Periodic table of elements

Atomic number	43	(98.91)	Atomic mass (mean relative)
Electron configuration	[Kr] $4d^6$ $5s^1$		
Oxidation states	7		
Symbol	Tc		
Melting point [°C]	2140	11.5	Density [g/cm³], for gases [g/l] (0°C,1013mbar)
Boiling point [°C]	5030 *	1.9	Electronegativity
Radioactive			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	1A	2A	3A	4A	5A	6A	7A	8	8	8	1B	2B	3B	4B	5B	6B	7B	0
1	1 1.01 1s 1,-1 -259 0.09 -253 2.1 **H**																	2 4.00 $1s^2$ **He** - 018 -269 -
2	3 6.94 [He] 2s 1 **Li** 181 0.53 1330 1.0	4 9.01 [He] $2s^2$ 2 **Be** 1277 1.85 2970 1.5											5 10.81 [He] $2s^2$ 2p 3 **B** (2030) 2.35 2550 2.0	6 12.01 [He] $2s^2$ $2p^2$ 4,2,-4 **C** (3550) 2.2 4830 2.5	7 14.01 [He] $2s^2$ $2p^3$ 5,4,3,2,-3 **N** -210 1.25 -196 3.0	8 16.00 [He] $2s^2$ $2p^4$ -2,-1 **O** -219 1.43 -183 3.5	9 19.00 [He] $2s^2$ $2p^5$ -1 **F** -220 1.7 -188 4.0	10 20.18 [He] $2s^2$ $2p^6$ **Ne** -249 0.9 -246 -
3	11 22.99 [Ne] 3s 1 **Na** 98 0.97 892 0.9	12 24.31 [Ne] $3s^2$ 2 **Mg** 650 1.74 1107 1.2											13 26.98 [Ne] $3s^2$ 3p 3 **Al** 660 2.70 2450 1.5	14 28.09 [Ne] $3s^2$ $3p^2$ 4,-4 **Si** 1410 2.33 2680 1.8	15 30.97 [Ne] $3s^2$ $3p^3$ 5,3,-3 **P** 44 1.82 280 2.1	16 32.06 [Ne] $3s^2$ $3p^4$ 6,4,2,-2 **S** 119 2.07 445 2.5	17 35.45 [Ne] $3s^2$ $3p^5$ 7,5,3,1,-1 **Cl** -101 3.2 -35 3.0	18 39.95 [Ne] $3s^2$ $3p^6$ **Ar** -189 1.78 -183 -
4	19 39.10 [Ar] 4s 1 **K** 64 0.86 760 0.8	20 40.08 [Ar] $4s^2$ 2 **Ca** 838 1.55 1440 1.0	21 44.96 [Ar] 3d $4s^2$ 3 **Sc** 1539 3.0 2730 1.3	22 47.88 [Ar] $3d^2$ $4s^2$ 4,3 **Ti** 1668 4.54 3260 1.5	23 50.94 [Ar] $3d^3$ $4s^2$ 5,4,3,2,0 **V** 1900 6.1 3450 1.5	24 52.00 [Ar] $3d^5$ 4s 6,3,2,0 **Cr** 1875 7.19 2200 1.6	25 54.94 [Ar] $3d^5$ $4s^2$ 7,6,4,3,2,0,-1 **Mn** 1245 7.43 2097 1.5	26 55.85 [Ar] $3d^6$ $4s^2$ 6,3,2,0,-2 **Fe** 1536 7.86 3000 1.8	27 58.93 [Ar] $3d^7$ $4s^2$ 3,2,0,-1 **Co** 1495 8.9 2900 1.9	28 58.70 [Ar] $3d^8$ $4s^2$ 3,2,0 **Ni** 1453 8.9 2730 1.9	29 63.55 [Ar] $3d^{10}$ 4s 2,1 **Cu** 1083 8.96 2595 1.9	30 65.38 [Ar] $3d^{10}$ $4s^2$ 2 **Zn** 420 7.13 906 1.6	31 69.72 [Ar] $3d^{10}$ $4s^2$ 4p 3 **Ga** 30 5.91 2237 1.6	32 72.59 [Ar] $3d^{10}$ $4s^2$ $4p^2$ 4 **Ge** 937 5.32 2830 1.8	33 74.91 [Ar] $3d^{10}$ $4s^2$ $4p^3$ 5,3,-3 **As** Subl. 5.72 - 2.0	34 78.96 [Ar] $3d^{10}$ $4s^2$ $4p^4$ 6,4,-2 **Se** 217 4.79 685 2.4	35 79.90 [Ar] $3d^{10}$ $4s^2$ $4p^5$ 7,5,3,1,-1 **Br** -7 3.12 58 2.8	36 83.80 [Ar] $3d^{10}$ $4s^2$ $4p^6$ **Kr** -157 3.7 -152 -
5	37 85.47 [Kr] 5s 1 **Rb** 39 1.53 688 0.8	38 87.62 [Kr] $5s^2$ 2 **Sr** 768 2.6 1380 1.0	39 88.91 [Kr] 4d $5s^2$ 3 **Y** 1509 4.47 2927 1.2	40 91.22 [Kr] $4d^2$ $5s^2$ 4 **Zr** 1852 6.49 3580 1.4	41 91.22 [Kr] $4d^4$ 5s 5,3 **Nb** 2468 8.57 4927 1.6	42 95.94 [Kr] $4d^5$ 5s 6,5,4,3,2,0 **Mo** 2610 10.2 5560 1.8	43 (98.91) [Kr] $4d^6$ 5s 7 **Tc** 2140 11.5 5030 * 1.9	44 101.07 [Kr] $4d^7$ 5s 8,6,4,3,2,0,-2 **Ru** 2500 12.4 3900 2.2	45 102.91 [Kr] $4d^8$ 5s 5,4,3,1,2,0 **Rh** 1966 12.4 3730 2.2	46 106.42 [Kr] $4d^{10}$ 4,2,0 **Pd** 1552 12.0 3140 2.2	47 107.87 [Kr] $4d^{10}$ 5s 2,1 **Ag** 961 10.5 2210 1.9	48 112.41 [Kr] $4d^{10}$ $5s^2$ 2 **Cd** 321 8.65 765 1.7	49 114.82 [Kr] $4d^{10}$ $5s^2$ 5p 3 **In** 156 7.31 2080 1.7	50 118.69 [Kr] $4d^{10}$ $5s^2$ $5p^2$ 4,2 **Sn** 232 7.30 2270 1.8	51 121.75 [Kr] $4d^{10}$ $5s^2$ $5p^3$ 5,3,-3 **Sb** 631 6.69 1380 1.9	52 127.60 [Kr] $4d^{10}$ $5s^2$ $5p^4$ 6,4,-2 **Te** 450 6.24 990 2.1	53 126.90 [Kr] $4d^{10}$ $5s^2$ $5p^5$ 7,5,1,-1 **I** 114 4.94 183 2.5	54 131.29 [Kr] $4d^{10}$ $5s^2$ $5p^6$ **Xe** -112 5.89 -108 -
6	55 132.91 [Xe] 6s 1 **Cs** 29 1.90 690 0.7	56 137.33 [Xe] $6s^2$ 2 **Ba** 714 3.76 1640 0.9	71 174.97 [Xe] $4f^{14}$ 5d $6s^2$ 3 **Lu** 1652 9.84 3327 1.2	72 178.49 [Xe] $4f^{14}$ $5d^2$ $6s^2$ 4 **Hf** 2222 13.31 5400 1.3	73 180.95 [Xe] $4f^{14}$ $5d^3$ $6s^2$ 5 **Ta** 2996 16.5 5425 1.5	74 183.85 [Xe] $4f^{14}$ $5d^4$ $6s^2$ 6,5,4,3,2,0 **W** 3410 19.3 5930 1.7	75 186.21 [Xe] $4f^{14}$ $5d^5$ $6s^2$ 7,6,4,2,-1 **Re** 3180 21.0 5900 1.9	76 190.20 [Xe] $4f^{14}$ $5d^6$ $6s^2$ 8,6,4,3,2,0,-2 **Os** 3050 22.6 5500 2.2	77 192.22 [Xe] $4f^{14}$ $5d^7$ $6s^2$ 6,4,3,2,1,0,-1 **Ir** 2454 22.7 4500 2.2	78 195.08 [Xe] $4f^{14}$ $5d^9$ 6s 4,2,0 **Pt** 1769 21.4 3830 2.2	79 196.97 [Xe] $4f^{14}$ $5d^{10}$ 6s 3,1 **Au** 1063 19.3 2970 2.4	80 200.59 [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ 2,1 **Hg** -38 13.6 357 1.9	81 204.38 [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ 6p 3,1 **Tl** 303 11.85 1457 1.8	82 207.20 [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ $6p^2$ 4,2 **Pb** 327 11.4 1725 1.9	83 208.98 [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ $6p^3$ 5,3 **Bi** 271 9.8 1560 1.9	84 (209) [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ $6p^4$ 6,4,2 **Po** 254 9.3 962 * 2.0	85 (210) [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ $6p^5$ 7,5,3,1,-1 **At** (302) - 337 * 2.2	86 (222) [Xe] $4f^{14}$ $5d^{10}$ $6s^2$ $6p^6$ **Rn** (-71) 9.73 -62 * -
7	87 (223.0) [Rn] 7s 1 **Fr** (27) - 677 * 0.7	88 226.03 [Rn] $7s^2$ 2 **Ra** 700 5.0 1140 * 0.9	103 (262.1) [Rn] $5f^{14}$ $6d^1$ $7s^2$ 3 **Lr** - - - * -	104 (261.1) [Rn] $5f^{14}$ $6d^2$ $7s^2$ **Rf** - - - * -	105 (262.1) [Rn] $5f^{14}$ $6d^3$ $7s^2$ **Db** - - - * -	106 (263.1) [Rn] $5f^{14}$ $6d^4$ $7s^2$ **Sg** - - - * -	107 (264.1) [Rn] $5f^{14}$ $6d^5$ $7s^2$ **Bh** - - - * -	108 (265.1) [Rn] $5f^{14}$ $6d^6$ $7s^2$ **Hs** - - - * -	109 (268) [Rn] $5f^{14}$ $6d^7$ $7s^2$ **Mt** - - - * -	110 (269) [Rn] $5f^{14}$ $6d^9$ 7s **Uun** - - - * -	111 (272) [Rn] $5f^{14}$ $6d^{10}$ 7s **Uuu** - - - * -	112 (277) **Uub** - - - * -		114 (289) **Uuq** - - - * -		116 (289) **Uuh** - - - * -		118 (293) **Uuo** - - - * -

6 Lanthanoids	57 138.91 [Xe] $5d$ $6s^2$ 3 **La** 920 6.17 3470 1.1	58 140.12 [Xe] $4f^2$ $6s^2$ 4,3 **Ce** 795 6.67 3468 1.1	59 140.91 [Xe] $4f^3$ $6s^2$ 4,3 **Pr** 935 6.77 3127 1.1	60 144.24 [Xe] $4f^4$ $6s^2$ 3 **Nd** 1024 7.00 3027 1.2	61 (145) [Xe] $4f^5$ $6s^2$ 3 **Pm** (1027) 7.22 2460 * -	62 150.36 [Xe] $4f^6$ $6s^2$ 3,2 **Sm** 1072 7.54 1790 1.2	63 151.96 [Xe] $4f^7$ $6s^2$ 3,2 **Eu** 828 5.26 1439 -	64 157.25 [Xe] $4f^7$ $5d$ $6s^2$ 3 **Gd** 1312 7.89 3000 1.1	65 158.93 [Xe] $4f^9$ $6s^2$ 4,3 **Tb** 1356 8.27 2800 1.2	66 162.50 [Xe] $4f^{10}$ $6s^2$ 3 **Dy** 1407 8.54 2600 -	67 164.93 [Xe] $4f^{11}$ $6s^2$ 3 **Ho** 1461 8.80 2600 1.2	68 167.26 [Xe] $4f^{12}$ $6s^2$ 3 **Er** 1497 9.05 2900 1.2	69 168.93 [Xe] $4f^{13}$ $6s^2$ 3,2 **Tm** 1545 9.33 1727 1.2	70 173.04 [Xe] $4f^{14}$ $6s^2$ 3,2 **Yb** 824 6.98 1196 1.1
7 Actinoids	89 (227) [Rn] $6d$ $7s^2$ 3 **Ac** 1050 10.1 - * 1.1	90 232.04 [Rn] $6d^2$ $7s^2$ 4 **Th** 1750 11.7 3850 * 1.3	91 231.04 [Rn] $5f^2$ $6d$ $7s^2$ 5,4 **Pa** (1230 15.4 - * 1.4	92 238.03 [Rn] $5f^3$ $6d$ $7s^2$ 6,5,4,3 **U** 1132 19.07 3818 * 1.4	93 (237.05) [Rn] $5f^4$ $6d$ $7s^2$ 6,5,4,3 **Np** 637 19.5 3900 * 1.3	94 (244) [Rn] $5f^6$ $7s^2$ 6,5,4,3 **Pu** 640 19.81 3235 * 1.3	95 (243) [Rn] $5f^7$ $7s^2$ 6,5,4,3 **Am** 994 13.7 - * 1.3	96 (247) [Rn] $5f^7$ $6d$ $7s^2$ 4,3 **Cm** (1340) 13.51 3100 * -	97 (247) [Rn] $5f^9$ $7s^2$ 4,3 **Bk** - - - * -	98 (251) [Rn] $5f^{10}$ $7s^2$ 4,3 **Cf** - - - * -	99 (254) [Rn] $5f^{11}$ $7s^2$ 3 **Es** - - - * -	100 (257) [Rn] $5f^{12}$ $7s^2$ 3 **Fm** - - - * -	101 (258) [Rn] $5f^{13}$ $7s^2$ 3 **Md** - - - * -	102 (259) [Rn] $5f^{14}$ $7s^2$ 3,2 **No** - - - * -