

PERIODIC TABLE WITH ELEMENT COLORS

s		d										p					18
1A																	8A
1	2											13	14	15	16	17	2
1A	2A											3A	4A	5A	6A	7A	8A
1 H 1.008																	2 He 4.0026
3 Li 6.97	4 Be 9.012											5 B 10.82	6 C 12.011	7 N 14.007	8 O 15.999	9 F 18.998	10 Ne 20.180
11 Na 22.990	12 Mg 24.305	3 B	4 C	5 N	6 O	7 F	8 Ne	9 Na	10 Mg	11 Al	12 Si	13 P	14 S	15 Cl	16 Ar 39.948		
19 K 39.098	20 Ca 40.078	21 Sc 44.956	22 Ti 47.867	23 V 50.942	24 Cr 51.996	25 Mn 54.938	26 Fe 55.847	27 Co 58.933	28 Ni 58.693	29 Cu 63.546	30 Zn 65.39	31 Ga 69.723	32 Ge 72.63	33 As 74.922	34 Se 78.96	35 Br 79.904	36 Kr 83.798
37 Rb 85.468	38 Sr 87.62	39 Y 88.906	40 Zr 91.224	41 Nb 92.906	42 Mo 95.94	43 Tc (98)	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	71 Lu 174.97	72 Hf 178.49	73 Ta 180.95	74 W 183.85	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 207.2	83 Bi 208.98	84 Po (209)	85 At (210)	86 Rn (222)
87 Fr (223)	88 Ra 226.03	103 Lr (260)	104 Rf (261)	105 Db (262)	106 Sg (263)	107 Bh (262)	108 Hs (265)	109 Mt (266)	110 Ds (269)	111 Rg (272)	112 Cn (277)	113 Nh (284)	114 Fl (289)	115 Mc (288)	116 Lv (292)	117 Ts (294)	118 Og (294)
f																	
		57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	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		
		89 Ac 227.03	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np 237.05	94 Pu (244)	95 Am (243)	96 Cm (247)	97 Bk (247)	98 Cf (251)	99 Es (252)	100 Fm (257)	101 Md (258)	102 No (259)		

Key: bold or normal italics - gas, Ariel font - liquid, bold or normal - solid, normal print - all known isotopes are radioactive



Color unknown but most are silver or silver-white. Colors are from <https://www.chemicool.com/> using RGB codes.

Table created and posted by Steven Murov (<http://murov.info>) in May, 2018

A limited search for a periodic table with the colors of the elements has not yet located a table of this type. However, Theodore Gray has produced many wonderful tables including one with images of authentic samples of the elements (<http://periodictable.com/>) and a commercially available model that contains sample of most of the elements (<http://www.periodictable.co.uk/>). While the tables below are not nearly as fascinating or interesting as Gray's tables, the tables below have been designed to enable viewers to focus on the property of color. Most of the colors have been extracted from <https://www.chemicool.com/> primarily because it often included a two word description of the color. Other sites referred to were Theodore Gray's <http://periodictable.com/Properties/A/Color.html> and Mark Winter's <https://www.webelements.com/>. For some elements, the colors listed on Internet sites are not always in agreement. Rene Vernon, the author of a paper on metalloids, <https://pubs.acs.org/doi/pdfplus/10.1021/ed3008457> has contributed valuable comments about the colors of boron, phosphorus, iodine, cesium and astatine. Some of these color issues are because the most stable allotrope (e.g., phosphorus) is not always the most abundant allotrope.

boron - the most stable allotrope of boron is the beta rhombohedral crystalline state. Colors reported for this state range from shiny silver-grey to grey to dark to black. It is represented as dark grey in the table.

phosphorus - the most stable allotrope is black but the most common form is described as white to pale yellow. A very light yellow has been used below with a black insert.

iodine - while silver is sometimes mentioned, the overwhelming consensus is that iodine crystals are in the violet or purple range.

astatine - although astatine has been observed, due to its transient existence, it has apparently not been possible to determine its color. Some web sites conclude that it should have some metallic properties and as a result have a silvery color. Other web sites suggest as progression is made down group 7A (17), the color continuously darkens with a presumption that astatine should be near black. It is left in these tables as unknown like francium and the elements with atomic numbers above 99.