

Table 5.5

Molar Gas Constant in Various Units

Value of R

0.082058 L • atm/(K • mol)

8.3145 J/(K • mol)*

8.3145 kg • m²/(s² • K • mol)

8.3145 kPa • dm³/(K • mol)

1.9872 cal/(K • mol)*

*The units of pressure times volume are the units of energy—for example, joules (J) or calories (cal).