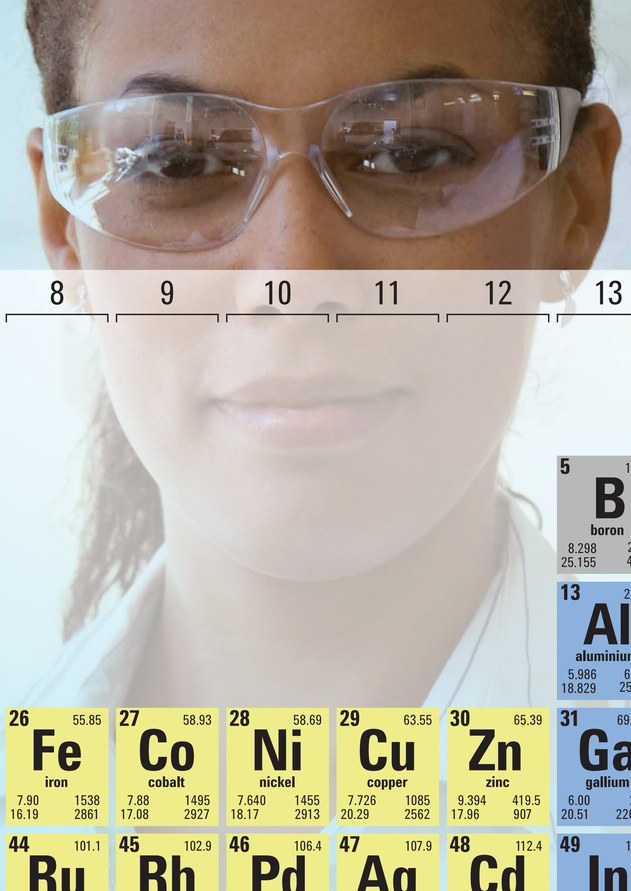
AA, ICP-OES, ICP-MS
ALL TOGETHER AT AGILENT



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	1 H 1.008 hydrogen 13.595 -259.3 -252.8																	2 He 4.003 helium 24.581 54.418 -268.9	1
2	3 Li 6.941 lithium 5.391 180.5 75.64 1342	4 Be 9.012 beryllium 9.323 1287 18.211 2471											5 B 10.81 boron 8.298 2075 25.155 4000	6 C 12.01 carbon 11.260 4492 24.383 3642	7 N 14.01 nitrogen 14.53 -210 29.601 -195.8	8 O 16.00 oxygen 13.618 -218.8 35.117 -183.0	9 F 19.00 fluorine 17.422 -219.6 34.971 -188.1	10 Ne 20.18 neon 21.565 -248.6 40.96 -246.1	2
3	11 Na 22.99 sodium 5.139 97.8 47.29 883	12 Mg 24.31 magnesium 7.646 651 15.035 1097											13 Al 26.98 aluminium 5.986 660.3 18.829 2519	14 Si 28.09 silicon 8.152 1414 16.34 3265	15 P 30.97 phosphorus 10.487 44.1 19.77 280.5	16 S 32.07 sulfur 10.360 115.2 23.34 444.6	17 Cl 35.45 chlorine 12.97 -101 23.81 -34.0	18 Ar 39.95 argon 15.759 -189.4 27.63 -185.9	3
4	19 K 39.10 potassium 4.34 63.4 31.63 759	20 Ca 40.08 calcium 6.113 842 11.872 1484	21 Sc 44.96 scandium 6.56 1541 20.36 2836	22 Ti 47.88 titanium 6.82 1668 13.57 3287	23 V 50.94 vanadium 6.75 1910 14.66 3407	24 Cr 52.00 chromium 6.767 1907 16.49 2671	25 Mn 54.94 manganese 7.432 1246 15.634 2061	26 Fe 55.85 iron 7.90 1538 16.19 2861	27 Co 58.93 cobalt 7.88 1495 17.08 2927	28 Ni 58.69 nickel 7.640 1455 18.17 2913	29 Cu 63.55 copper 7.726 1085 20.29 2562	30 Zn 65.39 zinc 9.394 419.5 17.96 907	31 Ga 69.772 gallium 6.00 29.8 20.51 2204	32 Ge 72.61 germanium 7.899 938.3 15.93 2833	33 As 74.92 arsenic 9.789 18.63	34 Se 78.96 selenium 9.75 221 21.19 684.9	35 Br 79.90 bromine 11.81 -7.2 21.8 58.8	36 Kr 83.80 krypton 13.996 -157.4 24.36 -153.2	4
5	37 Rb 85.47 rubidium 4.177 39.3 27.29 688	38 Sr 87.62 strontium 5.695 777 11.030 1382	39 Y 88.91 yttrium 6.22 1522 12.24 3345	40 Zr 91.22 zirconium 6.63 1855 13.13 4409	41 Nb 92.91 niobium 6.76 2477 14.32 4744	42 Mo 95.94 molybdenum 7.09 2623 16.16 4639	43 Tc (99) technetium 7.28 2157 15.26 4265	44 Ru 101.1 ruthenium 7.36 2334 16.76 4150	45 Rh 102.9 rhodium 7.46 1964 18.08 3695	46 Pd 106.4 palladium 8.337 1555 19.43 2963	47 Ag 107.9 silver 7.576 961.8 21.49 2162	48 Cd 112.4 cadmium 8.994 321.1 16.908 767	49 In 114.8 indium 5.786 156.6 18.87 2072	50 Sn 118.7 tin 7.344 231.9 14.632 2602	51 Sb 121.8 antimony 8.608 630.6 16.5 1587	52 Te 127.6 tellurium 9.01 449.5 18.6 998	53 I 126.9 iodine 10.451 113.7 19.13 184.4	54 Xe 131.3 xenon 12.129 -111.8 21.2 -108.0	5
6	55 Cs 132.9 cesium 3.893 28.4 25.1 671	56 Ba 137.3 barium 5.211 727 10.001 1897	57 La 138.9 lanthanum 5.58 1918 11.06 918	72 Hf 178.5 hafnium 6.83 2233 14.9 4603	73 Ta 180.9 tantalum 7.55 3017 16.2 5458	74 W 183.8 tungsten 7.86 3422 17.7 5555	75 Re 186.2 rhenium 7.83 3186 16.6 5596	76 Os 190.2 osmium 8.4 3033 17 5012	77 Ir 192.2 iridium 8.97 2446 4428	78 Pt 195.1 platinum 9.0 1768 18.56 3825	79 Au 197.0 gold 9.22 1064 20.5 2856	80 Hg 200.6 mercury 10.43 -38.8 18.776 356.7	81 Tl 204.4 thallium 6.108 304 20.43 1473	82 Pb 207.2 lead 7.417 327.5 15.032 1749	83 Bi 209.0 bismuth 7.286 271.4 16.69 1564	84 Po (210) polonium 8.42 254 962	85 At (210) astatine 9.5	86 Rn (222) radon 10.749 -71 -61.7	6
7	87 Fr (223) francium 4.07 27	88 Ra (226) radium 5.278 700 10.147 1137	89 Ac (227) actinium 5.17 1051 12.1 3198																7
6				58 Ce 140.1 cerium 5.54 798 10.85 3443	59 Pr 140.9 praseodymium 5.46 395 10.55 3127	60 Nd 144.2 neodymium 5.5 1024 10.73 3027	61 Pm (145) promethium 5.58 1035 2730	62 Sm 150.4 samarium 5.6 1072 11.07 1900	63 Eu 152.0 europium 5.67 822 11.24 1596	64 Gd 157.3 gadolinium 6.15 1313 12.09 3273	65 Tb 158.9 terbium 5.86 1356 11.52 3230	66 Dy 162.5 dysprosium 5.94 1412 11.67 2567	67 Ho 164.9 holmium 6.02 1474 11.80 2700	68 Er 167.3 erbium 6.11 1529 11.93 2868	69 Tm 168.9 thulium 6.18 1545 12.05 1950	70 Yb 173.0 ytterbium 6.25 819 12.18 1196	71 Lu 175.0 lutetium 5.43 1663 13.9 3402	6
7				90 Th 232.0 thorium 6.31 (1800) 11.5 (3000)	91 Pa 231.0 protactinium 5.89 <1600	92 U 238.0 uranium 6.19 1133 3887	93 Np (237) neptunium 6.27 640	94 Pu (239) plutonium 6.03 639.5 3235	95 Am (243) americium 5.97 1176 2011	96 Cm (247) curium 6.02 1345	97 Bk (247) berkelium 6.23 1050	98 Cf (252) californium 6.30 900	99 Es (252) einsteinium 6.42 860	100 Fm (257) fermium 6.50 1527	101 Md (256) mendelevium 6.58 827	102 No (259) nobelium 6.65 827	103 Lr (260) lawrencium 1627	7

atomic number — atomic weight
Symbol
Name
(eV) — (°C)/1 atm
first ionization potential — melting point
second ionization potential — boiling point

Alkali metals | Alkali earth metals | Transition metals | Metals | Metalloids | Nonmetals | Halogens | Noble gases | Lanthanides | Actinides

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