

Periodic Table of the Elements

1 1.0080 ±1 H 1s¹ hydrogen		2 4.002602 0 He 1s² helium																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
3 6.97 1 Li [He]2s¹ lithium		4 9.012182 2 Be [He]2s² beryllium																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
11 22.989769 1 Na [Ne]3s¹ sodium		12 24.3050 2 Mg [Ne]3s² magnesium																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
26 55.845 2,(3) Fe [Ar]4s²3d⁶ iron atomic number atomic mass common oxidation states (most stable) boiling point /K melting point /K density /(g/cm³; g/L for gases) name symbol electronic configuration (solid, liquid, gas, synthetic) 26 55.845 2,(3) Fe [Ar]4s²3d⁶ iron 3134 1808 7.86 boiling point /K melting point /K density /(g/cm³; g/L for gases) name All properties at 298.15 K and 1 bar unless noted.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
<table><tr><td colspan="2">3</td><td colspan="2">4</td><td colspan="2">5</td><td colspan="2">6</td><td colspan="2">7</td><td colspan="2">8</td><td colspan="2">9</td><td colspan="2">10</td><td colspan="2">11</td><td colspan="2">12</td></tr><tr><td>19</td><td>39.0983</td><td>20</td><td>40.078</td><td>21</td><td>44.955912</td><td>22</td><td>47.867</td><td>23</td><td>50.9415</td><td>24</td><td>51.9961</td><td>25</td><td>54.938045</td><td>26</td><td>55.845</td><td>27</td><td>58.933195</td><td>28</td><td>58.6934</td></tr><tr><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">3</td><td colspan="2">2,3,(4)</td><td colspan="2">2,3,4,(5)</td><td colspan="2">2,(3),6</td><td colspan="2">(2),3,4,6,7</td><td colspan="2">2,(3)</td><td colspan="2">(2),3</td><td colspan="2">(2),3</td></tr><tr><td colspan="2">K</td><td colspan="2">Ca</td><td colspan="2">Sc</td><td colspan="2">Ti</td><td colspan="2">V</td><td colspan="2">Cr</td><td colspan="2">Mn</td><td colspan="2">Fe</td><td colspan="2">Co</td><td colspan="2">Ni</td></tr><tr><td colspan="2">[Ar]4s¹</td><td colspan="2">[Ar]4s²</td><td colspan="2">[Ar]4s²3d¹</td><td colspan="2">[Ar]4s²3d²</td><td colspan="2">[Ar]4s²3d³</td><td colspan="2">[Ar]4s¹3d⁵</td><td colspan="2">[Ar]4s²3d⁵</td><td colspan="2">[Ar]4s²3d⁶</td><td colspan="2">[Ar]4s²3d⁷</td><td colspan="2">[Ar]4s²3d⁸</td></tr><tr><td colspan="2">potassium</td><td colspan="2">calcium</td><td colspan="2">scandium</td><td colspan="2">titanium</td><td colspan="2">vanadium</td><td colspan="2">chromium</td><td colspan="2">manganese</td><td colspan="2">iron</td><td colspan="2">cobalt</td><td colspan="2">nickel</td></tr><tr><td>29</td><td>63.546</td><td>30</td><td>65.38</td><td>31</td><td>69.723</td><td>32</td><td>72.63</td><td>33</td><td>74.92160</td><td>34</td><td>78.96</td><td>35</td><td>79.904</td><td>36</td><td>83.798</td><td>37</td><td>85.4678</td><td>38</td><td>87.62</td></tr><tr><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">3</td><td colspan="2">2,(4)</td><td colspan="2">(±3),5</td><td colspan="2">-2,(4),6</td><td colspan="2">(±1),5</td><td colspan="2">0</td><td colspan="2">1</td><td colspan="2">2</td></tr><tr><td colspan="2">Ga</td><td colspan="2">Ge</td><td colspan="2">As</td><td colspan="2">Se</td><td colspan="2">Br</td><td colspan="2">Kr</td><td colspan="2">Rb</td><td colspan="2">Sr</td><td colspan="2">Y</td><td colspan="2">Zr</td></tr><tr><td colspan="2">[Ar]4s²3d¹⁰4p¹</td><td colspan="2">[Ar]4s²3d¹⁰4p²</td><td colspan="2">[Ar]4s²3d¹⁰4p³</td><td colspan="2">[Ar]4s²3d¹⁰4p⁴</td><td colspan="2">[Ar]4s²3d¹⁰4p⁵</td><td colspan="2">[Ar]4s²3d¹⁰4p⁶</td><td colspan="2">[Ar]4s²3d¹⁰4p⁶</td><td colspan="2">[Ar]4s²3d¹⁰4p⁶</td><td colspan="2">[Kr]5s¹</td><td colspan="2">[Kr]5s²</td></tr><tr><td colspan="2">gallium</td><td colspan="2">germanium</td><td colspan="2">arsenic</td><td colspan="2">selenium</td><td colspan="2">bromine</td><td colspan="2">krypton</td><td colspan="2">rubidium</td><td colspan="2">strontium</td><td colspan="2">yttrium</td><td colspan="2">zirconium</td></tr><tr><td>41</td><td>89.904</td><td>42</td><td>91.224</td><td>43</td><td>92.906</td><td>44</td><td>95.96</td><td>45</td><td>101.07</td><td>46</td><td>102.90550</td><td>47</td><td>106.42</td><td>48</td><td>107.8682</td><td>49</td><td>114.818</td><td>50</td><td>118.710</td></tr><tr><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">3,(5)</td><td colspan="2">2,3,4,5,(6)</td><td colspan="2">2,(3),4</td><td colspan="2">(2),4</td><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">3</td><td colspan="2">2,(4)</td></tr><tr><td colspan="2">Rh</td><td colspan="2">Pd</td><td colspan="2">Ag</td><td colspan="2">Cd</td><td colspan="2">In</td><td colspan="2">Sn</td><td colspan="2">Sb</td><td colspan="2">Te</td><td colspan="2">I</td><td colspan="2">Xe</td></tr><tr><td colspan="2">[Kr]5s¹4d⁸</td><td colspan="2">[Kr]5s¹4d⁹</td><td colspan="2">[Kr]5s²4d⁹</td><td colspan="2">[Kr]5s²4d¹⁰</td><td colspan="2">[Kr]5s¹4d¹⁰</td><td colspan="2">[Kr]5s²4d¹⁰5p¹</td><td colspan="2">[Kr]5s²4d¹⁰5p²</td><td colspan="2">[Kr]5s²4d¹⁰5p³</td><td colspan="2">[Kr]5s²4d¹⁰5p⁴</td><td colspan="2">[Kr]5s²4d¹⁰5p⁵</td></tr><tr><td colspan="2">rhodium</td><td colspan="2">palladium</td><td colspan="2">silver</td><td colspan="2">cadmium</td><td colspan="2">indium</td><td colspan="2">tin</td><td colspan="2">antimony</td><td colspan="2">tellurium</td><td colspan="2">iodine</td><td colspan="2">xenon</td></tr><tr><td>51</td><td>121.760</td><td>52</td><td>127.60</td><td>53</td><td>126.90447</td><td>54</td><td>131.293</td><td>55</td><td>132.905452</td><td>56</td><td>137.327</td><td>71</td><td>174.9668</td><td>72</td><td>178.49</td><td>73</td><td>180.94788</td><td>74</td><td>183.84</td></tr><tr><td colspan="2">(±3),5</td><td colspan="2">-2,(4),6</td><td colspan="2">(±1),5,7</td><td colspan="2">0</td><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">3</td><td colspan="2">4</td><td colspan="2">5</td><td colspan="2">2,3,4,5,(6)</td></tr><tr><td colspan="2">Te</td><td colspan="2">I</td><td colspan="2">Xe</td><td colspan="2">Cs</td><td colspan="2">Ba</td><td colspan="2">Lu</td><td colspan="2">Hf</td><td colspan="2">Ta</td><td colspan="2">W</td><td colspan="2">Re</td></tr><tr><td colspan="2">[Kr]5s²4d¹⁰5p⁴</td><td colspan="2">[Kr]5s²4d¹⁰5p⁵</td><td colspan="2">[Kr]5s²4d¹⁰5p⁶</td><td colspan="2">[Kr]5s²4d¹⁰5p⁶</td><td colspan="2">[Xe]6s¹</td><td colspan="2">[Xe]6s²</td><td colspan="2">[Xe]6s²4f¹⁴5d¹</td><td colspan="2">[Xe]6s²4f¹⁴5d²</td><td colspan="2">[Xe]6s²4f¹⁴5d³</td><td colspan="2">[Xe]6s²4f¹⁴5d⁴</td></tr><tr><td colspan="2">tellurium</td><td colspan="2">iodine</td><td colspan="2">xenon</td><td colspan="2">cesium</td><td colspan="2">barium</td><td colspan="2">lutetium</td><td colspan="2">hafnium</td><td colspan="2">tantalum</td><td colspan="2">tungsten</td><td colspan="2">rhenium</td></tr><tr><td>81</td><td>204.384</td><td>82</td><td>207.2</td><td>83</td><td>208.98040</td><td>84</td><td>[208.9824]</td><td>85</td><td>[209.9871]</td><td>86</td><td>[222.0176]</td><td>103</td><td>[261.1096]</td><td>104</td><td>[265.1167]</td><td>105</td><td>[268.1250]</td><td>106</td><td>[271.133]</td></tr><tr><td colspan="2">(1),3</td><td colspan="2">(2),4</td><td colspan="2">(3),5</td><td colspan="2">2,(4)</td><td colspan="2">(±1),3,5,7</td><td colspan="2">0</td><td colspan="2">3</td><td colspan="2">4</td><td colspan="2">5</td><td colspan="2">6</td></tr><tr><td colspan="2">Tl</td><td colspan="2">Pb</td><td colspan="2">Bi</td><td colspan="2">Po</td><td colspan="2">At</td><td colspan="2">Rn</td><td colspan="2">Lr</td><td colspan="2">Rf</td><td colspan="2">Db</td><td colspan="2">Sg</td></tr><tr><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p¹</td><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p²</td><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p³</td><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p⁴</td><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p⁵</td><td colspan="2">[Xe]6s²4f¹⁴5d¹⁰6p⁶</td><td colspan="2">[Rn]7s²5f¹⁴6d¹</td><td colspan="2">[Rn]7s²5f¹⁴6d²</td><td colspan="2">[Rn]7s²5f¹⁴6d³</td><td colspan="2">[Rn]7s²5f¹⁴6d⁴</td></tr><tr><td colspan="2">thallium</td><td colspan="2">lead</td><td colspan="2">bismuth</td><td colspan="2">polonium</td><td colspan="2">astatine</td><td colspan="2">radon</td><td colspan="2">lawrencium</td><td colspan="2">rutherfordium</td><td colspan="2">dubnium</td><td colspan="2">seaborgium</td></tr><tr><td>111</td><td>[280.164]</td><td>112</td><td>[285.174]</td><td>113</td><td>[285]</td><td>114</td><td>[289.187]</td><td>115</td><td>[288]</td><td>116</td><td>[293]</td><td>117</td><td>[294]</td><td>118</td><td>[294]</td><td>107</td><td>[270]</td><td>108</td><td>[277.150]</td></tr><tr><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">provisional</td><td colspan="2">provisional</td><td colspan="2">provisional</td><td colspan="2">provisional</td><td colspan="2">provisional</td><td colspan="2">provisional</td><td colspan="2">7</td><td colspan="2">8</td></tr><tr><td colspan="2">Rg</td><td colspan="2">Cn</td><td colspan="2">Nh</td><td colspan="2">Fl</td><td colspan="2">Mc</td><td colspan="2">Lv</td><td colspan="2">Ts</td><td colspan="2">Og</td><td colspan="2">Bh</td><td colspan="2">Hs</td></tr><tr><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p¹</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p²</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p³</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p⁴</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p⁵</td><td colspan="2">[Rn]7s²5f¹⁴6d¹⁰7p⁶</td><td colspan="2">[Rn]7s²5f¹⁴6d⁹</td><td colspan="2">[Rn]7s²5f¹⁴6d⁸</td></tr><tr><td colspan="2">roentgenium</td><td colspan="2">copernicium</td><td colspan="2">nihonium</td><td colspan="2">flerovium</td><td colspan="2">moscovium</td><td colspan="2">livermorium</td><td colspan="2">tennessine</td><td colspan="2">oganeson</td><td colspan="2">bohrium</td><td colspan="2">hassium</td></tr></table>				3		4		5		6		7		8		9		10		11		12		19	39.0983	20	40.078	21	44.955912	22	47.867	23	50.9415	24	51.9961	25	54.938045	26	55.845	27	58.933195	28	58.6934	1		2		3		2,3,(4)		2,3,4,(5)		2,(3),6		(2),3,4,6,7		2,(3)		(2),3		(2),3		K		Ca		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		[Ar]4s ¹		[Ar]4s ²		[Ar]4s ² 3d ¹		[Ar]4s ² 3d ²		[Ar]4s ² 3d ³		[Ar]4s ¹ 3d ⁵		[Ar]4s ² 3d ⁵		[Ar]4s ² 3d ⁶		[Ar]4s ² 3d ⁷		[Ar]4s ² 3d ⁸		potassium		calcium		scandium		titanium		vanadium		chromium		manganese		iron		cobalt		nickel		29	63.546	30	65.38	31	69.723	32	72.63	33	74.92160	34	78.96	35	79.904	36	83.798	37	85.4678	38	87.62	1		2		3		2,(4)		(±3),5		-2,(4),6		(±1),5		0		1		2		Ga		Ge		As		Se		Br		Kr		Rb		Sr		Y		Zr		[Ar]4s ² 3d ¹⁰ 4p ¹		[Ar]4s ² 3d ¹⁰ 4p ²		[Ar]4s ² 3d ¹⁰ 4p ³		[Ar]4s ² 3d ¹⁰ 4p ⁴		[Ar]4s ² 3d ¹⁰ 4p ⁵		[Ar]4s ² 3d ¹⁰ 4p ⁶		[Ar]4s ² 3d ¹⁰ 4p ⁶		[Ar]4s ² 3d ¹⁰ 4p ⁶		[Kr]5s ¹		[Kr]5s ²		gallium		germanium		arsenic		selenium		bromine		krypton		rubidium		strontium		yttrium		zirconium		41	89.904	42	91.224	43	92.906	44	95.96	45	101.07	46	102.90550	47	106.42	48	107.8682	49	114.818	50	118.710	1		2		3,(5)		2,3,4,5,(6)		2,(3),4		(2),4		1		2		3		2,(4)		Rh		Pd		Ag		Cd		In		Sn		Sb		Te		I		Xe		[Kr]5s ¹ 4d ⁸		[Kr]5s ¹ 4d ⁹		[Kr]5s ² 4d ⁹		[Kr]5s ² 4d ¹⁰		[Kr]5s ¹ 4d ¹⁰		[Kr]5s ² 4d ¹⁰ 5p ¹		[Kr]5s ² 4d ¹⁰ 5p ²		[Kr]5s ² 4d ¹⁰ 5p ³		[Kr]5s ² 4d ¹⁰ 5p ⁴		[Kr]5s ² 4d ¹⁰ 5p ⁵		rhodium		palladium		silver		cadmium		indium		tin		antimony		tellurium		iodine		xenon		51	121.760	52	127.60	53	126.90447	54	131.293	55	132.905452	56	137.327	71	174.9668	72	178.49	73	180.94788	74	183.84	(±3),5		-2,(4),6		(±1),5,7		0		1		2		3		4		5		2,3,4,5,(6)		Te		I		Xe		Cs		Ba		Lu		Hf		Ta		W		Re		[Kr]5s ² 4d ¹⁰ 5p ⁴		[Kr]5s ² 4d ¹⁰ 5p ⁵		[Kr]5s ² 4d ¹⁰ 5p ⁶		[Kr]5s ² 4d ¹⁰ 5p ⁶		[Xe]6s ¹		[Xe]6s ²		[Xe]6s ² 4f ¹⁴ 5d ¹		[Xe]6s ² 4f ¹⁴ 5d ²		[Xe]6s ² 4f ¹⁴ 5d ³		[Xe]6s ² 4f ¹⁴ 5d ⁴		tellurium		iodine		xenon		cesium		barium		lutetium		hafnium		tantalum		tungsten		rhenium		81	204.384	82	207.2	83	208.98040	84	[208.9824]	85	[209.9871]	86	[222.0176]	103	[261.1096]	104	[265.1167]	105	[268.1250]	106	[271.133]	(1),3		(2),4		(3),5		2,(4)		(±1),3,5,7		0		3		4		5		6		Tl		Pb		Bi		Po		At		Rn		Lr		Rf		Db		Sg		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ¹		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ²		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ³		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ⁴		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ⁵		[Xe]6s ² 4f ¹⁴ 5d ¹⁰ 6p ⁶		[Rn]7s ² 5f ¹⁴ 6d ¹		[Rn]7s ² 5f ¹⁴ 6d ²		[Rn]7s ² 5f ¹⁴ 6d ³		[Rn]7s ² 5f ¹⁴ 6d ⁴		thallium		lead		bismuth		polonium		astatine		radon		lawrencium		rutherfordium		dubnium		seaborgium		111	[280.164]	112	[285.174]	113	[285]	114	[289.187]	115	[288]	116	[293]	117	[294]	118	[294]	107	[270]	108	[277.150]	1		2		provisional		provisional		provisional		provisional		provisional		provisional		7		8		Rg		Cn		Nh		Fl		Mc		Lv		Ts		Og		Bh		Hs		[Rn]7s ² 5f ¹⁴ 6d ¹⁰		[Rn]7s ² 5f ¹⁴ 6d ¹⁰		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ¹		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ²		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ³		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ⁴		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ⁵		[Rn]7s ² 5f ¹⁴ 6d ¹⁰ 7p ⁶		[Rn]7s ² 5f ¹⁴ 6d ⁹		[Rn]7s ² 5f ¹⁴ 6d ⁸		roentgenium		copernicium		nihonium		flerovium		moscovium		livermorium		tennessine		oganeson		bohrium		hassium	
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29	63.546	30	65.38	31	69.723	32	72.63	33	74.92160	34	78.96	35	79.904	36	83.798	37	85.4678	38	87.62																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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41	89.904	42	91.224	43	92.906	44	95.96	45	101.07	46	102.90550	47	106.42	48	107.8682	49	114.818	50	118.710																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1		2		3,(5)		2,3,4,5,(6)		2,(3),4		(2),4		1		2		3		2,(4)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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51	121.760	52	127.60	53	126.90447	54	131.293	55	132.905452	56	137.327	71	174.9668	72	178.49	73	180.94788	74	183.84																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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81	204.384	82	207.2	83	208.98040	84	[208.9824]	85	[209.9871]	86	[222.0176]	103	[261.1096]	104	[265.1167]	105	[268.1250]	106	[271.133]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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111	[280.164]	112	[285.174]	113	[285]	114	[289.187]	115	[288]	116	[293]	117	[294]	118	[294]	107	[270]	108	[277.150]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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roentgenium		copernicium		nihonium		flerovium		moscovium		livermorium		tennessine		oganeson		bohrium		hassium																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

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Data from www.iupac.org. For several elements, the variability in atomic mass depends substantially on whether the sample origin is organic or inorganic. For these elements, the average, with decreased precision, is reported.

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Last revised 06.2016

57.003355 138.90547 3 La [Xe]6s ² 5d ¹ lanthanum	58.003355 140.116 (3),4 Ce [Xe]6s ² 4f ¹ 5d ¹ cerium	59.003355 140.90765 (3),(4) Pr [Xe]6s ² 4f ³ praseodymium	60.003355 144.242 3 Nd [Xe]6s ² 4f ⁴ neodymium	61.003355 [144.9127] 3 Pm [Xe]6s ² 4f ⁶ promethium	62.003355 150.36 2,(3) Sm [Xe]6s ² 4f ⁶ samarium	63.003355 151.964 2,(3) Eu [Xe]6s ² 4f ⁷ europium	64.003355 157.25 3 Gd [Xe]6s ² 4f ⁷ 5d ¹ gadolinium	65.003355 158.925 (3),4 Tb [Xe]6s ² 4f ⁹ terbium	66.003355 162.500 3 Dy [Xe]6s ² 4f ¹⁰ dysprosium	67.003355 164.93032 3 Ho [Xe]6s ² 4f ¹¹ holmium	68.003355 167.259 3 Er [Xe]6s ² 4f ¹² erbium	69.003355 168.93421 2,(3) Tm [Xe]6s ² 4f ¹³ thulium	70.003355 173.054 2,(3) Yb [Xe]6s ² 4f ¹⁴ ytterbium
89.003355 [227.0278] 3 Ac [Rn]7s ² 6d ¹ actinium	90.003355 232.0381 4 Th [Rn]7s ² 6d ² thorium	91.003355 [231.0359] 4,(5) Pa [Rn]7s ² 5f ⁶ 6d ¹ protactinium	92.003355 238.02891 3,4,5,(6) U [Rn]7s ² 5f ⁶ 6d ¹ uranium	93.003355 [237.0482] 3,4,(5),6 Np [Rn]7s ² 5f ⁶ 6d ¹ neptunium	94.003355 [244.0642] 3,(4),5,6 Pu [Rn]7s ² 5f ⁶ plutonium	95.003355 [243.0614] (3),4,5,6 Am [Rn]7s ² 5f ⁷ americium	96.003355 [247.0704] (3),4 Cm [Rn]7s ² 5f ⁷ 6d ¹ curium	97.003355 [247.0703] (3),4 Bk [Rn]7s ² 5f ⁹ berkelium	98.003355 [251.0796] (3),4 Cf [Rn]7s ² 5f ¹⁰ californium	99.003355 [252.0830] (2),3 Es [Rn]7s ² 5f ¹¹ einsteinium	100.003355 [257.0951] 3 Fm [Rn]7s ² 5f ¹² fermium	101.003355 [258.0984] 2,3 Md [Rn]7s ² 5f ¹³ mendelevium	102.003355 [259.1010] 2,3 No [Rn]7s ² 5f ¹⁴ nobelium

Periodic Table of the Elements

1																		18															
1H																		2He															
250.44936 154 (−1)0.05868 —28.84 72.770.1815 13.598— —2.20																		300.0845 — —20.79 —0.152 24.587— 54.4180															
3Li		4Be																															
145145.92 78 (+1)3 —25.08 59.6384.7 5.391510.80 75.6390.98		105292.4 34 (+2)12.2 —16.40 —200 9.322731.30 18.2111.57																															
11Na		12Mg																															
18096.96 98 (+1)2.598 —28.28 52.87141 5.138621.00 47.2820.93		150127.4 79 (+2)8.954 —24.79 —156 7.645722.60 15.0351.31																															
19K		20Ca	21Sc	22Ti	23V	24Cr	25Mn	26Fe	27Co	28Ni	29Cu	30Zn	31Ga	32Ge	33As	34Se	35Br	36Kr															
22079.87 133 (+1)2.334 —29.32 48.39102.4 4.340613.90 31.6320.82		180153.6 106 (+2)8.54 —25.25 2.37200 6.112829.80 11.8711.00	160314.2 83 (+3)14.1 —26.97 18.1415.8 6.56161.77 12.8001.36	140421 86 (+2)15.45 61 (+4)24.89 7.6221.9 6.82802.34 13.5751.54	1350.452 79 (+2)20.9 54 (+5)24.96 50.6630.7 6.74614.89 14.6551.63	140344.3 82 (+2)16.9 62 (+3)23.40 64.2693.7 7.74 16.4851.66	140226 91 (+2)12.05 52 (+4)26.37 —7.82 7.43430.70 15.6401.55	140349.6 82 (+2)13.8 67 (+3)24.57 14.5780.2 7.90289.93 16.1881.83	135376.5 82 (+2)16.19 64 (+3)24.75 63.87100 10.7917.20 17.0801.88	135370.4 78 (+2)17.47 62 (+3)25.83 111.5490.7 7.881014.30 18.1691.91	135300.3 96 (+1)13.05 72 (+2)24.15 119.16401 —116 9.394216.60 17.9641.65	135115.3 83 (+2)7.322 —25.50 —116 16.60 —1.65	130258.7 113 (+2)5.59 62 (+3)25.80 41.4940.6 5.99886.78 20.5141.81	125330.9 53 (+4)36.94 272 (−4)23.24 118.9459.9 7.89760.00 15.9352.01	11534.76 69 (+3)— 46 (+5)24.72 78.5450 3.45 2.18	11537.7 69 (+4)6.694 191 (−2)25.27 194.972.04 9.75280.00 21.1952.55	11515.438 196 (−1)5.286 —75.59 324.540.122 11.814— 21.7962.96	909.029 —1.638 —20.78 —0.00949 — —															
37Rb		38Sr	39Y	40Zr	41Nb	42Mo	43Tc	44Ru	45Rh	46Pd	47Ag	48Cd	49In	50Sn	51Sb	52Te	53I	54Xe															
23572.216 149 (+1)2.192 —31.02 46.8858.2 4.17687.79 27.2890.82		200144 127 (+2)8.3 —26.29 4.6335.3 5.69527.62 11.0300.95	180363 106 (+3)11.4 —26.67 29.6217.2 6.21861.66 12.2301.22	15558.2 109 (+2)16.9 87 (+4)24.63 41.1022.7 6.63422.36 13.1631.33	145682 74 (+4)26.4 69 (+5)24.16 86.1653.7 6.75856.93 14.3031.60	145598 92 (+2)32 62 (+6)23.99 72.17138 7.092318.70 16.1682.16	135660 95 (+4)24 72 (+5)20.56 53.0750.6 7.27576.70 15.2351.90	130595 77 (+3)24 65 (+4)24.05 101.31117 109.71150 8.337013.70 16.7902.20	135493 75 (+3)21.5 67 (+4)24.90 54.2371.8 9.01699.66 19.3812.20	140357 113 (+4)17.6 89 (+5)25.54 125.63429 7.576363.00 21.4541.93	160250.58 113 (+1)11.3 89 (+2)25.35 —96.8 7.576363.00 8.994113.80 16.9081.69	15599.57 103 (+2)6.192 —25.85 —96.8 13.80 1.69	155231.5 132 (+1)3.263 92 (+3)26.41 28.9581.6 5.786411.60 18.8701.78	145295.8 93 (+2)7.029 74 (+4)26.95 100.9324.3 7.28610.87 16.5302.05	14577.14 89 (+3)19.87 62 (+5)25.57 —25.52 190.162.35 9.00970.00 18.5522.10	14052.55 97 (+4)17.49 —54.32 — 295.160.449 10.4510.00 19.1312.66	11020.752 196 (−1)7.824 —54.32 — —0.00569 12.130— 21.2090																
55Cs		56Ba	71Lu	72Hf	73Ta	74W	75Re	76Os	77Ir	78Pt	79Au	80Hg	81Tl	82Pb	83Bi	84Po	85At	86Rn															
28067.74 165 (+1)2.092 —31.90 45.5135.9 3.89394.89 23.1570.79		215142 143 (+2)7.75 —28.01 13.9518.4 5.21223.00 10.0040.89	175355.9 85 (+3)18.6 —26.25 —16.4 5.42571.85 13.8881.27	155575 84 (+4)24.06 —24.99 ≈023 6.82493.12 14.9251.30	145743 72 (+3)31.6 64 (+5)25.33 31.0757.5 7.88727.61 15.5461.50	135824 62 (+6)35.4 —23.90 —16.5 7.980518.90 17.6192.36	135715 60 (+7)33.2 —24.21 14.4747.9 5.52521.57 10.7791.14	130746 67 (+4)31.8 —24.73 106.1487.6 8.706010.90 16.5832.20	135604 75 (+3)26.1 66 (+4)24.99 —16.5 7.87685.42 13.0591.90	135510 70 (+4)19.6 —25.36 205.3271.6 9.225245.20 18.5622.28	135334.4 137 (+1)12.55 105 (+3)25.21 222.75317 —8.34 9.225245.20 20.5212.54	15059.229 112 (+2)2.295 —27.88 —8.34 10.43791.04 18.7592.00	190164.1 149 (+1)4.142 105 (+3)26.57 19.3046.1 6.10876.17 20.4282.04	180177.7 132 (+2)4.799 84 (+4)26.94 35.1235.3 7.41674.81 15.0331.87	160104.8 96 (+3)11.3 —25.08 91.287.87 7.28610.87 16.6862.02	190— 65 (+4)— 230 (−2)25.08 183.3320 8.41682.19 —2.00	— 57 (+5)— 227 (−3)— — 9.22421.9 —2.20	— — — — 10.748— 0															
87Fr		88Ra	103Lr	104Rf	105Db	106Sg	107Bh	108Hs	109Mt	110Ds	111Rg	112Cn	113Nh	114Fl	115Mc	116Lv	117Ts	118Og															
— 180 (+1)— — 44.3815 3.93843.00 —0.70		215— 162 (+2)— —27.12 —18.6 5.2785— 10.1470.90	88 (+3)— — —10 4.8712— —	— — —23 6.0113— —	— — —58 — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —															

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Data from www.iupac.org. For several elements, the variability in atomic mass depends substantially on whether the sample origin is organic or inorganic. For these elements, the average, with decreased precision, is reported.

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Last revised 06.2016

★	57La	58Ce	59Pr	60Nd	61Pm	62Sm	63Eu	64Gd	65Tb	66Dy	67Ho	68Er	69Tm	70Yb
	195414 122 (+3)6.2 —26.39 45.3513.5 5.57701.26 11.0591.10	185414 107 (+3)5.46 —26.62 —11.4 5.53871.15 10.8821.12	185296.8 106 (+3)6.89 —26.77 —12.5 5.46201.48 10.5721.13	185273 104 (+3)7.14 —27.41 —16.5 5.52521.57 10.7791.14	185— 109 (+3)— —26.08 —17.9 5.5967— 10.8821.13	185166.4 108 (+3)8.63 —30.07 —13.3 5.64330.96 11.0901.17	185143.5 89 (+3)9.21 —27.35 —13.9 5.67031.12 11.2451.20	180359.4 97 (+3)10.05 —36.17 —10.6 6.15020.74 12.1261.20	175330.9 97 (+3)10.8 81 (+4)28.61 —11.1 5.86410.89 11.5041.20	175230 91 (+3)11.06 —27.63 —10.7 5.93871.08 11.7121.22	175241 89 (+3)12.2 —26.39 —16.2 6.02161.24 11.8151.23	175261 89 (+3)19.9 —28.43 —14.3 6.10771.17 11.9191.24	175191 94 (+3)16.84 87 (+4)27.03 —16.8 6.18441.50 12.0231.25	175128.9 113 (+2)7.66 86 (+3)25.96 —1.93 6.25383.51 12.1761.10
	89Ac	90Th	91Pa	92U	93Np	94Pu	95Am	96Cm	97Bk	98Cf	99Es	100Fm	101Md	102No
	195— 162 (+2)— — 33.7712 5.1718 12.1261.10	180514.4 99 (+3)16.1 —27.84 —54 6.08386.53 11.5041.30	180— 113 (+3)12.3 —27.72 —47 5.88695.29 —1.50	175477 103 (+3)8.52 80 (+6)28.56 —27.6 6.19373.80 14.7171.38	175— 110 (+3)5.19 —28.45 —6.3 6.26520.82 —1.36	175344 108 (+3)2.84 81 (+6)31.73 —6.74 0.67 —1.28	175— 107 (+3)14.4 80 (+6)26.74 —10 2.20 —1.3	— 99 (+3)15 —10 —1.3	— 98 (+3)— —10 —1.3	— 98 (+3)— —10 —1.3	— 91 (+3)— —10 —1.3	— 90 (+3)— —10 —1.3	— 112 (+2)— —10 —1.3	— — —1.3