

Light Metals

Nonmetals

# Periodic Table of the Elements



Heavy Metals

GROUP	Ia	IIa
1	<b>H</b> Hydrogen 1.008	
	<b>1</b>	
2	<b>Li</b> Lithium 6.94	<b>Be</b> Beryllium 9.013
	<b>3</b>	<b>4</b>
3	<b>Na</b> Sodium 22.991	<b>Mg</b> Magnesium 24.32
	<b>11</b>	<b>12</b>
4	<b>K</b> Potassium 39.1	<b>Ca</b> Calcium 40.08
	<b>19</b>	<b>20</b>
5	<b>Rb</b> Rubidium 85.48	<b>Sr</b> Strontium 87.63
	<b>37</b>	<b>38</b>
6	<b>Cs</b> Cesium 132.91	<b>Ba</b> Barium 137.56
	<b>55</b>	<b>56</b>
7	<b>Fr</b> Francium (223)	<b>Ra</b> Radium 226.05
	<b>87</b>	<b>88</b>

IIIa	IVa	Va	VIa	VIIa	VIIIa
<b>Atomic Symbol</b> Element Name Atomic Weight (***) Atomic Number					<b>He</b> Helium 4.003
<b>B</b> Boron 10.82	<b>C</b> Carbon 12.011	<b>N</b> Nitrogen 14.008	<b>O</b> Oxygen 16	<b>F</b> Fluorine 19	<b>Ne</b> Neon 20.183
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Al</b> Aluminum 26.98	<b>Si</b> Silicon 28.09	<b>P</b> Phosphorus 30.975	<b>S</b> Sulfur 32.066	<b>Cl</b> Chlorine 35.457	<b>Ar</b> Argon 39.944
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
<b>Ga</b> Gallium 69.72	<b>Ge</b> Germanium 72.6	<b>As</b> Arsenic 74.91	<b>Se</b> Selenium 78.96	<b>Br</b> Bromine 79.916	<b>Kr</b> Krypton 83.8
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>
<b>In</b> Indium 114.82	<b>Sn</b> Tin 118.7	<b>Sb</b> Antimony 121.76	<b>Te</b> Tellurium 127.61	<b>I</b> Iodine 126.91	<b>Xe</b> Xenon 131.3
<b>49</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>
<b>Tl</b> Thallium 204.39	<b>Pb</b> Lead 207.21	<b>Bi</b> Bismuth 209	<b>Po</b> Polonium 210	<b>At</b> Astatine (210)	<b>Rn</b> Radon (222)
<b>81</b>	<b>82</b>	<b>83</b>	<b>84</b>	<b>85</b>	<b>86</b>
**	**	**	**	**	**
<b>113</b>	<b>114</b>	<b>115</b>	<b>116</b>	<b>117</b>	<b>118</b>

PERIOD

IIIb	IVb	Vb	VIb	VIIb	VIIIb			IB	IIb
<b>Sc</b> Scandium 44.96	<b>Ti</b> Titanium 47.9	<b>V</b> Vanadium 50.95	<b>Cr</b> Chromium 52.01	<b>Mn</b> Manganese 54.94	<b>Fe</b> Iron 55.85	<b>Co</b> Cobalt 58.94	<b>Ni</b> Nickel 58.71	<b>Cu</b> Copper 63.54	<b>Zn</b> Zinc 65.38
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
<b>Y</b> Yttrium 88.92	<b>Zr</b> Zirconium 91.22	<b>Nb</b> Niobium 92.91	<b>Mo</b> Molybdenum 95.95	<b>Tc</b> Technetium 99	<b>Ru</b> Ruthenium 101.1	<b>Rh</b> Rhodium 102.91	<b>Pd</b> Palladium 106.4	<b>Ag</b> Silver 107.88	<b>Cd</b> Cadmium 112.41
<b>39</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>
<b>Lu</b> Lutetium 174.99	<b>Hf</b> Hafnium 178.5	<b>Ta</b> Tantalum 180.95	<b>W</b> Tungsten 183.86	<b>Re</b> Rhenium 186.22	<b>Os</b> Osmium 190.2	<b>Ir</b> Iridium 192.2	<b>Pt</b> Platinum 195.09	<b>Au</b> Gold 197	<b>Hg</b> Mercury 200.61
<b>71</b>	<b>72</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>
<b>Lw</b> Lawrencium (260)	<b>Rf</b> Rutherfordium (261)	<b>Db</b> Dubnium (262)	<b>Sg</b> Seaborgium (263)	<b>Bh</b> Bohrium (262)	<b>Hs</b> Hassium (265)	<b>Mt</b> Meitnerium (266)	*	*	*
<b>103</b>	<b>104</b>	<b>105</b>	<b>106</b>	<b>107</b>	<b>108</b>	<b>109</b>	<b>110</b>	<b>111</b>	<b>112</b>

(\*\*\* Atomic Weights in parentheses indicate the weight of the most stable isotope)

\*\* Elements not yet discovered

\* Elements discovered but not yet officially named

Lanthanide Series

<b>La</b> Lanthanum 138.92	<b>Ce</b> Cerium 140.13	<b>Pr</b> Praseodymium 140.92	<b>Nd</b> Neodymium 144.27	<b>Pm</b> Promethium 145	<b>Sm</b> Samarium 150.35	<b>Eu</b> Europium 152	<b>Gd</b> Gadolinium 157.26	<b>Tb</b> Terbium 158.93	<b>Dy</b> Dysprosium 162.51	<b>Ho</b> Holmium 164.94	<b>Er</b> Erbium 167.27	<b>Tm</b> Thulium 168.94	<b>Yb</b> Ytterbium 173.4
<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>

Actinide Series

<b>Ac</b> Actinium 227	<b>Th</b> Thorium 232.05	<b>Pa</b> Protactinium 231	<b>U</b> Uranium 238.07	<b>Np</b> Neptunium 237	<b>Pu</b> Plutonium 242	<b>Am</b> Americium 243	<b>Cm</b> Curium 245	<b>Bk</b> Berkelium 249	<b>Cf</b> Californium 249	<b>Es</b> Einsteinium 255	<b>Fm</b> Fermium 255	<b>Md</b> Mendelevium 256	<b>No</b> Nobelium 253
<b>89</b>	<b>90</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>100</b>	<b>101</b>	<b>102</b>