⁻⁵ |
| 92 | Uranio <i>Uranium</i> | U | 18950 | 1132.0 | 3818.0 | 117.2 | 4x10 ⁻⁴ |
| 23 | Vanadio <i>Vanadium</i> | V | 6110 | 1890.0 | 3380.0 | 502.4 | 0.015 |
| 74 | Wolframio <i>Wolfram</i> | W | 19300 | 3410.0 | 5660.0 | 134.0 | 0.001 |
| 54 | Xeno <i>Xenon</i> | Xe | 5.887 | -111.9 | -107.1 | - | 2,4x10 ⁻⁹ |
| 30 | Zinco <i>Zinc</i> | Zn | 7133 | 419.6 | 907.0 | 383.1 | 0.008 |
| 40 | Zirconio <i>Zirconium</i> | Zr | 6500 | 1852.0 | 4377.0 | 276.3 | 0.02 |
| 16 | Zolfo <i>Sulphur</i> | S | 2070 r | 112.8 | 444.7 | 732.7 | 0.048 |

N.B.: **N** = atomic number; **S** = symbol; **R** = specific mass; **PF** = melting point (in °C); **PE** = boiling point (in °C); **CS** = specific heat (in kj/kg°C); **%** = percentage on the earth (atmosphere, hydrosphere, lithosphere); * = sublimates; **()c** = calculated; **α** = shape α; **w** = white; **g** = grey; **r** = rhombic; **?** = not considered