

(b) Provide a short distance for diffusion, in other words do not over fill the beaker, prolonging the time taken for distribution. The Rate of Diffusion ?

Gases with larger molecules have higher densities than gases which have small molecules. ?

E.g. Chlorine molecules are 35.5 larger than hydrogen molecules and chlorine is denser than hydrogen. ?

Large heavy molecules move more slowly than small, light molecules ?

Therefore, dense gases diffuse more slowly than gases of low density ?

The rate of diffusion depends on the molecular mass/density of gas ?

Rate of diffusion is inversely proportional to mass Demonstrating the Rate of Diffusion If particles of ammonia gas half the mass of particles of hydrogen chloride gas are soaked in cotton wool and placed at two ends of a tube (corked on both sides) then;

When these gases come in contact, white smoke of Ammonium Chloride forms. Because the smoke forms closer to the HCl, it shows that ammonia gas molecules traveled faster in the same length of time.

About the Author

Source: <http://crampuppy.com>