Henry's Law Encyclopedia Article

Henry's Law

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Henry's Law Encyclopedia Article.....1

Contents.....2

Henry's Law.....3

Henry's Law

Henry's law states that the **mass** of gas which is dissolved by a **volume** of liquid, at constant **temperature**, is directly proportional to the pressure of the gas. The law is not followed exactly if there is any interaction between the gas and the liquid other than London dispersion forces.

The equation which describes Henry's law is $C_g = kP_g$ where C_g is the **solubility** of the gas in the **solution** phase, usually expressed as **molarity**, k is the Henry's law constant, and P_g is the partial pressure of the gas over the solution. The Henry's law constant is different for each solute and solvent pair, it is measured in moles per liter atmosphere.

Henry's law is used to indicate how much of a gas will dissolve in a liquid. By increasing the partial pressure of the gas more gas can be dissolved in the liquid. One practical effect of this law is shown in the production of carbonated drinks. These are bottled or canned under a pressure of **carbon** dioxide greater than one atmosphere. When the drinks are opened to the air the partial pressure of the **carbon dioxide** is decreased above the drink, the solubility of carbon dioxide decreases and carbon dioxide bubbles are produced in the drink.