



# The Chemical Bond: Fundamental Aspects of Chemical Bonding

From Wiley-VCH

Download now

Read Online 

**The Chemical Bond: Fundamental Aspects of Chemical Bonding** From Wiley-VCH

This is the perfect complement to "Chemical Bonding - Across the Periodic Table" by the same editors, who are two of the top scientists working on this topic, each with extensive experience and important connections within the community.

The resulting book is a unique overview of the different approaches used for describing a chemical bond, including molecular-orbital based, valence-bond based, ELF, AIM and density-functional based methods. It takes into account the many developments that have taken place in the field over the past few decades due to the rapid advances in quantum chemical models and faster computers.

 [Download The Chemical Bond: Fundamental Aspects of Chemical ...pdf](#)

 [Read Online The Chemical Bond: Fundamental Aspects of Chemic ...pdf](#)

# The Chemical Bond: Fundamental Aspects of Chemical Bonding

*From Wiley-VCH*

## The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH

This is the perfect complement to "Chemical Bonding - Across the Periodic Table" by the same editors, who are two of the top scientists working on this topic, each with extensive experience and important connections within the community.

The resulting book is a unique overview of the different approaches used for describing a chemical bond, including molecular-orbital based, valence-bond based, ELF, AIM and density-functional based methods. It takes into account the many developments that have taken place in the field over the past few decades due to the rapid advances in quantum chemical models and faster computers.

## The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH Bibliography

- Rank: #2749873 in eBooks
- Published on: 2014-06-13
- Released on: 2014-06-13
- Format: Kindle eBook

 [Download The Chemical Bond: Fundamental Aspects of Chemical ...pdf](#)

 [Read Online The Chemical Bond: Fundamental Aspects of Chemic ...pdf](#)

## Download and Read Free Online The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH

---

### Editorial Review

#### Review

“The two volumes would serve upper-level undergraduates who are well versed in mathematics and chemistry, but they are most suitable for graduate students, faculty, and researchers in chemistry. The exhaustive chapter references make each book a useful go-to reference source. Highly recommended. Upper-division undergraduates, graduate students, and researchers/faculty.” (*Choice*, 1 May 2015)

#### From the Back Cover

One of the fundamental territories of chemistry is the chemical bond, the glue from which an entire chemical universe is constructed. For a while it seemed that Chemists have, by and large, abandoned their territory as if everything about bonding is known and well understood; the frontier has moved to Nano and Bio, leaving the original territory untended. This however was a wrong impression, since the interest in bonding has quickly revived to be accompanied by many interesting theoretical approaches to probe the origins of bonds, many novel bonding motifs, and even experimental studies that describe imaging of bonds being broken and remade using atomic force microscopy. The bond is becoming again a central intellectual arena. Enormous progress was made in recent time in method development which gives insight into the chemical bond using calculated numbers which come from sophisticated quantum chemical methods in line with the famous statement of Charles Coulson: "Give us insight not numbers". This "return of the bond" has prompted the two editors to edit these two volumes on bonding, and it is only fitting that their publication date is close to the centenary of the Lewis seminal paper on electron pair bonding. The two volumes are meant to attract the interest of the practicing chemist, teachers and advanced students who may want to learn about the present understanding of chemical bonding.

Volume 1 contains eleven chapters, which provide the theoretical frameworks of the various perspectives on bonding, coming from VB and MO theories, ELF, AIM, NBO, BLW and EDA. This Volume lays the foundations for the applications across the periodic table.

#### About the Author

Gernot Frenking studied chemistry at the Technical University Aachen (Germany). He then became a research student in the group of Prof. Kenichi Fukui in Kyoto (Japan) and completed his PhD and his habilitation at Technical University Berlin (Germany). He was then a visiting scientist at the University of California, Berkeley (USA) and a staff scientist at SRI International in Menlo Park, California (USA). Since 1990 he is Professor for Computational Chemistry at the Philipps-Universität Marburg.

Sason Shaik is a graduate of the University of Washington (USA), where he also obtained his PhD. After a postdoctoral year at Cornell University, he became Lecturer at Ben-Gurion University of the Negev (Israel), where he became Professor in 1988. In 1992 he moved to The Hebrew University where he is Professor and the Director of the Lise Meitner-Minerva Center for Computational Quantum Chemistry.

### Users Review

#### From reader reviews:

**Eddie McCoy:**

Book is actually written, printed, or outlined for everything. You can learn everything you want by a e-book. Book has a different type. To be sure that book is important issue to bring us around the world. Close to that you can your reading ability was fluently. A publication The Chemical Bond: Fundamental Aspects of Chemical Bonding will make you to possibly be smarter. You can feel more confidence if you can know about every little thing. But some of you think this open or reading some sort of book make you bored. It is not make you fun. Why they might be thought like that? Have you seeking best book or suitable book with you?

**Shirley Vega:**

What do you think of book? It is just for students since they're still students or this for all people in the world, what best subject for that? Just simply you can be answered for that concern above. Every person has distinct personality and hobby for each other. Don't to be pushed someone or something that they don't would like do that. You must know how great along with important the book The Chemical Bond: Fundamental Aspects of Chemical Bonding. All type of book is it possible to see on many solutions. You can look for the internet methods or other social media.

**Marilyn Urquhart:**

Reading a guide can be one of a lot of activity that everyone in the world adores. Do you like reading book therefore. There are a lot of reasons why people like it. First reading a publication will give you a lot of new information. When you read a book you will get new information since book is one of many ways to share the information as well as their idea. Second, reading through a book will make an individual more imaginative. When you examining a book especially hype book the author will bring you to definitely imagine the story how the characters do it anything. Third, you can share your knowledge to other people. When you read this The Chemical Bond: Fundamental Aspects of Chemical Bonding, it is possible to tells your family, friends and also soon about yours e-book. Your knowledge can inspire the mediocre, make them reading a e-book.

**Cassandra Harvey:**

Does one one of the book lovers? If so, do you ever feeling doubt if you find yourself in the book store? Try and pick one book that you just dont know the inside because don't assess book by its include may doesn't work the following is difficult job because you are afraid that the inside maybe not since fantastic as in the outside appearance likes. Maybe you answer may be The Chemical Bond: Fundamental Aspects of Chemical Bonding why because the amazing cover that make you consider regarding the content will not disappoint you actually. The inside or content is definitely fantastic as the outside as well as cover. Your reading sixth sense will directly make suggestions to pick up this book.

**Download and Read Online The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH #8GRULF3J4HW**

## **Read The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH for online ebook**

The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH 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 The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH books to read online.

### **Online The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH ebook PDF download**

#### **The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH Doc**

**The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH Mobipocket**

**The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH EPub**

**8GRULF3J4HW: The Chemical Bond: Fundamental Aspects of Chemical Bonding From Wiley-VCH**