

# Periodic Table of the Elements

Group 1																	13	14	15	16	17	18
Period 1	1.008 1312.0 2.20 <b>1</b> Hydrogen 1s <sup>1</sup>															4.0026 2372.3 <b>2</b> He Helium 1s <sup>2</sup>						
2	6.94 520.2 0.98 <b>3</b> Li Lithium 1s <sup>2</sup> 2s <sup>1</sup>	9.0122 999.5 1.57 <b>4</b> Be Beryllium 1s <sup>2</sup> 2s <sup>2</sup>											10.81 800.6 2.04 <b>5</b> B Boron 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>1</sup>	12.011 1086.5 2.55 <b>6</b> C Carbon 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>2</sup>	14.007 1402.3 3.04 <b>7</b> N Nitrogen 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>3</sup>	15.999 1313.9 3.44 <b>8</b> O Oxygen 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>4</sup>	18.998 1681.0 3.98 <b>9</b> F Fluorine 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>5</sup>	20.180 2086.7 <b>10</b> Ne Neon 1s <sup>2</sup> 2s <sup>2</sup> 2p <sup>6</sup>				
3	22.990 495.8 0.93 <b>11</b> Na Sodium (Ne) 3s <sup>1</sup>	24.305 737.7 1.31 <b>12</b> Mg Magnesium (Ne) 3s <sup>2</sup>											26.982 577.5 1.61 <b>13</b> Al Aluminium (Ne) 3s <sup>2</sup> 3p <sup>1</sup>	28.085 786.5 1.90 <b>14</b> Si Silicon (Ne) 3s <sup>2</sup> 3p <sup>2</sup>	30.974 1011.8 <b>15</b> P Phosphorus (Ne) 3s <sup>2</sup> 3p <sup>3</sup>	32.06 999.6 2.58 <b>16</b> S Sulfur (Ne) 3s <sup>2</sup> 3p <sup>4</sup>	35.45 1251.2 3.16 <b>17</b> Cl Chlorine (Ne) 3s <sup>2</sup> 3p <sup>5</sup>	39.948 1520.6 <b>18</b> Ar Argon (Ne) 3s <sup>2</sup> 3p <sup>6</sup>				
4	39.098 418.8 0.82 <b>19</b> K Potassium [Ar] 4s <sup>1</sup>	40.078 589.8 1.00 <b>20</b> Ca Calcium [Ar] 4s <sup>2</sup>	44.956 633.1 1.36 <b>21</b> Sc Scandium [Ar] 3d <sup>1</sup> 4s <sup>2</sup>	47.867 658.8 1.54 <b>22</b> Ti Titanium [Ar] 3d <sup>2</sup> 4s <sup>2</sup>	50.942 650.9 1.63 <b>23</b> V Vanadium [Ar] 3d <sup>3</sup> 4s <sup>2</sup>	51.996 852.9 1.66 <b>24</b> Cr Chromium [Ar] 3d <sup>5</sup> 4s <sup>1</sup>	54.938 717.3 1.55 <b>25</b> Mn Manganese [Ar] 3d <sup>5</sup> 4s <sup>2</sup>	55.845 782.5 1.83 <b>26</b> Fe Iron [Ar] 3d <sup>6</sup> 4s <sup>2</sup>	58.933 760.4 1.91 <b>27</b> Co Cobalt [Ar] 3d <sup>7</sup> 4s <sup>2</sup>	58.693 737.1 1.88 <b>28</b> Ni Nickel [Ar] 3d <sup>8</sup> 4s <sup>2</sup>	63.546 745.5 1.90 <b>29</b> Cu Copper [Ar] 3d <sup>10</sup> 4s <sup>1</sup>	65.38 906.4 1.65 <b>30</b> Zn Zinc [Ar] 3d <sup>10</sup> 4s <sup>2</sup>	69.723 578.8 1.81 <b>31</b> Ga Gallium [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>1</sup>	72.630 762.0 2.01 <b>32</b> Ge Germanium [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>2</sup>	74.922 947.0 2.18 <b>33</b> As Arsenic [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>3</sup>	78.971 911.0 2.55 <b>34</b> Se Selenium [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>4</sup>	79.904 9139.9 2.96 <b>35</b> Br Bromine [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>5</sup>	83.798 1358.8 3.00 <b>36</b> Kr Krypton [Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>6</sup>				
5	85.468 403.0 0.82 <b>37</b> Rb Rubidium [Kr] 5s <sup>1</sup>	87.62 549.5 0.95 <b>38</b> Sr Strontium [Kr] 5s <sup>2</sup>	88.906 600.0 1.22 <b>39</b> Y Yttrium [Kr] 4d <sup>1</sup> 5s <sup>2</sup>	91.224 640.1 1.33 <b>40</b> Zr Zirconium [Kr] 4d <sup>2</sup> 5s <sup>2</sup>	92.906 652.1 1.60 <b>41</b> Nb Niobium [Kr] 4d <sup>4</sup> 5s <sup>1</sup>	95.95 894.3 2.16 <b>42</b> Mo Molybdenum [Kr] 4d <sup>5</sup> 5s <sup>1</sup>	(98) 702.0 1.90 <b>43</b> Tc Technetium [Kr] 4d <sup>5</sup> 5s <sup>2</sup>	101.07 710.2 2.20 <b>44</b> Ru Ruthenium [Kr] 4d <sup>7</sup> 5s <sup>1</sup>	102.91 719.7 2.28 <b>45</b> Rh Rhodium [Kr] 4d <sup>8</sup> 5s <sup>1</sup>	106.42 804.4 2.20 <b>46</b> Pd Palladium [Kr] 4d <sup>10</sup>	107.87 731.0 1.93 <b>47</b> Ag Silver [Kr] 4d <sup>10</sup> 5s <sup>1</sup>	112.41 867.8 1.69 <b>48</b> Cd Cadmium [Kr] 4d <sup>10</sup> 5s <sup>2</sup>	114.82 558.3 1.78 <b>49</b> In Indium [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>1</sup>	118.71 708.6 1.96 <b>50</b> Sn Tin [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>2</sup>	121.76 834.0 2.05 <b>51</b> Sb Antimony [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>3</sup>	127.60 941.0 2.55 <b>52</b> Te Tellurium [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>4</sup>	126.90 1008.4 2.66 <b>53</b> I Iodine [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>5</sup>	131.29 1170.4 2.60 <b>54</b> Xe Xenon [Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>6</sup>				
6	132.91 375.7 0.79 <b>55</b> Cs Caesium [Xe] 6s <sup>1</sup>	137.33 501.9 0.89 <b>56</b> Ba Barium [Xe] 6s <sup>2</sup>	138.91 538.1 1.10 <b>57</b> La Lanthanum [Xe] 5d <sup>1</sup> 6s <sup>2</sup>	178.49 658.5 1.30 <b>72</b> Hf Hafnium [Xe] 4f <sup>14</sup> 5d <sup>2</sup> 6s <sup>2</sup>	180.95 761.0 1.50 <b>73</b> Ta Tantalum [Xe] 4f <sup>14</sup> 5d <sup>3</sup> 6s <sup>2</sup>	183.84 770.0 2.36 <b>74</b> W Tungsten [Xe] 4f <sup>14</sup> 5d <sup>4</sup> 6s <sup>2</sup>	186.21 760.0 1.90 <b>75</b> Re Rhenium [Xe] 4f <sup>14</sup> 5d <sup>5</sup> 6s <sup>2</sup>	190.23 840.0 2.20 <b>76</b> Os Osmium [Xe] 4f <sup>14</sup> 5d <sup>6</sup> 6s <sup>2</sup>	192.22 880.0 2.20 <b>77</b> Ir Iridium [Xe] 4f <sup>14</sup> 5d <sup>7</sup> 6s <sup>2</sup>	195.08 870.0 2.28 <b>78</b> Pt Platinum [Xe] 4f <sup>14</sup> 5d <sup>9</sup> 6s <sup>1</sup>	196.97 890.1 2.54 <b>79</b> Au Gold [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>1</sup>	200.59 1007.1 2.00 <b>80</b> Hg Mercury [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup>	204.38 589.4 1.62 <b>81</b> Tl Thallium [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>1</sup>	207.2 715.6 2.33 <b>82</b> Pb Lead [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>2</sup>	208.98 703.0 2.02 <b>83</b> Bi Bismuth [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>3</sup>	(210) 812.1 2.00 <b>84</b> Po Polonium [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>4</sup>	(210) 890.0 2.20 <b>85</b> At Astatine [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>5</sup>	(220) 1037.0 <b>86</b> Rn Radon [Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>6</sup>				
7	(223) 380.0 0.70 <b>87</b> Fr Francium [Rn] 7s <sup>1</sup>	(226) 509.3 0.90 <b>88</b> Ra Radium [Rn] 7s <sup>2</sup>	(227) 499.0 1.10 <b>89</b> Ac Actinium [Rn] 6d <sup>1</sup> 7s <sup>2</sup>	(261) 580.0 <b>104</b> Rf Rutherfordium [Rn] 5f <sup>14</sup> 6d <sup>2</sup> 7s <sup>2</sup>	(262) <b>105</b> Db Dubnium	(266) <b>106</b> Sg Seaborgium	(264) <b>107</b> Bh Bohrium	(277) <b>108</b> Hs Hassium	(268) <b>109</b> Mt Meitnerium	(271) <b>110</b> Ds Darmstadtium	(272) <b>111</b> Rg Roentgenium	(285) <b>112</b> Cn Copernicium	(284) <b>113</b> Nh Nihonium	(289) <b>114</b> Fl Flerovium	(288) <b>115</b> Mc Moscovium	(292) <b>116</b> Lv Livermorium	(294) <b>117</b> Ts Tennessine	(294) <b>118</b> Og Oganesson				

standard atomic weight or most stable mass number: 55.845

atomic number: 26

1st ionization energy in kJ/mol: 762.5

electronegativity: 1.83

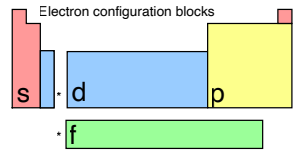
chemical symbol: Fe

name: Iron

electron configuration: [Ar] 3d<sup>6</sup> 4s<sup>2</sup>

oxidation states most common are bold: +6, +5, +4, +3, +2, +1, -1, -2

radioactive elements have masses in parenthesis



Notes

- 1 kJ/mol = 96.485 eV
- all elements are implied to have an oxidation state of zero.

by Robert Campion / updated 2016, 2018

alkali metals (red)    alkaline earth metals (orange)    lanthanides (light purple)    transition metals (pink)    unknown properties (white)    post-transition metals (grey)    metalloids (green)    reactive nonmetals (yellow)    noble gases (cyan)

actinides (dark purple)