

Periodic Table of Elements

Group

1 IA

18 VIIIA

1

1.008

1.1

1-1

13.6

0.7542

H

Hydrogen

1s¹

2

4.003

1.4

2

24.59

Ns

He

Helium

1s²

3

6.94

1.82

1

5.392

0.618

Li

Lithium

[He]2s¹

4

9.012

1.53

2

9.323

Ns

Be

Beryllium

[He]2s²

11

22.990

2.27

1

5.139

0.5479

Na

Sodium

[Ne]3s¹

12

24.305

1.73

2

7.646

Ns

Mg

Magnesium

[Ne]3s²

19

39.098

2.75

1

4.341

0.5015

K

Potassium

[Ar]4s¹

20

40.078

2.31

2

6.113

0.02455

Ca

Calcium

[Ar]4s²

21

44.956

2.15

3

6.561

0.188

Sc

Scandium

[Ar]3d¹4s²

22

47.867

2.11

4

6.828

0.079

Ti

Titanium

[Ar]3d²4s²

23

50.942

2.07

5

6.746

0.525

V

Vanadium

[Ar]3d³4s²

24

51.996

2.06

6

6.766

0.666

Cr

Chromium

[Ar]3d⁵4s¹

25

54.938

2.05

7

7.434

Ns

Mn

Manganese

[Ar]3d⁵4s²

26

55.845

2.04

8

7.902

0.151

Fe

Iron

[Ar]3d⁶4s²

27

58.933

2.0

9

7.881

0.662

Co

Cobalt

[Ar]3d⁷4s²

28

58.693

1.97

10

7.64

1.156

Ni

Nickel

[Ar]3d⁸4s²

29

63.546

1.96

11

7.726

1.235

Cu

Copper

[Ar]3d¹⁰4s¹

30

65.38

2.01

12

9.394

Ns

Zn

Zinc

[Ar]3d¹⁰4s²

31

69.723

1.87

13

5.999

0.43

Ga

Gallium

[Ar]3d¹⁰4s²4p¹

32

72.630

2.11

14

7.899

1.233

Ge

Germanium

[Ar]3d¹⁰4s²4p²

33

74.922

1.85

15

9.788

0.804

As

Arsenic

[Ar]3d¹⁰4s²4p³

34

78.971

1.9

16

9.752

2.021

Se

Selenium

[Ar]3d¹⁰4s²4p⁴

35

79.904

1.85

17

11.81

3.364

Br

Bromine

[Ar]3d¹⁰4s²4p⁵

36

83.798

2.02

18

14.0

Ns

Kr

Krypton

[Ar]3d¹⁰4s²4p⁶

37

85.468

3.03

1

4.177

0.4859

Rb

Rubidium

[Kr]5s¹

38

87.62

2.49

2

5.695

0.048

Sr

Strontium

[Kr]5s²

39

88.906

2.32

3

6.217

0.307

Y

Yttrium

[Kr]4d¹5s²

40

91.224

2.23

4

6.634

0.426

Zr

Zirconium

[Kr]4d²5s²

41

92.906

2.18

5

6.759

0.916

Nb

Niobium

[Kr]4d⁴5s¹

42

95.95

2.17

6

7.092

0.748

Mo

Molybdenum

[Kr]4d⁵5s¹

43

98

2.16

7

7.28

0.55

Tc

Technetium

[Kr]4d⁵5s²

44

101.07

2.13

8

7.36

1.05

Ru

Ruthenium

[Kr]4d⁷5s¹

45

102.906

2.1

9

7.459

1.137

Rh

Rhodium

[Kr]4d⁸5s¹

46

106.42

2.1

10

8.337

0.562

Pd

Palladium

[Kr]4d¹⁰

47

107.868

2.11

11

7.576

1.302

Ag

Silver

[Kr]4d¹⁰5s¹

48

112.414

2.18

12

8.994

Ns

Cd

Cadmium

[Kr]4d¹⁰5s²

49

114.818

1.93

13

5.786

0.2995

In

Indium

[Kr]4d¹⁰5s²5p¹

50

118.710

2.17

14

7.344

1.112

Sn

Tin

[Kr]4d¹⁰5s²5p²

51

121.760

2.06

15

8.608

1.046

Sb

Antimony

[Kr]4d¹⁰5s²5p³

52

127.60

2.06

16

9.009

1.971

Te

Tellurium

[Kr]4d¹⁰5s²5p⁴

53

126.904

1.98

17

10.45

3.059

I

Iodine

[Kr]4d¹⁰5s²5p⁵

54

131.293

2.16

18

12.13

Ns

Xe

Xenon

[Kr]4d¹⁰5s²5p⁶

55

132.905

3.43

1

3.894

0.4716

Cs

Caesium

[Xe]6s¹

56

137.327

2.68

2

5.212

0.1446

Ba

Barium

[Xe]6s²

57-71

La-Lu

Lanthanide

72

178.486

2.23

4

6.825

0.014

Hf

Hafnium

[Xe]4f¹⁴5d²6s²

73

180.948

2.22

5

7.549

0.322

Ta

Tantalum

[Xe]4f¹⁴5d³6s²

74

183.84

2.18

6

7.864

0.8162

W

Tungsten

[Xe]4f¹⁴5d⁴6s²

75

186.207

2.16

7

8.015

0.15

Re

Rhenium

[Xe]4f¹⁴5d⁵6s²

76

190.23

2.16

8

8.438

1.1

Os

Osmium

[Xe]4f¹⁴5d⁶6s²

77

192.217

2.13

9

8.967

1.564

Ir

Iridium

[Xe]4f¹⁴5d⁷6s²

78

195.084

2.13

10

9.225

2.128

Pt

Platinum

[Xe]4f¹⁴5d⁹6s¹

79

196.967

2.14

11

9.225

2.309

Au

Gold

[Xe]4f¹⁴5d¹⁰6s¹

80

200.592

2.23

12

10.44

Ns

Hg

Mercury

[Xe]4f¹⁴5d¹⁰6s²

81

204.38

1.96

13

6.108

0.377

Tl

Thallium

[Xe]4f¹⁴5d¹⁰6s²6p¹

82

207.2

2.02

14

7.417

0.364

Pb

Lead

[Xe]4f¹⁴5d¹⁰6s²6p²

83

208.980

2.07

15

7.285

0.9423

Bi

Bismuth

[Xe]4f¹⁴5d¹⁰6s²6p³

84

[209]

1.97

16

8.414

1.9

Po

Polonium

[Xe]4f¹⁴5d¹⁰6s²6p⁴

85

[210]

2.02

17

10.45

2.8

At

Astatine

[Xe]4f¹⁴5d¹⁰6s²6p⁵

86

[222]

2.2

18

10.75

Ns

Rn

Radon

[Xe]4f¹⁴5d¹⁰6s²6p⁶

87

[223]

3.48

1

4.073

0.46

Fr

Francium

[Rn]7s¹

88

[226]

2.83

2

5.278

0.1

Ra

Radium

[Rn]7s²

89-103

Ac-Lr

Actinide

104

[267]

U

6.001

U

Rf

Rutherfordium

[Rn]5f¹⁴6d²7s²

105

[268]

U

6.307

U

Db

Dubnium

[Rn]5f¹⁴6d³7s²

106

[269]

U

6.307

U

Sg

Seaborgium

[Rn]5f¹⁴6d⁴7s²

107

[270]

U

6.307

U

Bh

Bohrium

[Rn]5f¹⁴6d⁵7s²

108

[269]

U

6.307

U

Hs

Hassium

[Rn]5f¹⁴6d⁶7s²

109

[278]

U

6.307

U

Mt

Meitnerium

[Rn]5f¹⁴6d⁷7s²

110

[281]

U

6.307

U

Ds

Darmstadtium

[Rn]5f¹⁴6d⁹7s¹

111

[280]

U

6.307

U

Rg

Roentgenium

[Rn]5f¹⁴6d¹⁰7s¹

112

[285]

U

6.307

U

Cn

Copernicium

[Rn]5f¹⁴6d¹⁰7s²

113

[286]

U

6.307

U

Nh

Nihonium

[Rn]5f¹⁴6d¹⁰7s²7p¹

114

[289]

U

6.307

U

Fl

Flerovium

[Rn]5f¹⁴6d¹⁰7s²7p²

115

[289]

U

6.307

U

Mc

Moscovium

[Rn]5f¹⁴6d¹⁰7s²7p³

116

[293]

U

6.307

U

Lv

Livermorium

[Rn]5f¹⁴6d¹⁰7s²7p⁴

117

[294]

U

6.307

U

Ts

Tennessine

[Rn]5f¹⁴6d¹⁰7s²7p⁵

118

[294]

U

6.307

U

Og

Oganesson

[Rn]5f¹⁴6d¹⁰7s²7p⁶

57

138.905

2.43

3

5.577

0.47

La

Lanthanum

[Xe]5d¹6s²

58

140.116

2.42

4

5.539

0.65

Ce

Cerium

[Xe]4f¹5d¹6s²

59

140.908

2.4

4

5.473

0.962

Pr

Praseodymium

[Xe]4f³6s²

60

144.242

2.39

3

5.525

U

Nd

Neodymium

[Xe]4f⁴6s²

61

[145]

2.38

3

5.582

U

Pm

Promethium

[Xe]4f⁵6s²

62

150.36

2.36

3

5.644

U

Sm

Samarium

[Xe]4f⁶6s²

63

151.964

2.35

3

5.67

0.864

Eu

Europium

[Xe]4f⁷6s²

64

157.25

2.34

3

6.15

U

Gd

Gadolinium

[Xe]4f⁷5d¹6s²

65

158.925

2.33

4

5.864

U

Tb

Terbium

[Xe]4f⁹6s²

66

162.500

2.31

3

5.939

U

Dy

Dysprosium

[Xe]4f¹⁰6s²

67

164.930

2.3

3

6.021

U

Ho

Holmium

[Xe]4f¹¹6s²

68

167.259

2.29

3

6.108

U

Er

Erbium

[Xe]4f¹²6s²

69

168.934

2.27

3

6.184

1.029

Tm

Thulium

[Xe]4f¹³6s²

70

173.045

2.26

3

6.254

-0.02

Yb

Ytterbium

[Xe]4f¹⁴6s²

71

174.967

2.24

3

5.426

0.34

Lu

Lutetium

[Xe]4f¹⁴5d¹6s²

89

[227]

2.47

3

5.17

0.35

Ac

Actinium

[Rn]6d¹7s²

90

232.038

2.45

4

6.307

U

Th

Thorium

[Rn]6d²7s²

91

231.036

2.43

5

5.89

U

Pa

Protactinium

[Rn]5f²6d¹7s²

92

238.029

2.41

6

6.194

U

U

Uranium

[Rn]5f³6d¹7s²

93

[237]

2.39

6

6.266

U

Np

Neptunium

[Rn]5f⁴6d¹7s²

94

[244]

2.43

6

6.026

U

Pu

Plutonium

[Rn]5f⁶7s²

95

[243]

2.44

6

5.974

U

Am

Americium

[Rn]5f⁷7s²

96

[247]

2.45

6

5.991

U

Cm

Curium

[Rn]5f⁷6d¹7s²

97

[247]

2.44

6

6.198

U

Bk

Berkelium

[Rn]5f⁹7s²

98

[251]

2.45

6

6.282

U

Cf

Californium

[Rn]5f¹⁰7s²

99

[252]

2.45

6

6.42

U

Es

Einsteinium

[Rn]5f¹¹7s²

100

[257]

2.45

6

6.5

U

Fm

Fermium

[Rn]5f¹²7s²

101

[258]

2.46

6

6.58

U

Md

Mendelevium

[Rn]5f¹³7s²

102

[259]

2.46

6

6.65

U

No

Nobelium

[Rn]5f¹⁴7s²

103

[262]

2.46

6

6.5

U

Lr

Lawrencium

[Rn]5f¹⁴7s²7p¹

more info <https://www.rsc.org/periodic-table>

source and raw data at <https://gitlab.com/drFaustroll/periodic>

solid@273K

gas@273K

liquid@273K

unknown

radioactive

lab made

Alkali Metal

Transitional Metal

Non metal

Lan-
thanide

Alkaline Earth Metal

Post Trans Metal

Halogen

Actinide

Metalloid

Noble gas

Unknown properties

atomic number

relative atomic mass[Da]

atomic radius[Å]

oxidation states

1st ionisation energy[eV]

affinity[eV]

symbol

name

ground state configuration

1

1.008

1.1

1-1

13.6

0.7542

H

Hydrogen

1s¹

2

4.003

1.4

2

24.59

Ns

He

Helium

1s²

3

6.94

1.82

1

5.392

0.618

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5.139

0.5479

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1.73

2

7.646

Ns

Mg

Magnesium

[Ne]3s²

19

39.098

2.75

1

4.341

0.5015

K

Potassium

[Ar]4s¹

20

40.078

2.31

2

6.113

0.02455

Ca

Calcium

[Ar]4s²

21

44.956

2.15

3

6.561

0.188

Sc

Scandium

[Ar]3d¹4s²

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47.867

2.11

4

6.828

0.079

Ti

Titanium

[Ar]3d²4s²

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50.942

2.07

5

6.746

0.525

V

Vanadium

[Ar]3d³4s²

24

51.996

2.06

6

6.766

0.666

Cr

Chromium

[Ar]3d⁵4s¹

25

54.938

2.05

7

7.434

Ns

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Manganese

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55.845

2.04

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7.902

0.151

Fe

Iron

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58.933

2.0

9

7.881

0.662

Co

Cobalt

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58.693

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7.64

1.156

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Nickel

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Copper

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Ns

Zn

Zinc

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5.999

0.43

Ga

Gallium

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72.630

2.11

14

7.899

1.233

Ge

Germanium

[Ar]3d¹⁰4s²4p²

33