1, Hydrogen (H)

Atomic Mass: [1.008]

Nucleus: p1 n0

Electrons: 1

Standard State: Gas

Group number: 1

Group: Nonmetals

2, Helium (He)

Atomic Mass: [4.0026]

Nucleus: p2 n2

Electrons: 2

Standard State: Gas

Group number: 18

Group: Noble gases

3, Lithium (Li)

Atomic Mass: [6.94]

Nucleus: p3 n4

Electrons: 2, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

4, Beryllium (Be)

Atomic Mass: [9.0122]

Nucleus: p4 n5

Electrons: 2, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

5, Boron (B)

Atomic Mass: [10.81]

Nucleus: p5 n6

Electrons: 2, 3

Standard State: Solid

Group number: 13

Group: Metalloids

6, Carbon (C)

Atomic Mass: [12.011]

Nucleus: p6 n6

Electrons: 2, 4

Standard State: Solid

Group number: 14

Group: Nonmetals

7, Nitrogen (N)

Atomic Mass: [14.007]

Nucleus: p7 n7

Electrons: 2, 5

Standard State: Gas

Group number: 15

Group: Nonmetals

8, Oxygen (O)

Atomic Mass: [15.999]

Nucleus: p8 n8

Electrons: 2, 6

Standard State: Gas

Group number: 16

Group: Nonmetals

9, Fluorine (F)

Atomic Mass: [18.998]

Nucleus: p9 n10

Electrons: 2, 7

Standard State: Gas

Group number: 17

Group: Halogens

10, Neon (Ne)

Atomic Mass: [20.180]

Nucleus: p10 n10

Electrons: 2, 8

Standard State: Gas

Group number: 18

Group: Noble gases

11, Sodium (Na)

Atomic Mass: [22.990]

Nucleus: p11 n12

Electrons: 2, 8, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

12, Magnesium (Mg)

Atomic Mass: [24.305]

Nucleus: p12 n12

Electrons: 2, 8, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

13, Aluminum (Al)

Atomic Mass: [26.982]

Nucleus: p13 n14

Electrons: 2, 8, 3

Standard State: Solid

Group number: 13

Group: Post-transition metals

14, Silicon (Si)

Atomic Mass: [28.085]

Nucleus: p14 n14

Electrons: 2, 8, 4

Standard State: Solid

Group number: 14

Group: Metalloids

15, Phosphorus (P)

Atomic Mass: [30.974]

Nucleus: p15 n16

Electrons: 2, 8, 5

Standard State: Solid

Group number: 15

Group: Nonmetals

16, Sulfur (S)

Atomic Mass: [32.06]

Nucleus: p16 n16

Electrons: 2, 8, 6

Standard State: Solid

Group number: 16

Group: Nonmetals

17, Chlorine (Cl)

Atomic Mass: [35.45]

Nucleus: p17 n18

Electrons: 2, 8, 7

Standard State: Gas

Group number: 17

Group: Halogens

18, Argon (Ar)

Atomic Mass: [39.948]

Nucleus: p18 n22

Electrons: 2, 8, 8

Standard State: Gas

Group number: 18

Group: Noble gases

19, Potassium (K)

Atomic Mass: [39.098]

Nucleus: p19 n20

Electrons: 2, 8, 8, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

20, Calcium (Ca)

Atomic Mass: [40.078]

Nucleus: p20 n20

Electrons: 2, 8, 8, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

21, Scandium (Sc)

Atomic Mass: [44.956]

Nucleus: p21 n24

Electrons: 2, 8, 9, 2

Standard State: Solid

Group number: 3

Group: Transition metals

22, Titanium (Ti)

Atomic Mass: [47.867]

Nucleus: p22 n26

Electrons: 2, 8, 10, 2

Standard State: Solid

Group number: 4

Group: Transition metals

23, Vanadium (V)

Atomic Mass: [50.942]

Nucleus: p23 n28

Electrons: 2, 8, 11, 2

Standard State: Solid

Group number: 5

Group: Transition metals

24, Chromium (Cr)

Atomic Mass: [51.996]

Nucleus: p24 n28

Electrons: 2, 8, 13, 1

Standard State: Solid

Group number: 6

Group: Transition metals

25, Manganese (Mn)

Atomic Mass: [54.938]

Nucleus: p25 n30

Electrons: 2, 8, 13, 2

Standard State: Solid

Group number: 7

Group: Transition metals

26, Iron (Fe)

Atomic Mass: [55.845]

Nucleus: p26 n30

Electrons: 2, 8, 14, 2

Standard State: Solid

Group number: 8

Group: Transition metals

27, Cobalt (Co)

Atomic Mass: [58.933]

Nucleus: p27 n32

Electrons: 2, 8, 15, 2

Standard State: Solid

Group number: 9

Group: Transition metals

28, Nickel (Ni)

Atomic Mass: [58.693]

Nucleus: p28 n31

Electrons: 2, 8, 16, 2

Standard State: Solid

Group number: 10

Group: Transition metals

29, Copper (Cu)

Atomic Mass: [63.546]

Nucleus: p29 n35

Electrons: 2, 8, 18, 1

Standard State: Solid

Group number: 11

Group: Transition metals

30, Zinc (Zn)

Atomic Mass: [65.38]

Nucleus: p30 n35

Electrons: 2, 8, 18, 2

Standard State: Solid

Group number: 12

Group: Transition metals

31, Gallium (Ga)

Atomic Mass: [69.723]

Nucleus: p31 n39

Electrons: 2, 8, 18, 3

Standard State: Solid

Group number: 13

Group: Post-transition metals

32, Germanium (Ge)

Atomic Mass: [72.63]

Nucleus: p32 n41

Electrons: 2, 8, 18, 4

Standard State: Solid

Group number: 14

Group: Metalloids

33, Arsenic (As)

Atomic Mass: [74.922]

Nucleus: p33 n42

Electrons: 2, 8, 18, 5

Standard State: Solid

Group number: 15

Group: Metalloids

34, Selenium (Se)

Atomic Mass: [78.971]

Nucleus: p34 n45

Electrons: 2, 8, 18, 6

Standard State: Solid

Group number: 16

Group: Nonmetals

35, Bromine (Br)

Atomic Mass: [79.904]

Nucleus: p35 n45

Electrons: 2, 8, 18, 7

Standard State: Liquid

Group number: 17

Group: Halogens

36, Krypton (Kr)

Atomic Mass: [83.798]

Nucleus: p36 n48

Electrons: 2, 8, 18, 8

Standard State: Gas

Group number: 18

Group: Noble gases

37, Rubidium (Rb)

Atomic Mass: [85.468]

Nucleus: p37 n48

Electrons: 2, 8, 18, 8, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

38, Strontium (Sr)

Atomic Mass: [87.62]

Nucleus: p38 n50

Electrons: 2, 8, 18, 8, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

39, Yttrium (Y)

Atomic Mass: [88.906]

Nucleus: p39 n50

Electrons: 2, 8, 18, 9, 2

Standard State: Solid

Group number: 3

Group: Transition metals

40, Zirconium (Zr)

Atomic Mass: [91.224]

Nucleus: p40 n51

Electrons: 2, 8, 18, 10, 2

Standard State: Solid

Group number: 4

Group: Transition metals

41, Niobium (Nb)

Atomic Mass: [92.906]

Nucleus: p41 n52

Electrons: 2, 8, 18, 12, 1

Standard State: Solid

Group number: 5

Group: Transition metals

42, Molybdenum (Mo)

Atomic Mass: [95.95]

Nucleus: p42 n54

Electrons: 2, 8, 18, 13, 1

Standard State: Solid

Group number: 6

Group: Transition metals

43, Technetium (Tc)

Atomic Mass:

Nucleus: p43 n55

Electrons: 2, 8, 18, 13, 2

Standard State: Solid

Group number: 7

Group: Transition metals

44, Ruthenium (Ru)

Atomic Mass: [101.07]

Nucleus: p44 n57

Electrons: 2, 8, 18, 15, 1

Standard State: Solid

Group number: 8

Group: Transition metals

45, Rhodium (Rh)

Atomic Mass: [102.91]

Nucleus: p45 n58

Electrons: 2, 8, 18, 16, 1

Standard State: Solid

Group number: 9

Group: Transition metals

46, Palladium (Pd)

Atomic Mass: [106.42]

Nucleus: p46 n60

Electrons: 2, 8, 18, 18

Standard State: Solid

Group number: 10

Group: Transition metals

47, Silver (Ag)

Atomic Mass: [107.87]

Nucleus: p47 n61

Electrons: 2, 8, 18, 18, 1

Standard State: Solid

Group number: 11

Group: Transition metals

48, Cadmium (Cd)

Atomic Mass: [112.41]

Nucleus: p48 n64

Electrons: 2, 8, 18, 18, 2

Standard State: Solid

Group number: 12

Group: Transition metals

49, Indium (In)

Atomic Mass: [114.82]

Nucleus: p49 n66

Electrons: 2, 8, 18, 18, 3

Standard State: Solid

Group number: 13

Group: Post-transition metals

50, Tin (Sn)

Atomic Mass: [118.71]

Nucleus: p50 n69

Electrons: 2, 8, 18, 18, 4

Standard State: Solid

Group number: 14

Group: Post-transition metals

51, Antimony (Sb)

Atomic Mass: [121.76]

Nucleus: p51 n71

Electrons: 2, 8, 18, 18, 5

Standard State: Solid

Group number: 15

Group: Metalloids

52, Tellurium (Te)

Atomic Mass: [127.60]

Nucleus: p52 n76

Electrons: 2, 8, 18, 18, 6

Standard State: Solid

Group number: 16

Group: Metalloids

53, Iodine (I)

Atomic Mass: [126.90]

Nucleus: p53 n74

Electrons: 2, 8, 18, 18, 7

Standard State: Solid

Group number: 17

Group: Halogens

54, Xenon (Xe)

Atomic Mass: [131.29]

Nucleus: p54 n77

Electrons: 2, 8, 18, 18, 8

Standard State: Gas

Group number: 18

Group: Noble gases

55, Cesium (Cs)

Atomic Mass: [132.91]

Nucleus: p55 n78

Electrons: 2, 8, 18, 18, 8, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

56, Barium (Ba)

Atomic Mass: [137.33]

Nucleus: p56 n81

Electrons: 2, 8, 18, 18, 8, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

57, Lanthanum (La)

Atomic Mass: [138.91]

Nucleus: p57 n82

Electrons: 2, 8, 18, 18, 9, 2

Standard State: Solid

Group number: 3

Group: Lanthanides

58, Cerium (Ce)

Atomic Mass: [140.12]

Nucleus: p58 n82

Electrons: 2, 8, 18, 19, 9, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

59, Praseodymium (Pr)

Atomic Mass: [140.91]

Nucleus: p59 n82

Electrons: 2, 8, 18, 21, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

60, Neodymium (Nd)

Atomic Mass: [144.24]

Nucleus: p60 n84

Electrons: 2, 8, 18, 22, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

61, Promethium (Pm)

Atomic Mass: [145]

Nucleus: p61 n84

Electrons: 2, 8, 18, 23, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

62, Samarium (Sm)

Atomic Mass: [150.36]

Nucleus: p62 n88

Electrons: 2, 8, 18, 24, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

63, Europium (Eu)

Atomic Mass: [151.96]

Nucleus: p63 n89

Electrons: 2, 8, 18, 25, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

64, Gadolinium (Gd)

Atomic Mass: [157.25]

Nucleus: p64 n93

Electrons: 2, 8, 18, 25, 9, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

65, Terbium (Tb)

Atomic Mass: [158.93]

Nucleus: p65 n94

Electrons: 2, 8, 18, 27, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

66, Dysprosium (Dy)

Atomic Mass: [162.50]

Nucleus: p66 n97

Electrons: 2, 8, 18, 28, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

67, Holmium (Ho)

Atomic Mass: [164.93]

Nucleus: p67 n98

Electrons: 2, 8, 18, 29, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

68, Erbium (Er)

Atomic Mass: [167.26]

Nucleus: p68 n99

Electrons: 2, 8, 18, 30, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

69, Thulium (Tm)

Atomic Mass: [168.93]

Nucleus: p69 n100

Electrons: 2, 8, 18, 31, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

70, Ytterbium (Yb)

Atomic Mass: [173.05]

Nucleus: p70 n103

Electrons: 2, 8, 18, 32, 8, 2

Standard State: Solid

Group number: N/A

Group: Lanthanides

71, Lutetium (Lu)

Atomic Mass: [174.97]

Nucleus: p71 n104

Electrons: 2, 8, 18, 32, 9, 2

Standard State: Solid

Group number: 3

Group: Lanthanides

72, Hafnium (Hf)

Atomic Mass: [178.49]

Nucleus: p72 n106

Electrons: 2, 8, 18, 32, 10, 2

Standard State: Solid

Group number: 4

Group: Transition metals

73, Tantalum (Ta)

Atomic Mass: [180.95]

Nucleus: p73 n108

Electrons: 2, 8, 18, 32, 11, 2

Standard State: Solid

Group number: 5

Group: Transition metals

74, Tungsten (W)

Atomic Mass: [183.84]

Nucleus: p74 n110

Electrons: 2, 8, 18, 32, 12, 2

Standard State: Solid

Group number: 6

Group: Transition metals

75, Rhenium (Re)

Atomic Mass: [186.21]

Nucleus: p75 n111

Electrons: 2, 8, 18, 32, 13, 2

Standard State: Solid

Group number: 7

Group: Transition metals

76, Osmium (Os)

Atomic Mass: [190.23]

Nucleus: p76 n114

Electrons: 2, 8, 18, 32, 14, 2

Standard State: Solid

Group number: 8

Group: Transition metals

77, Iridium (Ir)

Atomic Mass: [192.22]

Nucleus: p77 n115

Electrons: 2, 8, 18, 32, 15, 2

Standard State: Solid

Group number: 9

Group: Transition metals

78, Platinum (Pt)

Atomic Mass: [195.08]

Nucleus: p78 n117

Electrons: 2, 8, 18, 32, 17, 1

Standard State: Solid

Group number: 10

Group: Transition metals

79, Gold (Au)

Atomic Mass: [196.97]

Nucleus: p79 n118

Electrons: 2, 8, 18, 32, 18, 1

Standard State: Solid

Group number: 11

Group: Transition metals

80, Mercury (Hg)

Atomic Mass: [200.59]

Nucleus: p80 n121

Electrons: 2, 8, 18, 32, 18, 2

Standard State: Liquid

Group number: 12

Group: Transition metals

81, Thallium (Tl)

Atomic Mass: [204.38]

Nucleus: p81 n123

Electrons: 2, 8, 18, 32, 18, 3

Standard State: Solid

Group number: 13

Group: Post-transition metals

82, Lead (Pb)

Atomic Mass: [207.2]

Nucleus: p82 n125

Electrons: 2, 8, 18, 32, 18, 4

Standard State: Solid

Group number: 14

Group: Post-transition metals

83, Bismuth (Bi)

Atomic Mass: [208.98]

Nucleus: p83 n126

Electrons: 2, 8, 18, 32, 18, 5

Standard State: Solid

Group number: 15

Group: Post-transition metals

84, Polonium (Po)

Atomic Mass: [209]

Nucleus: p84 n125

Electrons: 2, 8, 18, 32, 18, 6

Standard State: Solid

Group number: 16

Group: Metalloids

85, Astatine (At)

Atomic Mass: [210]

Nucleus: p85 n125

Electrons: 2, 8, 18, 32, 18, 7

Standard State: Solid

Group number: 17

Group: Halogens

86, Radon (Rn)

Atomic Mass: [222]

Nucleus: p86 n136

Electrons: 2, 8, 18, 32, 18, 8

Standard State: Gas

Group number: 18

Group: Noble gases

87, Francium (Fr)

Atomic Mass: [223]

Nucleus: p87 n136

Electrons: 2, 8, 18, 32, 18, 8, 1

Standard State: Solid

Group number: 1

Group: Alkali metals

88, Radium (Ra)

Atomic Mass: [226]

Nucleus: p88 n138

Electrons: 2, 8, 18, 32, 18, 8, 2

Standard State: Solid

Group number: 2

Group: Alkaline earth metals

89, Actinium (Ac)

Atomic Mass: [227]

Nucleus: p89 n138

Electrons: 2, 8, 18, 32, 18, 9, 2

Standard State: Solid

Group number: N/A

Group: Actinides

90, Thorium (Th)

Atomic Mass: [232.04]

Nucleus: p90 n142

Electrons: 2, 8, 18, 32, 18, 10, 2

Standard State: Solid

Group number: N/A

Group: Actinides

91, Protactinium (Pa)

Atomic Mass: [231.04]

Nucleus: p91 n140

Electrons: 2, 8, 18, 32, 20, 9, 2

Standard State: Solid

Group number: N/A

Group: Actinides

92, Uranium (U)

Atomic Mass: [238.03]

Nucleus: p92 n146

Electrons: 2, 8, 18, 32, 21, 9, 2

Standard State: Solid

Group number: N/A

Group: Actinides

93, Neptunium (Np)

Atomic Mass: [237]

Nucleus: p93 n144

Electrons: 2, 8, 18, 32, 22, 9, 2

Standard State: Solid

Group number: N/A

Group: Actinides

94, Plutonium (Pu)

Atomic Mass: [244]

Nucleus: p94 n150

Electrons: 2, 8, 18, 32, 24, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

95, Americium (Am)

Atomic Mass: [243]

Nucleus: p95 n148

Electrons: 2, 8, 18, 32, 25, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

96, Curium (Cm)

Atomic Mass: [247]

Nucleus: p96 n151

Electrons: 2, 8, 18, 32, 25, 9, 2

Standard State: Solid

Group number: N/A

Group: Actinides

97, Berkelium (Bk)

Atomic Mass: [247]

Nucleus: p97 n150

Electrons: 2, 8, 18, 32, 27, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

98, Californium (Cf)

Atomic Mass: [251]

Nucleus: p98 n153

Electrons: 2, 8, 18, 32, 28, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

99, Einsteinium (Es)

Atomic Mass: [252]

Nucleus: p99 n153

Electrons: 2, 8, 18, 32, 29, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

100, Fermium (Fm)

Atomic Mass: [257]

Nucleus: p100 n157

Electrons: 2, 8, 18, 32, 30, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

101, Mendelevium (Md)

Atomic Mass: [258]

Nucleus: p101 n157

Electrons: 2, 8, 18, 32, 31, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

102, Nobelium (No)

Atomic Mass: [259]

Nucleus: p102 n157

Electrons: 2, 8, 18, 32, 32, 8, 2

Standard State: Solid

Group number: N/A

Group: Actinides

103, Lawrencium (Lr)

Atomic Mass: [262]

Nucleus: p103 n159

Electrons: 2, 8, 18, 32, 32, 8, 3

Standard State: Solid

Group number: N/A

Group: Actinides

104, Rutherfordium (Rf)

Atomic Mass: [267]

Nucleus: p104 n163

Electrons: 2, 8, 18, 32, 32, 10, 2

Standard State: Solid

Group number: 4

Group: Transition metals

105, Dubnium (Db)

Atomic Mass: [270]

Nucleus: p105 n165

Electrons: 2, 8, 18, 32, 32, 11, 2

Standard State: Solid

Group number: 5

Group: Transition metals

106, Seaborgium (Sg)

Atomic Mass: [271]

Nucleus: p106 n165

Electrons: 2, 8, 18, 32, 32, 12, 2

Standard State: Solid

Group number: 6

Group: Transition metals

107, Bohrium (Bh)

Atomic Mass: [270]

Nucleus: p107 n163

Electrons: 2, 8, 18, 32, 32, 13, 2

Standard State: Solid

Group number: 7

Group: Transition metals

108, Hassium (Hs)

Atomic Mass: [277]

Nucleus: p108 n169

Electrons: 2, 8, 18, 32, 32, 14, 2

Standard State: Solid

Group number: 8

Group: Transition metals

109, Meitnerium (Mt)

Atomic Mass: [278]

Nucleus: p109 n169

Electrons: 2, 8, 18, 32, 32, 15, 2

Standard State: Solid

Group number: 9

Group: Transition metals

110, Darmstadtium (Ds)

Atomic Mass: [281]

Nucleus: p110 n171

Electrons: 2, 8, 18, 32, 32, 17, 1

Standard State: Solid

Group number: 10

Group: Transition metals

111, Roentgenium (Rg)

Atomic Mass: [282]

Nucleus: p111 n171

Electrons: 2, 8, 18, 32, 32, 18, 1

Standard State: Solid

Group number: 11

Group: Transition metals

112, Copernicium (Cn)

Atomic Mass: [285]

Nucleus: p112 n173

Electrons: 2, 8, 18, 32, 32, 18, 2

Standard State: Liquid

Group number: 12

Group: Transition metals

113, Nihonium (Nh)

Atomic Mass: [286]

Nucleus: p113 n173

Electrons: 2, 8, 18, 32, 32, 18, 3

Standard State: Solid (predicted)

Group number: 13

Group: Boron group

114, Flerovium (Fl)

Atomic Mass: [289]

Nucleus: p114 n175

Electrons: 2, 8, 18, 32, 32, 18, 4

Standard State: Liquid (predicted)

Group number: 14

Group: Carbon group

115, Moscovium (Mc)

Atomic Mass: [290]

Nucleus: p115 n175

Electrons: 2, 8, 18, 32, 32, 18, 5

Standard State: Solid (predicted)

Group number: 15

Group: Pnictogens

116, Livermorium (Lv)

Atomic Mass: [293]

Nucleus: p116 n177

Electrons: 2, 8, 18, 32, 32, 18, 6

Standard State: Solid (predicted)

Group number: 16

Group: Chalcogens

117, Tennessine (Ts)

Atomic Mass: [294]

Nucleus: p117 n177

Electrons: 2, 8, 18, 32, 32, 18, 7

Standard State: Solid (predicted)

Group number: 17

Group: Halogens

118, Oganesson (Og)

Atomic Mass: [294]

Nucleus: p118 n176

Electrons: 2, 8, 18, 32, 32, 18, 8

Standard State: Gas (predicted)

Group number: 18

Group: Noble gases