

Tutorial 1, Sep 12, 2022

- Ideal gas law: $PV = NR_uT$
 - $R_u = 8.314 \text{ J mol}^{-1} \text{ K}^{-1}$ or $\text{m}^3 \text{ Pa mol}^{-1} \text{ K}^{-1}$ is the universal ideal gas constant
 - For different gases $R = \frac{R_u}{M_w}$ where M_w is molecular weight, so $PV = mRT$
 - * Values of R can be found in Appendix 1 of the textbook
 - Air can be approximated by 78%N₂, 22%O₂
- Ideal gas law assumes the molecules within the gas have no interactions with each other
- Ideal gas law is a good approximation when the gas is *diluted*