*The Periodic Table of the Elements*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **18** |
| Hydrogen  **1**  **H**  1.01 | **2** |  | |  |  | | --- | --- | |  | **Alkali metals** | |  | **Alkaline earth metals** | |  | **Transition metals** | |  | **Other metals** | |  | **Metalloids (semi-metal)** | |  | **Nonmetals** | |  | **Halogens** | |  | **Noble gases** | | | | Element name  Symbol | | | Mercury  **80**  **Hg**  200.59 | | Atomic #  Avg. Mass | | **13** | **14** | **15** | **16** | **17** | Helium  **2**  **He**  4.00 |
| Lithium  **3**  **Li**  6.94 | Beryllium  **4**  **Be**  9.01 |  | Boron  **5**  **B**  10.81 | Carbon  **6**  **C**  12.01 | Nitrogen  **7**  **N**  14.01 | Oxygen  **8**  **O**  16.00 | Fluorine  **9**  **F**  19.00 | Neon  **10**  **Ne**  20.18 |
| Sodium  **11**  **Na**  22.99 | Magnesium  **12**  **Mg**  24.31 |  | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | Aluminum  **13**  **Al**  26.98 | Silicon  **14**  **Si**  28.09 | Phosphorus  **15**  **P**  30.97 | Sulfur  **16**  **S**  32.07 | Chlorine  **17**  **Cl**  35.45 | Argon  **18**  **Ar**  39.95 |
| Potassium  **19**  **K**  39.10 | Calcium  **20**  **Ca**  40.08 |  | Scandium  **21**  **Sc**  44.96 | Titanium  **22**  **Ti**  47.88 | Vanadium  **23**  **V**  50.94 | Chromium  **24**  **Cr**  52.00 | Manganese  **25**  **Mn**  54.94 | Iron  **26**  **Fe**  55.85 | Cobalt  **27**  **Co**  58.93 | Nickel  **28**  **Ni**  58.69 | Copper  **29**  **Cu**  63.55 | Zinc  **30**  **Zn**  65.39 | Gallium  **31**  **Ga**  69.72 | Germanium  **32**  **Ge**  72.61 | Arsenic  **33**  **As**  74.92 | Selenium  **34**  **Se**  78.96 | Bromine  **35**  **Br**  79.90 | Krypton  **36**  **Kr**  83.80 |
| Rubidium  **37**  **Rb**  85.47 | Strontium  **38**  **Sr**  87.62 |  | Yttrium  **39**  **Y**  88.91 | Zirconium  **40**  **Zr**  91.22 | Niobium  **41**  **Nb**  92.91 | Molybdenum  **42**  **Mo**  95.94 | Technetium  **43**  **Tc**  (98) | Ruthenium  **44**  **Ru**  101.07 | Rhodium  **45**  **Rh**  102.91 | Palladium  **46**  **Pd**  106.42 | Silver  **47**  **Ag**  107.87 | Cadmium  **48**  **Cd**  112.41 | Indium  **49**  **In**  114.82 | Tin  **50**  **Sn**  118.71 | Antimony  **51**  **Sb**  121.76 | Tellurium  **52**  **Te**  127.60 | Iodine  **53**  **I**  126.90 | Xenon  **54**  **Xe**  131.29 |
| Cesium  **55**  **Cs**  132.91 | Barium  **56**  **Ba**  137.33 | **57-70**  **\*** | Lutetium  **71**  **Lu**  174.97 | Hafnium  **72**  **Hf**  178.49 | Tantalum  **73**  **Ta**  180.95 | Tungsten  **74**  **W**  183.84 | Rhenium  **75**  **Re**  186.21 | Osmium  **76**  **Os**  190.23 | Iridium  **77**  **Ir**  192.22 | Platinum  **78**  **Pt**  195.08 | Gold  **79**  **Au**  196.97 | Mercury  **80**  **Hg**  200.59 | Thallium  **81**  **Tl**  204.38 | Lead  **82**  **Pb**  207.20 | Bismuth  **83**  **Bi**  208.98 | Polonium  **84**  **Po**  (209) | Astatine  **85**  **At**  (210) | Radon  **86**  **Rn**  (222) |
| Francium  **87**  **Fr**  (223) | Radium  **88**  **Ra**  (226) | **89-102**  **\*\*** | Lawrencium  **103**  **Lr**  (262) | Rutherfordium  **104**  **Rf**  (267) | Dubnium  **105**  **Db**  (268) | Seaborgium  **106**  **Sg**  (271) | Bohrium  **107**  **Bh**  (272) | Hassium  **108**  **Hs**  (270) | Meitnerium  **109**  **Mt**  (276) | Darmstadtium  **110**  **Ds**  (281) | Roentgenium  **111**  **Rg**  (280) | Copernicium  **112**  **Cn**  (285) | Ununtrium  **113**  **Uut**  (284) | Ununquadium  **114**  **Uuq**  (289) | Ununpentium  **115**  **Uup**  (288) | Ununhexium  **116**  **Uuh**  (293) | Ununseptium  **117**  **Uus**  (294?) | Ununoctium  **118**  **Uuo**  (294) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | \*lanthanides | | Lanthanum  **57**  **La**  138.91 | Cerium  **58**  **Ce**  140.12 | Praseodymium  **59**  **Pr**  140.91 | Neodymium  **60**  **Nd**  144.24 | Promethium  **61**  **Pm**  (145) | Samarium  **62**  **Sm**  150.36 | Europium  **63**  **Eu**  151.97 | Gadolinium  **64**  **Gd**  157.25 | Terbium  **65**  **Tb**  158.93 | Dysprosium  **66**  **Dy**  162.50 | Holmium  **67**  **Ho**  164.93 | Erbium  **68**  **Er**  167.26 | Thulium  **69**  **Tm**  168.93 | Ytterbium  **70**  **Yb**  173.04 |  |  |
|  | \*\*actinides | | Actinium  **89**  **Ac**  (227) | Thorium  **90**  **Th**  232.04 | Protactinium  **91**  **Pa**  231.04 | Uranium  **92**  **U**  238.03 | Neptunium  **93**  **Np**  (237) | Plutonium  **94**  **Pu**  (244) | Americium  **95**  **Am**  (243) | Curium  **96**  **Cm**  (247) | Berkelium  **97**  **Bk**  (247) | Californium  **98**  **Cf**  (251) | Einsteinium  **99**  **Es**  (252) | Fermium  **100**  **Fm**  (257) | Mendelevium  **101**  **Md**  (258) | Nobelium  **102**  **No**  (259) |  |  |