

## Some Useful Constants

Constant and symbol	Value
Gas constant, $R$	1.98722 cal K <sup>-1</sup> mol <sup>-1</sup> 82.0578 mL atm K <sup>-1</sup> mol <sup>-1</sup> 62,363.9 mL torr K <sup>-1</sup> mol <sup>-1</sup> 8.31451 J K <sup>-1</sup> mol <sup>-1</sup>
Ideal gas volume, std. cond.	22,414.1 mL mol <sup>-1</sup>
Avagadro's number, $N$	6.022137 x 10 <sup>23</sup> mol <sup>-1</sup>
Faraday constant, $F$	96,485.3 C mol <sup>-1</sup> 23,060.5 cal volt <sup>-1</sup> mol <sup>-1</sup>
Boltzmann's constant, $k$	1.38066 x 10 <sup>-23</sup> J K <sup>-1</sup>
Electron charge, $e$	1.602177 x 10 <sup>-19</sup> C 4.80321 x 10 <sup>-10</sup> abs. esu
Electron mass, $m$	9.109390 x 10 <sup>-28</sup> g
Proton mass, $M_p$	1.672623 x 10 <sup>-24</sup> g
Planck's constant, $h$	6.626076 x 10 <sup>-34</sup> Js
Newtonian constant of gravity, $G$	6.6726 x 10 <sup>-11</sup> m <sup>3</sup> kg <sup>-1</sup> s <sup>-2</sup>
Bohr radius, $a_0$	0.529177 Å
Ice point (0°C)	273.150 K
Speed of light, $c$	2.99792458 x 10 <sup>10</sup> cm s <sup>-1</sup>