Thermistor Encyclopedia Article

Thermistor

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

Thermistor Encyclopedia Article.....1

Contents.....2

Thermistor.....3

Thermistor

There are many different thermometers for many applications—the common mercury thermometer is used for measuring to within a degree, the thermocouple is used to electrically measure temperatures within a very wide range, and the pyrometer is used to observe and regulate temperatures above 1,300° C (2,400°F). One of the most sensitive devices for measuring temperature is the *thermistor*.

A type of semiconductor, the thermistor is usually constructed of metal oxides, such as nickel oxide or copper oxide, and then coated in epoxy to protect it. It works on the principle that electrical resistance within an electric circuit will increase as the temperature increases. Because the resistance within a circuit can be measured very precisely, the thermistor is able to detect temperature variations as small as 0.001° C. This makes it among the most accurate thermometers available. Thermistors are generally found in hospitals, coupled with a digital readout. They are also used in other biological environments, particularly those that require careful measurement.