



AF ChemPharm

Driving Discovery by Simplifying Synthesis

1 H Hydrogen 1.0079 1	Driving Discovery by Simplifying Synthesis																2 He Helium 4.0026 2				
3 Li Lithium 6.941 2/1	4 Be Beryllium 9.0122 2/2															5 B Boron 10.81 2/3	6 C Carbon 12.011 2/4	7 N Nitrogen 14.007 2/5	8 O Oxygen 15.999 2/6	9 F Fluorine 18.988 2/7	10 Ne Neon 20.179 2/8
11 Na Sodium 22.99 2/8/1	12 Mg Magnesium 24.305 2/8/2															13 Al Aluminium 26.982 2/8/3	14 Si Silicon 28.086 2/8/4	15 P Phosphorus 30.974 2/8/5	16 S Sulfur 32.06 2/8/6	17 Cl Chlorine 35.453 2/8/7	18 Ar Argon 39.948 2/8/8
19 K Potassium 39.098 2/8/8/1	20 Ca Calcium 40.08 2/8/8/2	21 Sc Scandium 44.956 2/8/9/2	22 Ti Titanium 47.90 2/8/10/2	23 V Vanadium 50.942 2/8/11/2	24 Cr Chromium 51.996 2/8/13/1	25 Mn Manganese 54.938 2/8/13/2	26 Fe Iron 55.847 2/8/14/2	27 Co Cobalt 58.933 2/8/15/2	28 Ni Nickel 58.71 2/8/16/2	29 Cu Copper 63.546 2/8/18/1	30 Zn Zinc 65.38 2/8/18/2	31 Ga Gallium 69.735 2/8/18/3	32 Ge Germanium 72.59 2/8/18/4	33 As Arsenic 74.922 2/8/18/5	34 Se Selenium 78.966 2/8/18/6	35 Br Bromine 79.904 2/8/18/7	36 Kr Krypton 83.80 2/8/18/8				
37 Rb Rubidium 85.458 2/8/18/8/1	38 Sr Strontium 87.62 2/8/18/8/2	39 Y Yttrium 88.906 2/8/18/9/2	40 Zr Zirconium 91.22 2/8/18/10/2	41 Nb Niobium 92.906 2/8/18/12/1	42 Mo Molybdenum 95.94 2/8/18/13/1	43 Tc Technetium 98.91 2/8/18/13/2	44 Ru Ruthenium 101.07 2/8/18/15/1	45 Rh Rhodium 102.91 2/8/18/16/1	46 Pd Palladium 106.42 2/8/18/18	47 Ag Silver 107.87 2/8/18/18/1	48 Cd Cadmium 112.41 2/8/18/18/2	49 In Indium 114.82 2/8/18/18/3	50 Sn Tin 118.69 2/8/18/18/4	51 Sb Antimony 121.75 2/8/18/18/5	52 Te Tellurium 127.60 2/8/18/18/6	53 I Iodine 126.90 2/8/18/18/7	54 Xe Xenon 131.30 2/8/18/18/8				
55 Cs Caesium 132.91 2/8/18/18/8/1	56 Ba Barium 137.33 2/8/18/18/8/2	57-71 Lanthanides	72 Hf Hafnium 178.49 2/8/18/32/10/2	73 Ta Tantalum 180.95 2/8/18/32/11/2	74 W Tungsten 183.85 2/8/18/32/12/2	75 Re Rhenium 186.21 2/8/18/32/13/2	76 Os Osmium 190.2 2/8/18/32/14/2	77 Ir Iridium 192.22 2/8/18/32/15/2	78 Pt Platinum 195.09 2/8/18/32/17/1	79 Au Gold 196.97 2/8/18/32/18/1	80 Hg Mercury 200.59 2/8/18/32/18/2	81 Tl Thallium 204.37 2/8/18/32/18/3	82 Pb Lead 207.19 2/8/18/32/18/4	83 Bi Bismuth 208.98 2/8/18/32/18/5	84 Po Polonium (209) 2/8/18/32/18/6	85 At Astatine (210) 2/8/18/32/18/7	86 Rn Radon (222) 2/8/18/32/18/8				
87 Fr Francium (223) 2/8/18/32/18/8/1	88 Ra Radium 226.03 2/8/18/32/18/8/2	89-103 Actinides	104 Rf Rutherfordium (261) 2/8/18/32/32/10/2	105 Db Dubnium (268) 2/8/18/32/32/11/2	106 Sg Seaborgium (271) 2/8/18/32/32/12/2	107 Bh Bohrium (270) 2/8/18/32/32/13/2	108 Hs Hassium (269) 2/8/18/32/32/14/2	109 Mt Meitnerium (278) 2/8/18/32/32/15/2	110 Ds Darmstadt. (281) 2/8/18/32/32/17/1	111 Rg Röntgenium (281) 2/8/18/32/32/18/1	112 Cn Copernicium (285) 2/8/18/32/32/18/2	113 Uut Ununtrium (286) 2/8/18/32/32/18/3	114 Uuq Ununquad. (289) 2/8/18/32/32/18/4	115 Uup Ununpentium (289) 2/8/18/32/32/18/5	116 Uuh Ununhexium (293) 2/8/18/32/32/18/6	117 Uus Ununseptium (293) 2/8/18/32/32/18/7	118 Uuo Ununoctium (293) 2/8/18/32/32/18/8				

Lanthanides

57 La Lanthanum 138.91 2/8/18/18/9/2	58 Ce Cerium 140.12 2/8/18/19/9/2	59 Pr Praseodymium 140.91 2/8/18/21/8/2	60 Nd Neodymium 144.24 2/8/18/22/8/2	61 Pm Promethium 146.90 2/8/18/23/8/2	62 Sm Samarium 150.35 2/8/18/24/8/2	63 Eu Europium 151.96 2/8/18/25/8/2	64 Gd Gadolinium 157.25 2/8/18/25/9/2	65 Tb Terbium 158.93 2/8/18/27/8/2	66 Dy Dysprosium 162.50 2/8/18/28/8/2	67 Ho Holmium 164.93 2/8/18/29/8/2	68 Er Erbium 167.26 2/8/18/30/8/2	69 Tm Thulium 168.93 2/8/18/31/8/2	70 Yb Ytterbium 173.04 2/8/18/32/8/2	71 Lu Lutetium 174.97 2/8/18/32/9/2
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Actinides

89 Ac Actinium (227) 2/8/18/32/18/9/2	90 Th Thorium 232.04 2/8/18/32/18/10/2	91 Pa Protactinium 231.04 2/8/18/32/20/9/2	92 U Uranium 238.03 2/8/18/32/21/9/2	93 Np Neptunium 237.05 2/8/18/32/22/9/2	94 Pu Plutonium (244) 2/8/18/32/24/8/2	95 Am Americium (243) 2/8/18/32/25/8/2	96 Cm Curium (247) 2/8/18/32/25/9/2	97 Bk Berkelium (247) 2/8/18/32/25/10/2	98 Cf Californium (251) 2/8/18/32/28/8/2	99 Es Einsteinium (254) 2/8/18/32/29/8/2	100 Fm Fermium (257) 2/8/18/32/30/8/2	101 Md Mendelevium (258) 2/8/18/32/31/8/2	102 No Nobelium (259) 2/8/18/32/32/8/2	103 Lr Lawrencium (260) 2/8/18/32/32/9/2
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