

# PERIODIC TABLE OF THE ELEMENTS

|   |  |  |   |   |  |  |  |  |  |   |  |   |  |   |  |   |  |
|---|--|--|---|---|--|--|--|--|--|---|--|---|--|---|--|---|--|
| <b>1</b><br><b>H</b><br>Hydrogen<br>1.008   |  |  |   |   |  |  |  |  |  |   |  |   |  |   |  |   | <b>2</b><br><b>He</b><br>Helium<br>4.003   |
| <b>3</b><br><b>Li</b><br>Lithium<br>6.941   | <b>4</b><br><b>Be</b><br>Beryllium<br>9.012  |  |   |   |  |  |  |  |  |   |  |   |  |   |  | <b>10</b><br><b>Ne</b><br>Neon<br>20.18     |  |
| <b>11</b><br><b>Na</b><br>Sodium<br>22.99   | <b>12</b><br><b>Mg</b><br>Magnesium<br>24.31 |  |   |   |  |  |  |  |  |   |  |   |  |   |  | <b>18</b><br><b>Ar</b><br>Argon<br>39.95    |  |
| <b>19</b><br><b>K</b><br>Potassium<br>39.10 | <b>20</b><br><b>Ca</b><br>Calcium<br>40.08   | <b>21</b><br><b>Sc</b><br>Scandium<br>44.96              | <b>22</b><br><b>Ti</b><br>Titanium<br>47.90       | <b>23</b><br><b>V</b><br>Vanadium<br>50.94  | <b>24</b><br><b>Cr</b><br>Chromium<br>52.00    | <b>25</b><br><b>Mn</b><br>Manganese<br>54.94 | <b>26</b><br><b>Fe</b><br>Iron<br>55.85      | <b>27</b><br><b>Co</b><br>Cobalt<br>58.93      | <b>28</b><br><b>Ni</b><br>Nickel<br>58.70        | <b>29</b><br><b>Cu</b><br>Copper<br>63.55       | <b>30</b><br><b>Zn</b><br>Zinc<br>65.38    | <b>31</b><br><b>Ga</b><br>Gallium<br>69.72  | <b>32</b><br><b>Ge</b><br>Germanium<br>72.59 | <b>33</b><br><b>As</b><br>Arsenic<br>74.92  | <b>34</b><br><b>Se</b><br>Selenium<br>78.96  | <b>35</b><br><b>Br</b><br>Bromine<br>79.90  | <b>36</b><br><b>Kr</b><br>Krypton<br>83.80 |
| <b>37</b><br><b>Rb</b><br>Rubidium<br>85.47 | <b>38</b><br><b>Sr</b><br>Strontium<br>87.62 | <b>39</b><br><b>Y</b><br>Yttrium<br>88.91                | <b>40</b><br><b>Zr</b><br>Zirconium<br>91.22      | <b>41</b><br><b>Nb</b><br>Niobium<br>92.91  | <b>42</b><br><b>Mo</b><br>Molybdenum<br>95.94  | <b>43</b><br><b>Tc</b><br>Technetium<br>(97) | <b>44</b><br><b>Ru</b><br>Ruthenium<br>101.1 | <b>45</b><br><b>Rh</b><br>Rhodium<br>102.9     | <b>46</b><br><b>Pd</b><br>Palladium<br>106.4     | <b>47</b><br><b>Ag</b><br>Silver<br>107.9       | <b>48</b><br><b>Cd</b><br>Cadmium<br>112.4 | <b>49</b><br><b>In</b><br>Indium<br>114.8   | <b>50</b><br><b>Sn</b><br>Tin<br>118.7       | <b>51</b><br><b>Sb</b><br>Antimony<br>121.8 | <b>52</b><br><b>Te</b><br>Tellurium<br>127.6 | <b>53</b><br><b>I</b><br>Iodine<br>126.9    | <b>54</b><br><b>Xe</b><br>Xenon<br>131.3   |
| <b>55</b><br><b>Cs</b><br>Cesium<br>132.9   | <b>56</b><br><b>Ba</b><br>Barium<br>137.3    | <b>57<sup>1</sup></b><br><b>La</b><br>Lanthanum<br>138.9 | <b>72</b><br><b>Hf</b><br>Hafnium<br>178.5        | <b>73</b><br><b>Ta</b><br>Tantalum<br>180.9 | <b>74</b><br><b>W</b><br>Tungsten<br>183.9     | <b>75</b><br><b>Re</b><br>Rhenium<br>186.2   | <b>76</b><br><b>Os</b><br>Osmium<br>190.2    | <b>77</b><br><b>Ir</b><br>Iridium<br>192.2     | <b>78</b><br><b>Pt</b><br>Platinum<br>195.1      | <b>79</b><br><b>Au</b><br>Gold<br>197.0         | <b>80</b><br><b>Hg</b><br>Mercury<br>200.6 | <b>81</b><br><b>Tl</b><br>Thallium<br>204.4 | <b>82</b><br><b>Pb</b><br>Lead<br>207.2      | <b>83</b><br><b>Bi</b><br>Bismuth<br>209.0  | <b>84</b><br><b>Po</b><br>Polonium<br>(209)  | <b>85</b><br><b>At</b><br>Astatine<br>(210) | <b>86</b><br><b>Rn</b><br>Radon<br>(222)   |
| <b>87</b><br><b>Fr</b><br>Francium<br>(223) | <b>88</b><br><b>Ra</b><br>Radium<br>226.0    | <b>89<sup>2</sup></b><br><b>Ac</b><br>Actinium<br>(227)  | <b>104</b><br><b>Rf</b><br>Rutherfordium<br>(267) | <b>105</b><br><b>Db</b><br>Dubnium<br>(268) | <b>106</b><br><b>Sg</b><br>Seaborgium<br>(271) | <b>107</b><br><b>Bh</b><br>Bohrium<br>(272)  | <b>108</b><br><b>Hs</b><br>Hassium<br>(270)  | <b>109</b><br><b>Mt</b><br>Meitnerium<br>(276) | <b>110</b><br><b>Ds</b><br>Darmstadtium<br>(281) | <b>111</b><br><b>Rg</b><br>Roentgenium<br>(280) |  |   |  |   |  |   |  |

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|--|---|--|---|--|--|---|--|--|--|---|---|--|--|
| <b>58</b><br><b>Ce</b><br>Cerium<br>140.1  | <b>59</b><br><b>Pr</b><br>Praseodymium<br>140.9 | <b>60</b><br><b>Nd</b><br>Neodymium<br>144.2 | <b>61</b><br><b>Pm</b><br>Promethium<br>(145) | <b>62</b><br><b>Sm</b><br>Samarium<br>150.4  | <b>63</b><br><b>Eu</b><br>Europium<br>152.0  | <b>64</b><br><b>Gd</b><br>Gadolinium<br>157.3 | <b>65</b><br><b>Tb</b><br>Terbium<br>158.9   | <b>66</b><br><b>Dy</b><br>Dysprosium<br>162.5  | <b>67</b><br><b>Ho</b><br>Holmium<br>164.9     | <b>68</b><br><b>Er</b><br>Erbium<br>167.3   | <b>69</b><br><b>Tm</b><br>Thulium<br>168.9      | <b>70</b><br><b>Yb</b><br>Ytterbium<br>173.0 | <b>71</b><br><b>Lu</b><br>Lutetium<br>175.0    |
| <b>90</b><br><b>Th</b><br>Thorium<br>232.0 | <b>91</b><br><b>Pa</b><br>Protactinium<br>231.0 | <b>92</b><br><b>U</b><br>Uranium<br>238.0    | <b>93</b><br><b>Np</b><br>Neptunium<br>237.0  | <b>94</b><br><b>Pu</b><br>Plutonium<br>(244) | <b>95</b><br><b>Am</b><br>Americium<br>(243) | <b>96</b><br><b>Cm</b><br>Curium<br>(247)     | <b>97</b><br><b>Bk</b><br>Berkelium<br>(247) | <b>98</b><br><b>Cf</b><br>Californium<br>(251) | <b>99</b><br><b>Es</b><br>Einsteinium<br>(252) | <b>100</b><br><b>Fm</b><br>Fermium<br>(257) | <b>101</b><br><b>Md</b><br>Mendelevium<br>(258) | <b>102</b><br><b>No</b><br>Nobelium<br>(259) | <b>103</b><br><b>Lr</b><br>Lawrencium<br>(262) |

**Lanthanide Series<sup>1</sup>**

**Actinide Series<sup>2</sup>**