

atomic mass (a.u.)

	1A	2A	3B	4B	5B	6B	7B	8B	8B	8B	1B	2B	3A	4A	5A	6A	7A	8A
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 H 1.008																	2 He 4.003
2	3 Li 6.941	4 Be 9.012											5 B 10.81	6 C 12.01	7 N 14.01	8 O 16.00	9 F 19.00	10 Ne 20.18
3	11 Na 22.99	12 Mg 24.31											13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95
4	19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.38	31 Ga 69.72	32 Ge 72.64	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80
5	37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.96	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
6	55 Cs 132.91	56 Ba 137.33	57 La 138.91	72 Hf 178.49	73 Ta 180.95	74 W 183.84	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 207.21	83 Bi 208.98	84 Po [208.98]	85 At [209.99]	86 Rn [222.02]
7	87 Fr [223.02]	88 Ra [226.03]	89 Ac [227.03]	104 Rf [261.11]	105 Db [262.11]	106 Sg [266.12]	107 Bh [264.12]	108 Hs [269.13]	109 Mt [268.24]	110 Ds [271]	111 Rg [272]	112	113	114	115	116	117	118

6	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 173.05	71 Lu 174.97
7	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np [237.05]	94 Pu [244.06]	95 Am [243.06]	96 Cm [247.07]	97 Bk [247.07]	98 Cf [251.08]	99 Es [252.08]	100 Fm [257.10]	101 Md [258.10]	102 No [259.10]	103 Lr [262.11]

electronegativity (Pauling)

	1A	2A	3B	4B	5B	6B	7B	8B	8B	8B	1B	2B	3A	4A	5A	6A	7A	8A
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 H 2.20																	2 He
2	3 Li 0.98	4 Be 1.57											5 B 2.04	6 C 2.55	7 N 3.04	8 O 3.44	9 F 3.98	10 Ne
3	11 Na 0.93	12 Mg 1.31											13 Al 1.61	14 Si 1.90	15 P 2.19	16 S 2.58	17 Cl 3.16	18 Ar
4	19 K 0.82	20 Ca 1.00	21 Sc 1.36	22 Ti 1.54	23 V 1.63	24 Cr 1.66	25 Mn 1.55	26 Fe 1.83	27 Co 1.88	28 Ni 1.91	29 Cu 1.90	30 Zn 1.65	31 Ga 1.81	32 Ge 2.01	33 As 2.18	34 Se 2.55	35 Br 2.96	36 Kr 3.00
5	37 Rb 0.82	38 Sr 0.95	39 Y 1.22	40 Zr 1.33	41 Nb 1.60	42 Mo 2.16	43 Tc 1.90	44 Ru 2.20	45 Rh 2.28	46 Pd 2.20	47 Ag 1.93	48 Cd 1.69	49 In 1.78	50 Sn 1.96	51 Sb 2.05	52 Te 2.10	53 I 2.66	54 Xe 2.60
6	55 Cs 0.79	56 Ba 0.89	57 La 1.10	72 Hf 1.30	73 Ta 1.50	74 W 2.36	75 Re 1.90	76 Os 2.20	77 Ir 2.20	78 Pt 2.28	79 Au 2.54	80 Hg 2.00	81 Tl 1.62	82 Pb 2.33	83 Bi 2.02	84 Po 2.00	85 At 2.20	86 Rn 2.20
7	87 Fr 0.70	88 Ra 0.90	89 Ac 1.10	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112	113	114	115	116	117	118

6	58 Ce 1.12	59 Pr 1.13	60 Nd 1.14	61 Pm 1.13	62 Sm 1.17	63 Eu 1.20	64 Gd 1.20	65 Tb 1.10	66 Dy 1.22	67 Ho 1.23	68 Er 1.24	69 Tm 1.25	70 Yb 1.10	71 Lu 1.27
7	90 Th 1.30	91 Pa 1.50	92 U 1.38	93 Np 1.36	94 Pu 1.28	95 Am 1.13	96 Cm 1.28	97 Bk 1.30	98 Cf 1.30	99 Es 1.30	100 Fm 1.30	101 Md 1.30	102 No 1.30	103 Lr 1.30

experimental atomic radius (pm)

	1A	2A	3B	4B	5B	6B	7B	8B	8B	8B	1B	2B	3A	4A	5A	6A	7A	8A
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 H 25																	2 He
2	3 Li 145	4 Be 105											5 B 85	6 C 70	7 N 65	8 O 60	9 F 50	10 Ne
3	11 Na 180	12 Mg 150											13 Al 125	14 Si 110	15 P 100	16 S 100	17 Cl 100	18 Ar
4	19 K 220	20 Ca 180	21 Sc 160	22 Ti 140	23 V 135	24 Cr 140	25 Mn 140	26 Fe 140	27 Co 135	28 Ni 135	29 Cu 135	30 Zn 135	31 Ga 130	32 Ge 125	33 As 115	34 Se 115	35 Br 115	36 Kr
5	37 Rb 235	38 Sr 200	39 Y 180	40 Zr 155	41 Nb 145	42 Mo 145	43 Tc 135	44 Ru 130	45 Rh 135	46 Pd 140	47 Ag 160	48 Cd 155	49 In 155	50 Sn 145	51 Sb 145	52 Te 140	53 I 140	54 Xe
6	55 Cs 260	56 Ba 215	57 La 195	72 Hf 155	73 Ta 145	74 W 135	75 Re 135	76 Os 130	77 Ir 135	78 Pt 135	79 Au 135	80 Hg 150	81 Tl 190	82 Pb 180	83 Bi 160	84 Po 190	85 At	86 Rn
7	87 Fr	88 Ra 215	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112	113	114	115	116	117	118

6	58 Ce 185	59 Pr 185	60 Nd 185	61 Pm 185	62 Sm 185	63 Eu 185	64 Gd 180	65 Tb 175	66 Dy 175	67 Ho 175	68 Er 175	69 Tm 175	70 Yb 175	71 Lu 175
7	90 Th 180	91 Pa 180	92 U 175	93 Np 175	94 Pu 175	95 Am 175	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr