



1	2
Ia	IIa

# Periodic Table of the Elements

13	14	15	16	17	18
IIIa	IVa	Va	Vla	VIIa	0

Hydrogen	H	1
		1.0079 2.2 1s <sup>1</sup>

Lithium	Li	3
		6.941 1.0 [He] 2s <sup>1</sup>

Sodium	Na	11
		22.990 1.0 [Ne] 3s <sup>1</sup>

Potassium	K	19
		39.098 0.9 [Ar] 4s <sup>1</sup>

Rubidium	Rb	37
		85.468 0.9 [Kr] 5s <sup>1</sup>

Cæsium	Cs	55
		132.91 0.9 [Xe] 6s <sup>2</sup>

Francium	Fr	87
		223.02 0.9 [Rn] 7s <sup>2</sup>

- Orange (left): the s block elements, (consisting of hydrogen, the alkali metals, and the alkaline earth metals).
- Light blue (middle): the d block elements (they are the transition metals).
- Light pink (right): the p block elements (consisting of some metals, the metalloids, the non-metals, the noble gases, and the halogens).
- Peach (two rows at the bottom): the f block elements (they are the inner transition elements, consisting of the actinides and lanthanides).
- Symbols printed in solid black: solids at 25°C.
- Symbols printed in white with outline: gases at 25°C.
- Symbols printed in grey with outline: liquids at 25°C.

3	4	5	6	7	8	9	10	11	12
IIIb	IVb	Vb	VIb	VIIb	VIIIb	VIIIb	VIIIb	Ib	IIb

Scandium	Sc	21
		44.956 1.2 [Ar] 3d <sup>1</sup> 4s <sup>2</sup>

Titanium	Ti	22
		47.88 1.3 [Ar] 3d <sup>2</sup> 4s <sup>2</sup>

Vanadium	V	23
		50.942 1.5 [Ar] 3d <sup>3</sup> 4s <sup>2</sup>

Chromium	Cr	24
		51.996 1.6 [Ar] 3d <sup>5</sup> 4s <sup>1</sup>

Manganese	Mn	25
		54.938 1.6 [Ar] 3d <sup>5</sup> 4s <sup>2</sup>

Iron	Fe	26
		55.845 1.6 [Ar] 3d <sup>6</sup> 4s <sup>2</sup>

Cobalt	Co	27
		58.933 1.7 [Ar] 3d <sup>7</sup> 4s <sup>2</sup>

Nickel	Ni	28
		58.693 1.8 [Ar] 3d <sup>8</sup> 4s <sup>2</sup>

Copper	Cu	29
		63.546 1.8 [Ar] 3d <sup>10</sup> 4s <sup>1</sup>

Zinc	Zn	30
		65.41 1.7 [Ar] 3d <sup>10</sup> 4s <sup>2</sup>

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Zinc	Zn	30
		65.41 1.7 [Ar] 3d <sup>10</sup> 4s <sup>2</sup>

Boron	B	5
		10.811 2.0 [He] 2s <sup>2</sup> 2p <sup>1</sup>

Carbon	C	6
		12.011 2.5 [He] 2s <sup>2</sup> 2p <sup>2</sup>

Nitrogen	N	7
		14.007 3.1 [He] 2s <sup>2</sup> 2p <sup>3</sup>

Oxygen	O	8
		15.999 3.5 [He] 2s <sup>2</sup> 2p <sup>4</sup>

Fluorine	F	9
		18.998 4.1 [He] 2s <sup>2</sup> 2p <sup>5</sup>

Neon	Ne	10
		20.18 [He] 2s <sup>2</sup> 2p <sup>6</sup>

Helium	He	2
		4.0026 1s <sup>2</sup>

Aluminum	Al	13
		26.982 1.5 [Ne] 3s <sup>2</sup> 3p <sup>1</sup>

Silicon	Si	14
		28.086 1.7 [Ne] 3s <sup>2</sup> 3p <sup>2</sup>

Phosphorus	P	15
		30.974 2.1 [Ne] 3s <sup>2</sup> 3p <sup>3</sup>

Sulfur	S	16
		32.066 2.4 [Ne] 3s <sup>2</sup> 3p <sup>4</sup>

Chlorine	Cl	17
		35.453 2.8 [Ne] 3s <sup>2</sup> 3p <sup>5</sup>

Argon	Ar	18
		39.948 [Ne] 3s <sup>2</sup> 3p <sup>6</sup>

Gallium	Ga	31
		69.723 1.8 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>1</sup>

Germanium	Ge	32
		72.64 2.0 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>2</sup>

Arsenic	As	33
		74.922 2.2 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>3</sup>

Selenium	Se	34
		78.96 2.5 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>4</sup>

Bromine	Br	35
		79.904 2.7 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>5</sup>

Krypton	Kr	36
		83.8 [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>6</sup>

Antimony	In	49
		114.82 1.5 [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>1</sup>

Tin	Sn	50
		118.71 1.7 [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>2</sup>

Tellurium	Te	52
		127.6 2.0 [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>3</sup>

Iodine	I	53
		126.904 2.2 [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>5</sup>

Xenon	Xe	54
		131.29 [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>6</sup>

Thallium	Tl	81
		204.38 1.4 [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>1</sup>

Lead	Pb	82
		207.20 1.6 [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>2</sup>

Bismuth	Bi	83
		208.98 1.7 [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>3</sup>

Polonium	Po	84
		208.98 1.8 [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>4</sup>

Astatine	At	85
		210 2.0 [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>5</sup>

Ununtrium	Uut	113
		[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>1</sup>

Ununquadium	Uuq	114
		[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>2</sup>

Ununpentium	Uup	115
		[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>3</sup>

Ununhexium	Uuh	116
		[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>4</sup>

Ununseptium	Uus	117
		[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>5</sup>

Ytterbium	Yb	70
		173.04 1.1 [Xe] 4f <sup>14</sup> 5d <sup>1</sup> 6s <sup>2</sup>

Lutetium	Lu	71
		174.97 1.1 [Xe] 4f <sup>14</sup> 5d <sup>1</sup> 6s <sup>2</sup>

Atomic number	88
Symbol	Ra

Element name	Radium
Atomic mass	226.03

Electronegativity	1.0
Electron configuration	[Rn] 7s <sup>2</sup>

Cerium	Ce	58
		140.12 1.1 [Xe] 4f <sup>9</sup> 6s <sup>2</sup>

Praseodymium	Pr	59
		140.91 1.1 [Xe] 4f <sup>9</sup> 6s <sup>2</sup>

Neodymium	Nd	60
		144.24 1.1 [Xe] 4f <sup>9</sup> 6s <sup>2</sup>

Promethium	Pm	61
		146.92 1.1 [Xe] 4f <sup>9</sup> 6s <sup>2</sup>

Samarium	Sm	62
		150.36 1.1 [Xe] 4f <sup>9</sup> 6s <sup>2</sup>

Europium	Eu	63
		151.96 1.0 [Xe] 4f <sup>9</sup> 5d <sup>1</sup> 6s <sup>2</sup>

Gadolinium	Gd	64
		157.25 1.1 [Xe] 4f <sup>9</sup> 5d <sup>1</sup> 6s <sup>2</sup>

Terbium	Tb	65
		158.93 1.1 [Xe] 4f <sup>9</sup> 5d <sup>1</sup> 6s <sup>2</sup>

Dysprosium	Dy	66
		162.50 1.1 [Xe] 4f <sup>10</sup> 6s <sup>2</sup>

Holmium	Ho	67
		164.93 1.1 [Xe] 4f <sup>10</sup> 6s <sup>2</sup>

Erbium	Er	68
		167.26 1.1 [Xe] 4f <sup>10</sup> 6s <sup>2</sup>

Thulium	Tm	69
		168.93 1.1 [Xe] 4f <sup>10</sup> 6s <sup>2</sup> </