



# Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)

By *Kerry K. Karukstis, Gerald R. Van Hecke*

[Download now](#)

[Read Online](#) 

**Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)** By *Kerry K. Karukstis, Gerald R. Van Hecke*

One of the greatest challenges facing chemists and chemical educators today is conveying the central importance and relevance of chemistry to students and society at large. The new edition of **Chemistry Connections** highlights the fundamental role of chemical principles in governing our everyday experiences and observations.

Introductory chemistry students and educators as well as laypersons with an inquisitiveness about the world around them will find the book an informative introduction to the context of chemistry in their lives. The book is written in a lively question-and-answer format with presentations in both lay and technical terms.

- \* Two levels of explanations: general, accessible ones highlight the chemical essence of the phenomenon; and technical ones using chemical principles provide more in-depth interpretation
- \* Indexing of questions according to key principles or terms enhances instructional use
- \* Figures and 3-D chemical structures illustrate the chemical concepts presented
- \* References to related World Wide Web sites for further exploration provide inexpensive and convenient access to related information.
- \* Color plates enhance connections between specific topics

 [Download Chemistry Connections, Second Edition: The Chemica ...pdf](#)

 [Read Online Chemistry Connections, Second Edition: The Chemi ...pdf](#)

# **Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)**

*By Kerry K. Karukstis, Gerald R. Van Hecke*

## **Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke**

One of the greatest challenges facing chemists and chemical educators today is conveying the central importance and relevance of chemistry to students and society at large. The new edition of **Chemistry Connections** highlights the fundamental role of chemical principles in governing our everyday experiences and observations.

Introductory chemistry students and educators as well as laypersons with an inquisitiveness about the world around them will find the book an informative introduction to the context of chemistry in their lives. The book is written in a lively question-and-answer format with presentations in both lay and technical terms.

- \* Two levels of explanations: general, accessible ones highlight the chemical essence of the phenomenon; and technical ones using chemical principles provide more in-depth interpretation
- \* Indexing of questions according to key principles or terms enhances instructional use
- \* Figures and 3-D chemical structures illustrate the chemical concepts presented
- \* References to related World Wide Web sites for further exploration provide inexpensive and convenient access to related information.
- \* Color plates enhance connections between specific topics

## **Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke Bibliography**

- Rank: #2004031 in Books
- Published on: 2003-04-10
- Released on: 2003-03-27
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x .65" w x 6.00" l, .83 pounds
- Binding: Paperback
- 250 pages



[Download Chemistry Connections, Second Edition: The Chemica ...pdf](#)



[Read Online Chemistry Connections, Second Edition: The Chemi ...pdf](#)

**Download and Read Free Online Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke**

---

## Editorial Review

### Review

"...a very effective way to increase students' interest in chemistry...The selected examples provide a welcome dose of reality..."

-Jeffrey B. Arterburn, New Mexico State University

"...the authors weave in essential concepts without the reader even knowing it. The references...are EXCELLENT."

-Jennifer Shepherd, Gonzaga University

"...wonderful and fun...buy one...and use it every day to add relevant examples to all your chemistry courses."

-Tricia Ferrett, Carleton College

### From the Back Cover

#### **Chemistry Connections: The Chemical Basis of Everyday Phenomena**

**Kerry K. Karukstis & Gerald R. Van Hecke**

*Harvey Mudd College, Claremont, California*

- \* Why does soap lather in soft water than in hard water?
- \* Why won't a glass of water relieve the burning sensation of chili peppers?
- \* Why does baking soda extinguish a fire?
- \* Why are opals and pearls iridescent?
- \* Why do lightsticks glow?
- \* Why do old oil paintings discolor?
- \* Why do kidney stones form?
- \* Why is Pyrex used for cooking?

The answers to these and many more questions about our everyday experiences and observations are found in *Chemistry Connections: The Chemical Basis of Everyday Phenomena*. This collection of contemporary real-world examples of chemistry in action is written in a question-and-answer format with presentations, in both lay and technical terms, of the chemical principles underlying numerous familiar phenomena and topical curiosities. Introductory college chemistry students, educators, working chemists, and anyone curious about the world around them will find the book a fascinating discussion of chemistry in our everyday lives.

### Special features of interest:

- \* a question-and-answer format of topical subjects to engage the reader
- \* general explanations in accessible terms to highlight the chemical principles to provide specific details for a more in-depth interpretation
- \* indexing of questions according to key principles or terms to enhance instructional use
- \* figures and chemical structures to illustrate further the chemical concepts presented
- \* references to related World Wide Web sites for further explanation

### About the Author

Dr. Kerry K. Karukstis is Professor of Chemistry at Harvey Mudd College in Claremont, California. She received her Bachelor of Science degree in Chemistry in 1977 from Duke University and her Ph.D. in Physical Chemistry in 1981 from Duke University. Prior to her arrival at Harvey Mudd College in 1984, she was a National Institutes of Health Postdoctoral Research Fellow at the Laboratory of Chemical

Biodynamics at the University of California, Berkeley. Her research interests involve applications of absorbance and fluorescence spectroscopy to surfactant assemblies (micelles, reverse micelles, vesicles, liposomes) and host-guest systems (cyclodextrins, dendrimers). She is co-author with Gerald R. Van Hecke of *A Student's Guide to Lasers in Chemistry*, a monograph for undergraduates on applications of lasers in chemistry. She is a member of the American Chemical Society, the American Society for Photobiology, the Biophysical Society, the Council on Undergraduate Research, Phi Beta Kappa, and Society of the Sigma Xi - The Scientific Research Society. She is also currently a Councilor for the Chemistry Division of the Council on Undergraduate Research. Her curricular initiatives have focused on two areas: introducing undergraduate applications of lasers in chemistry and incorporating biophysical applications and experiments in physical chemistry courses and laboratories.

Dr. Gerald R. Van Hecke is Professor of Chemistry at Harvey Mudd College in Claremont, California. He received his Bachelor of Science degree in Chemistry in 1961 from Harvey Mudd College and his M.A. and Ph.D. degrees in Physical Chemistry in 1963 and 1966 from Princeton University. Prior to his arrival at Harvey Mudd College in 1970, he was a Chemist at Shell Development in Emeryville, California. His research interests involve studies of liquid crystalline materials, from synthesis of new materials to their characterization by thermodynamic and spectral measurements. He also uses laser light scattering to measure thermodynamic properties of mixtures of simple liquids. He is co-author with Kerry K. Karukstis of *A Student's Guide to Lasers in Chemistry*, a monograph for undergraduates on the applications of lasers in chemistry. He is a member of the American Chemical Society, the International Liquid Crystal Society, the Council on Undergraduate Research, and Society of the Sigma Xi - The Scientific Research Society. His curricular initiatives have focused on introducing undergraduate applications of lasers in chemistry.

## **Users Review**

### **From reader reviews:**

#### **Michael Wickham:**

This book *untitled Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)* to be one of several books in which best seller in this year, here is because when you read this publication you can get a lot of benefit on it. You will easily to buy this kind of book in the book retail store or you can order it via online. The publisher of the book sells the e-book too. It makes you quickly to read this book, since you can read this book in your Cell phone. So there is no reason to you personally to pass this publication from your list.

#### **Evelyn Brown:**

The particular book *Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)* will bring you to definitely the new experience of reading the book. The author style to spell out the idea is very unique. When you try to find new book you just read, this book very suited to you. The book *Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science)* is much recommended to you to study. You can also get the e-book through the official web site, so you can quickly to read the book.

**Robert Burmeister:**

A lot of people always spent their particular free time to vacation or even go to the outside with them household or their friend. Did you know? Many a lot of people spent their free time just watching TV, or playing video games all day long. In order to try to find a new activity that's look different you can read some sort of book. It is really fun in your case. If you enjoy the book that you read you can spent all day long to reading a reserve. The book Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) it is extremely good to read. There are a lot of folks that recommended this book. These people were enjoying reading this book. If you did not have enough space bringing this book you can buy typically the e-book. You can more quickly to read this book through your smart phone. The price is not too costly but this book has high quality.

**Theodore Dubose:**

You can get this Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) by go to the bookstore or Mall. Only viewing or reviewing it may to be your solve trouble if you get difficulties on your knowledge. Kinds of this publication are various. Not only simply by written or printed but also can you enjoy this book through e-book. In the modern era such as now, you just looking because of your mobile phone and searching what your problem. Right now, choose your own ways to get more information about your e-book. It is most important to arrange you to ultimately make your knowledge are still update. Let's try to choose correct ways for you.

**Download and Read Online Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke #PTUM9LWGBDZ**

# **Read Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke for online ebook**

Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke books to read online.

## **Online Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke ebook PDF download**

### **Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke Doc**

Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke MobiPocket

Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke EPub

PTUM9LWGBDZ: Chemistry Connections, Second Edition: The Chemical Basis of Everyday Phenomena (Complementary Science) By Kerry K. Karukstis, Gerald R. Van Hecke